

An exploration of young females' experiences of fitness culture on social networking sites

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SUMMARY

While previous studies have investigated online health communities and health-seeking behaviours, less attention has been directed at the growing impact of the role of social networking site (SNS) online fitness accounts. Online fitness culture is created by a number of online communities that are focused on health and fitness. These include general health, fitness, and bodybuilding communities on various SNS, as well as wellbeing and healthy living blogs. Specifically, attention is provided to diet and food, inspiration, exercising, the body and body weight, and representations of fit bodies (Andreasson & Johansson, 2013a, 2013c; Hall, Grogan, & Gough, 2016; Smith & Stewart, 2012b).

Recent research indicates that elements of online fitness culture, fitness inspiration images and sites, tend to perpetuate unachievable ideals of the female body, resulting in body dissatisfaction and negative health outcomes (Boepple, Ata, Rum, & Thompson, 2016; Boepple & Thompson, 2015; Holland & Tiggemann, 2016a; Tiggemann & Zaccardo, 2015). This thesis makes an original contribution to knowledge through the analysis of online fitness culture from a socio-cultural perspective in order to gain a greater understanding of how these cultures impact young females' health beliefs and health behaviours, such as diet and exercise.

This thesis draws on the theories of social constructionism and symbolic interactionism to explore experiences of involvement in online fitness culture on the SNSs Facebook and Instagram. To explore this, a blended netnography was conducted. This involved two methods: a netnography (online ethnography), and 22 semi-structured individual interviews with female participants aged 18 to 24 in Australia. The netnography allowed an examination of the messages circulated from SNS accounts dedicated to health, and their role as a channel for information about health and fitness. It further provided an understanding of the rituals, norms and language used within online fitness communities. The individual interviews supported deeper investigation into online fitness culture, including learned beliefs, values and customs guiding the actions of online fitness users.

The thesis suggests that online fitness on SNSs is a popular platform for sourcing information about health and fitness. Social networking sites are used to gather, and also teach, ideas of health and fitness, and the manner in which textual and photographic online communication facilitates the construction and transmission of this knowledge. Evidently, users of online fitness accounts were introduced to information related to various forms of health that resulted in motivation to implement physical activity into their everyday lives, and to consume 'healthy' foods. Further positive reflections of involvement with the culture aligned to feelings of belonging to a 'like-minded' community, attaining support from geographically dispersed community members. Findings indicated that users of fitness accounts on SNSs predominantly followed the normalised and dominant health discourses seen in traditional media. The onus of these messages is firmly placed on the individual to adhere to norms of 'correct' health practices and 'choices'. This has connotations relevant to agency, critical media health literacy and exercise based on aesthetics, with links to poor body image.

DECLARATION OF AUTHORSHIP

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed: Stephanie Jong

Date: 06/04/2017

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GLOSSARY

Word	Meaning
Hash-tag	<p>A hash-tag is a short keyword, prefixed with the hash symbol (“#”). Statuses and posts often incorporate hash-tags. For example, “Going to work-out today #strength #fitness #workoutwednesday”.</p> <p>Hash-tags can be searched via social networking site search tools. Searching a hash-tag provides users with a pool of statuses or posts attributed to the hash-tag from users around the world. This is similar to a key-word Google search.</p>
Like	<p>To ‘like’ on a SNS is to click or tap a button that shows a user’s support for specific comments, pictures, wall posts, statuses etc. The ‘like’ button allows users to show their appreciation for content without having to make a written comment. Instead, users click a thumbs up button on Facebook, or a love heart on Instagram. These are accumulated and depicted underneath the content.</p>
Followers	<p>A follower is someone who decides to follow a user’s updates on a social networking site. These are accumulated and depicted on the user’s account.</p>
Status	<p>A status is an update feature on social networking sites, which allows users to discuss their thoughts (via text), whereabouts (via ‘checking in’ to a location), or general information with their friends. A status is usually short.</p>
Posts	<p>A post is any content that a person decides to display on their social networking site account. Similar to a status, a post is all-encompassing (e.g. videos, images and text).</p>
Sharing	<p>A share is when you click the share button to share a piece of content on your own account. Once it is published on their account, friends or followers will see the shared content from them.</p>
Instagram	<p>Instagram is a free online photo-sharing, video-sharing, and social networking service that enables its users to take pictures and videos, and share them either publicly or privately on a mobile app. The content from Instagram can immediately be shared on the users’ other social networking platforms such as Facebook, Twitter, Tumblr. as they can be linked.</p> <p>Users of Instagram have the ability to ‘follow’ people that they know, and do not know, including celebrities and other Instagram users.</p>
Facebook	<p>Facebook is a free social networking site that allows registered users to create profiles, upload photos and video, send messages and keep in touch with friends, family and colleagues or celebrities.</p>
Teatox	<p>A new, popular social networking site term used to describe a</p>

	'detox tea' system to help individuals lose weight. Different brands observed via social networking sites include 'Skinny-me tea', 'SkinnyMint teatox' and 'Tiny Tea' teatox.
IIFYM diet	IIFYM stands for If It Fits Your Macros, and is a diet made popular through social networking site practices (i.e. hash-tags). 'Macros' is short for macronutrients: protein, fat and carbohydrates. Although calories are not a macronutrient (rather, it's your macros that provide your calories), calorie intake is included in this as well.
Paleo diet	The Paleo diet encourages people to consume only 'real', whole unprocessed foods. It excludes some food groups (e.g. dairy and grains).
Clean eating	Clean eating is a diet that promotes the consumption of whole foods, or 'real' foods — those that do not contain added sugar or salt, are un-processed, refined, and handled, making them as close to their natural form as possible.
User	A user is someone who has a registered social networking site account, who logs in frequently.
Page	A page is a public profile specifically created for celebrities, businesses, brands, causes, and other organisations. Unlike personal profiles on Facebook, pages do not gain 'friends', but 'fans'.
Account	Created and used by an individual to fully access a social networking site.
Memes	An Internet meme is a cultural phenomenon that spreads rapidly from one person to another online, potentially going viral. They are often images with humorous writing overlain.
'Hump day'	Hump day is the middle of a work week (Wednesday); used in the context of climbing a proverbial hill to get through a tough week.
Repost	If you see a post on Facebook that you want to share with your friends or followers, you can copy and repost it by 'sharing' the post.
Tag	Tagging identifies someone else in a post, photo or status update that you share. A tag may also notify that person that you have mentioned them or referred to them in a post or a photo.
Thread	A thread is a sequence of responses to an initial message post. This enables you to follow or join a discussion in a group from among the many that may be there.

CHAPTER 1

INTRODUCTION

This purpose of this study is to explore young females' experiences of online fitness culture through the lens of their own eyes. The enactment of fitness culture via social networking sites (SNSs) in 2012–13 created excitement about a new platform for promoting health, fitness and diet information. However, burgeoning international research and news reports indicate increasing concerns over the effects of health and fitness social networking site (SNS) accounts. Despite these concerns, there is limited researched evidence about the broader online fitness culture, and qualitative assessment of the experiences of users involved in the culture. Accordingly, this research seeks to address this gap by investigating young Australian females' experience of online fitness culture to understand how the online nature of communications (both visual and textual) has an impact on the understanding of health, and health practices such as diet and exercise. This introductory chapter discusses the background to the study, by introducing fitness culture, providing definitions and explanations of key concepts, and outlining the significance of the research. It will also identify the purpose, aim, and research objectives of the study. The chapter will conclude with an outline of the thesis.

1.1 The evolution of contemporary health and fitness culture

Health is defined as a multifaceted concept broadly concerned with physical, emotional, social and spiritual wellbeing (Ratner, Johnson, & Jeffery, 1998), and also psychological well-being (Bengel, Stirittmatter, & Hillmann, 1999). In the context of this thesis, fitness and diet are subsections of physical health, with studies inextricably linking these subsets (Drummond & Drummond, 2013a; Palsdottir, 2014; Szabo, 2003; Wright & Halse, 2014).

The definition of fitness is fluid. According to Smith Maguire (2008) fitness

involves feelings of capacity, notion of control (over ourselves; over how others see us), and understandings of societal norms and expectations, be that articulated in advertising and the media in terms of beauty and youth, or in medical and government documents in terms of risk and health (p. 2).

Fitness is a socially constructed concept which varies within and between individuals and time, reflecting changing societal conditions (Smith Maguire, 2008). One example is the changing definition of fitness from war

time, where physical activity was an integral part of life, about protecting the country, to a leisure activity where fitness is 'promoted as self-improvement and self-actualisation' (Smith Maguire, 2008, p. 2). As noted, ideas around fitness link to concepts of personal responsibility, disease prevention, body-work and 'looking good' in an appearance-driven culture, 'linked to the particular social agendas, anxieties and demands of the day' (Smith Maguire, 2008, p. 3).

The development of contemporary fitness culture has been the result of compounding historical processes. Reflective of history, and society, contemporary fitness culture can be understood as a sociocultural phenomenon, which refers to the culture surrounding physical exercises. Over time, a number of cultures and subcultures have been established within fitness culture itself. These include, but are not limited to: gym culture, physical culture or body culture, as well as the fitness revolution (Andrews, Sudwell, & Sparkes, 2005; Dworkin, 2003; Sassatelli, 1999b).

Promotion and popularity of various forms of exercise and body techniques have led to these transitions within fitness culture. For example, the late 1970s saw considerable growth in commercial recreation centres, relabelled as 'fitness centres' and 'fitness clubs' in the 90s and 2000s, and more recently as 'health centres' or 'wellness clubs' (Sassatelli, 2010, p. 4). Increased involvement in fitness centres from both genders is indicative, moving toward a style of fitness seen as 'uniform and homogenous' (Andreasson & Johansson, 2014, p. 104). This style was easily adopted for global avenues and commercialised lifestyle concepts. These cultural changes have shown a globalisation of body ideals, philosophy of the body, and body techniques and exercises (Johansson & Andreasson, 2014).

In more recent times, fitness culture has been described as 'the social and symbolic community of people devoted to physical culture in different local spaces' (Johansson & Andreasson, 2014, p. 9); a 'cultural "location" filled with health expertise and human role models' (Andreasson & Johansson, 2013c, p. 278). The ideas, behaviour, and norms within fitness culture are what creates the fluid definition, inclusive of many variations (Hedblom, 2009). It is through communication and interaction between people where the construction of this culture occurs. Within a social context, communication and interaction creates a place for an exchange of ideas.

This is where perceptions of reality are progressively conveyed and embedded within society, defining a shared system of meaning (Burr, 2003). Reciprocal agreement within a social context enhances the creation of norms, infiltrated within society through the revalidation of attitudes, beliefs and behaviours (Jacobs, Kemeny, & Manzi, 2004). Hence, current social representations and understandings of fitness culture are dependent upon socially constructed assumptions, expectations and values shared within the social and symbolic community devoted to physical culture.

There are a vast number of influences on the construction of contemporary fitness culture. Of these, research highlights two principal influences: the gym (Sassatelli, 1999a, 1999b, 2010), and media, for example, health and fitness magazines (Dutta-Bergman, 2004; Markula, 2001a; Thomsen, Bower, & Barnes, 2004). Other influences include: peers and the community, the professionalisation of personal trainers and the development of the fitness industry, as well as sport fashion (Sassatelli, 2010).

1.2 The progression of fitness culture to the online environment

Johansson and Andreasson (2014) describe contemporary fitness culture as the 'social and symbolic community of people devoted to physical culture in different local spaces' (p. 9). The idea of 'local spaces' has evolved to engage the online space of SNSs. Social networking sites are websites embedded within social media. They are broadly defined as websites which promote participants to construct a profile within an online environment, displaying relationships and connections to other social networking site users. These connections to other users are visible to those who have the ability to access their profile, e.g. 'friends' of the user (boyd & Ellison, 2007). Social networking sites range from blog posts on various websites, Facebook discussions between 'friends', and unstructured Twitter posts linked into a conversation through the addition of '#' hash-tag topics (Chen, 2013). The connection between participants is reflected on a virtual social space through synchronous and asynchronous interactions (Chen, 2013) including 'adding', 'friending', 'inviting', 'blocking', 'posting' comments, video 'sharing' and 'liking'. This type of socialising platform enables people to be constantly and

instantly connected, accessible and social (Watkins, 2009). An example of fitness culture transposing SNSs include popular hash-tag topics such as ‘#fitness’ (currently 161 million posts on Instagram 8/12/2016), ‘#fitnessmotivation’ (12 million posts on Instagram 8/12/2016) and ‘#fitnessaddict’ (18 million posts on Instagram 8/12/2016).

People aged 18–24 have been determined as the most prominent users of the Internet (for non-work purposes), at almost nine hours per week (Australian Bureau of Statistics, 2013). Within that time Internet users are accessing SNSs, with 46% of all people surveyed from the Australian Yellow Social Media Report using SNSs every day (Sensis, 2014). For three consecutive years the SNSs Facebook and Instagram were identified as being the top most used sites for young Australian females. Sensis identified top users as the groups aged 14 to 29 in 2013 and 2014, and 18 to 29 in 2015 (2013, 2014, 2015). Females are also more likely to use SNSs and ‘share’ (post comments or statuses) more frequently than their male counterparts (see Table 1) (Sensis, 2014). Table 1 also demonstrates that the highest prevalence of using SNSs at least once a day comes from the age group of 20 to 29 year olds. Fourteen to 19 year olds are the second age group indicating high SNS use.

Table 1: Frequency of using social media by age and gender (Sensis, 2014, p. 13)

Frequency of using social networking sites	Male	Female	14–19	20–29	30–39	40–49
At least once a day	40%	53%	69%	71%	57%	45%
Most days	5%	6%	4	9	8	2
A few times a week	10%	5%	18	6	6	6
About once a week	6%	7%	2	6	6	9
Less often than weekly	4%	2%	0	3	2	3
Never	34%	28%	7	4	20	33

Previous research about SNS use has often focused on adolescent girls, including but not limited to: the construction of identity (Pangrazio, 2013; Tsoulis-Reay, 2009), body image (Slater, Tiggemann, Hawkins, & Werchon, 2012; Tiggemann & Slater, 2013a, 2013b, 2016), online safety (Australian Communications and Media Authority, 2009a, 2009b; boyd & Hargittai, 2010), constructing social relationships (Brandes & Levin, 2013), privacy (Patchin & Hinduja, 2010) and risk behaviour (Pujazon-Zazik & Park, 2010). Although concepts within the online environment research have been well established, there is a limited understanding of SNS use from the perspective of young people (Bartholomaeus, 2013), especially in an Australian context. Researchers have suggested a need to develop literature regarding SNSs (Goodings, 2012; Goodings, Locke, & Brown, 2007; Slater et al., 2012). Textual communication exchanged via social networking sites has been studied (Goodings, 2011, 2012; Smith & Stewart, 2012b). However, further research is required to investigate visual and textual communication between users in a connected online community (Goodings, 2012).

Contemporary media has identified the gathering momentum of the SNS popular hash-tag '#fitspiration' (the amalgamation of the words 'fitness' and 'inspiration') since 2013. Fitspiration is a popular online movement influencing females' aesthetic ideal and body image perceptions. The images pertaining to this concept are based on extremely athletic looking females, often 'ripped' with abdominal definition, in poses that require strength. There has been a considerable growth in the awareness of online fitness communities and culture, often associated with 'fitness' and 'health', utilising neologisms such as 'fitspiration' or 'fitspo', or other related fitness hash-tags. These hash-tags help to create a highly visual online space. Images attributed to these hash-tags include images of people working-out, or in fitness related poses, accompanied by commentary about these practices or food, health and fitness tips. The term 'fitspiration' will be used throughout the thesis when denoting this hash-tag.

1.3 Reported concerns around online fitness culture

The Australian media has played a crucial role in highlighting a number of negative associated concerns with online fitness culture including links to narcissism, unrealistic body expectations (Yasa, 2015), and some reports

implying online fitness accounts as implicating a negative impact on physical activity levels (Edwards, 2014). One report suggested that females use Instagram and hash-tags to gather information on how to slim down and reduce body fat (Yasa, 2015). In seeking out this information it appears there is little regard paid to whether the sources are credible or reputable (Yasa, 2015). Ostensibly it seems the information being sourced and acted upon is based on the premise that 'if they can do it, I can too.' With this in mind, another report claims that fitness models on SNSs are overtaking celebrities as role models for teen girls (Edwards, 2014). Disconcertingly, these so called 'Insta-experts' or celebrities depict lifestyles that are often beyond the 'everyday' lives of the majority of young females who are enamoured by the fitness SNS accounts.

News media have also critiqued the information provided from these Insta-experts or celebrities, and from fitness blogs. Some of the high profiled online fitness accounts have been critiqued for promoting disreputable advice to a broad audience of people (see Cahalan, 2015; Fynes-Clinton, 2015; Sullivan, 2015). Yasa (2015) suggests that the promoted messages from these 'experts' are based on opinion, rather than science. For example, one can consider the case of Belle Gibson, an individual who was considered a SNS 'expert' by her online follower base. In 2014, Gibson was noted as a contemporary celebrity on SNSs, who promoted health and wellness. She created an application available for purchase, and in turn, built an empire on her claim that she was able to cure her terminal brain cancer by the nutritional value of food. The app documented Gibson's process of food consumption in curing her cancer. Over 300,000 people purchased the application. As a result of her online popularity, Gibson was invited to write a book, and interviewed on mainstream media. In 2015, Gibson was taken to court after it was discovered that she lied about having brain cancer (Davey, 2015). This example affirms the notion that 'Insta-experts' are providing disreputable advice, using SNSs as a platform.

A growing body of international research has echoed media concerns around the negative effects of online fitness culture. Recent research has investigated body image concerns associated with people who participate in health and fitness on SNSs linked to the hash-tag '#fitspiration'. Researchers assert that fitspiration is problematic, as images attributed to this hash-tag

reinforce culturally engrained body image ideals, beyond the traditional 'thin' ideal (Tiggemann & Zaccardo, 2015). Western societies have historically embraced the thin-ideal for females, often emphasised as a societal norm in traditional media outlets (Harper & Tiggemann, 2008; Tiggemann & Miller, 2010; Tiggemann & Pickering, 1998; Tiggemann, Polivy, & Hargreaves, 2009; Tiggemann & Slater, 2004). Increasingly, the sociocultural standards of beauty of females emphasise strength and muscularity. In this way, it is apparently not only imperative to be thin, but also toned and fit (Bordo, 2003; Dworkin & Wachs, 2009; Homan, 2010; Homan, McHugh, Wells, Watson, & King, 2012; Jankauskiene, Kardelis, & Pajaujiene, 2005). This ideal may create pressure for females to be more disciplined, as in addition to dieting, they must now exercise to tone and build muscle (Markula, 2001b). This shift towards an athletic look is readily endorsed through health and fitness online accounts on SNSs and through the hash-tag '#fitspiration'.

Some argue that initial views of images attributed to 'fitspiration' are considered to be 'refreshing', provided that they move away from the thin-ideal (Kane, 2012). Consequently, certain groups of females, particularly those involved in online fitness culture, may embrace stereotypical masculinised bodies that are 'toned' and display muscularity. However, empirical quantitative research indicates that aspects of fitspiration may raise some concern. Concerns are associated with the exhibition of one particular body shape, and hence, poor body image related outcomes (Boepple et al., 2016; Tiggemann & Zaccardo, 2015), exercise for appearance-related outcomes (Santarossa, Coyne, Lisinski, & Woodruff, 2016; Tiggemann & Zaccardo, 2015), disordered eating and over-exercising (Holland & Tiggemann, 2016a), and potentially hazardous body-related messages (Boepple & Thompson, 2015). Additionally, researchers suggest that fitspiration may be particularly detrimental to individuals who are overweight, insecure about their bodies, or have low self-esteem (Boepple et al., 2016; Tiggemann & Zaccardo, 2015). Arguably, this group may be vulnerable to any sense of idealism related to the physical body.

Research and scholarly commentary surrounding fitness culture can be traced back many years (Andreasson & Johansson, 2014; Hedblom, 2009; Sassatelli, 1999b, 2003, 2010); however, given the relative infancy of

the online fitness movement, research that examines broader aspects of online fitness culture, and from the perspective of the online users themselves, is limited. Hence, formal investigation is required to understand the culture, and potential positive and negative aspects arising from participation.

1.4 Purpose

Media speculation attributes negative effects to involvement in the online fitness movement, although there is scarce research on the topic. Considering these concerns, and the past propensity of media as mechanisms to perpetuate ideals of the female body, resulting in body dissatisfaction and negative health outcomes, the purpose of this study is to gain an understanding of young females' experiences of online fitness culture, and understand how the online nature of communications (both visual and textual) has an impact on the understanding of health, and health practices such as diet and exercise. More specifically, the focus of this study is to explore online fitness culture from a socio-cultural perspective.

1.5 Aim

The aim of the study is to explore young females' experiences of the online fitness movement.

1.6 Research objectives

1. To explore the types of health messages that are depicted within online fitness culture, and whether they are used as a source of health information.
2. To develop an understanding of the perceived 'positive' and 'negative' aspects of participating in online fitness culture for young females.
3. To understand how socially constructed norms around health and fitness are developed, maintained, perpetuated and circulated through online fitness culture.
4. To explore how cultures on SNSs influence understanding and behaviour associated with young females' ideals of health and fitness.

1.7 Significance

This research will capture how online fitness culture, and the associated disseminated information, impacts upon health every day (Peerson & Saunders, 2009). In pursuing an understanding of the influence of SNSs, and online communities on health, this study will make a significant and original contribution to the broad field of health and online fitness literature. In its attempt to merge a consumer and marketing research approach into a health education field, this research will also strengthen the use of netnography (an online ethnography) across multidisciplinary fields.

By employing a social constructionist and symbolic interactionist perspective, the study offers a new perspective for understanding the social and cultural influences on constructions of 'health'. This may help illuminate the ways in which health promotion can shape understandings of health. Additionally, by exploring this issue with key stakeholders in the online experience, this study has the potential to stimulate dialogue amongst practitioners and educators to equip young people with essential skills to navigate and critique health messages on contemporary media platforms.

1.8 Thesis Summary

This thesis consists of eight chapters. This chapter has provided a background understanding of central concepts relating to the research, as well as the research aims, objectives and significance. The second chapter will discuss the research literature around online health information seeking, online fitness culture, body image and the fit ideal, elaborating on important factors pertaining to the research. Chapter three will outline the relevance of the social constructionist and symbolic interactionist theoretical frameworks in relation to the study. Chapter four will outline the use of a two phased approach to research (Phase 1: Netnography, Phase 2: Individual interviews), and describe the specific methods undertaken. Following thematic analysis, the findings of the research will be presented in findings from Phase 1 (chapter five) and findings from Phase 2 (chapter six), organised into themes and subthemes. Following the themes is a discussion chapter (seven) of the findings as they relate to the research literature and the theoretical framework underpinning the study. To conclude, chapter eight

will present conclusions and recommendations based on the findings of the study.

CHAPTER 2

LITERATURE REVIEW

The purpose of this literature review is to provide an overview of the scholarly works that contribute to an understanding of this study, and to situate the study within the context of broader research. It will note the transition of fitness culture to an online platform, and discuss research pertaining to the creation of online fitness culture. Specifically, this chapter will discuss the key research available in the field of online health information seeking, online fitness communities, and online fitness culture. In the thematic analysis of the literature, broader themes were also noted in accordance with issues that confront the people who are involved with online fitness culture, for example, the influence of SNSs on body image. Finally, this chapter will demonstrate the dearth of primary research surrounding online fitness culture from the perspective of females within the culture itself. By drawing on the limited scholarly evidence available about online fitness culture, some key areas will be highlighted in order to evidence a gap in the literature.

2.1 Introduction

Social networking sites (SNSs) have transitioned Johansson and Andreasson's (2014) idea of fitness culture in 'local spaces' to an online context. Evidence suggests that the rapid adoption of SNSs such as Facebook and Instagram as a way of communication, has resulted in SNSs becoming a pervasive means of sourcing information about health for young adults (Berkman, Davis, & McCormack, 2010; Feng & Xie, 2015; Gray, Klein, Noyce, Sesselberg, & Cantrill, 2005; Hesse & Shneiderman, 2007; Oh, Lauckner, Boehmer, Fewins-Bliss, & Li, 2013). Recent research indicates that hash-tags associated with fitness create a pool of health and fitness related information including daily use patterns, exercise frequency, location based work-outs, and overall work-out sentiment, accessible at any time, tailored to suit a person's desires (Vickey, Ginis, & Dabrowski, 2013). Previous research has examined the issues faced by consumers seeking health information online, noting concerns about the evaluation, credibility, quality and accuracy of health information found using the Internet (Gray et

al., 2005; Rice, 2006). Additionally, issues have been linked to the concept of trustworthiness (Peterson, Aslani, & Williams, 2003), difficulties comprehending information (Murero, D'Ancona, & Karamanoukian, 2001) or the feeling that the information retrieved was overwhelming (Berland et al., 2001; Velardo & Drummond, 2013). The information received via SNSs has the potential to add to participants' ideas of health and healthy behaviours.

Contemporary communication and interaction via SNSs creates an alternative medium for the construction of health, from traditional media and education forms. New media technologies offer different ways to communicate and interact, which fundamentally alter the concept of the audience. These communications are shown through 'liking', 'following' or 'posting', and the sharing of information. The participatory culture created online engages people to express their opinions on topics and issues relating to their interests. This enables people to 'archive, annotate, appropriate, and recirculate media content' (Jenkins, 2006, p. 1). Communication becomes transformed by online participatory culture, as people work together to 'collectively classify, organize, and build information' (Delwiche & Henderson, 2013, p. 3), or socially construct in an online social context. These communications and learned beliefs, values, and customs guide and direct the behaviour of communities (Arnould and Wallendorf, 1994, cited in Kozinets, 2010). Social networking sites provide a platform for the construction of these communities in an online fashion. Criteria as to what constitutes an online community tends to exclude the notion of space (see Brown, 2002; Rheingold, 1993), instead identifying characteristics such as shared or common interests (Baker & Ward, 2002; Burnett & Bonnici, 2003), meaningful conversations (Rheingold, 1993), developed social hierarchies, and rituals and norms of behaviour (Brown, 2002; Kozinets, 2010). Communications and the sharing of information are essential to online communities' functioning and sustainability (Jones, 1998).

Online communities create their own cultures. According to Andreasson and Johansson's (2013c) definition of fitness culture, online fitness communities form 'cultural locations'. Online fitness culture is created by a number of online communities that are focused on health and fitness, such as general health, fitness, and bodybuilding communities on various SNSs, and wellbeing and healthy living blogs. Although their goals may be

diverse, the underlying messages circulated are general with a focus on health and fitness.

In the same way that Sassatelli (2010) describes gyms, online fitness culture has become a 'dedicated space where the meanings and objectives of fitness training are continuously negotiated alongside participants' identities' (p. 7), thereby creating a culture of its own. This negotiation that occurs online between users, along with the fluid, redefined meaning of fitness, is crucial to the progression of this culture. This progression is visible through the creation of neologisms such as 'fitspiration' or 'fitspo', or other related fitness hash-tags have found popularity in their uses, for example, '#cleaneats', and more recently, '#healthspo' (the amalgamation of the words health and inspiration).

2.2 Culture

Culture is a contested idea. For the purpose of this thesis, the theoretical underpinnings, and to align with the method used for the study, the definition of culture will be anthropological, with a sociological emphasis. Following anthropological and sociological contested and shifting notions, the term 'culture' is referred to as 'commonly held beliefs, norms, values and ways of doing things' (Wagner, 2001, p. 121) shared by a population, in a particular place at a particular point in time (Jackson, 1998). Culture is understood as a world of shared social meanings (Hall, 1996) and values (Wagner, 2008), created by interacting individuals, where there is a 'momentary construction of common ground' (Amit & Rapport, 2002, p. 11). It is not so much a set of things, or behaviours, as it is a set of practices, the exchange of meaning, as well as the meaningful interpretation made by others (Hall, 1997). It is important to understand that the concept of culture is unstable, transformative, and has fluid 'worlds of meaning' (Kozinets, 2015). Notably, even within a culture, meanings are varied and diversely interpreted and represented (Hall, 1997).

It is the participants in the culture that symbolically give meaning to people, objects and events through cultural practices (Hall, 1997; Wagner, 2008). It is through the process of cultural interaction, first between individuals rather than between groups, that human beings ascribe values to actions and experiences (Wagner, 2008). Cultural norms, values, rituals and

traditions to survive and maintain meaningfulness are dependent upon the prescribed interaction of individuals (Kozinets, 2015). Hall (1997) states that 'objects, people and events' are assigned 'meaning by the frameworks of interpretation which we bring to them' (p. 3). It is here that importance is placed on the meanings of their practices, and that members of the same culture share meanings (Wagner, 2001). They are constantly produced and exchanged through all social interaction and expressions, media, and technological advancements, which have the ability to provide a platform for expressing and immediately circulating meanings between cultures. Expression, as well as the consumption of cultural 'things' into our everyday rituals and practices, allow these meanings to be produced, and give them value (Hall, 1997). Furthermore, meanings also help to 'regulate and organise' cultural practices through rule setting, 'norms and conventions by which social life is ordered and governed' (Hall, 1997, p. 3).

Focus: The focus of this study is to understand online fitness culture from a socio-cultural perspective in order to gain a more comprehensive idea of its impact on young females' health beliefs and health behaviours. To examine this, the current research will explore young females' experiences of the online fitness culture on the SNSs Facebook and Instagram.

2.3 Scope:

In order to achieve a comprehensive review, the search included the following databases: ERIC (Proquest), Proquest Social Sciences Premium Collection, SAGE Online (Informit), Wiley Online Library, and ScienceDirect. Google Scholar was also utilised, as well as the Flinders University database, and ResearchGate. Twitter was also used as a tool to search for researchers in the field of online fitness. This uncovered several unpublished theses and scholarly works. Following the initial searches, additional articles and papers were sourced through a manual search of citations and references. Search terms included: 'online fitness culture', 'online health/fitness communities', and 'fitspiration'. The diverse nature of the search terms resulted in an initial return of tens of thousands of studies. Inclusion criteria encompassed research studies published in English, available from 2010 to 2016.

The broad nature of the search term 'online fitness culture' created great disparity in the articles found. Specifically for this term, inclusion and

exclusion criteria were dependent on: (1) the use of social media or SNSs in the studies, (2) the construction of health and fitness on social media, and (3) interaction within an online fitness community. The application of inclusion and exclusion criteria resulted in eight studies meeting the inclusion criteria (Andreasson & Johansson, 2013b, 2013c, 2016; Frimming, Polsgrove, & Bower, 2011; Polsgrove & Frimming, 2013; Smith & Stewart, 2012b; Stover, 2014; Vaterlaus, Patten, Roche, & Young, 2015).

Studies of online health communities were vast and abundant. Most of the research within this area linked to online health support groups relevant to various illnesses. Studies were included if they studied a motivation for joining online health communities (Ridings & Gefen, 2004), if they studied the effects of online health communities (Borzekowski, Schenk, Wilson, & Peebles, 2010; Brotsky & Giles, 2007; Camerini, Diviani, & Tardini, 2010; Eysenbach, Powell, Englesakis, Rizo, & Stern, 2004; Norris, Boydell, Pinhas, & Katzman, 2006), or if they analysed online health communities on social media or SNSs (Ghaznavi & Taylor, 2015; Oh et al., 2013). These studies included both quantitative and mixed methods designs. More specific to the current context, the study of online fitness communities is limited to three studies (Andreasson & Johansson, 2016; Hall et al., 2016; Smith & Stewart, 2012b). The studies use qualitative methods designs. At times limited descriptions of methodology, data collection, and data collection time periods were available.

Since the commencement of the study in 2013, there have been six published studies that have explored fitspiration, an aspect of fitness culture. The search term 'fitspiration' found 44 results, including newspaper articles and university news media/blogs. Applying the inclusion and exclusion criteria, the field of results narrowed to six recently conducted studies (Boepple et al., 2016; Boepple & Thompson, 2015; Carrotte, Vella, & Lim, 2015; Holland & Tiggemann, 2016a; Santarossa et al., 2016; Tiggemann & Zaccardo, 2015).

2.4 Themes:

This literature review will be separated in to two distinct sections. The first section, comprised of sub-sections, relates to the Internet and SNSs as popular mediums in which to seek health and fitness information. The second

section, also comprised of sub-sections, relates to the impact that this information has on physical bodies.

2.4.1 Section 1: The Internet and social networking sites as popular mediums to seek health and fitness information

2.4.1.1 Online health information seeking

Over the last decade, the Internet has been increasingly used as a mode of seeking information and communicating about health (Berkman et al., 2010; Hesse & Shneiderman, 2007). Health information is defined as 'any information which is related to the practice of medicine and healthcare' (Cullen, 2006, p. 1). Given the fast-paced progression of the Internet, online health information has become more pervasive, readily accessible and widely available (Stevens, O'Donnell, & Williams, 2015). While these features have increased people's involvement in their own healthcare, there have been both positive and negative implications (Cline & Haynes, 2001; Rice & Katz, 2001; Ybarra & Suman, 2006).

Health information seeking is defined as the search for information that helps to 'reduce uncertainty regarding health status' and 'construct a social and personal (cognitive) sense of health' (Tardy & Hale, 1998, p. 338). The Internet can help with this by providing the advantages of up-to-date and available information (Feng & Xie, 2015), social interaction (Toseeb & Inkster, 2015), consumer autonomy and anonymity (Dutta-Bergman, 2004), and information tailoring (Cline & Haynes, 2001). Conversely, health information seeking via the Internet also raises concerns regarding legitimisation of information, as well as every day individuals gaining unwarranted credibility as experts (Hall et al., 2016).

Previous research on the characteristics of online health information seekers has been contrasted with those who gathered health information from offline sources. Age, income and education played a role in influencing where health information is sought (Carpenter et al., 2011; Cotten & Gupta, 2004). Rice (2006) supported this, pronouncing that the sex (females more frequently than males), employment (people who were not fulltime), and people who had a higher engagement in other Internet activities were the most pertinent determinants on use of the Internet to search for health information. Additionally, Percheski and Hargittai (2011) and Carpenter et al.

(2011) reported that females were more likely than males to seek health information online. Interestingly, Dutta-Bergman (2004) found that the Internet was used as the primary source for health information seeking for 'health-conscious, health-information oriented individuals with strong health beliefs, and commitment to healthy activities' (p. 273).

Social networking sites have become a pervasive means of sourcing information about health for young adults (Feng & Xie, 2015; Kamel Boulos & Wheeler, 2007; Oh et al., 2013; Velardo & Drummond, 2013). In an exploratory study which identified characteristics of individuals that predicted consuming three types of health and fitness-related social media content – weight loss/fitness motivation pages (i.e. fitspiration), detox/cleanse pages, and diet/fitness plan pages – Carrotte, Vella and Lim (2015) observed that consuming health and fitness-related social media content is most common. Since 2012, SNSs have been saturated with health and fitness-related content. This content has vast followings: over 5.2 million posts on Instagram tagged with '#fitspiration' in a search conducted in March, 2015 (Holland & Tiggemann, 2016a), and more than 23 million posts on Instagram tagged with '#fitspo' in a search conducted in July, 2015 (Carrotte et al., 2015).

While the Internet does not replace the role of trusted health professionals, peers and adults (Percheski & Hargittai, 2011; Rice, 2006), SNSs are a niche platform in helping to provide and disseminate health related information, and are a relevant factor in influencing a person's health behaviour (Vaterlaus et al., 2015). Information found on social media is highly trusted, with young people modifying their behaviour on the basis of the information gathered (Ettel et al., 2012). In an older population, 42% of American adult social media users reported that information found via social media would affect their health decisions related to diet, exercise, or stress management (PwC Health Research Institute, 2012). Furthermore, nearly 90% of people aged 18 to 24 years indicated that they would trust medical information found on social media (PwC Health Research Institute, 2012). However, analysis of the outcomes of these changes in behaviour, or whether they were sustained, is yet to be completely explored.

Epstein (1995) acknowledges that in the absence of specialist knowledge, lay experience becomes a dominant source of information. Although there are some specialist health practitioners who consult online,

there is often a cost involved in the service of information. This cost may deter accessing the information, and specialist information may not be widely accessible to those outside of academia (Hall et al., 2016). Hence, Epstein (1995) states that there is diversity of those who participate in the construction of 'credible' knowledge online. Hall et al. (2016) suggest five elements that constitute effective contribution: credibility, legitimation and trust, which allow for the provision of support and influence. These are founded on the research of activist characteristics identified by Epstein (1995). Oh et al. (2013) highlight the role of social support on SNSs to those who have a health concern or issue. They suggest that SNSs offer the medium through which more personalised information can be discussed or sought, along with more emotive reactions, as opposed to seeking health information from search engines or blogs (Oh et al., 2013). Given the unregulated environment of SNSs, people, including anonymous accounts, businesses, peers, or professionals, can transmit health-related information. Due to possible inaccuracy, this information has the potential to help or hinder decisions about health (Eastin, 2001; Feng & Xie, 2015).

2.4.1.2 Online communities

A variety of terms are widely used in conjunction with online communities. These include: 'virtual community', 'virtual groups', 'virtual teams' and 'mediated community'. The term 'community' has been used to 'identify, describe, and construct online contexts and groups' (Brown, 2002, p. 92). Avoiding defining online communities in terms of their essential properties, Rheingold (1993) uses the term 'virtual community', to define an online network of people who are associated with the positive feeling of being in a community. This is further described as a network where individuals shape their own community and choose communities to belong to (Jones, 1998). This term has been a common label for research across multiple disciplines (Hercheui, 2011). For instance, a literature review conducted by Hercheui (2011) studied institutional theory and virtual communities, indicating how virtual communities may create their own institutions and influence the offline environment. Other articles emphasise the role of virtual communities for socialisation (Bakardjieva, 2003; Tsai & Pai, 2013), marketing and consumer research (Kozinets, 2002, 2010), education

(Giddens & Walsh, 2010; Liu, 2012), avenues for cultivating trust (Porter & Donthu, 2008), as channels of information (Baker & Ward, 2002) and emotional support (Evans, Donelle, & Hume-Loveland, 2012). Researchers have also explored the construction of social identities within virtual communities (Kim, Lee, & Kang, 2012; Suh, 2013), and the roles and rules of governance and behaviour (De Cindio, Gentile, Grew, & Redolfi, 2003; Kling & Courtright, 2003).

A virtual community can also be labelled an online community. Criteria as to what constitutes an online community tends to exclude the notion of space (see Brown, 2002; Rheingold, 1993), instead identifying characteristics such as shared or common interests (Baker & Ward, 2002; Burnett & Bonnici, 2003), meaningful conversations (Rheingold, 1993), developed social hierarchies, and rituals and norms of behaviour (Brown, 2002; Kozinets, 2010). These online communities are considered no less 'real' than their physical counterparts, leading to consequential behavioural effects (Kozinets, 2015). Rheingold (1993) argued that an online community stimulates the disappearance of 'informal public spaces' (p. 6), defining the community as its own space. Stone's (1991, p. 85, cited in Jones, 1988) definition progresses Rheingold's, adding that online communities are 'incontrovertibly social spaces in which people still meet face-to-face, but under new definitions of both "meet" and "face"' (p. 14). Online communities are contexts which are both transnational and local (Rokka, 2010). Most importantly, the terms 'belonging', 'bonding', 'connectedness' and 'togetherness' are essential elements that are associated with defining a sense of online community (Blanchard, 2007, 2008; Etzioni, 1999).

Social networking sites provide a platform for the construction of these online communities. McMillan and Morrison (2006), assert that participants need SNSs to maintain social interactions, and described it as a tool to help define them and their communities. Communications and the sharing of information through virtual communities are essential to their functioning and sustainability (Jones, 1998). Communications are expressed through 'liking', 'following' or 'posting', and the sharing of information. The participatory culture of communication online involves users expressing their opinions on topics and issues relating to their interests. It enables people to 'archive, annotate, appropriate, and recirculate media content' (Jenkins, 2006, p. 1),

and provides freedom to those who wish to produce, respond, generate and disseminate news and ideas, and publish media through the Internet.

2.4.1.2.1 Online health and fitness communities

Through the platform of SNSs, online health communities have become a prominent way to source informational and socio-emotional support (Welbourne, Blanchard, & Wadsworth, 2013). Ridings and Gefen's (2004) study of 27 online communities found two primary reasons for the motivation for joining online health communities. Firstly, information exchange was the most popular reason for joining. Social support was the second most popular reason for involvement in online health communities.

Existing literature about online health communities has a strong focus directed to online health support groups relevant to various illnesses (see Buchanan & Coulson, 2007; Coulson, 2005; Coulson & Knibb, 2007). For example, a HIV/AIDs support group (Mo & Coulson, 2007). Other online health community research has considered the community's effects, and the motivations of these communities. This is illustrated by explorations of the motivations in virtual health communities and their relationship to community, connectedness and stress. Examples include support for infertile women (Welbourne et al., 2013), and the idea of attaining experienced support in men's infertility help seeking (Hanna & Gough, 2016). Additionally, Camerini et al. (2010) focused on how online communicative exchanges around health shape the boundaries of the interactions of participants and the benefits of online support groups. Mixed methods approaches were used to quantitatively analyse numbers of wall posts and qualitatively survey the effectiveness of the groups. Its focus stemmed from a contentious review of the effects of online health communities that concluded that there was no evidence of their benefits, especially in terms of health outcomes (Eysenbach et al., 2004).

Popular SNS-based trends have directed research to new online health communities. An example of this is 'thinspiration'. Thinspiration (an amalgamation of the words thin and inspiration), or 'pro-ana' (short for anorexia) are an online community group showcasing idealised images of emaciated people. Additional text often overlain on the images is desired to motivate viewers' weight loss, and an eating disorder lifestyle (Borzekowski

et al., 2010; Ghaznavi & Taylor, 2015; Norris et al., 2006). Thinspiration communities act as support groups for people with anorexia, and endorse eating disorders as desirable. The experience of being a part of a thinspiration group on SNS accounts leads to gathering information, with more than one-third of young people with eating disorders reporting visiting these sites and learning new weight loss and purging techniques (Wilson, Peebles, Hardy, & Litt, 2006). Aside from the apparent negative effects, the information received also has negative effects relating to self-esteem, appearance self-efficacy, body dissatisfaction and increased disordered eating variables for their female users (Harper, Sperry, & Thompson, 2008). Additionally, viewers of these types of images reported a greater likelihood of over exercising and thinking about their weight (Bardone-Cone & Cass, 2007). Interestingly, Brotsky and Giles (2007) dispute the idea that pro-ana sites encourage non-eating disordered people to become eating disordered. In doing so, they indicate that the most potentially problematic aspect of the sites is the social interactions of the users, reflective of the community behaviour.

There is a dearth of scholarly literature surrounding online fitness communities. At the time of writing this review, three peer-reviewed studies were identified. Smith and Stewart's (2012a, 2012b) virtual ethnography of an online body building community exposed the extreme social reality held by dedicated muscle-builders committed to muscular development. This community provided information about nutrition and supplements, training guides, and anabolic androgenic substances. Within the community potential health risks associated with some of this information did not deter the community from dedicating themselves to achieving aesthetic muscular extremes. Portrayal of a hyper muscular extreme male body via images, and stated performance through claims and opinions, defined symbolic body capital, equating to respect from other community members, and stronger self-esteem (Smith & Stewart, 2012a).

Similarly, Andreasson and Johansson (2016) sampled discussions posted on Flashback, an online forum and community considered 'highly open-minded', in order to investigate fitness doping and how this relates to the construction of muscular masculinities. The studies differ as Smith and Stewart's research forum was a community completely dedicated to body-

building, whereas Flashback's discussion involved other elements such as sport, sex, culture, travel etc. (Andreasson & Johansson, 2016). Andreasson and Johansson (2016) analysed discussion posts from Flashback in order to explore how fitness practices, performance enhancing drug use and online fitness communities challenge dominant regimes through negotiating the terms of masculinity and gender equality within an online community. In exploring the community and their discussions and practices Andreasson and Johansson came to an understanding of normalisation processes, for example the acceptance of drug use, body ideals, and notions of masculinity. The research explains that the online fitness community advances the idea of self-help culture, and acts as a place where people can find extensive knowledge on various health and fitness related issues. This online fitness community challenges dominant representations of masculinity presented by the media, and through online communication, hyper-masculinity is normalised and 'brought into mainstream culture', 'feeding into contemporary masculine ideals' (Andreasson & Johansson, 2016, p. 12). The study recognised that joining an online community involves identity construction and learning (Andreasson & Johansson, 2016). It is suggested that this process of learning affects an individual's identity, specifically with the focus of the idealised norms created within the community. In the case of the online community studied by Andreasson and Johansson, this may lead to some people within the community choosing to take drugs.

Hall et al. (2016) specifically investigated bodybuilders' accounts of synthol use (an injectable oil used to enhance the appearance of muscles, commonly referred to as 'fluffing'), and the construction of lay expertise. Similar to the two previously mentioned studies, the researchers sampled discussions from a unique bodybuilding forum thread where usage was discussed. Although specialist knowledge on synthol was available, there are barriers to accessing this information. As such, discussion-contributors develop lay expertise for the purpose of supporting and providing advice to other members. This information becomes trusted and legitimised through invoking medical discourses, providing support and attaining trust through positive personal narratives (Hall et al., 2016). Critically, potential health risks are associated with utilising the information provided by such lay expertise.

Despite these three studies, there is limited academic literature on online fitness communities. Given the evident role of online communities in providing health and fitness information to a broad and undetermined audience, concerns are raised regarding potential negative outcomes. The broader research from online health communities demonstrates a need for greater understanding of how motivations for joining these communities relate to members' online behaviours and health outcomes (including psychological, emotional, etc.).

2.4.1.3 Online fitness culture

Online communities create their own cultures through the use of SNS practices. These include communication, and the practice of seeking online health and fitness information. Mirroring the limited research in online fitness communities, academic research concerning online fitness culture has also been marginal. Research pertaining to fitness culture has instead been concerned with the progression from history to contemporary perspectives (Andreasson & Johansson, 2014; Sassatelli, 2010), and matters of fitness culture, such as the material body in a gym (Hedblom, 2009; Sassatelli, 1999a, 1999b), and the commercialisation of the body (Kennedy & Markula, 2011b; Smith Maguire, 2008). Despite some indication of online fitness culture research, there is a paucity of academic literature about the construction of online fitness culture through SNS practices, and also the examination of visual expressions of online fitness, and the use of online fitness by young females.

As previously explained, contemporary fitness culture is identified as a 'cultural "location" filled with health expertise and human role models' (Andreasson & Johansson, 2013c, p. 278). Online fitness communities form such 'cultural locations'. As fitness gyms are suggested to be a special 'breed' of leisure institutions (Rojek, 2000, cited in Sassatelli, 2010), where corporeal tasks are carried out, online fitness culture is also inclusive of informal and formal exercise carried out for the purposes of keeping fit through using videos, information, and simulation devices with sociability as a by-product (Sassatelli, 2010). It is here where communication and interpretation play vital roles in the construction of online fitness culture.

Online fitness culture is created by a number of online communities that are focused on health and fitness. These include general health, fitness, and bodybuilding communities on various SNSs, and wellbeing and healthy living blogs. Specifically, attention is provided to diet and food, inspiration, exercising, the body and weight, and representations of fit bodies (Andreasson & Johansson, 2013a, 2013c; Smith & Stewart, 2012b). These underlying messages create unique 'practices, attitudes, modes of thought, and values' (Levy, 2001, p. xvi) that are circulated through online communications. It is through these communications (e.g. images, videos, comments) and SNS practices (e.g. posting, liking, following, and sharing) that a distinctive culture is developed and maintained.

From analysis of the literature it has been noted that, over time, a number of cultures and subcultures have been established within fitness culture itself (Andrews et al., 2005; Dworkin, 2003; Sassatelli, 1999b). This is also observed within an online context (see, Andreasson & Johansson, 2016; Smith & Stewart, 2012b). As Sassatelli (2010) describes gyms, online fitness culture has become a 'dedicated space where the meanings and objectives of fitness training are continuously negotiated alongside participants' identities' (p. 7). This negotiation that occurs online between users, along with the fluid, redefined meaning of fitness, is crucial to the progression of online fitness culture. This progression is visible through the creation of neologisms such as 'fitspiration' and 'fitspo'.

2.4.1.3.1 Biopedagogies

Online fitness culture provides a platform where certain disciplinary and regulatory strategies (of health and the feminine body) are effectively promoted, an example of Wright's concept of 'biopedagogy'. Combining mass surveillance and self-regulation, we understand the term 'biopower' (Foucault, 1984) as individuals and populations ascribed governance, regulation and responsibility for their bodies through criteria attributed to resulting in good health (Miah & Rich, 2008; Wright, 2009). Wright (2009) conceptualises the term 'biopedagogies' as the 'disciplinary and regulatory strategies that enable the governing of bodies in the name of health and life' (p. 14). Biopedagogies can also be considered as describing the values and practices, disseminated and regulated within formal education (e.g. schools)

and information education (e.g. media and the Internet) (Wright & Halse, 2014). These disseminated messages place ‘individuals under constant surveillance’, including self-regulation, through ‘increasing their knowledge around “obesity” related risks and ‘instructing’ them on how to eat healthily, and stay active’ (Wright, 2009, p. 1, original emphasis).

As a ‘pedagogised society’, in which elements of health are ‘taught’, the online fitness community utilises specific strategies in which knowledge is negotiated, produced and reproduced (Wright, 2009) and methods to evaluate and self-regulate the body are advocated (Iriart, Franco, & Merhy, 2011; Miah & Rich, 2008). In turn, emphasis is placed on individuals to engage with the values and practices disseminated in order to understand and change themselves, and others (Wright, 2009). As a case in point, one can reduce risk factors to serious diseases by adhering to appropriate lifestyle behaviours, such as altering one’s diet (Miah & Rich, 2008). In this way, health practices related to the body are an object of intervention (Williamson, 2014). Assessment of bodies that are perceived to be making lifestyle choices that do not adhere to their responsibilities as good citizens reinforce the ideal of thinness and the association between health and thinness (Wright, 2009). This appears to conform with findings on other visual mechanisms, such as magazines (Schneider & Davis, 2010), that reinforce the social constructed norms associated with health and the healthy body.

2.4.2 Section 2: The impact of this information on physical bodies

2.4.2.1 Online representations of the female body

Representations of the female body in Western societies have changed throughout time, according to the cultural associations of the body at the particular time in history (Grogan, 2006). Social networking site-based trends have reflected these conversions in contemporary times. There are two well-known and academically researched online representations of the female body: thinspiration and fitspiration.

The idealisation of thinness as the female body ideal can be thought to have started in the 1920s (Grogan, 1999). In the 1990s a waif-like frame was publicised through the media and fashion labels, promoting a ‘heroin-chic’ look; an unachievable appearance standard for the majority of females (Cash

& Smolak, 2011). This 'thin-ideal' has infiltrated Western culture through media-outlets, and was embraced by Western society, becoming an extremely prevalent and popular ideal among adolescent girls and young females (Slevec & Tiggemann, 2011; Tiggemann & Polivy, 2010). Research suggests that the idealisation of thinness can result in eating disorders, low self-esteem and body dissatisfaction (Tiggemann, 2003; Tiggemann & Slater, 2004). Reflecting on this desire for thinness and the potential association to eating disorders, thinspiration, or pro-ana communities, websites, accounts or hash-tags have used SNSs to showcase idealised images of emaciated people starting in the late 1990s (Shade, 2003). Although it was first thought these communities and images were for individuals who engaged in disordered eating and who used the Internet to discuss their eating disorder activities (Norris et al., 2006; Wilson et al., 2006), the sites, accounts and images had a wider viewership (Harper et al., 2008). A study conducted by Custers and Van den Bulck (2009) of high school students aged 13–17 found that 12.6% of girls and 5.9% of boys reported had visited pro-ana websites at least once. Pressure from the public and pro-recovery campaigners led to the website hosts shutting down pro-ana sites. This resulted in a decrease in the prominence of images online depicting an emaciated body, however, many of the pro-ana or thinspiration groups took steps to conceal themselves (Shade, 2003). Additionally, Facebook followed this shut down through their community standards which state: 'We prohibit content that promotes or encourages ... eating disorders' (Facebook, 2016). Warnings for graphic content and referrals to recovery resources are now provided by other SNSs such as Instagram and Tumblr. However, due to varying rates of effective moderation, and the issue of censorship, thinspiration content may still be found on SNSs.

Increasingly, the sociocultural standards of beauty for females have emphasised strength and muscularity. A popular online representation of this shift is the hash-tag '#fitspiration'. Descriptions of fitspiration vary. Tiggemann and Zaccardo (2015) describe fitspiration as designed to 'inspire viewers towards a healthier lifestyle by promoting exercise and healthy food' (p. 61). Thus, fitspiration has been regarded as a healthy response to thinspiration. Boepple and Thompson (2015) suggest a varied definition of fitspiration which includes 'objectifying images of thin/muscular females and messages

encouraging dieting and exercise for appearance, rather than health, motivated reasons' (p. 2). These images are primarily found on SNSs, most notably, Instagram. A search of the accounts related to fitspiration, and the hash-tag itself, on Instagram leads to a pool of over 7.9 million posts (conducted June, 2016). The posts commonly show females either engaging in exercise, dressed in active wear, or picture 'healthy' food. 'The general philosophy is one which emphasizes strength and empowerment' (Tiggemann & Zaccardo, 2015, p. 62). Tiggemann and Zaccardo (2015) raise concern regarding the exhibition of one particular body shape associated with fitspiration: a relatively thin and toned physique. Markula's (2001a) research on fitness magazines reemphasises this idea, noting the negative effects from the promotion of an 'unrealistic, singular ideal body' (p. 158).

2.4.2.2 Presentation of gender in online fitness

Andreasson and Johansson (2013b, 2013c) analysed the gender constructions of male and female personal trainers on their online fitness blogs. They assert that these blogs are a place where health, fitness and prosperity are sold, and where information is intertwined with marketing strategies, which promote the perusal of gender identity claims through continuous effort and commercialised advice promoted by the blogging health 'gurus'. Although the self-presentations of masculinity and femininity are moulded by a cultural history of fitness, fitness blogs offer the ability to target diverse audiences within the same cultural sphere, subsequently transforming the embodiment of gender constructs to capture the old and new (Andreasson & Johansson, 2013c). For example, the female fitness blogs espoused the desire to become more muscular, (re)presenting gender against the stereotypical portrayals of femininity. Hence, blogs were considered a place for ongoing negotiations of gender norms, and performing gender. Negotiations on the female fitness trainers' blogs included the presentation of the self during motherhood, and the balancing of children, her career, and time for herself. This was considered along with negotiations of femininity present in transformation images, as well as the negotiations between muscles, masculinity and femininity (Andreasson & Johansson, 2013b). One blog reflected the stereotypical fit female body, emphasising aesthetics rather than abilities, another embraced femininity as physically

empowered, strong, and active, emphasising function rather than appearance (Andreasson & Johansson, 2013b). While blogs that present femininity somewhat unconventionally, including females lifting heavy weights and using kettle bells, can be seen as a prominent place of gender negotiation, Andreasson and Johansson (2013b) described this stereotypical representation as being the most common representation of femininity on the Internet. In addition, they found inclinations of sexualisation present in the text and imagery within the blogs. This is represented by imagery emphasising certain parts of the 'female' body, including breasts, buttocks, and thighs (Andreasson & Johansson, 2013b).

In the in-depth analysis of the three male personal trainer blogs, Andreasson and Johansson (2013c) noted complex and contradictory portrayals of masculinity. The imagery and texts on the blogs blurred the boundaries of what it considered stereotypically male or female, potentially contributing to acceptance of suppressed identities or genders, for example submissive masculinity (Andreasson & Johansson, 2013c). The blogs offer constant negotiations, contestations, and transformations of masculinity, representing traditional and new ways of embodying masculinity (Andreasson & Johansson, 2013c).

In researching an online bodybuilding forum, Andreasson and Johansson (2016), established that marginal masculinity is idealised. That is, the 'outcasts', or the masculinities that do not meet the dominant standards (Andreasson & Johansson, 2016). In contemporary Western societies, a dominant masculinity would aesthetically entail a well-trained body, but not 'huge' or 'too muscular' (Andreasson & Johansson, 2016). The online community under investigation transformed marginal masculinity into dominant masculinity. Although diversity of masculinity is presented through the online communications, the different body ideals and notions of masculinity are compared and contrasted, only to reinforce the marginal masculinity as dominant. Transformation with the enhancement of drugs was accepted, but also negotiated in terms of meeting other masculine ideals, for instance, being an employable man (Andreasson & Johansson, 2016).

Conversely, Smith and Stewart's research (2012b) found that participants within an online bodybuilding community championed muscle. Larger quantities of muscles, and more visible muscle definition,

accompanied with high vascularity were equated to dominance, respect, and power. Features that also commanded respect linked to great feats of strength, and muscular performance, and extremely low percentage body fat. Within the community, muscle size and strength was also relevant to embodying masculinity as it related to the potential ability to inflict harm. Underpinning the community members' social construction of masculinity involved physical and mental strength, physical power compared with 'ordinary' men, demonstrations of physical extremes, and aggressiveness, or behaviours establishing hierarchy through physical intimidation (Smith & Stewart, 2012b). In the same way that the consumption of performance enhancing drugs was normalised in Andreasson and Johansson's study (2016), this bodybuilding community endorsed and advocated the use of drugs like synthetic testosterone. This is further reiterated by Hall et al. (2016) who revealed that bodybuilding Internet forum contributors provided each other with support and advice on Synthol use, an injectable oil drug. While the discussion in Andreasson and Johansson's study (2016) noted negotiations in meeting other masculine ideals, the same was not considered in Smith and Stewart's study (2012b). It was deemed perfectly acceptable to take the drug, even at the cost of undermining other indicators of masculinity (such costs include testicular shrinkage, hair loss, or the potential growth of breast tissue) (Smith & Stewart, 2012b). Interestingly, the online fitness community participants dedicated to extremes and fascinated by muscles had different individual interest in size, strength and body fat.

These presentations of gender in online fitness culture affect people's behaviours, exercise habits and the fitness goals being pursued (Andreasson & Johansson, 2013c). One example is the normalisation of drug use in online bodybuilding discussion forums or community groups; in another context, the increasing interest in strength training for females, reflecting the cultural formation of a more muscular aesthetic ideal.

2.4.2.3 Body image

2.4.2.3.1 *The fit ideal*

As previously stated, the sociocultural standards of beauty for females have increasingly emphasised strength and muscularity. In contemporary Western

societies the ideal has resembled the fitness and athletic body ideal of the 1970s and 80s, where it is not only important to be thin, but also essential to be toned and fit (Homan, 2010; Homan et al., 2012). Bordo (2003) highlights the value placed on the elimination of excess fat, stating that 'simply to be slim is not enough, the flesh must not "wobble"' (p. 191). Homan et al. (2012) describes this shift toward fit bodies as characterised by well-defined muscles in the upper body, legs and abdominals. As argued by Markula (2001b), such an ideal may create pressure for females to be more disciplined, so that in addition to dieting, they must also exercise in order to tone and build muscle. Thompson et al. (2004) state that the shift towards a tight, athletic look, with a focus on exercise and muscularity for both men and women 'does not appear to be a transient fad' (p. 295).

The fit female ideal has replaced the historical generations of thinness, and curves, instead providing an ideal female body that is 'strong and beautiful, muscular and slender, toned and shapely' (Sassatelli, 2003, p. 86). This body also 'contradicts the traditional association of femininity with immobility and passivity' (Sassatelli, 2003, p. 86). Bordo (1990) articulates that the tight athletic look creates a contradictory body ideal, as slenderness can be associated with femininity and reduced power, whereas muscularity symbolises strength and masculinity. Therefore, these two ideals combine to create a paradox by being interpreted as both oppressive and liberating (Markula, 2001b). Andreasson and Johansson (2013c) have also noted a change in the gender representation of fitness people, describing a 'convergence of masculinity and femininity' (p. 288).

This ideal of a fit, toned and slender body is viewed through wider cultural values as a sign of personal worth, a matter of individual choice, status and character, for instance, success and hard work (Sassatelli, 2010). The fit body, which is exemplified by a well-defined, firm outline, erect posture, higher muscle mass and a lower percentage body fat, tells us something about the subject, becoming a meaningful value (Sassatelli, 2003). People with the fit body are seen to possess energy, functionality, vitality and strength (Sassatelli, 2003); further, such people are regarded as moral citizens, people of worth, having acquired 'symbolic value, hinting at a strong self, in control of herself' (Sassatelli, 2003, p. 83).

In contemporary times, fitness has become a vital aspect of shaping the body into a 'narrowly defined, singular feminine ideal' (Kennedy & Markula, 2011b, p. 2). Ultimately the cultural transformation of this body ideal affects people's exercise goals and habits (Andreasson & Johansson, 2013c). The concern is that Western cultures have habitually promoted narrow representations of what are considered ideal female bodies (Calogero & Tylka, 2010), condemning diversity in body shapes and sizes to conform to these standards and societal expectations (Grogan, 1999).

Homan (2010) suggests that according to fitness magazines, the lean, firm, ideal body is attainable for anyone who is willing to dedicate the time and energy it takes to achieve and maintain it. Further, Urbanksa (1994) notes that a common antecedent to females' body dissatisfaction is the belief that with enough work the 'perfect body' is achievable for them. However, previous research has demonstrated that this is not the case (Groesz, Levine, & Murnen, 2002; Markula, 2001a). Instead, gym subcultures can promote body dissatisfaction as they focus on bodily excellence, emphasise the physique (Brownell, Rodin, & Wilmore, 1992), and invite others to view and judge body appearance (Brace-Govan, 2002). With the strong focus on the athletic image, body control and self-challenge have the potential to exhibit dynamic similarities between anorexic and addictive exercise behaviours, due to pathological behaviour to achieve the contemporary construction of an ideal body image (Michela Marzano-Parisoli, 2001). This may lead to dangerous practices including obsessive exercise, the use of anabolic steroids, the use of pathogenic weight loss techniques and the development of eating disorders (Philips & Drummond, 2001).

2.4.2.3.2 Social networking sites and body image

The Internet provides a powerful sociocultural influence on young females' lives (Tiggemann & Miller, 2010; Tiggemann & Slater, 2013a, 2013b). It offers sites that promulgate ideals of thinness as female beauty, often targeting females (Tiggemann & Slater, 2013a). Like their traditional print counterparts, appearance related websites and advertisements play an important role in reinforcing the pre-eminent messages of female beauty in Western societies (Labre & Walsh-Childers, 2003; Slater et al., 2012). However, as with other forms of media, an important consideration to note is

that 'while it is possible that media exposure influences drive for thinness, the converse is equally plausible. That is, it may be that those girls most dissatisfied with their appearance and interested in pursuing thinness actively seek out particular forms of media' (Tiggemann & Slater, 2013a, p. 87).

Emergent research has investigated SNSs and the influence on body image. In an examination of Myspace, an older SNS, Manago et al. (2008) found a link to social comparison and the expression of idealised aspects of self. Manago et al. (2008) discussed the relationship of the practice of communication using images, and the occurrence of self-objectification and social comparison. Tiggemann and Miller's (2010) study examined the relationship between Myspace and Facebook exposure and body image in a small sample of adolescent girls (aged 13 to 18 years). Girls who spent more time on SNSs reported higher levels of drive for thinness, body surveillance, weight dissatisfaction and greater internalisation of the thin ideal than girls who viewed sites such as YouTube, Google or MSN or even television exposure. The authors suggested that such SNSs had an enhanced opportunity for appearance conversations to emerge between friends, which has been shown to link to poorer body image (Jones, Vigfusdottir, & Lee, 2004). The creation of a public persona online, typically including images of oneself, was also linked to potential appearance comparison (Tiggemann & Miller, 2010).

Girls spend considerable time viewing and making comments on others' profiles, which is a key characteristic of appearance conversation (Manago et al., 2008). Tiggemann and Slater (2013a) explored this further in their study of 1,087 girls aged 13 to 15 years. Their results also indicated that time spent on the Internet was significantly related to internalisation of the thin ideal, body surveillance, and drive for thinness (Tiggemann & Slater, 2013a). Similarly, Facebook users scored significantly more highly on body image concern measures than their non-user counterparts. The authors reiterated previous findings that the interactive nature of SNSs distinguish them from others, and have the ability to promote appearance related conversations (Tiggemann & Miller, 2010). Another study of an 189 girls in an older age cohort, 10 to 12 years, indicated that time spent online also resulted in reduced body esteem and increased dieting (Tiggemann & Slater, 2013b). Noteworthy, these three studies (mentioned above) did not

determine whether the sites visited by their participants had a specific appearance focus. In 2012, Slater et al. conducted a content analysis of advertisements on teen websites. The study revealed many appearance related advertisements with a strong emphasis on the thin ideal. All four quantitative investigations found the most influential media source linked to all measures of body image concern (internalisation, appearance comparison, weight satisfaction and drive for thinness was the Internet (Tiggemann & Miller, 2010). Indeed, opportunities exist for qualitative research to explore the concerns of young adult females, rather than pre-adolescent and adolescent females which, to date, have been a target age group for studies of SNSs and body image (Slater et al., 2012; Tiggemann & Slater, 2013a, 2013b).

In 2016, Holland and Tiggemann (2016b) conducted a systematic review of the impact of the use of SNSs on body image and disordered eating outcomes. Twenty studies were included in the review. Of these 20 studies, participant sample sizes were primarily from University undergraduates, or high schools. This is indicative of the dominant age group among SNS users and the age group with a heightened predisposition to body image and disordered eating issues. However, broadening the samples will provide a better representation of the global community. A critique may be made of studies in which measures of overall SNS use did not properly capture the active nature of SNSs. Such a critique has prompted research to examine particular SNS features such as seeking feedback, and photo-based activities (Holland & Tiggemann, 2016b). These two features were both related to body dissatisfaction and disordered eating (Meier & Gray, 2014).

2.4.2.3.3 Social networking site ‘trends’ and body image: Thinspiration and fitspiration

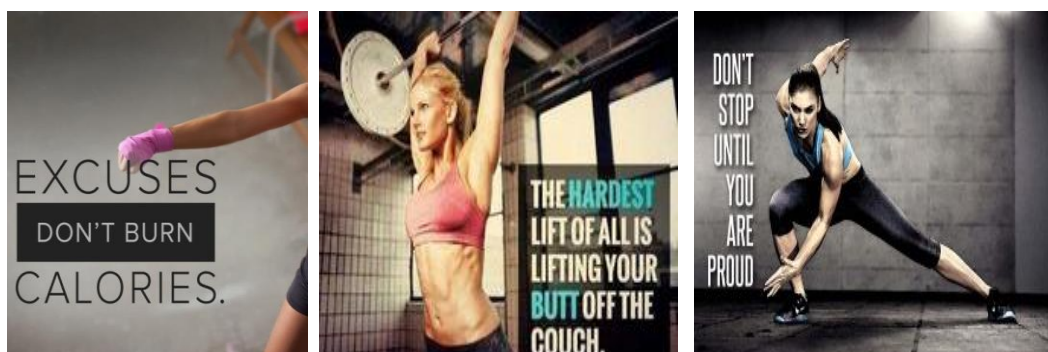
Contemporary body image studies have researched the SNS-based trends, thinspiration and fitspiration. Thinspiration research has indicated negative effects for female users. Exposure to these sites has been associated with adverse effects related to low self-esteem, appearance self-efficacy, body dissatisfaction and increased disordered eating variables (Harper et al., 2008). Additionally, viewers reported a greater likelihood of over exercising and thinking about their weight (Bardone-Cone & Cass, 2007). These

negative impacts are similar to the impact of exposure to unrealistically thin ideal body types from traditional mass media (Groesz et al., 2002; Hargreaves & Tiggemann, 2003).

One of the latest popular visual SNS movements influencing female aesthetic ideal and body image perceptions is fitspiration. Studies concerning fitspiration have come from the discipline of psychology, and have either conducted content analyses, or recruited participants who are non-specific to online fitness culture itself (see Carrotte et al., 2015; Tiggemann & Zaccardo, 2015). Currently, there is only one study undertaken with 101 females, with a mean age of 26, who regularly posted fitspiration images (Holland & Tiggemann, 2016a). As such, there is limited evidence of explorations of online fitness culture using a qualitative approach, from the perspective of young people themselves (Bartholomaeus, 2013).

The images pertaining to the concept of fitspiration are of extremely athletic looking females, often 'ripped' with abdominal definition, in poses which require strength. Initial views of these images are that they may be considered 'refreshing', moving away from the thin-ideal (Kane, 2012). Where historically muscularity has been a bodily ideal largely applied to males (Mansfield & McGinn, 1993), muscularity and tone are now being embraced by females, specifically those who are involved in fitspiration. The images are often overlain with quotes desired to inspire fitness-related endeavours, for example, 'Exercise to be fit, not skinny'. Another common slogan amongst fitspiration advocates is 'Strong is the new skinny' (see Figure 1 for more examples).

Figure 1: Examples of fitspiration-style images



*Images are not for use for journal publication. Images sourced from a Google Image search of "fitspiration quotes".

In a content comparison of fitspiration and thinspiration websites, Boepple and Thompson (2015) describe many similarities, and potentially hazardous messages on both sites. Although the thinspiration sites 'featured more content related to losing weight or fat, praising thinness, showing a thin pose, and providing food guilt messages' than the fitspiration sites, the comparison noted that the sites did not differ on 'guilt-inducing messages regarding weight or the body, fat/weight stigmatization, the presence of objectifying phrases, and dieting/restraint messages' (p. 1). However, differences were noted in image content, as thinspiration sites solely contain images, while fitspiration sites include images and text, providing difficulties and differences in coding (Boepple & Thompson, 2015). A recent content analysis of fitspiration, found that the sites idealised thin and attractive female bodies and often sexually objectified female bodies (Boepple et al., 2016). Boepple et al. (2016) suggest that as exposure to pro-ana sites is associated with poor body image-related outcomes, 'exposure to fitspiration content may be associated with similar outcomes' (p. 134). Boepple et al. (2016) further suggest that fitspiration may be particularly detrimental to individuals who are overweight.

Other fitspiration research is reflective of this negative association to body image related outcomes. Tiggemann and Zaccardo (2015) found that although fitspiration images are inspirational in a number of ways, viewing fitspiration images resulted in negative consequences for body image and increased negative mood. In comparison to travel images (which can also be considered inspirational), exposure to fitspiration images resulted in greater body dissatisfaction and lower state appearance self-esteem (Tiggemann & Zaccardo, 2015). The authors establish three main concerns: (1) the exhibition of one particular body shape, (2) the use of appearance based benefits as inspiration, and (3) the objectifying features in some images, which can lead to self-objectification and body dissatisfaction. The primary concern that many of the females in the fitspiration images are one particular body shape: toned, but also relatively thin, promotes a visual health message through the platform of SNSs (Jong & Drummond, 2016a). Tiggemann and Zaccardo (2015) confirm that the images of everyday females with a thin and toned figure, rather than models, are likely to cause greater social comparison, and body shape concern. Furthermore, Tiggemann and

Zaccardo (2015) recognise that fitspiration attempts to inspire females towards health and fitness using appearance-related benefits rather than health, leisure, or enjoyment. This mindset is again associated with negative body image (Strelan, Mehaffey, & Tiggemann, 2003). Reinforcing this final concern, in a content analysis of fitspiration websites Boepple et al. (2016) also reported an over-emphasis on the promotion of appearance-motivating messages regarding exercise and diet. Along with the over-valuation of physical appearance, the study also reported that the fitspiration websites promoted eating concerns and excessive exercise (Boepple et al., 2016).

The issue with content analyses, as noted by the researchers, is that content on such sites changes sporadically. By employing a deductive method of data collection, with a specific interest in appearance-related variables present on these sites (e.g., thin-ideal messages, body type), a potential bias may arise (Boepple et al., 2016). To counteract this bias, it is recommended that future research extend content analyses by examining all messages present on health and fitness-related sites (Boepple et al., 2016).

Two studies have investigated the characteristics of individuals interested in fitspiration. One study examined the characteristics of individuals who consumed three types of health and fitness-related social media content: fitspiration pages, detox pages, and diet/fitness plan pages (Carrotte et al., 2015). The second study identified characteristics of females who post fitspiration images (Holland & Tiggemann, 2016a). Key characteristics of consumers of health and fitness-related social media content were identified as predominantly female in gender and a younger age, with at-risk groups including those with eating disorder symptomology, being a victim of bullying, and misusing detox/laxative teas and diet pills (Carrotte et al., 2015). Further, Holland and Tiggemann (2016a) found that the females who posted fitspiration images scored higher on measures of disordered eating, drive for muscularity, and compulsive exercise than the females who posted travel images. Holland and Tiggemann (2016a) concluded that the drive for thinness, and drive for muscularity reflected appearance aspirations of users to achieve the prescribed ideal of a lean and toned body. Both studies considered fitspiration and health and fitness-related social media content to have a potentially negative impact on some 'vulnerable' individuals, influencing ideal body shapes and what it means to

be healthy (Carrotte et al., 2015; Holland & Tiggemann, 2016a). However, Carrotte et al. (2015) recognise the possibility that the health and fitness-related content on SNSs could be beneficial and provide motivation for healthy behaviours. Additionally, all six articles identified the difficulty in determining the specific messages attributed to potential benefits, and, conversely, those attributed to harm.

As in all research, individual studies in this review need to be considered in the context of their limitations. Carrotte et al. (2015) acknowledge a few particular limitations to their study that are worth noting. First, the degree to which their participants interacted with the content, or followed and liked health and fitness-related information was not determined. Second, it is noted that participants who engaged with fitpiration pages, detox pages, and diet/fitness plan pages were also likely to engage with other health pages, potentially reflecting a broader interest in health. These limitations further emphasise the need for research into the broad nature of online fitness culture, particularly from the perspectives of the users themselves.

Research suggests that internalising athletic ideals, which is the degree to which females are psychologically affected by images, such as those present in fitpiration, may result in analogous issues of the thin-ideal internalisation, negatively impacting the psychological health of females (Boepple et al., 2016). A study conducted by Homan (2010) found that female college students who idealise athletic body types were more likely to feel guilty when missing an exercise session. The first study testing the effect of exposure to the ultra-fit physique apart from the thin-ideal revealed that exposure to thin ultra-fit models, but not 'normal' weight ultra-fit models, produced an increase in body dissatisfaction (Homan et al., 2012). In other words, toned and fit images did not produce body dissatisfaction unless they were paired with thinness. This study makes a salient contribution to the literature on female body image. In separating idealised thinness and idealised fitness, Homan et al. (2012) provided evidence that 'media that promote fitness in the absence of extreme thinness do not have a harmful impact on young females' body image and may even offer benefits' (p. 55). However, questions may be raised over the definition of harm in this circumstance, and whether this has been measured over a period of time.

Furthermore, as noted with regard to the current fitspiration research, most images portrayed online are of thin and toned bodies. Individuals who followed fitness boards on Pinterest reported a heightened intention to engage in extreme weight-loss behaviours (Lewallen & Behm-Morawitz, 2016). By comparing their bodies to the idealised fit images, feelings of inadequacy arise and thus give rise to ideas of self-enhancement through extreme dieting and exercise (Lewallen & Behm-Morawitz, 2016).

2.5 Summary of the trends in the literature:

As a relatively new phenomenon, online fitness culture constitutes a discrete form of fitness culture that uses SNSs as a platform for cultivation. In recent years two peer-reviewed studies have researched the concept of online fitness culture, particularly within the field of sociology. Despite these few studies into online fitness communities, there is limited academic literature on this topic. The broader research from online health communities demonstrates a need for greater understanding of how motivations for joining these communities relate to members' online behaviours.

Adding to the creation of online fitness culture, the study of fitspiration has emerged from the field of psychology. This research has typically focused on the negative associations of fitspiration and body image, and also the constructions of gender through wall posts and blogs (Holland & Tiggemann, 2016a; Tiggemann & Zaccardo, 2015). However, experiences of those within the online fitness community have been under-examined. The review of the literature here reveals the significant role the Internet plays in adults' capacity and motivation to access and use health information; however, more research is needed in order to develop a deeper understanding of how SNSs are used to gather health information.

The literature acknowledges the need to investigate the communication between users via the visual and textual (Goodings, 2011, 2012). It is important to note that as far as the researcher is aware no qualitative inquiry has yet collectively explored the combination of the textual and visual as a means of online communication in a connected online fitness community. However, Aubrey (2010) makes the recommendation that future research is needed to explore how images, such as those in women's health magazines (e.g. fitness models), perpetuate societal expectations of what

healthy women's bodies are assumed to look like. Using this recommendation but moving to an online context, understanding females' experiences within an online fitness community can help understand their views of the images observed within the community, and how the messages circulated within the community influence their understanding of health, and healthy practices.

Qualitative methods are becoming increasingly popular, with the recognition that online ethnography and in-depth interviews can elicit rich data around the experiences of online users in diverse settings. While the two studies of online fitness culture in male bodybuilding communities/discussion forums have used a method of 'netnography' (an online version of ethnography; (see Andreasson & Johansson, 2016; Smith & Stewart, 2012b), there remains little evidence of exploration of online fitness culture with those who are key stakeholders in the online experience. This has vital inferences for SNS participation and culture (re)creation.

This chapter has provided an accurate account of the current literature relating to online health information seeking, online fitness culture, the fitness ideal, and the influence of the SNSs on body image. This chapter points to clear gaps in the literature concerning:

1. The use of SNSs to gather health information
2. Online fitness culture
3. Online fitness community interaction mechanisms
4. Understanding the impact of visual and textual online information.

These gaps highlight the importance of the current research for gaining an in-depth understanding of young females' experiences and expressions of fitness on SNSs. The focus of the current research is to understand online fitness culture from a socio-cultural perspective in order to gain a greater awareness of the impacts on young females' health beliefs and health behaviours. The study will explore the online fitness community, and experiences and expressions of online fitness culture from participants themselves. In doing so this, study will contribute to the ongoing social construction of 'health' and 'fitness'. This study also intends to contribute to the knowledge of online community interactions and the significances of

these interactions. This will require the analysis of communication taken directly from SNSs.

CHAPTER 3

THEORETICAL FRAMEWORK

3.1 Introduction

This study is an exploration of young females' experiences and expressions of online fitness culture on the SNSs Facebook and Instagram. Many theories have been used in the fitness literature field, in order to study aspects of influence from the culture, such as body image and identity. Theories most commonly employed, such as Feminist theory and Social Comparison theory, emerge from the study of fitness culture and concern, among other variables, the concepts of image type mediation by state appearance comparison, and portrayal of the female body. The current research is concerned with online fitness culture from a socio-cultural perspective in order to gain a greater understanding of the impacts on young females' health beliefs and health behaviours. As such, theories of social constructionism and symbolic interactionism provide an appropriate sociological lens to adequately understand the social, cultural, and symbolic constructs implicit in online fitness culture.

This chapter will first restate the overarching research question and the primary objectives of the inquiry. It will then describe the commonly used theoretical orientations in the online fitness literature. A discussion of the utility of a qualitative approach to health research will follow, leading into the theoretical frameworks used for this study. This chapter will also detail the deeply rooted ontological and epistemological underpinnings of the research, and outline social constructionism and symbolic interactionism as the most appropriate theoretical frameworks for the study. These theories are used to underpin the methodology, and later in the thesis for the interpretation of data reported in chapters five and six.

3.1.1 Revisiting the research question

The previous chapter highlighted numerous studies pertaining to the development of online fitness culture, and the influence of recent SNS trends on body image. As discussed, significant questions remain relating to online

fitness culture, and the potential influences this has on health beliefs and behaviours. The literature review demonstrated that relatively limited evidence from an online context contributes to this discussion, presenting a culturally significant, yet understudied area for academic research attention. Given the popularity of online fitness culture around the world, the central research problem concerns the potential impact this culture has on those who are involved with it. As mentioned, the present study was guided by the following overarching research questions:

- How is online fitness culture created, maintained and perpetuated?
- How does online fitness culture influence young females' understanding of health?
- How do those health beliefs influence their health behaviours?

In addition, the study maintained four key objectives:

1. To explore what health messages are depicted within online fitness culture, and whether they are used as a source of health information.
2. To develop an understanding of the perceived 'positive' and 'negative' aspects of participating in online fitness culture for young females.
3. To understand how socially constructed norms around health and fitness are developed, maintained, perpetuated and circulated through online fitness culture.
4. To explore how cultures on SNSs influence perceptions and behaviour associated with young females' ideals of health and fitness.

3.1.2 Theories used within online fitness research

Previous researchers have employed a number of theories to illuminate different aspects of online fitness culture, such as '#fitspiration'. Most theories emerge from the fields of sociology or psychology and relate to identity and body image. Prominent theories noted in contemporary online fitness research are feminist theory, and social comparison theory. Notably, objectification theory is a prominent theory employed in the study of fitness culture (Prichard & Tiggemann, 2005, 2008, 2012), though it is yet to be used within an online context.

Feminist theory has been widely employed in studies that have examined online gender construction and identity within online fitness blogs

(for example see Andreasson & Johansson, 2013b). This research focuses on the link between cultural ideals and the female body, and how this is portrayed through fitness blogs. This research relates to offline research from feminists such as Dworkin, who studied the female body within a gym environment, and the female body from a 10 year study of fitness magazine covers (Dworkin, 2003; Dworkin & Wachs, 2009). The concern is with the relationship of bodies and what feminist Bordo describes as ‘the “*direct grip*” culture has on our bodies through the practices and bodily habits of everyday life’ (2003, p. 16).

Social comparison theory is a theory employed for online fitness research. Festinger (1954) suggests that, according to this theory, people evaluate their own appearance by comparing themselves to others. For females specifically, it is said that this self-appearance evaluation is compared to ‘cultural ideals of beauty and thinness presented in the media’ and peers (Tiggemann & Zaccardo, 2015, p. 62). This theory proposes two types of social comparisons: upward social comparisons occur when individuals compare themselves to someone they perceive to be better; and downward social comparisons occur when individuals compare themselves to someone they perceive to be worse off than themselves (Myers & Crowther, 2009). In a study of fitspiration images online, Tiggemann and Zaccardo (2015) found that the effects of the image were mediated by state appearance comparison. The study aligns with previous research that indicates females often undertake upward social comparison, whereby the individual falls short of this ideal, resulting in body and appearance dissatisfaction and decreased self-esteem (Festinger, 1954; Strahan, Wilson, Cressman, & Buote, 2006; Tiggemann & Polivy, 2010).

Within the recent research in online fitness, there is certainly value in exploring the social and cultural dimensions of online fitness culture to further understand how messages of health circulated by participants within the culture, influence constructions of health, and the link to health beliefs. Feminist theory, or social comparison theory as a psychological framework do not provide an adequate theory for interpreting and understanding the socio-cultural aspects of online fitness culture in this regard.

3.2 Theoretical framework

3.2.1 Qualitative research in the study of social networking sites

Qualitative research approaches are well suited to provide an understanding about relationships between concepts and behaviours (Patton, 2002), providing detailed information within a context to interpret and develop an understanding of a social phenomenon (Bradley et al., 2007; Patton, 2002; Mays & Pope, 1995). A qualitative approach to research is useful in the pursuit of understanding *how* social experience is created and assigned meaning (Denzin & Lincoln, 2005). Bradley et al. (2007) and Patton (2002) acknowledge the value of qualitative research methods in order to develop knowledge in poorly understood or complex areas that may relate to relationships, health-seeking behaviours and concepts. Kozinets (2010) claims that qualitative research can 'stir things up' by questioning definitions, re-operationalising constructs, or by introducing new and overlooked constructs and relationships' (p. 42).

Quantitative research methods have been the dominant approach taken by researchers assessing the of impact of social media on the lives of individuals, in an attempt to measure descriptive analysis of users, including SNS use, as well as the association to body image (see Tiggemann & Slater, 2013a, 2013b; Tiggemann & Zaccardo, 2015). This quantitative empirical research provides useful and relevant statistical trends and patterns (Creswell, 2012). However, qualitative research methods provide an ability to develop an understanding of a social phenomenon that are not amenable to quantitative measurement (Bradley, Curry, & Devers, 2007; Pope, Ziebland, & Mays, 2006). Denzin and Lincoln (2005) describe qualitative research as:

a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. ... They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self (p. 3).

Qualitative research thus involves an interpretive approach to the world that allows the researcher to study phenomena in their natural settings and to gain a sense of the meaning that people have constructed of events and experiences in their lives. Recently, online qualitative research methods have been used to illuminate the functions of online fitness communities, and

the idea of negotiating meanings around fitness doping, masculinities and femininities (see Andreasson & Johansson, 2013b, 2013c, 2016; Smith & Stewart, 2012a). Text extracts presented within online communities are viewed as rich sources of cultural information. These discussions are thought of as cultural manifestations, allowing the researchers to come to an understanding of how a particular activity is constantly negotiated (Andreasson & Johansson, 2016). Consistent with the current research of online fitness culture, and the research questions, a qualitative approach will allow a holistic explanation of the concepts of 'how' and 'why' in relation to socio-cultural views within the culture. Accordingly, a qualitative approach is most appropriate in order to gain insight into the complexities and meanings embedded within online fitness culture.

3.2.2 Research paradigm

The construction of the research questions, the choice of theory, and the ensuing methodologies are influenced by ontological and epistemological assumptions. Carr and Kemmis (1986) delineate three research paradigms: positivist, interpretive and critical. Denzin and Lincoln state that qualitative research is underpinned by an 'interpretive framework' that is guided by a 'set of beliefs and feelings about the world and how it should be understood and studied' (2008, p. 19). These beliefs and feelings about the world are also aligned with the assumptions about reality that researchers bring to their work. Crotty (1998) states that these assumptions underpin 'our understanding of what human knowledge is, what it entails, and what status can be ascribed to it' (p. 2). An interpretive approach to the research is considered most suitable to elucidate the 'meanings people attach to things in their lives' (Bogdan & Taylor, 1998, p. 7). Furthermore, interpretivism is a holistic way of understanding how people's perceptions, values and beliefs influence their behaviour (Charon, 1979).

3.2.3 Epistemological underpinnings

Following Crotty's knowledge framework, the current study is guided by this structure:

Epistemology	Theoretical perspective	Methodology	Methods
Constructionism	<ul style="list-style-type: none"> • Social constructivism • Symbolic interactionism 	Ethnography	<ul style="list-style-type: none"> • Netnography • Qualitative individual interview

The current research aligns with the constructionist epistemology. Constructionism implies that social phenomena and their meanings are outcomes of the interaction between individuals. By adopting a constructionist perspective, the researcher is subscribing to the view that all human practices are developed and circulated in a social context. This view sees meaning as constructed. When individuals consciously engage with objects in the world, meanings emerge. Crotty (1998) notes that 'different people construct meaning in different ways, even in relation to the same phenomenon' (p. 9). For instance, an individual participating within a particular online fitness community can interpret meaning and experience differently based on previous experiences, beliefs, and the social, cultural, historical and political influences in the construction of meaning than someone else involved in the same online fitness community. A constructionist stance therefore views social objects and categories as socially constructed, rather than pre-existing or discovered (Bryman, 2012; Hacking, 1999). Constructionism can be described as:

the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context (Crotty, 1998, p. 42).

Interactions are vital to the constructionist epistemology. As human beings engage through interactions with selves and others they create meaning and make sense of the world they are interpreting (Crotty, 1998).

This approach is inductive in nature and is ultimately concerned with the ways in which people make sense of the world (Bryman, 2012). Furthermore, constructionism asserts that knowledge, understanding, meaning and 'truths' are constructed and sustained through language, linguistic resources and social processes (Neuman, 2000). Construction and maintenance of this knowledge is carried out through negotiation with one another. Given that this inquiry explores relationships, communities and culture within fitness on SNSs (i.e. the 'social context'), constructionism offers an appropriate epistemological underpinning within the qualitative tradition to guide the research process.

3.3 Social Constructionism

3.2.1 Introduction

The theory of social constructionism is broadly concerned with the development of social phenomena and social norms through social interaction, social processes and practices (Berger & Luckmann, 1966; Burr, 2003; Crotty, 1998). It is a macro-level theory in sociology, founded on the understanding that 'we' as a society assign labels to certain things and associate those things/objects with meanings. Put simply, knowledge and objects are not real in and of themselves. Instead, they exist because society defines them, and give them reality through social agreement. Such an approach to social research considers that understanding and subjectivity cannot be isolated from the interpretation of social reality (Bauman, 1978; Freeman, 2006; Weber, 2004 [1904]). Accordingly, social constructionism relies upon communication combined with the notion of interaction to define a shared system of meaning (Burr, 2003). This shared system of meaning is 'constructed, sustained and reproduced through social life' (Greenwood, 1994, p. 85). The social construction of reality is, therefore, a process through which the members of a society discover, make known, reaffirm, and alter a collective version of facts, knowledge, and 'truth' (Newman, Griffin, & Cole, 1989, p. 56). The exchanging of ideas and perceptions of reality are progressively conveyed and embedded within society through communication. Reciprocal agreement enhances the creation of norms, infiltrated within society through the revalidation of attitudes, beliefs and

behaviours (Jacobs et al., 2004). Meaning is therefore not discovered but constructed.

There are multiple constructed knowledges and versions of reality. These versions of reality can alter or be transformed given that people construct their everyday experiences (Hacking, 1999; Willig, 2001). Importantly, Berger and Luckmann emphasise the broad social constructions of meaning and knowledge, rather than focusing on the matter of individual cognitive processes and the 'meaning-making of the individual mind' (Crotty, 1998, p. 58). This factor distinguishes the differences between constructionist and constructivist, along with micro and macro levels of theory within sociology.

3.2.2 Burr's (2003) four assumptions of social constructionism

Burr (2003) argues that it is difficult to provide a complete definition of social constructionism. Instead, she described it as a theory that accepts similar key assumptions (Burr, 2015). Subsequently, Burr (2003, 2015) provides a framework distinguishing four assumptions integral to the theory: (1) a critical stance toward taken-for-granted ways of understanding the world; (2) historical and cultural specificity; (3) meaning and knowledge is sustained by social processes and daily interactions, and; (4) knowledge and social action invites a different kind of action from human beings. The following discussion will summarise these fundamental assumptions, drawing on the work of Berger and Luckmann (1966), Burr (2003, 2015) and other contributors to the literature.

3.2.2.1 A critical stance toward taken-for-granted knowledge

Applying social constructionism challenges the view that there are objective, unbiased, determined views of human beings and the world in which they live. It also challenges the notion that knowledge is based on these unbiased, objective views of the world (Burr, 2003). According to this perspective, humans are asked to question, and challenge taken-for-granted knowledge. We are asked to be suspicious of our assumptions of how the world appears to be and question categories and classifications imposed by others in society. Being critical of this taken-for-granted knowledge and our

observations of the world provides a greater understanding of the nature of the world (Burr, 2015).

Phenomena are products of culture and social processes (Burr, 2003). In this way, social constructionism opposes epistemological positions such as positivism and empiricism that are founded in objectivity (Burr, 2015). As an alternative, it views phenomena, objects, norms, etc., as underpinned with inherent historical, cultural and linguistic meaning (Berger & Luckmann, 1966; Burr, 2003; Willig, 2001).

3.2.2.2 Historical and cultural specificity

People construct reality on the basis of human engagement with the world, and this understanding of the world, and the categories and concepts we use are historically, and culturally specific (Burr, 2015; Gergen, 1973). Further, they operate within a particular context in time (Berger & Luckmann, 1966; Burr, 2003). In this way, social life and people's understanding of social reality and the world, is constantly changing and context-dependent (Gergen, 1973, 1985). Hence, categories have undergone tremendous change over the centuries. For example, the constructs of health and fitness, as well as what people are expected to do to attain optimal health, have shown great change over the course of time, within different cultural locations (see Andreasson & Johansson, 2014; Sassatelli, 2010). Cross-cultural differences can be seen in the experiences of those who attend gyms and fitness centres. In two separate studies of fitness and 'working out' in Japanese culture, Spielvogel (2003) and Andreasson and Johansson (2015) provide a clear example of cultural variability in health and fitness ideologies. Although increasing globalisation and universal practices are evident in fitness culture (Andreasson & Johansson, 2015), Japanese society negotiates fitness culture in their own particular way. This is evident in their view of fitness centres as a place of luxury in which affluent people spend leisure time (Spielvogel, 2003), or the fact that the 'cuteness ideal has a strong influence on the way young females talk about and perceive body ideals and corporeal performances in Japan' (Andreasson & Johansson, 2015, p. 1). These negotiations provide a contrast to modern Western philosophies that highlight the importance of discipline and hard bodies (Andreasson & Johansson, 2014; Sassatelli, 2010). This example reinforces the idea that people are

'born into a world where conceptual frameworks and categories used by people in our culture already exist' (Burr, 2003, p. 7). It is thereby evident that the norms and values presupposed by the modern day understanding of health and fitness are dependent upon the social, political and economic institutions prevailing in their specific culture, at a given time (Berger & Luckmann, 1966; Burr, 2015; Gergen, 1985). This is reinforced by Burr's (2015) description of understanding as historically and culturally relative:

Not only are they specific to particular cultures and periods of history, they are products of that culture and history dependent upon the particular social and economic arrangements prevailing in that culture at that time (p. 4).

In turn, the forms of knowledge from any culture are artefacts of it, and rather than assuming one way of understanding is better than another, in regards to the idea of 'truth', one should appreciate diverse perspectives, beliefs and norms (Burr, 2015). Social constructionism calls for the perspective of multiple understandings of reality which emerge from culture and historical specificity (Berger & Luckmann, 1966). However, it also argues that science has played a significant role in altering this perspective, leading to the 'imposition of our own systems of knowledge upon other cultures and nations' (Burr, 2015, p. 4).

3.2.2.3 Knowledge is sustained by social processes

The construction of meaning and knowledge occurs in interaction between individuals in their everyday lives (Burr, 2015). Meaning is therefore derived inter-subjectively, as a communal interchange (Gergen, 1985), where 'our versions of knowledge become fabricated' (Burr, 2015, p. 4). These communal interchanges are facilitated by language. Social constructionists emphasise the significant role that language plays within interaction (Burr, 2015; Gergen, 1973; Willig, 2001). In this sense, language is a system of representation, not only verbal or written, but also actions, as a symbolic representation of meaning and knowledge (Burr, 2003). Shared versions of knowledge are constructed through these communications in everyday lives (Burr, 2015).

It is through interaction that meaning is regarded as an ongoing process, whereby individuals actively construct and reconstruct social reality

between each other. The idea of truth is based on the current accepted ways in which we understand the world at that particular time, through interaction in which people are constantly engaged with each other (Burr, 2015). If we again consider the construction of health and fitness and associated practices, we can note that understandings and cultural practices are influenced by broader interactions shared between family, peers, mentors, personal trainers, policy, fitness culture, and history. Furthermore, conceptualisations of people's health and fitness desires have led to the institutionalisation of certain values over time. It is out of these discourses that our shared understanding of health and fitness has emerged. Importantly, ideas of health and fitness may also differ from context to context, supporting the assertion that socially constructed reality is 'constantly changing' throughout time and by social process (Gergen, 1973).

3.2.2.4 Knowledge and social action go together

Social actions are dependent upon the meaning and knowledge associated with each construction (Burr, 2015); a classification of a meaning signified, or determined a typical response. These social actions are either considered appropriate or inappropriate based upon societal constructions. Therefore, Gergen (1985) asserts that societal constructions act as 'rules' to govern human action. The way that knowledge and societal constructions of body ideals have altered over time is one example (Grogan, 2008). In previous times, fat was embraced and seen as an association with power and wealth (Grogan, 2008). The appropriate social action at the time was to avoid starvation and to eat and store fat on the body. However, recent views of body ideals and fatness have led to the emergence of negative views of individuals and the costly impact upon the healthcare system. Therefore the appropriate social action in contemporary Western times is to discipline the body through corporeal practices, and control one's eating habits (Azzarito, 2009; Silk, Francombe, & Bachelor, 2011).

3.2.3 Criticisms of social constructionism

Critiques of social constructionism often refer to its lack of consideration of the effect of natural phenomenon, and more specifically biological influences, have on society (Sokal & Bricmont, 1999). Critics suggest that the theory

undervalues the biological influences in understanding human behaviour or culture (Sokal & Bricmont, 1999). It is argued instead that behaviour is an outcome of both biological and cultural influences (Francis & Kaufer, 2011). From this perspective, social constructionist theory is seen to challenge biomedical reality (Bury, 1986). Bury (1986) claims that the discovery of disease is a social, rather than an objective reality. A similar critique is that social constructionism is anti-realist, denying knowledge as a direct perception of reality (Craib, 1997). However, it is important to remain consistent with the idea of constructionism that the findings of research are one of many discourses, and that there are not one, but many knowledges, with the potential to lead to change (Berger & Luckmann, 1966).

3.4 Symbolic interactionism: An alternative to exploring online fitness

3.4.1 Introduction

In line with the epistemological view of constructionism, the second theoretical perspective informing this research is symbolic interactionism. Symbolic interactionism views social reality as 'sensed, known and understood as a social production' (Denzin, 1992, p. 5). Characterised by a number of ideas emerging from Mead's (1934) view on human society, the symbolic interactionist perspective provides a pragmatic approach to social inquiry, allowing researchers to explore how people make sense of their world in a dynamic process of social interaction (McCarty & Schwandt, 2000). Symbolic interactionism conceptualises truths, ideas, attitudes, perceptions, and perspectives as processes that are judged and transformed by an individual in interaction (Charon, 1979).

In contrast to the focus of social constructionism, symbolic interactionism is a micro-level theoretical framework and perspective in sociology, founded on the understanding that the creation of meaning comes through social interaction, and hence, looks at small-scale structures such as interactions with friends. Here, meaning is created through a dynamic process. This process broadly involves an individual's construction of reality, based on their life experiences, interpreted through their actions and interactions with others. From this perspective, people, individually and

collectively, create an active process of 'definition' and 'interpretation' (Blumer, 1969). Through the process of interacting with one's self and with others, individuals define, re-define and make adjustments to their surroundings as they interact with society. Action, therefore, arises in accordance with the interpretations or meanings individuals have made of their world. Hence, as a theoretical approach, symbolic interactionism serves to identify the subjective experiences of individuals, specifically their interactions with others. Bogdan and Taylor (1975) explain:

From the symbolic interactionist's perspective, all social organisations consist of actors who develop definitions of a situation, or perspectives, through the process of interpretation and who then act in terms of those definitions. While people may act within the framework of an organisation, it is the interpretation and not the organisation that determines action (p. 15).

Symbolic interactionism provides a theoretical perspective to understand how common understandings are developed through communication. This is vital as the current study seeks to understand the construction of meaning within an online context. It is through understanding perspectives, communication, and interaction from users of online fitness accounts, that an insight into online fitness culture is grasped. Through analysis of some of these processes, a greater understanding of the construction of knowledge and truths, and how these are circulated online is disclosed. Furthermore, symbolic interaction takes into account the actions of actors based on their understandings developed through communications, and interactions. The actions of those within online fitness communities are based on their understandings of health, and healthy practices.

It must be noted that there are two main schools of thought within symbolic interactionism. The first is the Chicago school; this school aligns with Blumer (1969), and advocates the use of qualitative research in exploring the construction of reality within natural social settings. Conversely, the second school advocates a quantitative approach to research and focuses on the study of products of social interaction, specifically pertaining to self-concepts. This school is known as the Iowa school, and is associated with the work of Khun (1964). Reflecting on the current research design, symbolic interactionism will be used from the perspective of the Chicago school, underpinned by the scholars Mead and Blumer.

The following section will begin with an overview of the three principles of symbolic interactionism developed by Blumer (1969). The core ideas of symbolic interactionism appropriate for this study will then be discussed.

3.4.2 Blumer's (1969) three main principles of symbolic interactionism

Drawing influence from the work of Mead (1934), Blumer (1962, 1969) identifies three main principles of symbolic interactionism:

1. 'Humans act towards things on the basis of the meanings they have for them' (Blumer, 1969, p. 2).

This principle asserts that actions are derived from meanings. How people define, or give meaning to the things they encounter shape their actions towards them.

2. 'The meaning of things arises out of the social interactions one has with one's fellows' (Blumer, 1969, p. 2).

The second principle asserts that reality is social production. Meanings are understood as not inherent in the reality, but are products formed through interaction, and are a continuous process subject to change (Blumer, 1969). Each individual has their own meanings that can differ from others. The fundamental implication here is that meaning is always a variable (Stone, 1970).

3. 'Meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters' (Blumer, 1969, p. 72).

The last principle values the importance of subjectivity. Meanings are acquired from one's experience and engagement within the world and change due to everyday life (Charon, 1979). After being defined, meanings are redefined dependent on the interpretation from an interaction.

3.4.3 Core ideas of symbolic interactionism

Based on the work of the forefathers of symbolic interactionism, Mead (1934), and Blumer (1962, 1969), Charon (1979) denotes a number of core ideas of symbolic interaction. These include: (1) perspectives, attitudes and behaviour, (2) the symbol, (3) self, (4) mind, and (5) society. Considered the most important theorists in the history of symbolic interactionism (Chriss,

2005), Mead places high priority to the social world, society (Ritzer, 2008).

This is emphasised in Mead's explanation:

We are not, in social psychology, building up the behavior of the social group in terms of the behaviour of separate individuals composing it; rather, we are starting out with a given social whole of complex group activity, into which we analyse (as elements) the behavior of each of the separate individuals composing it. ... We attempt, that is, to explain the conduct of the social group, rather than to account for the organized conduct of the social group in terms of the conduct of the separate individuals belonging to it. For social psychology, the whole (society) is prior to the part (individual), not the part to the whole; and the part is explained in terms of the whole, not the whole in terms of the part or parts (Mead, 1934, p. 7).

To put it differently, society, or a social group comes first, leading to the development of a thinking self-conscious individual (Ritzer, 2008). Other scholars, including Charon (1979, also see Ritzer, 2008), emphasise the sequence as providing a good foundation for the culmination of the end product of society. In turn, the aforementioned core ideas will be discussed in further detail below to show the important interplay between these ideas.

3.4.3.1 Perspectives

Perspectives are an integral part of the symbolic interactionist ideology. Within symbolic interactionism reality is seen through perspectives in order to make sense out of what is seen. Perspectives only play a part in making sense of what we see because what is seen is also only one part of the reality (Mead, 1934). Charon (1979) defines perspective as a 'conceptual framework', a set of interrelated words 'used to order physical reality' (p. 3). It is through these words that individuals make assumptions and value judgements about reality or objects, and that points of difference between individuals become clear (Charon, 1979). Perspectives change from situation to situation with different roles associated with different perspectives and some roles equating to more than one perspective (Mead, 1934). An individual has a multitude of perspectives, perhaps an infinite amount. It is therefore almost impossible for an individual to come to a definitive conclusion about an object by analysing the vast number of different perspectives.

Humans are not passive in responding to social stimuli, but are active agents in interpreting and guiding a social situation (Blumer, 1969).

Perspectives stand as 'a bias', containing 'assumptions, value judgements, and ideas, orders the world...and as a result influences our action in the world' (Charon, 1979, p. 7). Instead of classifying them as true or false, individuals judge perspectives according to their usefulness in interpreting situations. They act as guides to interpretation, and then to action, however, they are not a determinant of behaviour as the process of interpretation is dynamic and changes through interaction. Hence, it is important to note that perspectives are socially constructed and can be altered, rejected or replaced as humans interact with others throughout their lifespan (Strauss, 1964).

3.4.3.2 The symbol

A central concept of communication is the symbol, through which diverse perspectives are learned. Therefore 'perspectives are a set of symbols' (Charon, 1979, p. 45). Emphasis is placed on the symbol as a social act, allowing 'for the sharing of culture and the continuation of society', while also highlighting individuals as active in these processes (Charon, 1979, p. 36). They are social objects, defined according to their use, and represent what people agree they should represent. In this sense, Hall (1997) asserts that language works through representation. Although there is no clear meaning in a word itself, it is instead constructed as signifying something people wish to communicate (i.e., a thought, concept, idea or feeling; Hall, 1997). Accordingly, acts, and visual media, are also considered symbols, or signifying practices. These are 'meaningful gestures' as they have meaning to both individuals within an interaction: the user of the symbol, and the individual with whom the user is communicating (Mead, 1934). Therefore, symbols are social in nature, constructed, designated by, and meaningful to, more than one. From a symbolic interactionist perspective, it is through symbols that social reality and social life is created (Mead, 1934). Symbolic interaction holds that people share perceptions, create mutual understandings and create an culmination of knowledge (Charon, 1979).

3.4.3.3 Self

The self is also a construct that is given meaning through choices, and mediated by interaction and relationships with others (Sobal & Maurer, 2013).

Hence, the self is a social product, and to the individual, the self is separate, and defined through interaction, for example, 'You are a healthy person.' The self, then, is an object; becoming an object to themselves based on the views from other members of the same social group (Charon, 1979). These social responses from others contribute to a person's identity (Sobal & Maurer, 2013). While these social responses can be described as perceptions about who one is, 'one's identity tends to be more specifically grounded in social constructed cultural categories' (Sobal & Maurer, 2013, p. ix). A person may identify or be identified by others as being fat, and therefore unhealthy. Alternatively, another person may define them as being fit and healthy. Incorporating perspectives of 'those who matter' will influence how one defines themselves and how they act (Charon, 1979). Conversely, as one is considered an object to one's self, he or she may communicate with themselves, or act towards themselves as he or she may act to others (Mead, 1934). This self-interaction or self-communication is used in 'forming and guiding ... conduct' (Blumer, 1969, p. 535). It is important to note that the self is a process that is continuously created and recreated in various social situations (Berger, 1963). To think to oneself is also a social situation as thinking is to converse and reflect with oneself (Charon, 1979).

There are three stages of self-development (1) The preparatory stage, (2) The play stage, (3) The game stage. Within each of these stages, role taking plays an important aspect (noted later in the chapter). The first stage is characterised by imitation of others; for example, 'the child acts as the adult does' (Charon, 1979). Here, imitation lacks meaning and symbolic understanding. The second stage is characterised by understanding significant others' perspectives. These are people who are of high importance to the individual, with whom they identify, and from whom they respect or desire acceptance (Mead, 1934). They play an important role in the definition of social objects, including selves as a social object (Stryker, 1980). Significant others also play a vital role in language acquisition, and promoting patterns of acceptable behaviour, in which an individual situates themselves and is able to regulate behaviour (Elkin & Handel, 1972). The game stage of self-development involves assuming the perspectives of several others simultaneously in order to understand complex group life dynamics. In this stage, all significant others become a 'generalized other'

(described later in the chapter). The self changes, but not radically, through interaction with each significant other (Charon, 1979).

3.4.3.4 Identity

Cultural consensus of identities is a vital concept that enables identities to dictate those that are preferable, and those that are not. Sobal (1999) provides the example that being fat in most Western societies is an undesirable identity, as it is not perceived to be conforming to the cultural consensus of an aesthetically appealing body. In an attempt to disband any negative comments, a culturally defined fat person may dress to moderate the size of their appearance, or may eat less in public (Sobal & Maurer, 2013). It is thereby evident that self and identity affect people's choices and their presentation of self to the world (Goffman, 1959). Mead (1934) asserts that humans intentionally present themselves with a view to how others will perceive them. Goffman (1959) labels this as engaging in effective role performances, emphasising desirable characteristics. These performances act as symbols that aim to bring about the same meaning of self that one has to another individual (Mead, 1934); in other words, influencing others to identify us in desirable ways. Social interactions, including role performances, allow the redefinition of self (Sobal & Maurer, 2013).

3.4.3.5 Mind

In his book, *Mind, Self and Society*, Mead (1934) emphasises the mind in the process of action. Charon (1979) describes the mind as action that uses symbols, and directs these symbols towards the self. Learning these symbols and the development of self creates mind. Charon (1979) further defines mind as 'symbolic interaction with the self' (p. 86). Through this interaction with self, the mind involves what is called covert behaviour; this is the behaviour that is interdependent with the self, for instance, thinking, and conversing with one's self (Mead, 1934). These conversations held with self are 'mind activity' (Mead, 1934).

Prior to engaging in conversation with others, a person is constantly engaged in conversation with one's self (one that we may not even be aware of). Through this mind activity we create definitions of the world, and form a line of action towards objects on the basis of how an individual interprets

these objects (Mead, 1934). In bringing these together, 'self-communication, making indications, rehearsing acts, developing and altering lines of action, understanding the meaning of the other – all of these activities characterize ... all of us in every social situation we encounter' (Charon, 1979, p. 90). Mind activity underlies imminent actions.

3.4.4.6 Society

Society is made up of individuals in symbolic interaction with one another, of individuals with selves, of individuals with minds, of individuals who communicate and interact, and whose acts are social and symbolic in nature (Charon, 1979). Looking broader to the role of society in symbolic interaction, society provides other diverse aspects to symbolic interaction. These include: providing the individual with a perspective and reference groups, the idea of role taking, and interaction, all influencing the process of meaning making. These diverse aspects found a society that is active, based on people engaged in mindful activity, and meaningful action with each other (Charon, 1979). These will be discussed in greater detail below.

3.4.4.7 Reference groups

Society provides the individual with a perspective and 'reference groups'. A reference group can be described as an 'individual's "society", the society whose rules become his or her own' (Charon, 1979, p. 68). Shibutani (1961) describes reference groups as groups who share perspectives, and emphasises that an individual uses several reference groups and therefore has several perspectives. In participation within a number of different reference groups, individuals stand at an intersection of social circles, with varying degrees of participation in each (Shibutani, 1961). In describing a similar concept, the 'generalized other', Mead (1934) focuses on the rules and expectations set by the generalised other in order for the individual to be considered a good citizen within that society. Social constructionists, Berger and Luckmann (1966) further describe this generalised other as influencing an individual's behaviour. Manis and Meltzer emphasise this influence in behaviour, stating that through internalising the generalised other, one can act with consistency in diverse situations as the individual acts in accordance with the 'generalized set of expectations and definitions' (1972, pp. 16-17).

Through continual reinforcement in interaction with significant others (e.g. parents, siblings, peers, mentors, heroes [different for everyone]), where roles and attitudes are reinforced, an individual becomes aware of the generality of the norm (Berger & Luckmann, 1966). The generality of the norm is further strengthened when the individual sees themselves as a part of a group that includes the norm of the generalised society; therefore the individual identifies themselves with a particular society.

Shibutani (1961) equates a group's perspective to culture, characterised by conventional understandings. It is important to recognise that these perspectives and rules are historically developed, learned and refined through interaction (Charon, 1979). Understandings that come about within the culture that create a premise of action (Shibutani, 1961). Individuals act 'according to the frame of reference of the group in which he is participating' (Shibutani, 1961, p. 564). In considering the group's perspective regarding the definition of objects, people, situations, and the world, a particular line of action guides an individual's conduct (Shibutani, 1961). Furthermore, assuming the role of the generalised other also allows individuals to align themselves with others, using perspective as a moral guide (Charon, 1979).

3.4.3.8 Communication and interaction

The foundation of reference groups and culture/perspectives is communication. Communication is the continual 'interchange of gestures' through which 'consensus is developed, sustained, or broken' (Shibutani, 1961, pp. 140-141). Communication (i.e. through symbols) signifies shared meanings, and where individuals come to share the culture of the group (Charon, 1979). 'Shared' means that symbols and terminology are used in alike ways within a group, so that people understand one another (Mead, 1934). It also means that members of a group are able to participate in community action, or coordinated activities based on shared meanings (Charon, 1979). These meanings are established through social interaction; they arise during interaction with others and are learned, managed and transformed in interaction. Interaction, another dynamic process, implies that human beings take others into account, act in relation to one another, perceive and act again (Mead, 1934). The process of interaction guides

human conduct, as people align actions in accordance with the interpretations of meanings they have of the world. It is through symbolic communication and interaction that groups/communities/societies are able to continue. Groups, communities and societies are all dependent on shared and agreed perspectives, and shared experiences (Charon, 1979). As Hall explains, it is through communication, and hence language and culture, that the production and circulation of meaning takes place (Hall, 1997).

3.4.3.9 Roletaking

Roletaking is an important mind activity. As one progresses through the stages of self-development, roletaking takes on a different form. For example, in the preparatory stage it takes the form of imitating acts from significant others. Within the play stage, one takes the role of significant others in understanding self (i.e., seeing, directing, controlling, judging, identifying self) (Charon, 1979). At the game stage, a variety of roletaking occurs, including taking the role of: self, the generalised other, community, law, rules etc. (Charon, 1979). It plays an important factor in portraying one's self based on reacting to one's self from the standpoint of others. Finally, at the reference group stage, one is able to assume the role of a number of groups. The self changes depending on what group's perspective is assumed in a given situation.

Roletaking is imperative in understanding meaning from the perspective of others. Reflecting on the differences through the stages of self-development, it is evident that it embraces imagining others' perspectives and communicating that perspective to self-based on interaction (Charon, 1979). Through interaction a person gauges understandings of other people's perspectives, imaging oneself as them, thereby coming to share part of their meaning (Mead, 1934). From one perspective, roletaking provides the opportunity to understand one another, and in doing so, can cause people to be tolerant and respectful of one another. On the other hand, in understanding others' perspectives, people can manipulate them to gain one's own interests, direct or control others, or persuade others to think a certain way (Charon, 1979). One will not know the effect that a communication will have on another unless they take the role of the other in the situation (Mead, 1934).

3.4.3.10 Meaning

Symbolic interactionists see meanings as variable and emergent (Hewitt & Shulman, 2011). As meaning is dynamic and social, made possible by language, meaning is understood to occur at an inter-subjective level.

Meanings do not reside within individuals, they take more than one to create (Blumer, 1969). Meaning is always social, historical and cultural and so individuals are always in a meaningful context (Mead, 1934). This context is an inter-subjective context in which individuals can discuss and articulate meanings that are either obvious to them, or latent within the space that they occupy. These meanings change and shift. They are socially and culturally produced and articulated and changed in people's interactions. In other words, human beings are always already in a meaningful context and interactions articulate those meanings.

Symbolic interaction views meanings as social products created through interaction, and solidified through habitual social interaction (Berger & Luckmann, 1966). It is through symbolic interaction with others that people develop the reality towards which people act, and give the world meaning (Blumer, 1969). As stated, meanings are shared within reference groups; however, shared meanings do not necessarily perpetuate set beliefs and standards, rather through the exchanging of perceptions within a group, meanings are negotiated and new meanings can be generated (Sobal & Maurer, 2013). In turn, meanings can affect behaviour through directing lines of action toward specific objects/situations.

In summary of the core concepts of symbolic interaction, Charon (1979) states:

It is through interaction (society) that perspective, symbols, social objects are created. It is through interaction (society) that self, mind, roletaking skills, and generalized other are developed. On the other side, human symbolic interaction (society) is carried on because humans are equipped with symbols, self, mind, perspectives, roletaking skills, and generalized other (p. 171).

3.4.4 Criticisms of symbolic interactionism

Having analysed the ideas of symbolic interactionism, particularly those of Mead and Blumer, the criticisms of this perspective will now be discussed. Critiques of symbolic interactionism emphasise the lack of consideration to large scale social structures (Weinstein & Tanur, 1976). Charon (1979) also

notes the de-emphasis of structure as an important criticism of the theory. Instead, symbolic interactionism is considered a supplemental rather than a full theory as it focuses on the smaller scale social structures such as interaction through conversations. However, it is argued that symbolic interactionism provides a different perspective to sociology that is necessary for fully understanding a society. As a framework it is capable of explaining how aspects of society can change as they are created and recreated by social interactions. It highlights the importance of the individual within a society, serving to minimise the impact that macro-organisational features of society have on behaviour (Stryker, 1980). In more recent times, there has been a shift towards a more synthetic and integrative symbolic interactionism. This has involved a restructure toward an interest in macro-level phenomena, as well as an effort to synthesise with ideas derived from other theories (Ritzer, 2008). Symbolic interactionists are endeavouring to integrate insights such as ethnomethodology, conversation analysis, and phenomenology (Ritzer, 2008).

Another criticism of symbolic interactionism is on the vagueness of some of the concepts espoused by Mead, such as the mind, self, I and me (see Kuhn, 1964; Meltzer, Petras, & Reynolds, 1975). Commenting on the concepts beyond Mead's theory, the symbolic interactionist concepts have been criticised for being imprecise (Ritzer, 2008). Evidently, there have been suggestions that the theory is unstable, as there is not a firm basis for foundation of a theory and research (Ritzer, 2008). Stryker (1980) asserts that because of these imprecise concepts, the result is that testable propositions cannot be completely generated.

A final important criticism of symbolic interactionism is that it does not explicitly propose ways to conduct data analysis (see Meltzer, 1959, 1972; Thiele, 2005). Blumer (1956) suggests that the researcher should view human group life as a vast interpretative process in which people, singly (the self and mind) and collectively, direct themselves by defining the symbols, objects, and situations in which they encounter. He states 'any scheme designed to analyse human group life in its general character has to fit this process of interpretation' (Blumer, 1956, p. 687). Therefore, data analysis techniques determined by the researcher are guided by principles of interpretation that the researcher deems consistent with the symbolic

interactionist perspective, namely, those of Braun and Clarke (2006), and Coffey, Holbrook and Atkinson (1996).

3.5 Theoretical justification: The study

In understanding both theoretical perspectives it is evident that they have much in common, and are often conflated. Social construction is about the construction of social reality, and meaning and symbols through people's interactions (Greenwood, 1994), and symbolic interaction is the creation of meaning through social interaction mediated by symbolic meaning and language, (i.e. communications that outline and articulate that which comes from interactions). There is evident correlation between the theories. Social constructionism can be viewed as a macro-level theoretical perspective in sociology. It is concerned with the larger structures of reality. Conversely, symbolic interactionism focuses on the micro-level, the interactive aspects of human life. Put together simply, society and culture is socially and symbolically constructed (macro), and interactions, from a symbolic interactionist perspective, articulate those socially constructed meanings, observing how people interpret, respond to, and transform those meanings (micro).

Importantly, in terms of the history of sociological thought, these two theories respond to a focus on functionalism and institution. Consequently, it is contended that society is not purely big institutions producing knowledge and producing scientific forms of knowledge. Instead, the theoretical underpinnings of this thesis permit the argument that society is irreducible to the functions of particular institutions in society. Individuals and the relationships between individuals have an important forming aspect for what society actually is (Ritzer, 2008). In turn, this brings more power down to the individual, and the side of agency, as beings capable of initiating and carrying out positive social changes (Sobal & Maurer, 2013). The participatory culture of SNSs has undoubtedly changed how messages transpire and are communicated. Social networking sites give rise to what media and communications theorist Axel Burns (2005) describes as the 'prod-user': those who simultaneously and interchangeably engage with SNSs as both a producer and consumer of content. Following communications theorist, Marshall McLuhan (1964), the key to understanding this culture is not within

the technologies themselves or their alleged 'effects', but rather in the ways in which they tacitly alter how humans act and interact with others. It is through this understanding that the current research is of importance. The current research focuses on the way in which people participating in online fitness are producing and creating their own forms of knowledge and meaning of what health and fitness is, rather than the institution of science. This process further challenges the notion of truths, as truth and knowledge is inherently contestable, and socially constructed in itself.

In the context of this research, underpinned by social constructionism and symbolic interactionism, meaning is generated through people's interactions; it is inter-subjective, collective and social. At a macro-level, online fitness communities socially construct health and fitness. It is vital to remember that constructions are established and reinforced through history, and therefore current constructions are reflective of previous constructions. Groups or communities form around points of agreement, and at that point new classifications arise on the basis of further shared experience (Strauss, 1964). At a micro-level, there is a focus on the interactions between community participants. Actions of online fitness community members such as viewing images and text on SNSs can also be classified as interactions, as there is still a dialogue when reading or skimming past other people's communications. The actions within these interactions are based on the social constructions of objects and meanings. As one example explored by previous fitness culture research, the body is seen as a symbol (Sassatelli, 2010). 'The body produced through fitness training becomes a meaningful value' (Sassatelli, 2010, p. 83). A fit body is characterised by erect posture, high muscle mass and low percentage body fat which is also appreciated as a 'sign' of energy, commitment, strength and vitality (Sassatelli, 2010). The fit body acquires symbolic value, telling us that the individual is hard working, strong and is in control of one's self (Sassatelli, 2010). Meanings are then modified between interactions and the exchanging of different perceptions. Additionally, through interaction there is a transmission of meanings, values, norms and truths. The online fitness community come to shared understandings, meanings and terminology, and therefore members are able to participate in various coordinated activities (Charon, 1979). Indeed, people act in their communities according to their interpretations on what they

develop and perceive which, in turn, plays a role in mediating their understandings of their culture (Bulmer, 1969). To summarise this process, Charon (1979) states:

We seem to grasp almost intuitively the central importance of symbols for our group life. We set up rules (symbolic) to be taught (usually through written or spoken words) to newcomers entering an already established group. We assure that the ideas we have developed are somehow shared and that what takes place is fully understood (has the right meaning) to the newcomer (p. 54–55).

This is true for online communities, where new, or ‘novice’ users learn the shared understandings of rules, symbols, online names, abbreviations, neologisms (e.g. fitspiration), popular account names, and requirements for participation (i.e. performing exercises and promoting specific definitions).

Understanding online fitness community interaction is vital in order to address how one understands objects, but more importantly ‘how one defines a situation, the reference group one identified within that situation, the perspective one draws upon, and how the role one plays, the reference groups, and/or the perspectives undergo change in the situation in interaction with others’ (Charon, 1979, p. 27). The active and creative participation of users within online fitness communities challenges the stability of meanings of health and fitness as constructed by science, professionals, or institutions (e.g. the gym). The current study will explore the interactions of online fitness communities to understand the idea of agency in the construction of health and fitness, and how SNSs facilitate online fitness as a meaningful world. The understanding of this interaction stems further than associations with health and fitness while SNSs interactions will be investigated to examine how this has changed the role of the transmission of knowledge.

The construction of the health and fitness is something that is inherently meaningful in society (Kennedy & Markula, 2011b; Sassatelli, 2015). The Foucauldian point of view offers another perspective, in which the body is inherently regulated and disciplined by larger institutions (Duncan, 1994; Markula & Pringle, 2006). The aforementioned concept of biopedagogies draws on Foucault’s (1984) concept of biopower. Biopower is defined as ‘the governance and regulation of individuals and populations through practices associated with the body’ (Wright, 2009, p. 1). For example, self-assessment and self-monitoring of bodies and behaviours

against social norms of appearance, and such, engaging in 'lifestyle' practices such as eating and exercising to appease these norms. In light of this, we understand biopedagogies as 'disciplinary and regulatory strategies that enable the governing of bodies in the name of health and life' (Wright, 2009, p. 14). This study draws on Foucault's ideas of biopolitics, control of the body, and governance, in line with the concept of biopedagogies. For noteworthy research that addresses these concepts see Markula and Pringle (2006, also see Duncan, 1994; Sassatelli, 2010; Kennedy & Markula, 2011). While Markula and Pringle's (2006) perspective is founded in structure, this study investigates the perspective of agency, and inter-subjective meaning creation between people.

3.6 Chapter summary

The study aims to explore young females' experiences of online fitness culture. These experiences occur in interaction with others, where analysis of the meaning that actions have for online fitness users has central importance. Social constructionism, influenced by the work of various theorists, including Berger and Luckman (1966), and Burr (2003), along with symbolic interactionist framework, underpinned by the work of Mead (1934), and Blumer (1969), are therefore appropriate theories to inform the present study's research questions, design, and methodology. The study, underpinned by these two theoretical frameworks, allows for the explanation of experience constructed by online fitness users, after reflecting on interaction with others. On a macro-level, social constructions exist within culture, and in the current study health and fitness are socially constructed by online fitness communities. The construction of health and fitness online provides online fitness community members with a common set of social meanings interpreted by, and responded to by individuals within the community. As online fitness users are agents in social interactions through SNSs, they are constantly required to interpret situations, take on the role of the other, and construct and re-construct meaning. On a micro-level, 'a symbolic interactionist perspective provides insight into the various dimensions of these social processes' (Sobal & Maurer, 2013, p. x).

CHAPTER 4

THE RESEARCH PROCESS

4.1 Introduction

This chapter provides a detailed explanation of the methods employed in this study. The research embodies a qualitative approach entitled ‘blended netnography’. A blended netnography involves combining online data collection with offline data collection. For example, data from websites combined with data from face-to-face interviews (Barone, 2012). The research for this study involves blending the method of netnography (including photographic support), and individual interviews (Jong, 2016a, 2016b) (refer to Table 2). The first method, netnography, is an online adaptation of the research method ethnography, drawing upon computer-mediated communications or network-based data (i.e. textual and visual) to arrive at an ethnographic understanding of a social or cultural phenomenon (Kozinets, 2010). It will be used to develop an understanding of online fitness culture, and to inform interview protocol. Individual interviews are combined with the method of ethnography, and are considered virtually inseparable from conducting a netnography (Kozinets, 2010). Photographs will also be gathered from participants to demonstrate their expressions of online fitness culture. The photographs will be selected to provide clarity in explaining themes that have emerged from textual analysis.

A blended netnography was decided to be appropriate as it provides a lens in examining social experiences and social constructions appropriate to the research questions, and supports the context of exploring an online fitness community. Blending a netnography and individual interviews permits the examination of multiple facets of online fitness culture and the online fitness community (Jong, 2016a). It also provides diverse avenues by which to generate new ways of understanding a social experience, in order to enhance ‘our capacities for social explanation and generalisation’ (Mason, 2006, p. 10). Miley and Read (2012) reinforce the need to study those within the culture itself, and the actions that have contributed to the content provided on the Internet. Reflecting this, netnography will provide an observation of occurrences within online fitness culture and the experiences

of users. Individual interviews will generate a deeper understanding of users' actions within the online fitness community. Each method provides a solid foundation for conducting research in an online culture (Jong, 2016b). Conducting a blended netnography has the capacity to increase the depth of understanding the research can realise, as well as allowing opportunities for the triangulation of data (Berg, 2001 [1989]; Creswell & Plano Clark, 2011).

Table 2: Summary of data collection methods, and analysis

Data collection method	Description	Data analysis
Netnography	<ul style="list-style-type: none"> • Downloading archival data occurred for four months (January, 2014 through to April, 2014), two hours a day, at varying timeslots. • Applied Kozinets' (2010) five steps of netnography (outlined in Appendix I): <ol style="list-style-type: none"> (1) Research planning (2) Entrée (3) Data collection (4) Interpretation (5) Research representation 	<ul style="list-style-type: none"> • Thematic content analysis following Braun and Clarke's (2006) six-step analysis model (outlined p. 72).
Individual interviews	<ul style="list-style-type: none"> • 22 in-depth individual interviews with 22 female participants aged 18 to 24 from around Australia 	

In the following sections each phase of the research will be described and justified independently. This will include: the research sample, recruitment procedures, data collection method and data analysis, as well as ethical considerations and methodological limitations, and the delimitations of the study. The data collection methods will flow chronologically: Phase 1: Netnography, followed by Phase 2: Individual Interviews. Discussion of the sourcing and use of photographs will follow. Quality of qualitative research will also be addressed in this chapter.

4.2 PHASE 1: Netnography

Kozinets, the founder and most prominent researcher of netnography in marketing and consumer research, presents netnography as an adaptation of ethnography, primarily concerned with online communication as a source of data to form an understanding of a cultural phenomenon (1997, 2002, 2010, 2015). Netnography adapts common participant-observation ethnographic procedures to an online context where social interaction takes place. Like ethnography, netnography is natural, immersive, descriptive, multi-method, and adaptable (Angrosino, 2007; Carspecken, 1996; Kozinets, 2010).

Through immersive cultural participation and observation, netnography offers researchers the opportunity to focus on new areas of social life (Nind et al., 2012), and to explore how communities and cultures are produced through computer-mediated communications (Kozinets, 1998). It is a means of researching online communities in the same manner that anthropologists seek to understand the cultures, norms and practices of face-to-face communities, by observing, and/or participating in communications on publically available online forums (Nelson & Otnes, 2005; Sandlin, 2007).

Netnography involves ethical online conduct, online interaction, downloading and reflection with the aim to express and help others express and share thoughts, opinions, and experiences (Kozinets, 2015). It differs from data mining or big data analysis by the human to human interaction, interpretation, and integration (Kozinets, 2015). Netnographers have the ability to negotiate their level of participation within an online community, reflecting a continuum of participation (Kozinets, 2010). This is illustrated by netnographers electing to be 'lurkers' within an online community without apparent researcher presence. Scholars have reasoned the value of conducting 'covert studies' in online communities (Brotsky & Giles, 2007; Langer & Beckman, 2005). Reasons behind conducting covert netnographies often refer to:

- Avoiding the disruption of a naturalistic environment
- Avoiding prompting for research purposes, or
- The exploration of sensitive topics in an online context.

These are also known as 'observational' netnographies (see, for example, Beaven & Laws, 2007; Brown, Kozinets, & Sherry, 2003; Brownlie & Hewer, 2007; Füller, Jawecki, & Mühlbacher, 2007). It is important to consider this continuum of participation and observation as the researcher participant role provides opportunity to experience entrenched cultural understanding within the specific community of interest, developing an ethnographic insight (Kozinets, 2010).

Importantly, attention must be provided to the ethnographic style of netnography. This means that the researcher should inspect, index, interpret and expand on the data, linking to specific research positions and theoretical constructs to develop a representation of understanding (Kozinets, 2015). Irrespective of how the data is gathered or sourced, the netnographer's aim is to reflectively and respectfully tell of people's experiences, illuminated with personal stories, created artefacts and images.

The emphasis of netnography is on understanding what is shared between people, otherwise known as the 'momentary construction of common ground' (Amit & Rapport, 2002, p. 11). Netnography is a valuable method to explore the practices and beliefs that characterise a group of people within an online context (Hine, 2008). Netnography was selected for the current study because of its ability to 'investigate the meanings behind relationships and ties,' and 'provide "why" explanations for a range of structural characteristics such as power and influence relationships, various types of social ties, and the clustering of subgroups and cliques' (Kozinets, 2010, p. 53). This is consistent with the theoretical framework of the study, supporting the notion of constructed social experiences and meanings through interaction (Blumer, 1969; Burr, 2003).

The growth in the use of netnography across diverse fields is indicated by 1,300 results from a systematic search of Google Scholar (Bengry-Howell, Wiles, Nind, & Crow, 2011). For some examples see Bakardjieva (2003) and Vrooman (2001). Three recent netnographies have been conducted in the field of sport and fitness (see Andreasson & Johansson, 2016; Kavanagh, Jones, & Sheppard-Marks, 2016; Smith & Stewart, 2012b). Several studies have been conducted on online communities using similar methods termed under a plethora of labels: 'virtual ethnography' (Hine, 2008), 'online ethnography' (Crowe & Bradford, 2006; Crowe & Watts, 2014), 'digital

ethnography', 'webnography', 'network ethnography' and 'cyber ethnography' (Grbich, 2007). While online ethnographic methods are burgeoning in the field, some discrepancies still remain across the specific methodological practices employed by researchers¹. By providing a common set of procedures and protocols, netnography offers stability, consistency, legitimacy and the ability to aggregate other netnographic research (Kozinets, 2010). Kozinets' (2010) netnography provided structured guidelines for the study, which followed five steps: (1) research planning, (2) entrée, (3) data collection, (4) interpretation, and (5) research representation, whilst ensuring ethical standards (refer to Appendix I).

4.2.1 The process of netnography

Kozinets' (2010) five steps allowed an applied, systematic and validated approach in addressing many of the procedural, ethical and methodological issues specific to the current study. Since completing the study, recent developments on the netnography method have been published. In 2015, Kozinets wrote on the evolution of the original steps from five to 12: introspection, investigation, information, interview, inspection, interaction, immersion, indexing, interpretation, iteration, instantiation and integration. These complementary steps include some additions, more explicit descriptions and subdivisions of the original steps. In particular, there is now a greater emphasis on narrowing the community group of interest, and a push for researchers to use an interactive researcher-designed website.

Kozinets' (2002) four recommendations of ethical research for netnography were followed: (1) the researchers should fully disclose their presence, affiliations, and intentions to online community members during any research, (2) the researchers should ensure confidentiality and anonymity of informants, (3) the researchers should seek and incorporate feedback from members of the online community being researched, and (4) the researchers should take a cautious position on the private-versus-public medium issue. Other ethical considerations will be raised after the detailed outline of netnographic steps.

¹ The PhD research commenced in 2013, however, digital ethnography is currently flourishing in the field, and one important, recent publication is (Pink et al., 2016).

4.2.1.1 Step 1: Planning

The first step of netnography involved the identification and selection of online fitness communities. There are various sources for exploring online communities such as bulletin boards or forums, chat-rooms, SNSs and so on. Following Hine's (2008) suggestion, the field site selected included discussion forums on the SNSs, used by the target group. Instagram and Facebook were selected because of their popularity amongst Australian users of social media (Sensis, 2014, 2015).

After commencing a literature review of the research area, the researcher became an observational participant within the online fitness community on Instagram and Facebook for one year (commenced 23/01/2013). The observational role allowed insight in starting outside of the culture and moving in to become familiar with the cultural meanings and understandings, language, interests, practices, and the rituals of being involved within the online fitness community. The initial year provided time to familiarise with several online fitness communities and online fitness accounts that were considered for inclusion in the study. Further, the observational year ensured that the sites for netnographic fieldwork were relevant, active, substantial, heterogeneous and data-rich (Kozinets, 2010). The choice of communities for participation was not pre-determined; rather, it was kept open to encourage a broad array of participation within the study. Once involved, experiences and reflections of the researcher were recorded. This vital element of the method is discussed in field noting in Step 3.

Following preliminary observations, appropriate research questions for inquiry were devised. Open-ended questions were developed to allow flexibility and further discussion and inquiry. These questions provided the foundation for the research; however, they were altered over time, moulded by interaction and interpretation.

An ethics application followed the decision about what online forum would be used, and the research questions for inquiry. Ethics approval for this project was granted by the Flinders University Social and Behavioural Research Ethics Committee (SBREC) on the 18th of December, 2013.

4.2.1.2 Step 2: Entrée

After the observational year of the study, the manner in which the community would be approached and addressed was conceptualised. Following common practice in research into online culture (see Beaven & Laws, 2007; Brownlie & Hewer, 2007; Füller et al., 2007; Smith & Stewart, 2012b), an alias account was created. Minimal one-on-one interaction with online fitness users was determined as the best practice through which to gain a naturalistic understanding of the culture.

Facebook and Instagram alias researcher accounts were created after ethical approval was granted by the Flinders University SBREC. This provided full access to the SNSs to conduct the netnography without the use of the researcher's own personal profile, a method suited to netnography (Kozinets, 2010) or online ethnographies (Grbich, 2007). For this study, Lamb's (2011) recommendations from an online research project based in the United Kingdom were followed, as well as Kozinets' (2010) advocacy on a transparent SNS profile. The alias accounts were established in such a way as to provide open and truthful information about the researcher as a PhD candidate, and also extensive information about the netnographic inquiry and university affiliation. This information was also provided through comments posted to fitness communities on their SNS accounts. Furthermore, existing academic research on fitness culture, and online health and fitness communities was offered to those interested in the account.

Throughout these first two steps, from a research perspective, it was useful to reflect on *what the study focus was, and the manner in which it was going to be studied*. This also involved considering what would constitute data and how this data would be collected. It was important at this stage to consider the future steps of the research regarding data analysis, ethical considerations and making known the overall benefits of the research to the broader community (Kozinets, 2015; National Health and Medical Research Council, Australian Research Council, & Australian Vice-Chancellors' Committee, 2007 updated May 2015).

4.2.1.3 Step 3: Data collection

Kozinets (2010) describes three different types of data collection that can be involved in netnographic research: archival data, elicited data, and field note

data. Archival netnographic data are saved SNS interactions stretching back throughout time. Elicited data is new data created through researcher and participant interaction, and field note data are observations recorded by the researcher. Considering the nature of the study and the research questions, the study included both archival data and field note data.

Once connected, the researcher searched Facebook and Instagram for fitness accounts and pages by using a hash-tag word search. During the analysis of the initial year of observation, prevalent fitness 'threads' on SNSs about fitness were identified, including '#fitfam', an amalgamation of the words 'fitness' and 'family'. This hash-tag was selected for analysis due to its potentially rich field of data, and relevance to the research topic as per other research strategies (for example the Twitter keyword search conducted by Kavanagh et al., 2016). Other hash-tag searches included: '#fitspiration', '#fitness', '#girlswithmuscle', '#inspiration', '#femalefitness', '#fitmotivation', '#fitgirls', and '#strongisthenewskinny'. These hash-tags were made popular by the posts observed in the year prior to data collection. For example, use of the hash-tag '#fitspiration' was at its peak use during 2013; this is demonstrated in Figure 2, which depicts the trend in use of the hash-tag from 2011 to 2016. These searches led to the emergence of images and comments ranging from motivational statements, to pictures of 'fit' bodies, revealing vast numbers of publically available posts, updating in real-time. This process provided a link to fitness accounts and pages where these images and comments were abundant. Although it was difficult to determine with certainty what would be found by the hash-tag search, a strong emphasis was placed on searching for general fitness pages showing a number of female fitness images. Further investigation of different fitness pages on the SNSs provided links to a number of online fitness female users who were active within online communities. Although considered limited interaction, the researcher 'followed' a number of online fitness pages, becoming a 'user' in the fitness community by observing posts with other members. The researcher also followed individual females who used Instagram to communicate in fitness communities.

Figure 2: Interest over time of '#fitspiration' from December 2011–2016



*The numbers on the axis on the left represent search interest relative to the highest point on the chart for the given time. A value of 100 is the peak popularity for the term. Correspondingly a value of 50 represents that the term is half as popular than when at its peak (Google Trends, 2016).

Observation of online fitness communities and users, as well as downloading archival data occurred for four months (January, 2014 through to April, 2014), two hours a day, at varying timeslots. Other netnographies have fluctuated in time involvement. For instance, Kavanagh et al. (2016) collated data over a two year period, whereas Smith and Stewart (2012b) collated data over a 36 month period, and Bean (2014) over a three month period. Other netnographic researchers do not state the timeframe for data collection (see Andreasson & Johansson, 2016). In order to uphold transparency with qualitative data collection (O'Reilly & Parker, 2012), the period of data collection was set at four months for the following reasons. First, Instagram data does not have the ability to be streamed into the Computer Assisted Qualitative Data Analysis tool NVivo; hence, this data was recorded manually in a Microsoft Excel spreadsheet, along with the use of Evernote (a screen capture tool). This was a time-consuming method of data collection. Second, as data coding was also conducted manually, the time period was set according to feasibility considering the resources available. Further, in line with the data 'saturation' principle for inductive analysis (Creswell, 2007; Liamputtong, 2013; O'Reilly & Parker, 2012), downloading archival data continued until the investigation no longer provided new insights on theoretically topical areas or additional themes.

Although recorded, the date of data collection is superfluous as the data is logged on SNSs, with images and comments accessible from the past as well as present. Over the course of four months, data was collected on

109 Facebook image posts, 30 Instagram hash-tags, and 41 Instagram image posts. The focus was on a 14 accounts, with a number of posts attributed to the images. Textual and visual data were captured through NVivo for Facebook, and Microsoft Excel and Evernote for Instagram. All other relevant data were recorded in a Microsoft Excel spreadsheet. This data included:

- Dates of observation and retrieval
- Comments from community members on a post
- The number of 'likes' attributed to a post
- How many times the post had been shared and how many posts were linked to a hash-tag.

This allowed the highly pertinent views of participants involved to be heard, offering important perspectives to discussions of online fitness. Forum posts were separated into those that were relevant to the research questions, and those that were tangential to the primary area of focus. In the event a post emanated from a specific online fitness account, their followers were documented, as well as how many people were 'talking' about them at the time (which is calculated through Facebook). The names of pages where data were collected were posted to the alias accounts for SNS users to view.

As mentioned previously, field notes are an important manner by which to collect data. These field notes are introspective reflections based on personal observations, interactions, experiences of being involved within the community, and learning about particularities of the culture (Emerson et al., 2011). Reflective prompting questions for descriptive netnographic field noting were effective. Examples included: What is new? What is meaningful? What is absent from the findings that I would have expected to find? What do I not understand? This process enabled documentation of the journey learning of the practices, languages, rituals, members, and so on. This practice was valuable in conducting the research, as once involved with the community and culture, difficulties arose in deciphering what was 'new' in the online social experiences. Field notes were hand written, and further processed and documented in Microsoft Word (see Appendix J).

4.2.1.4 Step 4: Data analysis

Data was analysed using qualitative and ethnographic thematic content analysis techniques. Qualitative content analysis extends the scope of inquiry to examine meanings, themes and patterns that may be apparent or concealed in a particular text (Grbich, 2013). Consistent with the qualitative nature of the study and the research questions, netnography involves an inductive approach to the analysis of qualitative data. Therefore, thematic content analysis was deemed an accepted method for a textual inquiry (Silverman, 2006). Thematic content analysis is the detailed examination of coding and categorising textual information into constituent trends of consensus (Grbich, 2007; Kozinets, 2010). The research utilised a thematic content analysis following Braun and Clarke's (2006) six-step analysis model (outlined in the Phase 2: Individual Interview data analysis section, p. 72).

Data was managed using the tool NVivo. Auto-coding electronic techniques were not used within the study. NVivo was used purely to manage and catalogue the large dataset and for ease in organising the data in to codes and categories. The textual content of the posts was analysed to determine the kind of 'fitness' or 'health' related discussion that emerged from the community relevant to the theoretical frameworks of social constructionism and symbolic interactionism. This analytical approach aimed to search for the communicative meaning latent within the SNS data, and to witness experiences and the formation of fitness culture via participants using these SNSs. In providing meaning, and an understanding to the culture and social situations in online spaces, field notes facilitated the construction of these themes within data analysis. Both types of data, archival and field notes were used to organise distinct purposes and themes that were generated from the analysis from online fitness communities. Themes and patterns informed interview questions for Phase 2 of the study.

4.2.1.5 Step 5: Research representation and evaluation

Kozinets (2010) builds on Denzin and Lincoln's (2005) evaluative positions for judging qualitative research to develop a set of netnographic standards aimed at inspiring netnographic quality. Within the study, the 10 recommended evaluation standards were reflected upon throughout the course of research. The evaluation standards: coherence, rigor, literacy,

groundedness, innovation, resonance, verisimilitude, reflexivity, praxis and intermix (Kozinets, 2010), underpinned the actions of the netnographic researcher. These evaluation standards prompted discussions, helped to build ideas, and acted as a toolkit to aid with evaluation prior to representing the research through writing (e.g. papers, and thesis chapters).

4.2.2 Ethical considerations pertaining to Phase 1

The National Statement on Ethical Conduct (National Health and Medical Research Council et al., 2007 updated May 2015) provides ethical guidelines for researchers engaged in human research. The statement includes both ethical principles, and themes for conducting ethical research. Ethical approval was attained by the Flinders University SBREC following the four principles from the National Statement on Ethical Conduct: respect for human beings, research merit and integrity, justice, and beneficence. As stated above, Kozinets' (2002) four recommendations of ethical research procedures when using netnography were also followed. Ethics approval was granted for the project by following the procedures outlined by the Flinders University SBREC on the 18 December 2013.

Social networking sites are proving to be an 'ethically' problematic field for researchers in the collection and confidentiality of data and deceptive undercurrent in the method. However, ethical guidelines have not yet been fully developed for research of online social interaction. Some emerging literature is beginning to provide useful insights (James & Busher, 2015; Zimmer, 2010). Previous research has emphasised ethical concerns of privacy, confidentiality, respectful representation, protection and safety and falsification of research data (Association of Internet Researchers Ethics Working Group, 2012). Although ethics laws and policies developed in the context of offline research apply to online investigations, questions about the need for and means of obtaining informed consent, anonymity, and the conceptualisation of public versus private information pose certain problems for conducting netnographic research.

4.2.2.1 Online public and private debate and consent

The inability of participants to give autonomous informed consent online has been widely and duly noted (Bryman, 2012; Lamb, 2011; Sharf, 1999;

Zimmer, 2010). The process of obtaining informed consent in an online environment can be complex. In light of this, netnographies can be considered covert (see the examples: Kavanagh et al., 2016; Langer & Beckman, 2005; Smith & Stewart, 2012b).

The debate over who owns the data posted to public forums is also important when referring to an online setting, as well as the distinction between public and private spaces. On the Internet or SNSs, the lines between what is private and what is public are blurred, and ownership of data is contentious (Henderson et al., 2013). In their research, Kozinets (2015) and Bassett and O’Riordan (2002) recognise the Internet as a text-based and space-like medium, where participants create cultural artefacts. With this view, the Internet can thus be ‘perceived as a form of cultural production, in a similar framework to that of the print media, broadcast television and radio’ (Bassett & O’Riordan, 2002, p. 235), a medium for publication, or a ‘public document’ (Kozinets, 2015, p. 136). Hence, some researchers have concluded that data that can be accessed without site membership can be considered in the public domain, and hence, relieve ownership (Attard & Coulson, 2012; Whitehead, 2010). Although Facebook and Instagram require membership to access some accounts, most accounts are still searchable via the Internet (e.g. a Google search). It must also be recognised that SNSs also maintain part ownership of images posted by their users (see Facebook, 2014). However, ethics for accessing comments on SNSs has been granted for other research on SNS data in a public space (see Attard & Coulson, 2012; Barnes et al., 2015).

Pages from which data collection occurred were documented on the alias accounts. Posts were also made on each of the places of data collection informing people that posts were used from the thread. To respect the users and their data, discussion was read with reference to the context of the posts, in order to not misconstrue the meaning of their online discussions. A user responded to the researcher’s original post or to the researcher’s alias SNS profiles if they did not want their posts to be used. This transparency allowed people within the online fitness community to connect with the researcher, but also provided documentation to see what sites had been visited and from where data had been gathered. In line with Facebook’s terms and conditions (2014), the position of the researcher as independent

from Facebook was made clear through a statement on the alias profiles (i.e. Facebook was not collecting the data for the study).

In order to enhance the privacy and anonymity of the users, posts made by participants that pertain to personal accounts, including names, pseudonyms, and faces were de-identified (i.e. removed or blurred). Given the public nature of these profiles in the first place the expectation of privacy can be described as 'misplaced', especially as posts can be located by Internet searches (Walther, 2002; Whitehead, 2010). Although this is the case, the data was collated from old posts (years old), and on specific threads, increasing the difficulty of the posts being searched and found.

In response to some of these concerns, and in compliance with the National Statement on Ethical Conduct, the principle of non-maleficence (to do no harm) was significant for this research. Supplementing these principles of research is the balance between risk and benefit, and consent (National Health and Medical Research Council et al., 2007 updated May 2015). Maintaining a high level of ethical sensitivity and adhering to the values and principles of ethical conduct to ensure that expectations of consent and privacy caused no, or limited, potentially damaging effects for participants was a priority (Flicker, Haans, & Skinner, 2004; Hine, 2008). While taking action to be respectful, and to consider the welfare of participants, the risks associated with the project, including the potential risk associated with consent, anonymity and private versus public data were minimised as much as possible. Further, the potential benefits for participants and broader society were clarified to participants (National Health and Medical Research Council et al., 2007 updated May 2015). By developing a greater understanding of online fitness culture and the impact SNS influence has on health perceptions and behaviours, the study has the potential to benefit knowledge of online fitness culture's effect on constructions of health and fitness, body image and ideals, and consequently, has the potential to positively impact future health promotion projects. The Flinders University SBREC agreed that the potential benefits of the research to participants and to the broader community widely outweighed the potential risks of harm, which were assessed and taken into account. The ethics committee determined the risk of participating in the study to users as low, concluding

that it may have merely involved discomfort on participants' part (Appendix A).

4.2.3 Limitations and delimitations

Researchers note the advantages of netnography to include the ability to conduct 'fieldwork' from researcher offices (Hine, 2000), the 'ease' and 'cost' of data collection, the ability to connect with geographically dispersed online community groups, and the ease of collecting various types of data (Kozinets, 2010). The adaptation of ethnography to an online setting creates methodological challenges, and hence, limitations to the study. The primary limitation tackled when conducting the netnography was the lack of face-to-face interaction. The lack of previous netnographies used to research online communities at the commencement of the study also created delimitations. An example of this is the size of the data set. A discussion of these will follow.

4.2.3.1 Lack of face to face interaction

Lack of face-to-face interaction is a common objection to online research (Beaulieu, 2004; Liamputtong, 2013). Some researchers suggest that the online environment, where the data is represented as 'text-only', reduces social cues such as expression, emphasis and movement (Mann & Stewart, 2000). This limitation is also apparent in offline research pertaining only to text. Furthermore, cues are socially constructed, and are therefore limited to an agreed understanding of what they mean. For example, depending on the interpreter, looking straight into someone's eyes can be a sign of honesty, challenge, deceit or rudeness (Emery, 2000).

The limitations created by a lack of face-to-face interaction are refined by Kozinets (2010), who argues that where the research focus and questions are specific to online content, a netnographic approach is sufficient. It may be argued that the netnographer should see what the group under investigation see. As an example, if they only see text, then the netnographer should only see text. This has the potential to add to the strength of a study, and retains authenticity. Furthermore, these limitations can be somewhat ameliorated by a blended netnography where the data collection methods connect online and offline research in a systematic manner (Kozinets, 2002). Kozinets

(2015) strongly advocates the inclusion of an interview stage within the new 12 phases of research. By thus using a blended netnography, including interviews with online fitness participants, the study can offer a deeper understanding of the culture.

4.2.3.2 Specificity of data collection

Dholakia and Zhang (2004) suggest specificity in what community will be under investigation. As previously stated, the particular online fitness community was not defined. Instead, because of the exploratory nature of the study, and the lack of literature pertaining to online fitness communities and culture, the particular community for study was kept open to encourage a broad array of participation. Retrospectively, the narrowing of one online fitness community could have limited the data set, and provided a narrower data collection 'space'. Delimitation also pertained to the selected variables of the hash-tag searches. These hash-tags were selected by the researcher, creating potential bias in the data collection phase.

4.2.3.3 Size of the data set

Netnography allows for the generation of a large dataset, at times resulting in requiring additional computer memory (Kozinets, 2010). Paechter (2012) also notes the potential size of the data set as a methodological challenge faced by researchers concerned with studies of online communities. In the current study, the category selected for exploration, 'online fitness culture', was broad and difficult to define at the start of the project. This lack of specificity made the size of data collection difficult. Searching hash-tags and key word searches also proved difficult with a high abundance of data available. Each page and profile that was visited created new avenues within the fitness community to investigate, enlarging the data set. As a consequence of this large dataset, the process of data analysis can be extremely time-consuming (Kozinets, 2010), calling for the use and literacy of Computer Assisted Qualitative Data Analysis in order to manage, tag, name, sort and classify the abundance of data.

4.3 PHASE 2: Individual Interviews

Individual interviews are one of the most widely employed methods in qualitative research, and across the social scientific disciplines and commercial social research (Bryman, 2012; Gaskell, 2007). Individual interviews are distinct from other research methods as they make a unique contribution of providing the researcher with more personal information about the construction and comprehension of people's experiences of an explored phenomenon, issue or culture (Dilley, 2004). They provide the researcher with data for the development of an understanding between an individual and their situation or environment (Gaskell, 2007). Individual interviews provide participants with an avenue through which to express their beliefs, attitudes, values and motivations (Bauer & Gaskell, 2000), consistent with the theoretical framework of constructionism. More specifically, individual interviews have the objective of delving deeper into these to attain a fine-textured understanding relating to the 'behaviours of people in particular social contexts' (Gaskell, 2007, p. 39). In this way, individual interviews provide an opportunity to explore how online fitness culture is created and experienced from those who play a central role in creating the culture itself.

4.3.1 Sample

Within qualitative research, sampling procedures have an influential effect on the quality of the research (Coyne, 1997). Consistent with the literature reviewed regarding age group and use of SNSs (Sensis, 2014, 2015), and the characteristics of online health and fitness-related information seekers (Carrotte et al., 2015; Percheski & Hargittai, 2011; Rice, 2006), females aged 18 to 24 were selected as the participants for this study. It was vital to employ a purposeful sampling technique because of its capacity to select participants who met specific criteria related to the phenomenon of interest (Creswell, 2008; Patton, 2002). Purposeful sampling applies to individuals, sites or cases. This methodological decision was reinforced by claims that purposeful sampling allows selection of 'information-rich' participants for in depth study, gaining insight about the phenomenon through people of central importance to the focus of the research (Patton, 1990, p. 169). In this study, the phenomenon under investigation was the use of SNSs in the creation of fitness culture. Participants were purposefully sampled using specific criteria

related to the use of online fitness accounts. Consequently, a homogeneous sampling was employed for the current study because of its capacity to provide insight into a subgroup that has defining characteristics (Creswell, 2011).

The aim of the individual interviews was to gain an understanding of the experiences of a variety of people within the online fitness community. The criteria for participation in individual interviews were as follows. The individual must:

- Be female
- Be aged between 18 and 24
- Be an active participant in an online fitness community (current users) on Instagram or Facebook
- Identify how many followers or friends they have on the SNSs
- Have a webcam and software facilities (e.g., Skype), unless living in Adelaide
- Provide consent for the researcher to access their SNS profiles if on private setting.

In line with homogeneous sampling, participants were required to maintain a Facebook or Instagram SNS account, and consider themselves a part of an online fitness community. Again, the particular online fitness community was not defined; it was kept open in order to encourage participation within the study. As noted by Kozinets (2010), membership within a community is diverse along a continuum of participation. All participants were a part of varying online fitness communities; all self-identified as online fitness users, all had repeat contact, reciprocal familiarity with other users, and shared knowledge of some rituals and customs.

The aim in recruitment was to attain participants from varying levels of participation (e.g. members with a large SNS following, to members who considered themselves observers in the community), while leaving the invitation open to anyone who considered themselves a part of an online fitness community to participate (who satisfied the above criteria). Follower and friend numbers were collected to ensure that the sample reflected a variety of members who were considered more 'popular' within on SNSs (shown by a larger follower base), as well as those who did not have a large

follower base. To date there are no studies that have identified numbers of followers or friends measuring popularity on SNSs. However, in a university interview with Dr Mubarak Rahamathulla from Flinders University, Rahamathulla stated that an individual's total number of online friends is used as a gauge of popularity ("Learning to be smart about social media use," 2013).

Twenty-two participants took part in the study, providing a diverse sample of participants involved with online fitness culture. Majority of the interviewees came from South Australia (14), with various participants from other states (New South Wales, 4, Queensland, 3 and Victoria 1). The 22 individuals who participated in the study provided an insight into a variety of perspectives, and created a richness of data through which the study's concepts were explored in depth (Bryman, 2012; Creswell, 2008; Patton, 2002). Some of the participants had a stronger involvement within online fitness communities, while for others online fitness was an aspect in their life from which they considered themselves detached. Each participant emerged from one of the following categories:

- Category A: 'Popular' online fitness participants with a large following
- Category B: Keen participants within online fitness culture who contributed by posting images, and who were trying to develop their SNS account following
- Category C: Users who considered themselves involved but noted themselves as observers of online fitness, who provided 'likes' and comments to others but did not post their own images, nor have a desire to be associated with the culture.

These categories were purposefully designed to provide in-depth, rich information relating to the phenomena (Patton, 2002). The justifications for these participant categories are considerable, as they ensure that a breadth of experiences and perspectives were represented in the data. By providing voice to the key cultural users of online fitness accounts, a more holistic understanding on the social phenomenon was achieved, thereby offering an important perspective to the phenomenon under inquiry.

4.3.2 Recruitment

Participants were recruited via two pathways: (1) recruitment of participants via SNSs and (2) recruitment of participants via gym endorsement in metropolitan Adelaide, South Australia. Initially strategy (1) was the sole strategy selected for participant recruitment; however participants proved difficult to recruit via this strategy. Some participants indicated they would participate in the research; however, they would be unavailable when first specified. One interview took three months of persistence to reschedule after being cancelled a number of times. Reasoning behind this may relate to the fact that the interview was time out of their day for the purpose of research rather than leisure. Consequently, a second recruitment strategy was employed during the data collection period with the purpose of gaining more participants in the study. Interviews occurred at times convenient to the participants. Both recruitment strategies were approved by the Flinders University SBREC.

(1) Recruitment of participants through social networking sites

Participants were recruited using a process known as snowball sampling through Instagram and Facebook to encourage a variety of participants from around Australia. This approach to recruitment follows Lamb's (2011) recommendations from an online research project based in the United Kingdom. To begin this process, the publicly available alias profiles on Facebook and Instagram that were used in Phase 1: Netnography, were used to recruit participants for Phase 2: Individual interviews of the study. Profiles were used to endorse the project information and letter of introduction so the information was easily accessible for those who found the profile through their own means, or who were asked to participate. Many of the interviews were generated through formal requests for interview (email requests) and potential interview participants were also contacted through their SNS accounts. This contact stressed that participation would be voluntary, in order to reduce any perceived coercion to participate (Lamb, 2011). It was found that a few people 'tagged' their friends and potential participants on the SNS alias profiles, which led potential participants to the alias profile and to the project information. It was enforced that interested participants were to make contact via email – not through Facebook or

Instagram – as it is methodologically and ethically problematic to befriend participants online (Lamb, 2011). Email contact showed that the individuals took an active step to participate in the research (Lamb, 2011). Once participants made contact indicating their willingness to be involved in the study, they were provided with a three page attachment to an email. The attachments consisted of a letter of introduction, an information sheet outlining project details and the importance of this research, and a consent form for research for participants to sign. Nineteen participants were recruited through this strategy.

(2) Recruitment through gym endorsement

After a modification request form was accepted by the Flinders University SBEC (Appendix B), personal contact with 10 Adelaide metropolitan mixed-sex and unisex gyms was made. Initially, a phone call was made to the gyms in order to seek interest in assisting the recruitment process. Most gyms stated that they preferred face-to-face communication. Once face-to-face contact had occurred, and an agreement was made, a flyer for the study was displayed in the gym (see Appendix C). Potential participants read the flyer, took a strip from the bottom of the page, and contact the researcher either via Facebook, Instagram or email. All communications were replied to, and provided with the three page attachment to an email as for recruitment through SNSs. Three participants were recruited through this process.

4.3.3 Data collection

The interviews provided an opportunity to explore how online fitness culture is created and experienced as a result of the central role that individuals play in creating this culture (Gaskell, 2007). A qualitative, semi-structured approach granted the research an emic epistemological stance (Kottack, 2009), giving priority to the views of participants within online fitness culture.

Individual interviews are the most widely used data collection method in qualitative research contributing rich, in-depth data (Kvale, 2007). Patton (2002) denotes three different interview approaches: the informal conversational interview, the general interview guide approach, and the standardised interview. Noting the strengths and criticisms of each approach pertaining to flexibility and possible bias in the findings (Lambert & Loiselle,

2008), the general interview guide, also known as a 'semi-structured interview' was deemed most appropriate for the study. This was selected to ensure a basic line of inquiry for the researcher to follow throughout each interview, allowing adequate flexibility for both the researcher and participant upon discussing a particular topic (Kvale, 2007; Patton, 2002). Consequently, a semi-structured interview guide was adopted to account for bias throughout the interview (refer to Appendix H). The role of the researcher was as a moderator within the interviews. Questions were developed using subject specific language in order to meet the needs of the target group (Gaskell, 2007). Throughout the interviews the sequence of questions was varied, or extended with impromptu questions in response to 'significant replies' (Bryman, 2012, p. 2010). This allowed intuitive investigation of particular themes as they emerged naturalistically (Patton, 2002).

Each of the 22 in-depth semi-structured interviews lasted from 35 minutes to over 90 minutes. Participation was voluntary. Discussion points and questions included statements such as, 'tell me about how you use social networking sites', 'describe your experiences of #fitfam', 'tell me about the images that you see in your newsfeed that relate to health' (see Appendix H for full list). Participants were reimbursed for their time and use of electronic devices and Internet through a \$25 gift card of their choice. The fourteen interviews with participants who resided in Adelaide were conducted at a mutually agreed upon public location, such as the local library. This ensured easy accessibility, neutral grounds, and personal safety. Interviews with participants who resided interstate were held over the Internet using the free software program 'Skype'. A total of eight interviews were conducted via 'Skype'.

Online interviewing and online focus groups are increasingly being used within qualitative research across a range of disciplines (Fox, Morris, & Rumsey, 2007; James & Busher, 2006, 2009). Online interviews are divided into two main types: asynchronous and synchronous (Mann & Stewart, 2002). Asynchronous online interviews do not require the researcher and participant to use the Internet at the same time, giving the participants time to respond, for example an interview conducted via email (Hunt & McHale, 2007). Synchronous online interviews involve both the researcher and participant using the Internet simultaneously, engaging in a 'real time'

conversation using a form of 'instant messaging' software (Fox et al., 2007; Jowett, Peel, & Shaw, 2011). As stated, the interviews conducted with participants from interstate used the software program 'Skype'. Through this application, a synchronous video voice call was conducted. This interactive methodology is innately suited to the research aims within this study, with its focus on communication and interaction online. The interview took place online wherever the participants were able to access a computer/device where Internet was available and the software was able to be activated.

Much like other research conducted in conjunction with technology, online interviews also attract criticisms despite technological advances and the ability to contribute rich, in-depth data, from geographically dispersed locations (Miller & Walkowski, 2004; Opdenakker, 2006). Criticisms pertaining to the use of devices for synchronous individual interviews pertain to the impersonal nature of being online, which relates to answers that can be withheld from the researcher rather than giving rich responses (Miller & Walkowski, 2004), and also the digital literacy required by participants (Hughes & Lang, 2004; Mann & Stewart, 2000). Although researchers have had mixed experiences conducting interviews online, Hine (2008) defines the use of the Internet for communication between research subjects and researchers as 'natural' because of the prominence of the Internet in everyday life. For the participants in the study, the Internet is used daily for SNS interaction, making the online forum particularly appropriate for the participants.

4.4 Participant photographs

Upon completion of the individual interviews, participants were invited to volunteer images from their SNS accounts that they felt represented their engagement in online fitness culture. It was stressed that this was a voluntary decision, and through a photographic release form (Appendix D) provided by email, or in person, participants responded if they desired to participate in the study in this way. A number of participants signed the photographic release form and sent three to 10 fitness related images that were posted on their SNSs to the researcher via email.

Visual methods are growing in popularity and visual data are used widely in ethnographic investigations as evidence of a particular culture or

phenomenon (Pink, 2001, 2008). Alexander (2008) suggests four ways in which visual materials can impact upon the research process: (1) the analysis of existing visual materials, (2) the use of visual materials to generate data, (3) the creation of new visual data to analyse, and (4) the use of images to present results. Pink (2001) reiterates the importance of including visual images in research. Following Alexander's (2008) classifications, the photographs will be used to demonstrate the visual aspects of online fitness participation, in support of the data.

4.5 Ethical considerations for Phase 2

4.5.1 Informed consent

The information sheet described all important information regarding the study. In compliance with national ethical standards and the Flinders University SBREC, all participants provided informed consent to participate in an individual interview. Participants who resided in Adelaide, South Australia provided a signed letter of consent when meeting for the individual interview. Participants who resided outside of Adelaide provided a completed typed, or signed and scanned consent form via email. Consent was further reinforced at the commencement of the individual interview, as participants confirmed consent via verbal exchange, acknowledging that they had read the information sheet provided about the study, as well as accepting the consent form. As all first interactions were completed through computer-mediated means, the introduction letter was coupled with an information sheet and a consent form (see Appendices E, F, and G).

As previously stated, after the individual interviews, the researcher asked participants to volunteer images from their SNS accounts that they felt represented their participation in online fitness culture. Providing the option to participants to send photographs, it was stressed that photograph exchange was a voluntary decision. Participants were informed about the use of the photographs and where they may be distributed, such as journal article publications (see photographic release form, Appendix D). In a follow up email, the researcher attached a photographic release form, which the participants returned via email, signed, with 3–10 fitness related photographs attached per individual, if they desired. In light of the copyright laws

associated with SNSs, participants emailed their photographs, as it is deemed unethical for researchers to source photographs from the SNSs. The photographic release form described how the photographs would be used and de-identified. The photographs used for research purposes do not use the faces, or heads of individuals. All body marks including tattoos, piercings, or birthmarks were also removed. Clothing colours have also been changed. However, participants understood by signing the form that they may be identifiable by their body. Participants were therefore informed of the practical limits of anonymity within the current study.

4.5.2 Privacy and confidentiality

Completion of data collection and analysis saw the following steps undertaken in order to adhere to national ethical standards and the Flinders University SBREC:

- All audio-recorded data is not made available to any individual beyond the principal researcher. The data is stored on the university network server which is password protected. A copy of the audio-recorded data is stored on a portable USB in a de-identifiable format. The USB is stored in a locked cabinet within the researcher's secure office at the university.
- All forms relating to recruitment are secured in a locked cabinet within the researcher's office at the university.
- All consent forms are stored in a locked cabinet within the researcher's secure office at the university. Access to the office cabinet is limited to the principle researcher.
- Prior to commencing the interviews, participants were reminded that no information that identifies them will be published in the resulting thesis or any subsequent publication. Where participants are quoted in the thesis names are substituted by pseudonyms to ensure identity protection, and maintain integrity according to the conditions of their consent to the study.

4.6 Data analysis

All interviews were audio recorded and transcribed verbatim as it allows participants' verbal contributions to be authentically represented, while

enabling the researcher to become immersed in the data (Bryman, 2012). This assisted the researcher to ascertain meaning and identify relevant material to address the research questions (Malterud, 2001). Further, this approach allowed rich description in pursuing understanding around the meaning and experience. Thematic content analysis followed transcription to allow themes and patterns to emerge from the data. Recurrent themes were then coded to enable categorisation of specific phrases or text segments (Fossey, Harvey, McDermott, & Davidson, 2002). The coding process, often referred to as 'data reduction', aims to make sense of the data by organising it into manageable segments of text (Richards, 2005), and identify patterns and connections between them (Bryman, 2012). This identification of patterned responses conceptualises the data as an important theme relevant to the research questions. The photographs gathered by the researcher from participants were carefully selected in order to support the themes that emerged from the textual analysis. This research utilised a thematic analysis approach following Braun and Clarke's (2006) six phase model (outlined below), which has similarly been used for other online constructionist thematic analysis research (see Bennett & Gough, 2013; Gough, 2016).

4.6.1 Phase 1: Familiarisation with data

During this primary phase of analysis, observations and notes were documented throughout the interviews, which instigated initial analytic thoughts. Consistent with the constructionist paradigm, the audio-recorded data was manually transcribed verbatim. Repeated active reading of the data allowed immersion within the data (Braun & Clarke, 2006). This promoted closer familiarisation with the data (Riessman, 1993). Transcription acted as an interpretative act, through which 'meanings are created' (Braun & Clarke, 2006, p. 87), described as a key phase of data analysis by some researchers (Bird, 2005).

4.6.2 Phase 2: Generating initial codes

The second phase of analysis involved organising features of the data into an initial list of ideas of what was meaningful (Tuckett, 2005), what was interesting, and what was relevant and important to the research and research questions (Braun & Clarke, 2006). This involved the production of

initial codes from the data. Codes differ from themes, which are the collaboration of codes into groups of similar data sets (Braun & Clarke, 2006). Coding is dependent upon whether themes are more 'data driven' or 'theory driven', and reflect how the researcher approaches the data (Braun & Clarke, 2006).

NVivo was used in order to create ease in matching initially identified codes with data extracts to demonstrate that particular code, in support of the code. This process used tagging and naming selections of text within each data item. It must be stressed that the researcher did not use any auto-coding electronic techniques. NVivo was utilised for the sole purpose of efficiency in categorising the data. The whole data set was coded, and each extract was kept with surrounding conversation to avoid context being lost (Bryman, 2012). To minimise any criticisms of the use of Computer Assisted Qualitative Data Analysis, the researcher undertook manual coding on three transcripts. After manually coding the textual data, the codes were then compared to those documented using NVivo. This analytical process enabled the research to compare and contrast manual and electronic examination. The codes from both manual and Computer Assisted Qualitative Data Analysis were the same.

4.6.3 Phase 3: Searching for themes

As a number of codes were produced in Phase 2, the researcher's initial analysis of the codes commenced, and the codes were synthesised into similar data sets, yielding potential themes and sub-themes (Creswell, 2008). After using NVivo to assign codes, these were then printed on to paper, and cut into strips, then organised into 'theme-piles', a suggested method of analysis by Braun and Clarke (2006). Through this process, the researcher was able to consider the intersecting relationship between codes, sub-themes and how different codes combined to form overarching themes. In this research 103 initial codes were created and hundreds of statements from transcripts were abstracted and organised into six preliminary themes.

4.6.4 Phase 4: Reviewing themes

Phase 4 involved two levels of reviewing and refining the themes: (1) reviewing all of the coded extracts for each theme to determine if there was a

coherent pattern, and (2) reviewing the validity of individual themes in relation to the entire data set, and whether the data was accurately represented as a whole. The process of recoding was required to add additional data to themes, which is 'expected' in this process (Braun & Clarke, 2006). During this process some preliminary themes were combined and others were broken down into new, separate themes. Once themes had been reviewed and refined using the two levels, and the theme-piles were refined in this process, NVivo was used to mirror the process in an electronic format. The primary purpose of this was for data keeping and for ease of access.

4.6.5 Phase 5: Defining and naming themes

The process of further refinement was undertaken in order to determine the 'essence' of each theme, as well as how each theme fits in to the broader overall 'story' that the researcher would be telling about the data after final refinements were completed (Braun & Clarke, 2006, p. 92). Additionally, it is within this refining phase that sub-themes were clearly identified providing further structure to the analysis. NVivo was also mirrored in this process of finalising defining names of themes by creating 'branches' for sub-themes inclusive of data extracts.

During this phase, peer review and debriefing was used as a validation strategy. Creswell and Miller (2000) suggest that this strategy is similar to interrater reliability in quantitative research. Two supervisors of the research assumed the role of peer reviewers, and meetings with these supervisors acted as peer debriefing sessions. This role entailed questioning meanings and interpretations (Creswell & Miller, 2000). Through this process, and concentrated discussions, themes were refined, advanced and distinguished.

4.6.6 Phase 6: Producing the report

The final phase of the analysis involved writing a report to describe the themes in detail, using sufficient data extracts. This report allowed me to communicate the analytic narrative illustrating the 'story' of the data in a 'concise, coherent, logical, non-repetitive and interesting' way 'within and across themes' (Braun & Clarke, 2006, p. 93), in relation to the research question. This is reflected in Chapters Five and Six.

4.7 Limitations and Delimitations

From a methodological perspective, limitations of online interviews through 'Skype' are noted:

- Less researcher control over the environment (Chen & Hinton, 1999)
- Possible issues with technology and the need for participants to have Internet access and technological competence (Hughes & Lang, 2004; Jowett et al., 2011; Mann & Stewart, 2000) and
- The impact on visible social cues such as facial expressions, tone of voice and body language (Kozinets, 2010).

Conducting interviews via Skype provided some concerns associated with the three aforementioned limitations. On two occasions where Skype was used as a tool for individual interviews there were technological issues. These issues primarily concerned the Internet connection on the participants' behalf. Issues with Internet connections caused minor pauses in the two interviews affected. On both occasions participants re-established the connection immediately after the disconnection. Participants did not express concern over this and explained that the area they were in often encountered lost Internet connection. Participants were apologetic, and the researcher reassured them as necessary and continued the conversation as appropriate. As a result, for the two impacted interviews, the quality of the interviews from in-person to Skype differed. However, as the researcher was under geographic constraining issues, the use of Skype was a necessary option.

A second issue arose with participation in the Skype interviews. Geographically dispersed participants demonstrated a higher cancellation rate of the interview, or absenteeism; two scheduled interviews over Skype did not occur at the agreed time. One participant did not show on four separate occasions, but still indicated her willingness to participate via email after the date of the interview had passed. Rates of absenteeism for Skype interviews is consistent with previous research (Deakin & Wakefield, 2014). Deakin and Wakefield (2014) describe that absent interviewees may act in this way as there is a feeling of disconnect compared to organising an interview in person. Furthermore, it is suggested that this disconnect can lead

to avoidance of a meeting, which is easily achieved online, with little loss on the interviewees part (Deakin & Wakefield, 2014).

As mentioned above, previous research has suggested that building rapport can be problematic during online interviews due to a lack of visual cues (Kozinets, 2010). Additionally, absenteeism can undermine a developing sense of rapport (Mann & Stewart, 2000). Rapport was not deemed to affect the quality of the conversations with participants in person and on Skype, as per findings from Deakin and Wakefield's studies(2014). In this way, synchronous online interviewing using Skype demonstrated effectiveness as a useful supplement or to face-to-face interviews.

Audio visual connections were extremely valuable in the online interviewing process (Kivits, 2005). They provided an avenue for in-depth understanding from participants around Australia. The duration of interviews varied across participants, from 35 to 90 minutes. There are several possible reasons for this. The varying range of participation from the online fitness community may have resulted in participants who were more familiar and trusting of the research process. Some participants indicated that they had participated in research on similar topics prior to this study, and therefore could have been more comfortable with discussing their lives, and articulating their reflections on their online involvement and behaviour.

A delimitation of the individual interviews surrounds the selection criteria of potential participants. It is feasible that perceptions of online fitness culture vary depending on the age group of the participants. However, the age group of 18 to 24 is of vital significance as this age group has been identified as primary users of SNSs (Lenhart, Purcell, Smith, & Zickuhr, 2010; Sensis, 2013). Researchers have also found that females look to the media to help them define, explain and explore the world around them (Polce-Lynch, Myers, Kliwer, & Kilmartin, 2001). This research indicates that social networking holds high priority of daily activities amongst the target group of the current study, and also acts as a significant aspect of their lives. Additionally, body image concerns are of high prevalence for this age group (Mission Australia, 2011).

Purposeful selection is a characteristic which is stated as having a strong researcher bias (Patton, 2002). While care was taken to develop and

document clear sampling criteria, the criteria and selection of individual participants, and the categorisation of participants may have varied with a different researcher. While this research was successful in reaching population groups who are considered under-represented in research (Bartholomaeus, 2013), the large population size was underrepresented by small participant numbers because of issues with recruitment. When recruiting participants for the study it was also difficult to know their age and geographical location as it was not displayed in their SNS profiles. It was therefore difficult to assume that particular users were able to participate when contacting them by direct means.

Participants were limited to Australia, primarily due to the difficulty of attaining ethical approval from various locations around the world. However, by limiting the study to Australia the variables including the significance of culture within a specific geographical location was controlled and the research was able to focus on a nationally informed scope of experience.

4.8 Quality in Qualitative Research

Quality in qualitative work is well described. It is recognised that qualitative researchers should be transparent and detail the reasoning behind the conclusion of data collection, as well as making known the limitations (O'Reilly & Parker, 2012).

Data saturation is a common measure of rigor in quality qualitative research that is widely debated (O'Reilly & Parker, 2012). Data saturation in qualitative research raises concerns with transparency, and what data saturation actually means for qualitative researchers (Francis et al., 2010). Data saturation as a measure of sampling adequacy has been questioned regarding applicability to all qualitative research (O'Reilly & Parker, 2012). For example, Creswell (2012) suggests conducting 20–26 interviews to reach saturation, whereas Guest et al. (2006) suggest 12 may be sufficient. However, due to the uniqueness of individuals, one can question whether a researcher can be truly confident that nothing new will surface if more individuals or groups are sampled (Wray, Markovic, & Manderson, 2007). Having specific measures of sufficient numbers can also raise concerns if this stipulation is applied prior to the research being conducted. Overall, the aim of data collection does not necessarily concern the abundance of data,

but rather whether the research questions are adequately supported and the findings sufficiently conveyed to the readers.

In light of current contentions, the current study follows Tracy's (2010) eight key markers of quality in qualitative research including: having a worthy topic, be of rich rigor, having sincerity, and credibility, having resonance with readers, making a significant contribution, being ethical, and having meaningful coherence in order to determine criteria for excellence in qualitative research.

4.8.1 Rich Rigor

Within qualitative research, methodological rigor refers to reliability and is identified by 'consistency and care in the application of research practices which are reflected in the visibility of research practices, and reliability in our analysis and conclusions' (Davies & Dodd, 2002, p. 280). Additionally, Tracy (2010) identified rich rigor in terms of sufficient, appropriate and complex theoretical constructs, data and time in the field, samples, contexts and data collection and analysis processes. A number of methods were employed in order to enhance the rigor of the methods and, consequently, the reliability of the emergent data. Data collection concluded at the point of 22 individual interviews, as this was the number of participants who indicated their interest at participating in the study. Triangulation was used in the data collection procedure to enhance reliability and to collate a variety of perspectives and develop depth of information through the use of a netnography and semi-structures individual interviews. Triangulation can also serve to enhance the rigor of research findings, for instance. creating confidence that presented findings are plausible and credibly explain a phenomenon under investigation (Hesse-Biber & Dupuis, 2000).

In order to limit interviewer bias, open-ended questions were asked within the individual interviews to encourage participants to further explore their experiences and thoughts of online fitness culture in their own opinion. Analysis commenced through transcribing interviews from audio recordings, considered an important method for enhancing rigor in qualitative research (Creswell, 2012; Poland, 1995). Following transcription, the researcher emailed all participants the interview transcripts for review for accuracy.

After coding the entire dataset, the transcripts were then revisited and reread in collaboration with the studied literature and research questions. Broader themes were compared to the data source to ensure accuracy. Member checking was also employed after researcher analysis to ensure depth of a particular theme (Patton, 2002), involving the study participants in the validation process to confirm the accuracy of information (Creswell & Miller, 2000). The major themes with minor descriptions were then sent to the participants via email to evaluate accuracy and depth of understanding from the researcher's behalf. No participant raised concerns about the transcript of their interview, nor the emergent themes.

4.8.2 Sincerity: Researcher reflexivity

The ethnographic criterion of reflexivity is equally relevant to a netnographic context. It is defined as 'the extent to which the netnographic text acknowledges the role of the researcher and is open to alternative interpretations' (Kozinets, 2010, p. 169). Reflexivity considers the extent to which the researcher is involved within their own cultural narrative (Patton, 2002), expressed in field notes and online interactions. It involves the reflection from the researcher on their own values and assumptions in the conduct and analysis of fieldwork, in order to accurately convey the research, welcoming other interpretations (Creswell, 2008; Kozinets, 2010). Reflexivity also provides for awareness and respect of the perspectives and voices of those interviewed (Patton, 2002). Additionally, discussions with participants are important in this context. Creswell (2008) and Kozinets (2010) both state that reflexivity refers to the researcher being open in their role of the study, sharing their experiences and recognising that their interpretation is only one possibility, presented with rationale and argument for drawing particular conclusions.

The following questions, suggested by Patton (2002, p. 66), were adopted as a way of provoking introspective reflexivity: 'What do I know?' 'How do I know what I know?' 'What shapes and has shaped my perspective?' 'With what voice do I share my perspective?' 'What do I do with what I have found?' Responses to these questions were imbedded within the field note entries to ensure reflexive practice. Additionally, these questions were used as valuable prompts for maintaining an account for the

methodological and theoretical decisions made throughout the research. For example, reflection on the development of interview questions demonstrated the quantity and prescriptive nature of some of the questions, rather than allowing discussions to emerge authentically. In this way, field note reflection was a reminder of the on going examination of reflexivity and to maintain awareness of the researcher's role in the construction of knowledge.

Kozinets (2010) discusses two types of netnographic texts, relatively 'open' and relatively 'closed' (p. 170). Whilst a relatively 'closed' netnographic text presents a closed argument, leaving little or no room for questioning the author's conclusions, relatively 'open' netnographic texts leave conclusions open or inconclusive, leading to new questions to answer for active and critical readership. Reflexivity in this capacity involves discussion around the researcher's experiences and backgrounds, as well as demonstrated understanding of how they may affect the interpretations and conclusions of the study (Creswell, 2008). The Internet may be considered to alter the way in which we think about texts to an 'open model' (Kozinets, 2010, p. 170), where information is always open for critique and questioning. This has an effect on the current research as the topic of online fitness culture directly relates to being an open text, where readers critique and question issues online. Furthermore, there is an influence on the researcher's awareness of the culture that must be duly noted. In an attempt to best address the criterion of reflexivity, the researcher aims to declare reflexivity as 'an ongoing examination' (Patton, 2002, p. 65), interpreting and writing from a reflexive position. Reflexive notes were taken throughout the research, utilising this writing method as a valuable tool in maintaining an account for decisions and thoughts throughout the research.

4.9 Chapter summary

This chapter has provided a detailed account of the research process for the current study. It has comprehensively discussed the blended netnography approach, using netnography and individual interviews to increase the depth of understanding and triangulation of the study. This has been discussed as an appropriate methodology to examine the multiple facets of online fitness culture. The two phases of the methods have their own significance for the study, complementing each other to form cohesiveness through addressing

different objectives concerning the central phenomenon, and strengthening each other via convergence of research findings. A detailed recruitment and purposeful sampling strategy has been described, along with an illustrative argument for the use of both phases in data collection. Further, this chapter was dedicated to outlining the data analysis process, including a deliberation of manual and electronic methods, and providing an analytical sequence to enhance the methodological rigor of the study. Finally, ethical considerations of both phases influencing the research process and subsequent approaches to facilitate the research agenda have been highlighted.

CHAPTER 5

FINDINGS

PHASE 1: NETNOGRAPHY

5.1 Introduction:

The next two chapters depict the primary themes of the data emerging from the blended netnography. This chapter will thematically discuss the findings of Phase 1 of the research, netnography. Themes will be explored to provide a rich description of people participating within online fitness communities to help understand the culture that was both created and imposed, specifically, online fitness culture. The netnographic data provides an understanding of the research context. Where online fitness users are quoted, names are not used, in order to protect online alias identities and maintain integrity according to the conditions of ethical approval. All quoted members were involved in posting within the online fitness communities from their SNS account. Photographs used to illustrate the imagery within online fitness culture have not been named, and have had identifying features removed. The researcher and participants, who volunteered their images, appreciate that the images may still be identifiable.² 'Real' names (or what they have stated their names to be online) have been used for well-known users within the online fitness movement, as they are high-profiled and are seen to have similar status to celebrities.

The five steps involved in the completion of a netnography enabled techniques to be used for researching in the field. During the entrée stage of the study, there was an immersion within online fitness communities. This involved becoming familiar with the users, learning the culture and rituals and sensitising concepts, the content produced and circulated, and identities of participants that were familiar to other members within the communities. This chapter begins with a description of the context of the online fitness community based on what was observed whilst immersed both Instagram

² Participants who have provided photographs to be used in the study have voluntarily signed a photographic release form (refer to Appendix D).

and Facebook. It then discusses the ensuing themes from the data collated from the steps of netnography.

5.2 Online fitness culture on Facebook and Instagram

A new user first entering Instagram or Facebook is prompted to enter details and complete a personal profile for an account. General demographic information, such as background, likes, dislikes and interests, is requested from the new user. Through profile construction, data is provided to the SNSs enabling them to tailor posts and suggest other 'likes' to the new user. Data also allows other advertisements and potential 'likes' to appear on the personal profile. This was demonstrated when a user 'liked' or 'followed' one online fitness account, as subsequent suggestions for other popular fitness accounts would 'pop up' on their account, similar to an advertisement that one might find on a website. By searching for fitness related hash-tags in the entrée of the netnography, Facebook and Instagram suggested other online fitness accounts created by other members.

5.2.1 Community

Online fitness accounts combine to form an overarching online fitness community labelled the 'fitness family', also identified through the hash-tag '#fitfam'. Within the '#fitfam' there are a number of smaller online fitness communities reflecting a unification of accounts of users who have such interests. Examples include bodybuilding communities, or communities dedicated to specific diets or fitness regimes. Furthermore, large followings of popular online fitness users can also be considered a fitness community. For example, Kayla Itsines, a prominent and popular online fitness user, created an online fitness community through her following after attaining success and popularity online. After releasing an eBook titled the 'Bikini Body Guide' (BBG), Itsines made the hash-tag '#bbg' popular to connect dispersed users of BBG. Through this hash-tag, users shared fitness stories and journeys completing the 12-week BBG. It was evident that support was a strong factor for involvement, along with sharing similar interests with 'like-minded' individuals. Online fitness communities demonstrated evidence of camaraderie and support through messages of encouragement to one another. Members of communities supported one another to change

sedentary behaviours or negative views about the self and the body; in this way, communities provided accountability for some. The BBG community is a good example of such support. Itsines' community demonstrated growth in online support to geographically dispersed members and sent regular encouragement to their female companions. Many of these friendships were illustrated outside of the online context, illustrated by images of groups getting together to complete the BBG.

5.2.2 Online fitness accounts

Fitness accounts on SNSs were diverse. They included people from numerous geographically dispersed locations around the world, of many ages and demographic groups, encompassing multiple ethnic backgrounds. Accounts were run by either (1) identified individuals for personal use, (2) anonymous individuals or groups who did not reveal any personal identification, or (3) businesses and advertising companies. Account types offered diverse aims. For instance, personal accounts were described as 'journals', while others endorsed themselves to attract business, and business or advertising companies aimed to attract consumers. Each account's posts were representative of the message they were trying to communicate with their followers. Messages included providing motivation and inspiration, or an advertisement for a particular health product such as 'Teatoxes', a detox tea program designed to promote 'good health and weight loss', 'burn calories' and 'boost metabolism' (Skinny Tea-tox, 2016). Both males and females participated in the creation of online fitness culture; however, accounts were usually designed specifically to attract a following of a particular gender. In this fashion, the messages presented to an account's audience were usually designed to inspire a particular gender, often by promoting comparisons to images of the same gender. Female fitness accounts that showed female bodies, or noted their target audience as females through posts, were observed to reflect the specifics of the study.

Online fitness accounts were identifiable through the use of the words health, diet, and fitness or their posts dedicated to these concepts. A hash-tag word search of '#fitness' within SNSs provided a response littered with images of bodies, 'healthy' food, 'inspirational' quotes linked to health and motivation to exercise and eat well, as well as short exercise videos. Through

the documented number of posts credited to this hash-tag, it was immediately evident through the sheer number of posts related to health and fitness that online fitness was highly relevant to many millions of SNS users around the world (see Figure 3). Images or videos attributed to online fitness accounts displayed active and fit females promoting or engaging in exercise. Bodies dressed in fitness attire such as a sports bra, bikini or crop top and shorts were recurrent (refer to Figure 4). Images taken by the person in the picture themselves, qualified as a 'selfie', were common (refer to Figure 4, middle image). Fitness selfies were often juxtaposed with 'before' photographs, reminiscent of weight loss advertisements (refer to Figure 5). 'Before and after', 'transformation' or 'progress' photographs were a popular way in which to demonstrate dedication and the benefits of hard work. Additionally, as a form of confirmation and legitimisation, these photographs are often championed and celebrated by others through 're-posts' or 'sharing' on other accounts (discussed in the next section).

Figure 3: A hash-tag word search

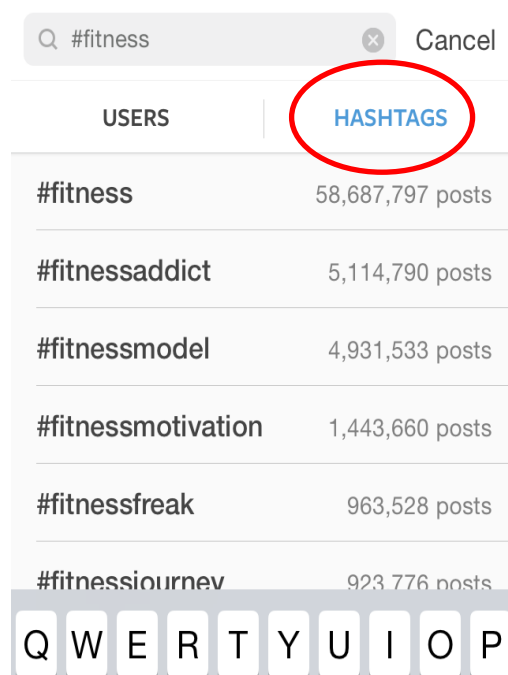


Figure 4: Images within online fitness accounts

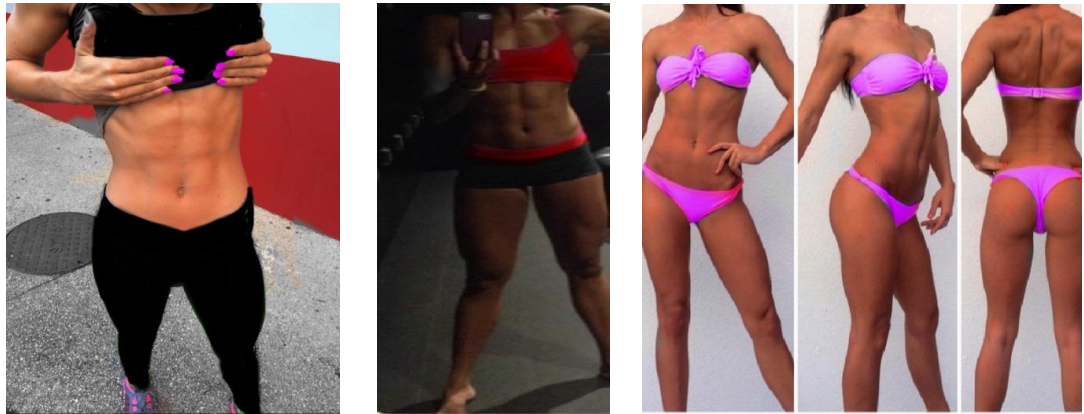
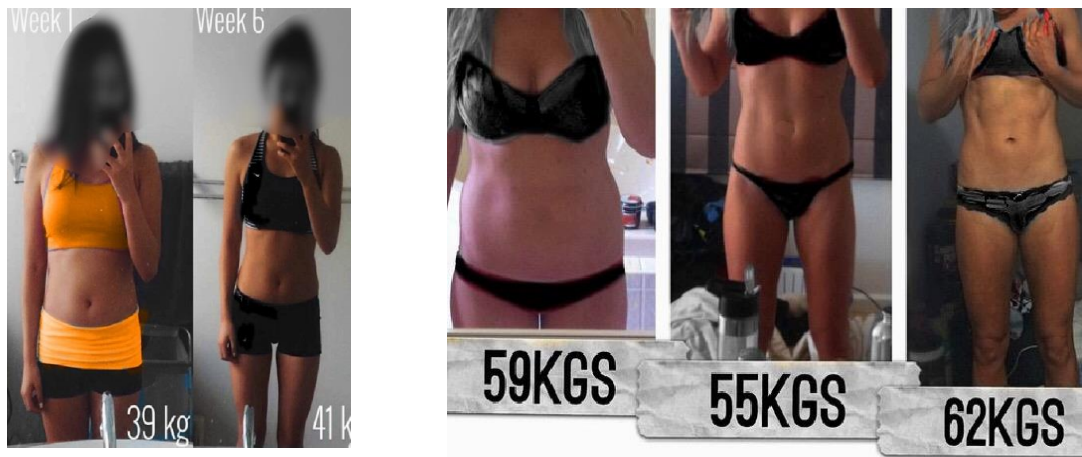


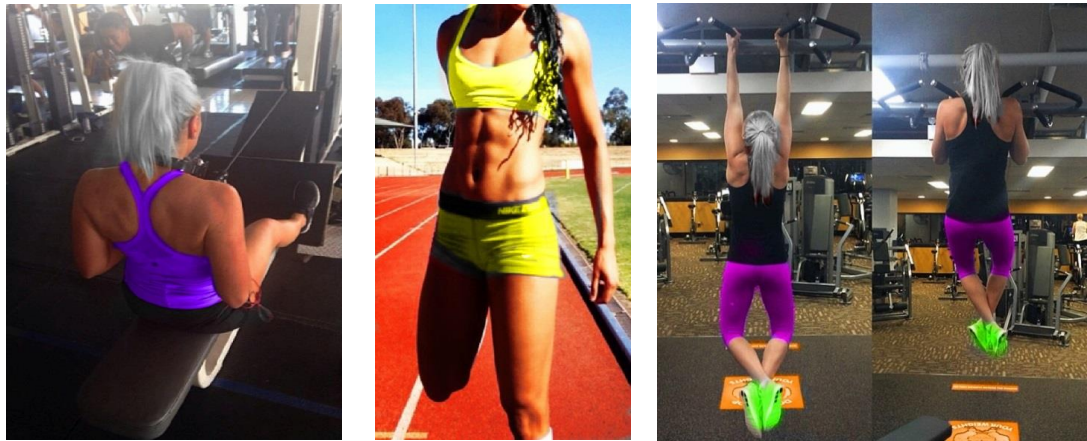
Figure 5: Transformation images



5.2.3 Bodies, food and fitness

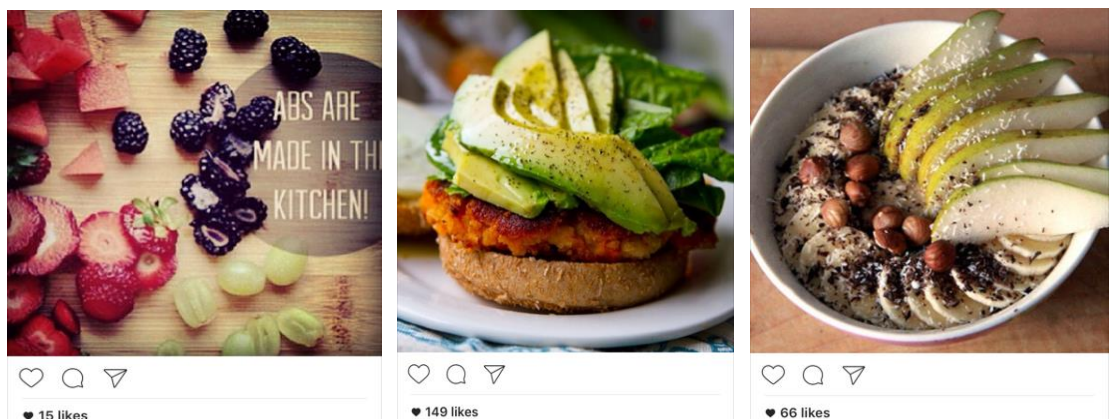
While the bodies of extremely fit females were the central focus, exercise was typically discussed in unison with images. Some accounts preferred to show progress through function, or images of themselves in action. As an example, progress was demonstrated through videos and photographs displaying evidence of exercising, working out or the technique of lifting weights, or stretching (see Figure 6).

Figure 6: Images involving exercises or activity



Images of food posted from accounts were common. This not only demonstrated their posts portraying dedication to eating and maintaining a healthy diet, but also through the promotion of the specific diet regime they were following. Diets that were made popular online included clean eating, IIFYM (If It Fits Your Macros), carbs after dark, raw till 4, and paleo. Popularity of food images enabled such imagery to become a ‘normal’ social practice, with accounts commonly devoted to sensationalising food, and making food appear extra-ordinary. Personal accounts posted food images as a visual documentation of food consumption throughout the day. Comments from followers of an account responding to these images read ‘healthy’, ‘nourishing’, ‘yum!’; and as such, demonstrated enthusiasm for healthy eating, and positioned these foods as positive. Food images were accompanied by a number of messages about food, including the nutritional value, but also links to the effects of consumption for the body. In doing so, the promotion of certain foods, appropriate to the culture, were made popular (refer to Figure 7).

Figure 7: Images involving food





Posts related to health, exercise, diet, and the body were often opinion based, creating online discussion and debate leading to an exchange of comments and replies. The multitude of opposing views around fitness, health and diet initiated arguments between the '#fitfam' members. Although they were not personal, the exchanging of opinions often resulted in negative remarks for the purpose of inciting others, commonly perceived as cyber-bullying. Despite this, the messages conveyed through these posts were regularly viewed as positive, with numerous fitness accounts encouraging body acceptance, fighting predisposed Western cultural 'norms' surrounding size, shape, and bodily aesthetics. This was situated within the context of achieving acceptance by personally adhering to online fitness cultural standards through adhering to 'appropriate' exercise regimes and diets.

Amongst the body, fitness, and food posts, a number of catchphrases, catchy slogans and cliché mottos were used and shared to enthuse and reinforce messages. Posts described as 'motivational', stated; 'sore today, strong tomorrow' and 'a woman with abs is a woman with willpower', and were accompanied by images of females exercising while dripping with perspiration. A number of catchphrases specifically related to body aesthetics, which included, 'eat clean, train mean, get lean', or 'I don't exercise to be healthy, I exercise to look sexy as fuck naked', and 'skinny girls look good in clothes, fit girls look good naked'. Other sayings were associated with well-being, such as, 'healthy is happy' and 'the stronger you are, the better you feel'. The diversity of this discourse reflects the varied motives of the members within the online fitness culture as well as the 'un-moderated' nature of the accounts.

5.3 Social networking site practices and the nature of online audiences

The interactive digital nature of SNSs blurred the line between author and audience. Participatory culture, such as the fitness culture on SNSs, engages people in expressing their opinions on topics and issues relating to their interests. Members are able to archive, 'like', and recirculate (share) the content online. Freedom was provided to those who wished to produce, respond, generate and disseminate news and ideas, and publish through their accounts.

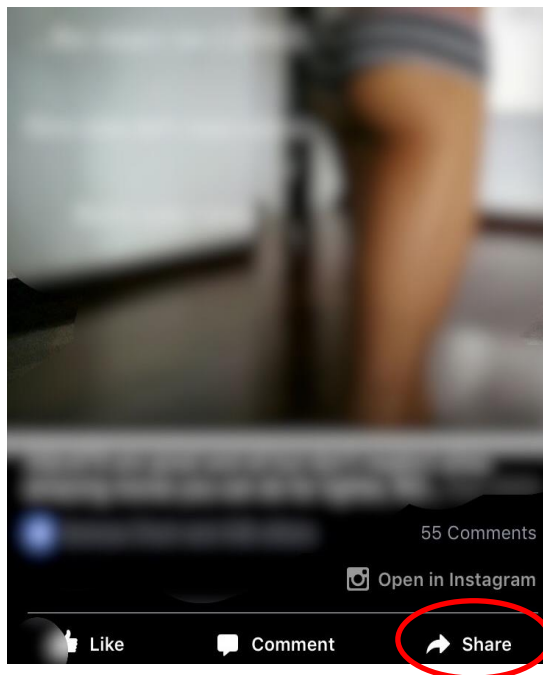
5.3.1 'Sharing'

Sharing other users' images embodying ideal physiques was common practice within online fitness. Posts were commonly taken from other fitness accounts and subsequently 're-posted' or 'shared' by other online fitness users. Sharing or re-posting involves clicking a 'share' button at the bottom right of an image (refer to Figure 8). Following this process a user re-posts an image or video from one account to their own account. Re-posting can also involve capturing the image by taking a 'screen-shot' of the post and subsequently posting it on one's own personal account. By sharing a post an entirely new audience is exposed to the account from which it came, thereby providing the opportunity for more 'followers'. Hence, sharing posts equates to the potential to 'sharing' and gaining followers.

Hash-tags were also another SNS communication tool that added to the construction of online fitness culture. By populating news feeds with images of healthy food, fit bodies and video exercises, accompanied by a proliferation of unsolicited and solicited advice, the use of hash-tags was a strategy for promoting, and propagating health messages. Searching hash-tags enabled users to gain an immediate understanding of the type of foods and exercises that were considered 'healthy'. For example, when searching the hash-tag '#healthy', 35,668,467 posts on Instagram were attributed to this word from around the world (as of 15/12/2014). In this way, hash-tags are not only a part of online culture and communications, they also form a new directory to convey, relay and discover information. It is through these SNSs practices and social interactions that health messages are circulated, and

where users come to identify and confuse popular messages with what is perceived as seemingly 'correct'.

Figure 8: Sharing a post from one account to your own personal account



5.3.2 Popularity

Social networking site users measure popularity on the basis of numbers: the number of followers an account had, or the number of likes attributed to a post. The concept of popularity was a central factor in determining particular online fitness accounts to follow. Once an account received a high follower count, the user may be labelled an 'Insta-celebrity' (Instagram celebrity). The number of followers was not determined, however the term, created by users of Instagram, represented those who were high-profile, highly followed, and well known and spoken about by users. Internationally known Insta-celebrities, included Jen Selter, Michelle Lewin, Paige Hathaway, Sophie Goidolin and Kayla Itsines. Unlike the traditional concept of becoming a 'celebrity', these online fitness 'celebrities' were made famous and successful primarily due to their bodies. They created work-out plans, and eBooks or guides that they provided for purchase. Followers perceived their lives as 'perfect', and some users considered them 'positive role models' due to their involvement in the fitness industry and the promotion of 'healthy' living,

A post with a high number of 'likes' attributed to it demonstrated popularity, and could, in some ways, be described as effective due to its

greater reach. Measures of popularity were displayed on a user's account, along with the number of posts made by the user over their time on the SNS, as well as how many users they were following themselves (refer to Figure 9). Popular users limited the number of people they would follow to show greater disparity between the people following them, and the select few that they would follow. As a result, being followed by a popular user was considered 'special'.

Figure 9: A display of follower counts



The number of 'likes' or comments on a particular post were also associated with popularity. Over a period of time, they accumulated and were displayed below the post. Facebook symbolised a 'like' with a thumbs up button beneath the post; conversely, Instagram symbolised a 'like' with a love heart (refer to Figure 10 and 11).

Figure 10: A 'like' on Facebook

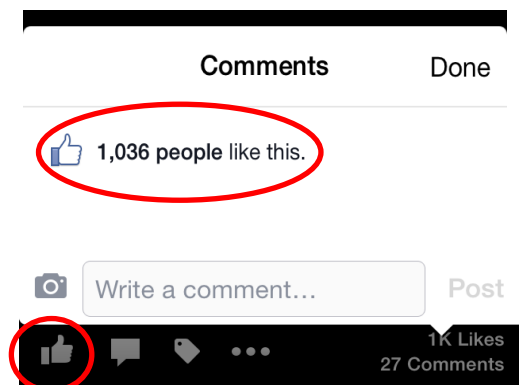


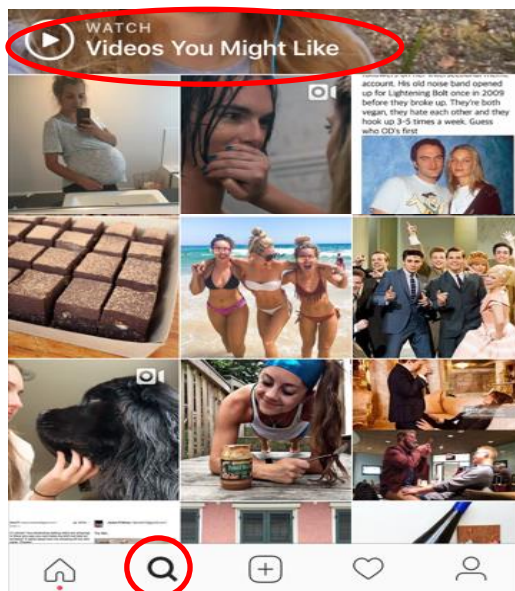
Figure 11: A 'like' on Instagram



Social networking site algorithms determined that once an image was deemed popular, it would be displayed in the search page. The search page altered for each user and would cater to the user's interests, suggesting

images and videos that the user may like (refer to Figure 12). These interests were collated through the SNS receiving data from previously 'liked' posts by the user. Once a picture was deemed 'popular' by the SNS itself, it would be displayed in the search page. This search page catered to each individual's interests by collating previously 'liked' posts by the individual. The 'like' button can be viewed as an indicator of popularity, thereby assisting in the transmission of ideals. Consequently, if an image was popular, then there was a greater likelihood that it would be found in the search page, resulting in greater exposure of the image, and potentially the image would be circulated and shared by others online.

Figure 12: Search page on Instagram



5.4 THEMES

The following section focuses on three themes: feedback, advice, and health messages. The themes are representative of systematically coded data from the involvement within online fitness culture, and community practices. In this way, the community was explored through research involvement as a participant, but also through written communications online. This process promoted a deeper understanding of not only the words used in communication, but also the meaning in the exchange of words, and the meaning of the words to the members within the community at the time of exchange.

5.4.1 Feedback: Aesthetic based body comments

Online fitness culture has become a site for self-promotion where opportunities to provide feedback through comments and 'likes' are provided to a somewhat unknown audience. Facebook and Instagram provide the capacity for users to receive feedback on their posts. Depending upon the user's SNS account settings (public or private), feedback on their posts may emerge from people known to them, from unknown people, or from fake or randomly created accounts. Online fitness accounts users sought feedback on all posts, in particular to videos and images. High volumes of feedback were attributed to popularity.

5.4.1.1 Body approval and body disapproval

Thoughts about the ideal body were depicted in comments on images posted and shared on Instagram and Facebook. Feedback aligned with body approval or disapproval. An association between the image providing motivation and inspiration was the most predominant feedback. In this way, SNSs provided a platform in which users used to discuss the approval or disapproval of the body, and collectively judge the quality of the body.

A picture on an account with a large following attracted a range of comments by site users. Some questioned the validity of the fitness aspect meant to be central to the image. One user stated, 'That's not fit, just SKINNY. Ewww' (original capital emphasis). Others expressed concern for the 'alarmingly thin', 'anorexic', 'skeletal', 'malnourished' 'too skinny' female in the photo, commenting that 'she needs a feed!!!' Fitness accounts were often shamed for showing images that were considered 'skinny', with followers enforcing that the 'page should be about HEALTHY individuals' (original emphasis). Comments opposed the desirability of wanting to be thin stating, that being skinny is 'unattractive'. This was reinforced by a female member who stated:

Bones are not sexy. You can be toned, taut and healthy without being bony.

Debates about alternate positions arose when users offered different opinions or when the user who posted the image commented. A popular fitness user, Emily Skye, retaliated to a negative 'bony' comment left on her

post by responding, 'Bony? It's muscle lol [laugh out loud]! I work hard not to be skinny!' Skye emphasises her offence in being labelled 'skinny' or 'thin', as it was deemed unacceptable and 'unhealthy' within online fitness community. Alternatively, muscles were desired and shown appreciation through image popularity within online fitness culture. Comments created associated links between beauty, 'grace', 'style' and muscles on females. Emphasis was placed on the desirability of muscles and often associated with aesthetics. This was depicted against what was not desirable in an example from a female member:

Muscles make us look sexy, being skinny and looking ill is not.

Muscles were acknowledged with value statements associated with 'hard work', 'determination', and the idea of gaining 'respect'. In contrast, 'too much muscle' was considered a negative and an 'extreme', and instead, judgements were passed about the achievability of this, especially for females:

All extremes are bad. I've seen how this is achieved and it is not as healthy as they say. I would (prefer) a happy medium here. Yes we have muscles in our bodies but we have organs too. Is that the next look? Show our organs? (*Female member*)

Even if it was not considered 'extreme', emphasis on muscle led to comments about females 'losing' femininity:

The truth, muscle makes (you) lose femininity, resembling the male body. Girls importantly (need to) tone (and) practice yoga and Pilates and gym not in excess. Muscles... are not cute on a girl. (*Female member*)

High muscle mass was frequently associated with females appearing 'masculine' or 'manly'. If muscle mass was considered 'too much', then it was suggested that females would 'lose their sexiness' and 'start to look like men'. It was deemed acceptable to have 'some muscle but not too much'. These statements were reiterated and coupled with negative criticisms such as 'yuk u look like a man', with the connotation that muscle, and muscle building was a masculinised trait:

'Is there anyone to tell her that bodybuilding is just for booooyysss????' (*Female member*)

However, in reference to the same images, a number of comments demonstrated body approval. While some followers shared their disgust, others pronounced the image as 'attractive'. They claimed that the pictured female 'looked amazing', 'stunning', 'fabulous' and used the term 'fantasy woman'. When body approval was determined, appreciation was usually met with reference to 'perfection', indicating that perfection could be conveyed through an image. At times the female within the picture was considered a 'role model' and described as a 'perfect description of health, beauty and class'.

5.4.1.2 'Looking' healthy

Judgement was regularly made on whether the person pictured within the image was 'healthy', purely based on aesthetics. Strong views were displayed about what healthy, and conversely, what unhealthy 'looked' like. By examining an image, with no further information, comments about being 'healthy looking' were linked the two key words: 'sexy' and 'beautiful'. This was expressed in a message imposed on an image within a fitspo account on Instagram:

This is not what Barbie Looks like. This is not what Fashion model Looks like. This is what Healthy looks like. This is SEXY.

This was reiterated by another user:

You are very healthy looking sexy and beautiful. I want your body instead of mine. (*Female member*)

A clear consensus appeared amongst members that deemed a healthy body as inclusive of muscle tone, and a 'normal' weight. Body based comments about 'looking healthy' also included emotive language. As example of this was expressed by one user:

Ripped as hell !! Look so good, happy, healthy way ta go chick!! Xox
(*Female member*)

Furthermore, people described as 'healthy looking' by participants were pronounced as 'amazing and strong role models for a healthy and fit lifestyle'. Contrastingly, comments about the unhealthy nature of some images would circulate on all posts, including in response to transformation pictures. In the following remark a female member noted perceived flaws with the body and

the reason underpinning the existence of these flaws. Indeed, they alluded to the aesthetic standard being violated:

Not a healthy ideal for such a young girl. You looked great before you started losing all that weight. Will unfortunately stop following you right now! U r sending out all the wrong signals to other young girls out there #shapeness. (*Female member*)

Images that were considered too slim to be healthy or fit had similar critical sentiments:

OMG are you kidding me!!! This is just not a healthy look by no means!!! (*Female member*)

This was echoed by another user:

Wow if ima gunna look like that from "clean Eating" I think i am gunna stick to my fries! Unhealthy and Disgusting! (*Female member*)

The feedback based on aesthetic standards provided an example of the manner in which videos and images are used to teach collective standards of the online fitness community. The comments articulated an evaluative criterion where bodies are judged in accordance with dominant standards of healthy and unhealthy. Images and videos must conform to the standards of the community, and its core audience, with the consequences being shame and judgement passed by community members.

5.4.2 Advice: Seeking an ideal body

Popularity of images within online fitness culture was based on collective standards generated through communications from online fitness members. Hence, there was a strong desire to emulate the physical appearance of the person depicted in the images presented online. Comments beneath the images reflected this and often used the phrase 'I want...', for example, 'I want to be like her'. Others were more specific: 'I want hurr hammies <3<3<3', or 'whoa I need that thigh gap'. Many did not show consideration for genetic or lifestyle differences between themselves and the individual presented in the idealised image.

Once a person's body was deemed ideal they gained status in the community and became a source for health, fitness, and dietary advice. There was a considerable amount of advice seeking between online fitness

members. A significant amount of activity within online fitness culture can be conceptualised as the socialisation of evaluative standards. Consuming advice generated by other participants within the community played an important role in the online fitness experience. Exchange of information about exercises, products and health advice promoted social adhesions. Members within the community asked one another for health and fitness ideas, as well as tips and tricks in achieving their desired ideal body. This is echoed in comments from a female member:

Great fan page! You really motivate! Could you put a work-out plan to get legs like this girl? Thanks! (*Female member*)

Comments were associated with the body in transformation. Users requested advice so that they could follow the identical fitness regime in order to achieve their idealised body. Requests for training advice and dietary behaviour were common:

From reading these I know you don't do much cardio[vascular], mainly heavy lifting, to cinch your hips. However, I'm fifteen and my hips are my trouble area, and I can't really lift much. Do you think I should stick to mainly cardio and oblique work-outs or?? (*Female member*)

The advice sought related to attaining aesthetic ideals:

What all do you do for your abs? I'm an athlete and I run a lot but my abdominal area is not where I want it to be or how I want it to look. What all can I do to make mine look like yours?! (*Female member*)

Users of online fitness accounts often asked:

What can I do to get my body like yours? (*Female member*)

Another claimed:

How long have you been working on your hamstrings to look like that? Please please answer me, I've been trying since forever to get an answer from you. I really want to work my hamstrings until they become shapely and firm, but I see no difference still. So how long did it take you to get these beautiful babies? I hope you'll answer me some time, ily [I love you] (*Female member*)

The idealisation of particular body parts extended to the need to own the materials seen within the images. This is depicted in comments asking about a user's gym clothes, and accessories, including watches and even mugs.

Accounts that were labelled 'inspiring' were often accounts from whom members would seek information. Although users were followed by many hundreds or thousands of people (if not more), many seeking advice received a reply. In a response to the hamstrings comment above, the popular online fitness user administrating the account stated:

I've been training seriously for over a year. Most women carry fat on their legs/hammies area, so the only way you'll get toned hammies is when your body fat drops (a clean diet) and if course consistent weight training. More answers about my training are posted further down my page (tags the person she is responding to). (*Female member*)

Another example of advice included:

The story of most women when asked to lift weight.. they just can't get past their own preconception and judgment... Want firm booty and bum, lift. Want to lose weight and get their stomachs toned, lift. It's that easy. (*Male member*)

Once the advice had been received it was common practice for people to implement this advice in to their dieting practices and exercising regime. Subsequently, participants would create a post on their personal accounts that referred back to the advice received. Transformation pictures were also common to post, legitimising the sound advice received by other SNS users. In seeking and implementing advice from other online fitness users, participants negotiated and taught each other health tips and tricks regarding exercise and diet. Within this creation of culture, online fitness communities distinguished themselves through cultivating specific knowledge. This knowledge includes the aesthetic categorisation of bodies (as documented above in Feedback), as well as appropriate health and fitness mechanisms. The construction of aesthetic ideals and appropriate body-work is a key activity of consumption culture, defining the boundaries of their shared interpretations of social reality.

5.4.3 Health messages: Diet and exercise

The health messages posted and shared within online fitness demonstrate a variety of messages. These messages are portrayed through images, as well as videos, textual posts, and comments. Many of the posts themselves include 'motivational' quotes like 'don't stop until you're proud' or 'Sore?

Tired? Out of breath? Sweaty? Good...It's Working'. These 'inspirational' quotes are often superimposed on to images of youthful appearing bodies, lean and toned, fit with a strong focus on aesthetic ideals, as opposed to health. Promoted messages often relate to two main categories: (1) Motivation and inspiration, and (2) Individualism.

5.4.3.1 Motivation and inspiration

Many online fitness accounts are specifically designed to motivate and inspire users to attain fitness goals and conquer the body. Motivation and inspiration were expressions used amongst all fitness users. Namely, images, videos and textual posts were labelled inspirational, and used as a motivator to eat well and be active. While purposes of motivation and inspiration varied, the sentiments below from four female members share the impact from images in particular:

This woman is an absolute inspiration!! All her hard work and dedication shows. I've followed her for a long time and she has inspired me in so many ways. She's beautiful and has an amazing body. She's healthy and extremely fit! And promotes healthy eating. She's an elite athlete!

Perfection. I am on my way to getting back to my fit self! You are extremely motivating!

Legendary role model! Perfect description of health, beauty and class! Inspiration! Xx

Omg. I just started following you. Love your pics and motivation. Keeps me striving towards something at gym. Hard work clearly pays off. Looks great

Members would discuss inspirational aspects that inspired them the most. However, the overall 'picture of health and fitness inspiration' provided motivation to carry out body-work in order to change appearance, and conform to the cultural ideal. Accounts were praised and thanked for providing this motivation and inspiration to their followers.

Pictures of desired or inspirational bodies were posted each day, or multiple times across the course of the day. Each day of the week was allocated a title, for example, 'Transformation Tuesday' or 'Woman Crush Wednesday' where users' images were used to reflect a source of inspiration. People whose images were used were endlessly thanked by their

followers for the inspiration and motivation they provided to them. Comments about 'idolising' the bodies of people within these images were common, and often affiliated with their own 'goal' to emulate their appearance:

Emily Skye you are my inspiration and the perfect example of a fit and healthy physique! I think I'll show this pic to my trainer (*Female member*)

5.4.3.2 Individual responsibility

Messages within online fitness culture promote individual responsibility and work on the body. Examples of common slogans presented and circulated within online fitness include:

Be your best you.

Make yourself fit.

Excuses don't burn calories.

You need to do this for yourself.

Wake up. Inspire. Be better. Repeat.

Decide that you want it.

If you can't stop thinking about it, don't stop working for it.

Don't wish for a good body. Work for it.

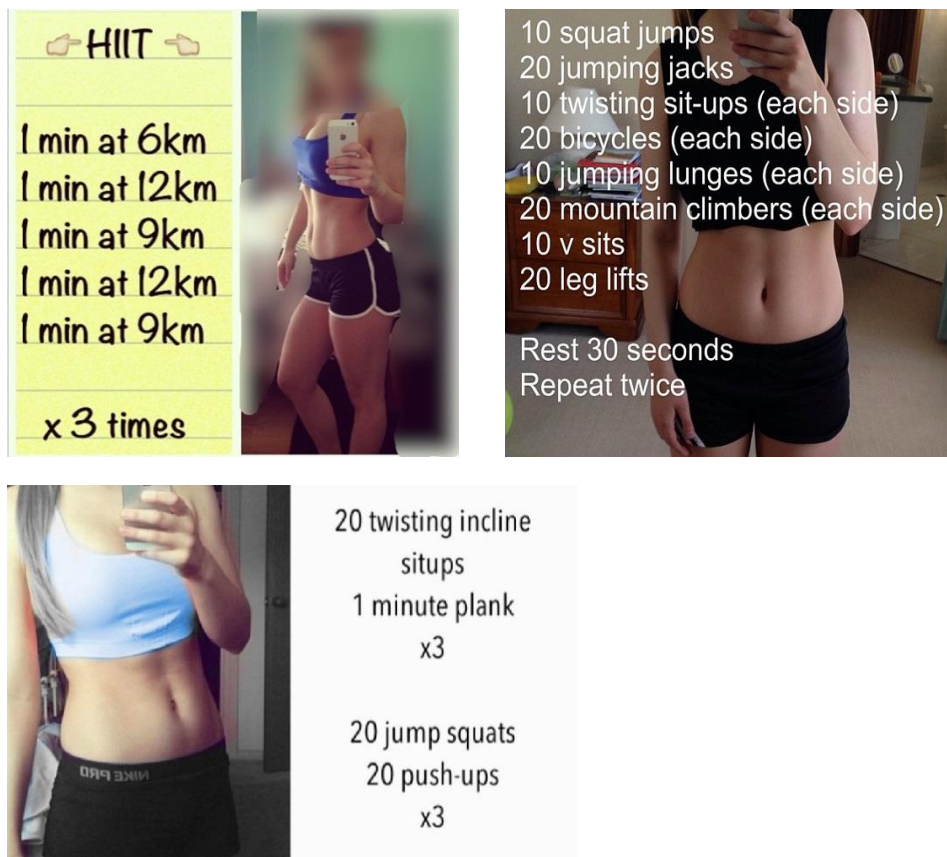
Don't expect to see a change if you don't make one.

The text or quotes supporting images online often invited individuals to take responsibility for their bodies, working towards the fit or athletic ideal depicted in the image. These messages invite users to invest in the information provided for body maintenance in order to perform self-presentation appropriate to the culture. It can be considered a matter of personal choice as to whether or not one succeeds in attaining this healthy lifestyle. This is reflected in a longer post from a 'fitspiration' page on Instagram that stated:

You, and only you, are responsibility for shaping your health and your body. You decide what your goals are and how hard you fight to stay on track. The decision, the determination and the choice lies within yourself, no one else can do it or want it for you. You create your own destiny.

It is worth noting that the onus is firmly placed on the individual within these messages, displaying limited insight of a definition of health that transcends the individual body. In turn, emphasis is placed on individuals to adhere to the values and practices disseminated within the culture, in order to understand and change themselves, and others. Accounts would specify these practices and instruct followers to complete regimes through visual imagery including images (refer to Figure 13) and videos. It is through these messages that the body's status is produced, for example, as a site of investment, change and transformation. The focus on individual responsibility extends to the requirement to control body weight and sustain a healthy lifestyle to be considered a good member of the community. Furthermore, the individual emphasis makes health another user 'choice' where broader factors influencing health e.g. social determinants of health, are not widely considered. Practices and bodies adhering to the collective standard of the culture, or that resemble these ideas of 'working for a good body' are praised through comments of 'perfection' and 'motivation' or 'inspiration'.

Figure 13: Documented exercise practices



5.5 Chapter summary

Findings from this chapter provide an understanding of the research context: online fitness culture. Consistent with previously identified online community characteristics, online fitness communities shared interests pertaining to health, diet, and fitness. Online fitness communities established meaningful conversations, developed social hierarchies (i.e. Insta-celebrities), and constructed rituals and norms of behaviour, such as feedback practices and before and after images. In turn, these practices facilitated the construction of online fitness culture. Although geographically dispersed, online fitness community members demonstrated comradeship and support, exhibited through messages of encouragement to one another. Users were encouraged to pursue fitness goals, and to change sedentary behaviours or negative views about the self and the body.

Online fitness accounts were identifiable via observed posts attributed to users' conceptualisations of health, diet, and fitness. Posts constantly confronted members with various forms of health messages. Images of bodies, 'healthy' food, 'inspirational' quotes associated with health and motivation to exercise and eat well, and short exercise videos were frequently promoted. Social networking site practices such as 'liking', 'sharing', and hash-tags facilitated the circulation of these messages. In this way, as a post with a high number of 'likes' represented popularity, SNS practices may be described as supporting the facilitation of social norms, rituals and behaviours within online fitness culture.

Three primary themes: feedback, advice seeking and health messages, were identified from the involvement within online fitness culture. These themes illustrated common practice in user feedback provided on numerous posts. Through body based comments, and the association between aesthetics and health, the health of the body is aligned with the ocular perception of the body. By seeking advice to attain a body representative of health, users received advice from other users, and were inspired by images, videos and textual posts to eat well and be active. The text accompanying the inspirational images advocated individual responsibility in working towards the fit or athletic ideal image. Users were encouraged by health messages and feedback from their peers, to invest in

the messages provided in order to perform self-presentation appropriate to the culture.

CHAPTER 6

FINDINGS

PHASE 2: INDIVIDUAL INTERVIEWS

6.1 Introduction

This chapter highlights the voices of the 22 participants involved in the study, communicating their experiences of involvement within online fitness culture. Participants were 18 and 24 year old females residing in Australia, who considered themselves involved with online fitness culture in some capacity. Participants expressed the primary reasons for their involvement in online fitness on Instagram and Facebook as being: the ease of obtaining information, the popularity of online fitness culture, and for support from other users within the online fitness community. Support was described as offering a sense of belonging and a 'true' understanding of a user's 'fitness journey'. This sentiment is clearly explained by two participants. Cleo stated:

Because I train full-time I can't really surround myself with the people that lift me up, so that's really what the social media does for me. It kind of gives me that boost that I would probably get around other like high-class athletes and stuff like that.

Dayna claimed that:

The support network is a big one. I mean I have close girlfriends, obviously, and you know we're all in to leading a healthy lifestyle, but no one's really into fitness the way I am, or exactly what I'm in to in terms of my training and everything. You meet more like minded people that you don't really come into contact with in like, real life and in person.

Upon reflection of their involvement in online fitness culture, three themes were generated from the individual interviews. The most pertinent were: health information, shaping health beliefs and online fitness body ideals. Several sub-themes were also identified within each broader theme. These illustrate participants' perception of health, and how these are socially constructed through involvement in online fitness culture.

6.2 'Health' information

6.2.1 Promotion of various forms of health messages

Health messages were profoundly prolific within online fitness accounts and hence, were a prominent theme to emerge from the interview data.

Participants provided an insight into their understanding of the health messages circulated through textual posts, and images from online fitness accounts. Predominant promoted health messages were depicted by three main elements: diet and food consumption, fitness, and the body. One participant, Charlotte, expressed a common view of the messages espoused online fitness accounts:

They (online fitness accounts) are trying to portray eating nutritiously - (that) is certainly a big one, and exercising and definitely trying to promote exercise - whether that be weights or cardio, even just a few little specific movements.

6.2.1.1 Diet and food consumption

Diet and food information were the most prevalent health messages circulated by online fitness accounts. All participants specified that they only followed accounts with whose promotion of diet and food consumption they 'agreed', demonstrating agency in their choices. Diets were brought to the forefront within messages included 'IIFYM' (if it fits your macros), the 'paleo diet', 'lemon detox', 'teatoxes' and 'clean-eating'. Examples of viewed dieting practices included pictures of fitness model meal preparation, which expressed images of 'them eating their chicken and broccoli', and IIFYM people 'eating their pancakes and ice cream'. Discussions around these diets encompassed positive and negative opinions. Some participants agreed with, and verbalised some understanding of a diet, further implementing this in their own lives. Conversely, others articulated concerns with the endorsement of particular diets with which they did not personally agree. Many participants expressed concerns over the promotion of teatoxes to a broad online audience. However, generally participants attributed diet messages received through online fitness accounts as contributing to 'eating nutritiously' and 'promoting exercise':

Emily: Some accounts try to assist the whole population with trying to achieve a healthy body weight, and just eat more nutritious foods.

Indication of the restrictive nature of some of the diet or food consumption messages was described. Participants provided examples of some accounts promoting 'no carbs at all and drinking plenty of water' or 'no carbs after 5pm'. Other examples of promoted diet and food related messages raised by participants included 'eating non-processed foods', or foods that 'don't have refined sugars in them'. These restrictions were considered 'fine' but, at times, were noted as taking it 'a little bit to the extreme', 'cos they're basically saying that you can't have anything else'.

A popular concept developed by online fitness accounts was to a whole day's food consumption. Popularity of posts, as indicated by high volumes of likes and comments, also led to a variety of food posts being circulated. In this way, incessant images of food helped to construct 'norms' of food consumption. Popular foods included peanut butter and apples, green smoothies, avocado, chia seeds, coconut water and coconut oil. Additionally, a number of foods containing protein powder were very popular and widely spread by online fitness accounts. Images would also include 'what they (online fitness users) are eating before and after' work-outs.

Popularity of images also facilitated the norm of including 'cheat meals' or 'cheat foods' in a diet as a reward for 'good' eating over a period of time. Participants described images of 'cheat meals' to include Nutella, ice-cream, burgers, potatoes, pizzas, cakes, chocolates, and pancakes, often shown in large quantities, for example, four tubs of ice-cream, or six or seven tiered burgers. Posts from online fitness accounts inspired 'cheat meal' ideas. As one example, a participant described a cheat meal had by Paige Hathaway (a popular Instagram fitness user) who posted exactly 'what she eats' and promotes 'cheating regularly'. Popularity of these posts demonstrated a consistent positive reaction to these images by masses of online fitness followers. This positive reaction to cheat meal images was described by participants as based on their taste and 'feel-good' qualities. Participants reported eating Nutella as a 'cheat meal' to improve their mood or general wellbeing. Some participants favoured 'cheat days', but other options included having one 'cheat meal' a week, or as one participant indicated, a cheat 'window' of three hours on a Sunday. This restriction was dictated by her online personal trainer, who informed her that she was free to

eat anything she desired within the three-hour window.

Posts that provided nutritional information were also popular amongst participants. The following dialogue provides an example of informative posts:

Cleo: Every single day [they] are saying things about what bananas are good for, and what is hydration, or knowledgeable things, which is what people need to know. I like stuff where people learn from it.

Participants had a tendency to categorise foods in terms of straight alternatives such as 'good' or 'bad'. The idea of 'good' and 'bad' carbs, or foods in general, was language frequently used by a number of participants when referring to online food content. Further, promoted and circulated advice treated all users as if they were alike. This is evident in the words of a participant who discussed the type of nutritional information posted on Instagram by online fitness accounts:

Scarlett: They (online fitness accounts) post what food not to eat, and it'll say what's a good carb, what's a bad carb, what your dinner plate should look like, and it shows you how much vegetables you have, your chicken...it does say, 'make sure you eat your meat', and then they'll show you your lean meat so that you are leaner and then they'll show you your meat that has a lot of fat in it.

A participant with a high number of followers reflected on posts from her account:

Lexie: I try to say that I eat the good foods 80% of the time, and 20% of the time I will eat bad foods.

'Healthy' foods, illustrated by lean protein, fruits and vegetables (excluding potatoes other than sweet potato), were deemed 'good' and described as the 'right' choices, whereas consuming 'bad carbs' and junk foods implied feelings of guilt attached to their consumption. Describing foods in this way may generate a problem-focused approach and requests a moral requirement to understand inherently 'good' values. Messages depicting this classification of foods specifically implied that members needed to be disciplined in making the 'right' choices. Described feelings of guilt or feeling 'unhealthy' after eating 'bad' foods suggested that participants demonstrated a sense of personal responsibility relating to food consumption, which reflects broader risk and weight control discourses.

Promotion of nutritional supplements was also prevalent. Although not specifically 'liking' supplement brand fitness accounts, participants following bodybuilding or figure competitors on Instagram or Facebook would be inundated with supplement advertisements and promotional material on their personal accounts. A participant, Clare, who was involved with figure competition stated:

A lot of my friends, they do a lot of posts with supps [supplements]. They'll be like, 'this supp is amazing it cures my cravings'...it shows that they [the supplements] are good.

Companies hosting a business online fitness account promoted their brands of supplements, and provided 'education' on what to consume for specific purposes. One participant sponsored by a supplement company stated:

Cleo: I am sponsored by a supplement company, and it's all over my newsfeed [and] all the other athletes that are ambassadors by them...so it's annoying in a way because I don't think people need to be educated on that stuff. If they want to take it they can do their own research, don't put it in their minds that they should be taking it.

6.2.1.2 Fitness

Work-out ideas were widely promoted by online fitness accounts through images and videos. Diversity of the work-outs including cardiovascular exercises, plyometric training, and heavy weight lifting were frequently mentioned. Participants described fitness messages as based on the premise that *anyone* is able to participate. Although fleeting concerns were raised over the level of difficulty of the exercises shared online, participants indicated that 'everyone can exercise, no matter how busy you are'. A participant with a significant follower count, Liz, described the ideology that she espoused on her account:

I'm just trying to say that you don't need a gym that you don't need all these messages that other people put out there, you don't need to spend ages on your body, working on your body. Just try and increase your strength and then do what you can do towards your body. Live a fulfilling life whilst doing it.

Messages pertaining to the amount of exercise varied from one account to another. Variability was demonstrated by some accounts advocating half an hour of exercise per day, compared to other accounts that promoted 'hours a day' or two one hour fitness sessions per day. Participants

reported evidence to suggest that some females' fitness accounts promoted a 'work-out two, three, four hours a day'. Most participants considered 30 minutes of exercise per day to be 'healthy' despite this disparity. However, an extended length of exercise was justified as being 'O.K' for personal trainers, or for females who had a high level of training.

Prevalent promoted fitness regimes included 'challenges' that were designed for people to compete against themselves in a day-to-day work-out. The work-out would focus on one specific activity, namely, the 'squat challenge' focusing on squats, or the 'ab challenge' focusing on sit ups. These activities provided participants with a target to meet each day of the month, usually starting from 30 x squats (or the designated activity) on day 1, increasing up to and over 200x squats on the final day. Participants appreciated this conventional fitness approach:

Emily: You see a post like "60 day ab challenge" or something, where you do 30 sit-ups, so that night I might do 30 sit-ups and then I'll be like, "oh, at least I did something".

Participants advocated fitness challenges as they did not require gym equipment, which was described as a possible deterrent to online fitness users who do not have such access. However, participants stated that they often did not complete the month of activity, as it was considered 'quite hard'. Seemingly uninhibited by failing, a new challenge suggested by online fitness accounts replaced it:

Emily: At the moment, I'm doing like... It's like a 100km challenge where you, for the month of June you just have to – whether you do it running, cycling, swimming...any type of exercise you do, as long as you get to 100km. So if I ran on the treadmill for 10 minutes, I'd mark down how many km I'd done and then you'd just get to 100km for that month...but even if I do 80, it gives you motivation for the next month.

6.2.1.3 Health and the body

Participants discussed that the main idea endorsed by accounts was how to attain 'a fit and healthy body'. Fitness accounts frequently posted bodies associated with ideas of health and fitness. In this way, the body was symbolised as an object to change. Participants discussed that images of bodies aimed to 'communicate what their interpretation of what a healthy body should look like', filling her newsfeed with 'body shots' promoting ideals.

Often diet and fitness related messages were specifically linked to how they would impact upon the body:

Charlotte: There's so many different exercises that women are told to do, not to do and which foods help to cut to belly fat.

Another participant, Lexie, reflected:

They'll post meals and they will say, 'oh, not another chicken and broccoli meal, but hey at least I am on my way to abs!'

Progress or transformation photographs were another commonly mentioned post that demonstrated an association with health and the body. Progress photographs presented weight loss, or alternatively, progress relating to tone and muscle definition. Many participants described the images as 'inspirational' and 'achievable'.

Participants associated positive feelings to online fitness accounts that supported the idea of following 'your own kind of fitness journey' and 'holistic health'. In an aim to enforce empowerment and body acceptance, Liz described the types of messages she posted to her followers:

I also give some motivation, a bit about my background and what I do some days (exercise wise), also some sort of trying to encourage girls to appreciate some positive thinking type of things as well or accepting yourself and not training for appearance rather than training for function and things like that because there is no set way that you can achieve the body that you want because you've got your body at the moment, you are training to make it strong and healthy, you can't make it skinny in an area and then bigger in another area and things like that. So I just try and get girls to accept that about their bodies and instead be empowered by their bodies and their own strength.

Generally, accounts encouraged getting 'down to a healthy weight range', or encouraged people to 'change your body with exercise and healthy eating'. One popular slogan used was, 'live lean, eat clean'. When asked to reflect on the health messages seen within online fitness communities, participants stated:

Leah: I think for the fitness community a lot of times it is more about looks than it is about health.

Similarly, from another participant perspective:

Liz: Definitely the physical appearance, even physically. It is definitely based on appearance.

At times, participants suggested that the idea of fitness and altering one's body was 'easy'. While most health messages from SNS accounts reiterated the logic of hard work or pushing oneself through pain to the limit, some more popular participants treated constructing a healthy subject as 'natural' and 'easy':

Scarlett: It's so easy to change your life and you can change so much and you don't even have to do that much really. Just eating a bit differently, do a few things, and your body will change so much and you can be so much happier. Cos body image is such a huge thing now, especially for girls, teenagers, early adults, that I just want to show them how simple it is, like it's so simple to just change your mind set on the fitness lifestyle. You could be so happy if you're not happy with the body you have.

Scarlett's post represents ease as conditioned by small changes to diet, fitness, and a change in mindset. Subsequently, 'ease' in attaining good health, is achieved through active choices. Paradoxically, one has to work for ease in making active choices. For Scarlett, her story of appropriating a fit body is a position of ease, as well as hard work. Although she promoted her health position of ease to her followers, this has come from previously pushing herself to achieve her desired fit ideal. Hence, Scarlett has constructed this regime as an 'easy' and natural way of life. In doing so, she signifies her stance in the culture, and the aspiration of her followers.

6.2.2 Seeking information related to various forms of health

Online fitness accounts on Instagram and Facebook were identified as a key provider of various forms of health information, above personal trainers, the gym, or websites (e.g. bodybuilding.com). The ubiquitous role of SNSs in participants' lives became evident throughout the interviews as they discussed their interactions with other online fitness users. On average, participants reported using online fitness sources from Instagram for almost 2 hours per day. However, some indicated trawling online fitness accounts for up to 5 hours a day, checking it 25–30 times throughout the day. This engagement was rationalised through the legitimacy of 'gaining knowledge', information and understanding about health. Participants sourced various forms of health information by observing diverse online fitness users' pages

and accounts, as well as eBooks sold via people's online fitness accounts, videos attached to accounts, and blogs. Some information (for example, eBooks) is subject to purchasing costs, as well as other expenses attributed to downloads and access. However, it was evident that online fitness SNS accounts were a lexicon for retrieving information. Participants suggested that the use of these SNSs fitness accounts had a significant impact on their knowledge relating to health, specifically dieting and fitness. While some participants attributed their involvement with online fitness accounts as an extension of their sporting backgrounds, other participants stated that before their involvement they had a limited understanding of health, fitness and diet:

Sally: I didn't know anything about clean eating. I learnt everything I know about clean eating mostly through Instagram. In terms of flexible dieting, I have learnt more of that via blogs and Facebook groups I search.

The health promoting potential of SNSs was evident, suggesting that some SNS platforms may help people gain access to, understand and use health information in certain contexts. A number of positive and enthusiastic attitudes were expressed towards the range and type of health information that was readily available and easily accessible. Reflecting on her use of online fitness accounts to gather various forms of health related information, Scarlett stated:

If you don't know what to do for a certain part of your body you can look it up online. Now there's Instagram pages that have just exercise pages for each part of the muscle, and it'll have a picture and it'll show what muscle group it uses and I just feel it's a bit more informative and it's a lot easier to speak to people directly online, rather than, you know, if you went on a website and you found a personal trainer's website and then you email them and I just find it a lot more easier and quicker to contact people on there.

All participants found online fitness accounts an effective way in which to source health information. Information was readily sought 'from seeing pictures'. Furthermore, online fitness accounts were described as promoting engagement in exercise and healthy diet, igniting interest to implement this information in to participants' ever day lives. This is evidenced by the following perspectives across three individual interviews:

Cienna: You know it's like why you read a book kind of thing, to gain some interest and to gain some ideas.

Tess: It's kind of opened more people's eyes. People that haven't especially known certain things, like some people really don't know what to do in the gym and then they can watch a video that is on Instagram or Facebook (and it) can kind of help them know what to do.

Scarlett: There's groups of carbs that you should eat and there's carbs that you shouldn't eat, and I'm pretty sure I did learn the carbs and the fats and your sodium all online, and what I would do is I'd ask about it, and it'd usually all be correct...What would happen is, I would print screen the picture to remind myself what's a good carb, what's a bad carb, what's a lean meat.

These examples position online fitness accounts as a site for developing a functional understanding of health in everyday life. Despite the abundance of health information available in other forms, gathering forms of health information via online fitness accounts combined with the appeal of SNSs in this process. This appeared to be a crucial drawcard as to why users utilise this form of media. Participants frequently described other advantages of seeking forms of health information from SNSs compared to traditional information sources. These included the proliferation of images that related to their interests in fitness and healthy eating, the up to date and immediate responses, the access of a wide array of health information, as well as the ability to contact like-minded people who supported one another. Participants also articulated the quick and simple to use nature of SNSs, as well as the '24/7' accessibility from a range of electronic devices in most places within the world:

Niamh: It is all so quick and easy. You can just turn up [to exercise] look at your phone and something is going to be up there [on the SNSs newsfeed] about a work-out idea, or you can search through hashtags...back in the day if you wanted a gym program you couldn't just jump online and have a look at people's pages and see what the best thing to do is, you actually had to go and speak to a trainer. Whereas these days you can jump onto any social media and get a whole list of anything you can do.

Conversely, participants noted some health-compromising effects of online fitness account content conveying potentially unhealthy behaviours that serve to influence food preferences, exercise behaviours, and purchasing. An example of this was the promotion of Tiny Tea or teatoxes that have the capacity to negatively influence food selection. Engaging with potentially unhealthy information was often tied to members' education level:

Charlotte: A lot of people aren't educated. I mean the amount of attention that teatoxes get in the first place just shows how uneducated people are and how willing they are to accept anything that will give them a quick boost in weight loss.

Overall, participants collectively expressed an avid interest in online fitness accounts and excitement in the potential use of the health information sought. While these accounts could potentially be useful in helping to inform healthier ideas, behaviours and choices, they could also be a cause for concern in light of the individualist discourses reflected in the netnography chapter.

6.2.3 Health 'experts'

The use of SNS provides an opportunity for all users to share information and ask questions of one another. Questions were commonly directed toward more popular fitness accounts, or to the people who have desired characteristics, determined by the follower. Popular online fitness accounts were asked copious questions concerning fitness and exercise patterns, food intake, recipes, 'meal prep', health advice, fitness clothing used, and others about their body, and general personal life. The following dialogues from two popular online fitness users are illustrative:

Cleo: She just wanted to know every single detail of my life 'cos she loved me haha and so she wanted to know what I do for training, what do I eat, how much do I eat, what do I weigh...she wanted to know what I looked like in person, am I normal, are you a bitch haha! You know, all of the things that you probably would think when you first meet someone off of something like that (online fitness pages), but it was interesting to hear what she had been told diet wise.

Cora: I get asked a lot, 'what do you eat?' 'What are your daily macros?' 'How often are you at the gym?' 'How much are you lifting?' 'How much do you weigh?' '(In your) before picture how much you weigh? And after?'

Circulating questions asking for 'help' or 'guidance' became common practice for online fitness users. Upon reflection of the questions asked of her, one participant, Alexa, stated that for most of her followers 'it's not about health and fitness'. She claimed that her followers asked questions because they 'want to look a certain way'. Another participant, Scarlett, stated that her followers were interested in how to get abs or how to be leaner. This was epitomised by the following statements across three interviews:

Cora: I know the most popular question I get asked, I used to get dozens and dozens and dozens of e-mails to the point where I actually took my e-mail off my Instagram account for a while because I just couldn't keep up with the e-mails but (it) was, 'how do I get a flat stomach?' 'How do I get abs?' 'How do I lose belly fat?' 'How do I lose fat off my back?'

Niamh: I see a lot of comments or even girls commenting on my things that I like, 'how do I get my thighs not to touch?'

Ella: People know her all over the world. I saw someone on her page the other day ask whether she had any tips for how they could grow taller... they obviously think she's like, you know, she has all of this knowledge, questions that you probably would have normally asked, I don't know, a doctor or like, or things, yeah, a bit more generally you'd ask like a nutritionist or a PT they're now just asking this, well she's a PT but, you know, like they're sort of going to her for everything, not just some exercises.

In the eyes of online fitness users, popular online fitness people with desired body features fulfil a comparable role to health professionals. One major allurement of this was the immediate and free response, taking little effort to attain.

Participants with large numbers of followers stated that they would respond to the questions asked of them. They described providing responses as their 'responsibility' to promote health information within the community, and all were happy to do so. Responses were justified by ensuring they 'helped' their followers. This was expressed in comments from interviews with two popular online fitness users:

Niamh: I want to be able to give back a positive message to people, so if I can give them a program of something I'm doing or if I can give them some tips and some advice, then I feel like I'm contributing a little bit to changing that culture.

Cora: I try and educate and explain. I put something up with its actual terminology and then I explain it so as to educate people as well.

Participants described the information as freely and willingly provided, without acknowledging their lack of accreditation. This information was discussed as having the potential to cause damage to the body if implemented. One participant, Tess, explained that this was often the behaviour demonstrated from online fitness users:

On Instagram someone does one comp(etition) and they say they're [a] fitness model, and they are like "hit me up for nutrition diets and

training programs”. What’re you talking about?! You don't even know anything! How can you give somebody else a planned diet when you don't even know their macros (macro nutrients) or whatever? They (people seeing information) need to go to a nutritionist...because that can be really unhealthy for that person, because everyone is different with diet.

Another participant, Sally, stated:

A lot of people offer a lot of advice and guides and they don't know what they're talking about, they don't have any qualifications to do so. I see a lot of people that do work out plans and meal plans and they haven't had any qualification at all.

A popular user, Niamh, discussed responding to questions without concern of her limited qualifications:

If somebody on Instagram writes to me and they say, ‘Hey, I’d love a good work-out, what can I do?’ I write a reply to them straight away on to the comments, or I’ll get their email address and I’ll shoot (send) them something that I already have pre-done up for whatever they’re looking at.

This view demonstrated a lack of understanding for possible implications of the information distributed. In contrast, some participants acknowledged their limited qualifications before responding to questions from their followers:

Scarlett: I get a few emails saying ‘hey, do you do diet plans? Do you do work-out plans?’ But I will respond to them saying, ‘No, I don’t, because I’m not a dietician, I’m not a nutritionist’, and I just say, ‘Ask a PT at your gym, cos usually they can help you’.

This was echoed by Bec:

Of course (I give it to them) but I always say it like a grain of salt. I don't want to act like some nutritionist or expert on the matter so I will tell them [the user] the way I've done it but I won't say ‘this is the way that you have to do it’, I'll say ‘this is the way I have done it, but you should do whatever suits your body’ or, ‘look up blog posts and have a read about before you start doing something just because I told you to’.

Providing responses to questions promoted the status of popular users, leading to assumptions that these participants were ‘experts’ or had particular training behind them. Hence, power is attributed to popular users of online fitness accounts based on their follower numbers. This concept of popularity acts as an interesting gauge as to how information is sourced online.

6.2.4 Credibility

Participants suggested that the information circulated to the wide audience of online fitness users was advice not supported by empirical evidence. Further, participants noted that the health information gathered through this means was not always credible:

Ella: These people aren't necessarily accredited, whereas before I guess the main source of getting ideas for work-outs would've been at your actual gym, and probably from someone who's qualified in an exercise sort of related area. Whereas now, it's just from girls who have come up with things.

Although sources of health related information from online fitness accounts were described as having good intentions, one participant, Scarlett, identified the 'inaccuracy' of some posts:

There's some really good information of pictures and size, (but) there's also some really inaccurate ones.

Participants identified three main aspects of a user that reasoned credibility to provide health information through SNSs: aesthetics and desired body features, popularity, and identification as a personal trainer. Aesthetics was the primary concept that symbolised credibility of a user promoting health related information on SNS accounts. Acquiring a desirable body contrived the information circulated as highly credible, even more so than self-labelled trainers who appeared qualified. This idea was expressed by a number of participants, summed up by Leah who stated, 'I always judge by what the person looks like to how credible the information is'. Developing this idea, participants discussed following the 'fitness journey' of an individual through their online fitness SNS accounts. Progress images displaying desirable body change acted as evidence, which demonstrated that the health related information from these accounts was indeed credible as 'they have results to back it up with'. This reinforces the way online fitness users receive information and how power is related to a perceived ideal body. Power links aesthetics with knowledge as expressed by participants in regards to 'looking the part':

Cleo: Most people think if you look the part you know everything, which is weird because I don't know everything. A lot of people claim that they do know everything even though they don't, because they feel like they should.

Critical reflections linked aesthetics to the implementation of forms of health related knowledge:

Ella: I think a lot of people out there just recommend these things and people see their body shape and think, 'oh I'm going to do exactly what they're doing', and don't really think about what sort of level of fitness they're at or whether it's a suitable diet for them.

This sentiment was echoed by Bec:

There are so many people out there that give misinformation and people are just desperate to look that way, they will do whatever they are told really and they are paying for it which is even worse.

Another concept that symbolised credibility was the popularity of the user posting the information. One participant stated the assumption that 'generally the more followers you have, the more likely you are to follow them because they post credible things.' It was suggested that an account with a large number of followers (usually within the thousands), paired with a consistent number of posts (e.g. once or twice a day), made followers 'believe more of what they post'. Scepticism did exist, however: for example, Cienna criticised Kayla Itsines' BBG advertised on Instagram, as she had noted faults with other eBooks purchased previously. These experiences prompted her to think carefully about the credible nature of the guide. However, Cienna decided to purchase the BBG, noting Kayla's popularity as the most important factor for consideration:

I had seen her follower count was really high and that kind of reinforced as well to me that it was more reliable, that I could trust it.

Some of the more popular participants questioned their followers' assessment of online health information. These participants were surprised at the lack of health information that their followers knew and understood. Further, they labelled their followers as 'naïve' for utilising information immediately from any source. One participant, Niamh, stated she was in 'shock' after coming to the revelation that followers understood online health information literally and 'for gospel', using it in their everyday lives. She expressed her annoyance over the ability for others to exploit this notion:

The people that are actually absolutely killing it in the industry and especially online and making a lot of money from it, when programs that they launched and all of that originally came out, they got

absolutely slammed, like not credible, they probably still aren't. A lot of really bad advice (was) given out, but, at the end of the day they're making money off it.

Evidently, this moral dilemma reflected the desire to make money from this platform and followers. This raised a predicament with a popular participant, Tanya, who hoped that followers would develop a better rapport with her 'good messages' with heightened credibility based on her studies and background in sport and fitness. She noted that even without qualifications, or a reputable brand, people were still able to be successful.

Participants also described a connection between credibility and qualifications. A number of users identify as a personal trainer in the biography statement on their online fitness account. Self-statements in an account biography, such as identifying as a personal trainer, were identified as accurate. Furthermore, it was perceived that the information distributed by these users were 'correct'. It was an assumed truth that a statement in a biography implied education, training and experience in the field of health. In this way, it is evident that online fitness SNS accounts challenge the traditional construction of knowledge, through the diversity of those articulating knowledge based on their practice, and personal experience, which followers deem valid evidence.

One participant, Laura, reflected in a somewhat critical light; rather than basing credibility on her initial thoughts associated with aesthetics, she expresses her thoughts on qualifications and credibility illustrated by the following statement:

Laura: I used to think, 'wow she's eating that, she looks good, and that must be right'. To be honest it is not credible, unless they are like a certified PT [personal trainer], you know how in the bio it might say 'PT'? Then I'd be like, 'OK, that's probably true'.

In the absence of access to peer reviewed research, and with the challenge of deciphering a plethora of health information available online, some users invest other users with greater authority than they might possess. Users with practical experience of fitness transformation (depicted by aesthetic ideals), and those with popularity, are treated with respect and trusted to provide technical health information that is factual and generalisable beyond personal experience of use.

6.2.4.1 Deciphering credibility

Despite placing blame on those who were not qualified to promote health related information, many participants positioned followers and users of the information at 'fault'. The onus and responsibility were placed on the individual to decipher what was and what was deemed to be credible or not. Participants discussed that it was up to the individual to think critically about the information and to avoid being 'easily susceptible to believing' it just because they 'aspire to be like' the photographs they see. This is encapsulated by Bec who stated:

The people that are falling for it are at fault as well. I mean you can't look at a picture of somebody on Instagram and pay the money to make you look the same. For all you know they are a fat guy who's got Photoshop [editing software] but I think it's very influential, it's extremely influential.

At times participants were somewhat defensive about attaining health information from SNSs, further qualifying this notion by stating that they would conduct their 'own research' or additional 'research' on the topic before putting it in to practice. Additional 'research' included 'Googling it', talking to other gym goers, reading other people's blogs, searching other online fitness Instagram accounts, reading online reviews or articles, watching videos and sometimes, but rarely, asking 'someone who's a bit more professional' such as a personal trainer. Taking these steps only occurred if online fitness users were unsure or confused about the information having seen contradictory messages online, or if they were injured from an exercise they had put in to practice.

6.2.5 Confusion

The diversity of messages posted from online fitness accounts was described as 'confusing':

Scarlett: online there's always a lot of different things, like how you should eat, what you shouldn't, (how) you should do cardio in the morning and then you should eat straight away...there's a lot of different opinions of the fitness lifestyle online, which is really hard to choose the right one.

Referring primarily to the body, Liz stated:

You've got so many different types of people I mean there is bikini competitors out there, but there's also other people that just want to lose lots of like lose fat and get a lean body, and there are other people that want to put muscle on and things like that that could be a bit confusing for some people if you don't have that background knowledge of what is good for what, or you don't have someone telling you that.

Participants held concerns for those who did not understand the information received, or those that were not critical to the nature of the information:

Alexa: There is so many fitness pages out there, (that) cram motivational stuff down your throat and they aren't really real they're just fake and it's not like. It's not realistic, they are like, "you have to do this every day", and "this is what you could do if you want the results".

Online fitness account users faced the challenge of communicating the desired message through a post. Posts were determined as 'pretty hard to communicate exactly what you're thinking', and often the messages received from the posts differed from their original intention. One participant, Alexa, indicated that from viewing images of lean or skinny bodies 'girls think that to get lean and skinny, they have to stop eating and do lots of cardio'. The message therefore prompts actions from users who assume that those actions are correct in attaining such desirable body characteristics. As the messages were frequently received as literal, users posting the information had the onus on them to ensure their posts did not allow conjecture:

Tess: I think they (people posting) have to do their research and just be more wary of what they put on there (SNS account) because a lot of people following them aren't really aware and are going to think, "Oh OK, that's exactly how it is done", and it's not exactly true so it's kind of putting out the wrong image to other people.

6.3 Shaping health beliefs and practices

The term 'healthy' was prominent in all discussions. Through the prevalence of popular hash-tags used by online fitness accounts, including '#healthyeating' and others, the word 'healthy', along with associated images was constantly in view, dominating users' screen time. Accounts utilised SNSs as a medium through which the health practices of eating and exercise were repeatedly reported via images and textual content. Participants inextricably linked the concept of health to diet and exercise, and ultimately, to the body. Importantly, discussions around these concepts explored

definitions of health, and the highlighted influence of involvement in online fitness culture.

6.3.1 Health

A key finding was generated with respect to SNS fitness accounts, and their influence on understandings and constructions of health. Through their involvement with fitness accounts on Facebook and Instagram, participants were confronted by health foods, health products and 'healthy' activities. These were accompanied by a proliferation of professional and alternate advice as to 'what is healthy' and what is 'good' and 'bad'.

As they conceptualised their definitions of health, many participants acknowledged diversity in others' definitions of health or healthy. Very few participants noted the concept of 'balance' and 'social life'. Instead, the vast majority of participants perceived the construction of health as a simple understanding that reflected two elements: exercise and eating. Only two participants mentioned 'holistic' health and included mental, physical and social health in their definitions. Importantly, participant definitions of health often included being 'happy' or 'comfortable' with your own body, and 'where you are at'. These crucial words used by participants align with the notion that if you are unhappy or uncomfortable with your body, this indicates that you are unhealthy in some way.

Key ideas associated with participant definitions of health included completing 'a certain amount of exercise', consuming 'within a certain window of calories', and ultimately 'having a healthy relationship with food and fitness'. Healthy eating was predominantly discussed in general terms, such as eating the 'right' foods, by identifying specific foods that traditionally embody health including fruit, vegetables and water. Further distinctions were made by some participants who described healthy carbohydrates and fats, and incorporated sweet potato and avocado in their diet. Participants saw healthy foods as the antithesis to junk foods, which were often conceptualised as take away products. Emily stated:

Healthy to me means no junk food, like nothing like, McDonalds or Hungry Jacks - no fast food, trying to cut out carbs, eating more fruits, vegetables, clean eating, so, no sugar, no additives and stuff

like that so all like fresh, healthy food, which is what a lot of the online promote.

Exercise was spoke about in terms of training, several days a week, combining a number of different styles of training, such as plyometric and weight lifting, high intensity interval training and low intensity steady state cardiovascular training, depending on who the participants followed online. Participants often categorised their actions separately to what they would consider healthy for a 'normal' person. In this way, over-training or over-exercising was justified by enjoyment:

Bec: I train six or seven days a week, but that's probably too much. I'd say five would be ideal but when you really enjoy something, which I do, it's easier to do it most days rather than not. But I think five would be ideal, perfect.

Tess reaffirmed the idea of justifying her over-training:

I believe in 1 to 2 hours a day but anything more – that is kind of being a little bit excessive. Some people are athletes and they have a purpose to do it. I guess as long as they are making sure that they are eating enough to provide their energy needs, then it's not such a big deal but if they are becoming obsessed with it and saying that they have to do four hours of exercise every day, that's not healthy.

Participants offered significant insights into the relationship between health and the body. Participants often overemphasised the correlation between body size and health. They did seem to recognise that being thin did not necessarily ensure health. However, being within 'a certain weight range', and 'a certain body fat percentage' were paramount to some participants. The following responses provide evidence for the most dominant perceptions of health arising from the interviews related to food and exercise, and evidently the body:

Tess: I don't believe in BMI [Body Mass Index]. I agree with being within a healthy weight range, but I base healthy on a certain body fat percentage. That's how I see healthy; not too lean because that's not healthy as well, but not carrying too much body fat. You know, being within a healthy range and not exerting yourself too much, not over exercising, but not under exercising as well so maintaining a healthy balance.

Re-emphasising the close link to aesthetics and the body, a critical participant, Ella, stated:

I think it does put the influence a lot on how people look, and that that's really, that that's really important and it's not necessarily just about, you know, getting healthy, or, it's not about exercising and eating well for being healthy, it's specifically doing those things to look a certain way.

Discussions around health offered interesting views of how participants negotiated their definitions of healthy, with some participants defining it in opposition to the term 'unhealthy'. 'Unhealthy' behaviour was described as excessive exercising, eating 'bad' foods, having a high percentage body fat, or not working out. Alternatively, having 'a comp(etition) body', or having 'really toned, defined muscular legs isn't healthy'. Conversely, all participants expressed the view that those who were 'underweight', 'too lean' or 'too skinny' in the images on online fitness accounts, were 'unhealthy'. This is epitomised by the following statement:

Tess: Do you know like the fitspiration ones, with the really skinny girls, with the box gap? What is that? That's not healthy. She is just not eating (laughs), she is dehydrated (laughs), that's not healthy at all (laughs). She needs a big glass of water and a chocolate bar.

Many participants also discussed the idea of 'looking healthy', and stated a desire to attain a particular ideal. In the eyes of participants being lean and fit, with a bit of muscle definition defined a healthy individual. One participant, Ava, specified that looking healthy in an online context included, 'being skinny and toned'. Strong ideas were held about the females depicted in images from online fitness accounts that were considered to 'look healthy'. Anyone who had 'a nice shaped body', with 'a little bit of muscle on them' was considered healthy. Participants determined that where the image revealed muscle definition, the person pictured must be consuming the 'right foods so they're not holding weight'. Females with muscle were considered to 'look healthier than some'. However, there was a limit to this:

Clare: Some don't look too healthy, like when I see people that look too vascular it kind of worries me a little bit. I don't see it as necessarily healthy, even though it looks amazing, there can be several health risks and that can come about from being too lean.

Presenting an alternate perspective, one participant, Tess, indicated that instead of 'looking healthy', she used the term 'looking fit'. She explained:

I see them more as fit. Some girls can post stuff of them being absolutely ripped, but mentally they're all like messed up. I think

healthy is, eating well, and going to the gym, but also having a good relationship with food as well. A few of the girls I train with have eating disorders and stuff like that.

Although not specifically mentioned, this statement articulates that Tess' definition of health includes mental health and wellbeing. The idea of 'looking healthy', as well as the correlation between health and body size has clear implications for health as participants may forgo good eating habits or hydration, and recommended physical activity guidelines to ensure the ideal of fit and lean.

6.3.2 (Re)definitions of health

Involvement in online fitness communities was described as having a significant impact on the construction of participants' definitions of health. These constructions were easily discussed, shared, and exemplified through the production, distribution and hours of observation dedicated to online fitness accounts. Ideas about 'health' were expressed through images, comments, posts and online discussions with peers. Ideas were circulated and assisted in constructing and reconstructing users' definitions of healthy. One participant, Cienna, implied this influence:

I have heard that whatever the picture is depicting actually works towards getting a healthy body...I feel with Instagram it's pulled me into what is healthy and what is acceptable.

Many participants attributed their understanding of health to well-known messages that were frequently circulated by online fitness accounts. These messages included the recommendation to consume particular foods, whilst limiting processed snacks and to conduct prescribed exercises. This demonstrated that the dissemination of health information through a SNSs platform reinforced understanding of the basic components of a healthy diet and strict ideas around exercising. As an example, when referring to Instagram's online fitness definition of healthy, Aisha stated:

With the Instagram account that I have I would say healthy in that category (is) defined abs, training ridiculous amounts, you are putting yourself a lot harder, you are eating a lot cleaner, you are cutting out the chocolates and the chips. It's not balanced. In my opinion it's pretty much 'go hard or go home'. You are training hard you're eating clean, that's (what's) healthy online.

Participants reflected on their past definitions of healthy and how online fitness accounts reconfigured ideas of being healthy:

Bec: I think when I was 16 or 17, probably 18, I had major issues with eating. It's embarrassing to look back at it but I would be like a cardio Queen. I would run kilometres on the treadmill. I quite literally would run half marathons after school and then go to spin class and then go home and think that if I only ate vegetables, I'd be okay. I wouldn't say Instagram by itself, but it surely came hand-in-hand with me realising that that was no way to live, and probably my boyfriend's influence. I looked at lots of Lane Norton's blogs and, the girls I have already mentioned as well (popular accounts from online fitness culture), shed some light on the wrongs in my ways.

This passage highlights online fitness accounts' capacity to promote on positive ideas about health and being healthy, and the significant impact this can have on its users. It was evident that online fitness communities were responsible for developing members' functional health knowledge, which largely took the form of discussions and posts around health. These included the importance of consuming a nutritious diet, and the effects of different foods and exercise regimes. Communicating through SNSs proved to be a valuable method of obtaining relevant health information, as it was perceived to provide 'truths'.

Despite playing a central role in most participants' (re)definition of health, health messages differentiated according to what online fitness accounts people were following. Users following a number of accounts displaying work-outs and bodies associated their definition of health to this diversity; whereas those who primarily followed food accounts would link the changing nature of their health definition to the awareness of 'clean eating':

Isobel: Before I was really into the lifestyle that I have now, I probably saw healthy as something a little different. I never used to be into training at all, any of my diet, so I guess back then healthy to me had more of an idea of fad diets. I think I used to think (that) was more healthy which is weird. You know all that idea of, no carbs after 6 and all that. I thought if someone was doing that then maybe that that's being healthier.

6.3.3 Motivation and inspiration

Two of the most commonly used words from participants involved in online fitness were 'motivation' and 'inspiration'. Participants used these words to describe how their involvement within the online fitness community made them feel. At other times motivation and inspiration were used to describe

how health and fitness-related messages received online impacted participants in their daily lives. Participants reported feeling inspired to pursue a fitness career, or to achieve their goals to 'be the best they can'. However, motivation and inspiration were never clearly defined. Often they were used as statements referring to motivation to exercise, 'go to the gym' or 'eat healthier that day', exemplified by the following statement:

Emily: They motivate me to get up and go do something. If I can't be bothered doing anything - lounge around by the TV, eat some crap food kind of thing, if that happens, I look at that (online fitness SNS accounts) and I'm like, 'I need to get back into it' (fitness, exercise and healthy eating). So it does motivate me to get back into it.

This was reiterated by other participants who described fitness images on SNSs as motivational 'if you have been slacking off', or motivational if you want to 'go out and push yourself further', 'train harder', 'push fitness barriers' or 'be healthier'. By using her online fitness account to re-post and share other user's images, Cienna's goal was to motivate and inspire her followers:

Inspire and motivate to actually get moving, to work out, eat healthily, watch what they are eating and be motivated through their fitness journey.

Participants described a range of images that they considered motivating and inspiring. Some indicated that the main reason for involvement in online fitness culture was to use other accounts for images of ideal bodies as a motivational 'goal'. Participants repeatedly expressed the desire to emulate the images they had seen from an online fitness account, and made decisions about who they followed according to aesthetic appeal. Once following an online fitness account and observing the 'fitness journey' of this user, many of the participants discussed the inspiration they received to change or 'transform' their body.

The motivational view of 'if she can do it, so can I' was a common concept depicted by participants. This was expressed by one participant, Laura, who stated that when she sees other girls she thinks, 'Wow! She can do it, I can do it'. It was described as 'empowering' to see what others were capable of, for example, lifting weights, and completing exercises at the gym that required strength and elite physical fitness or athleticism. In describing images that were motivational to her, one participant, Scarlett, described

what most participants considered inspiring, with high acknowledgement given to the body:

For me it'd be someone who lives a healthy lifestyle and is active and nourishes them self. You can see from the picture that they look after themselves because they've got a nice shaped body. For me, they've got a little bit of muscle on them, cos I obviously look at girls, uh gym girls, but they're defined, they have definition because they're eating the right foods so that they're not holding weight, you know, they're not muscly and then they've got a big stomach, so I think it depends on the person.

Another participant professed:

Clare: A positive image for me is always transformation photos. It's something I look at and get inspired by, seeing someone happy and so much better from being involved in fitness, dieting and losing a little bit of weight, just how much better they feel.

Additionally, 'natural' was frequently used when describing inspirational images. This equated to not being 'super dolled up' with make-up, or 'too extreme' concerning muscle definition. Participants found videos of practical and easy to implement exercises motivational, as they highlighted the indirect benefit to the user. Visual documentation of the 'whole fitness journey', which referred to observing the narrative that was told using images and posts from a fitness account over the course of time, was preferred.

Many of the popular participants discussed being seen as a motivational or inspirational user within online fitness. Often their images were shared by other accounts. Captions would label the image as a depiction of inspiration. The shared images were seen as 'inspiring to a lot of girls' because 'they want to be exactly like them'. Some popular participants described themselves as a 'role model' and stated that having a large following boosted their motivation in itself as 'you had an audience to answer to'. Posts and images that were considered inspiring or motivational by these participants were images depicting dedication and hard body-work. A popular participant deduced images she shared for 'inspiration' or 'motivation':

Scarlett: If I see a really good picture of a girl's body and I think I'm going to post it, it's only because I personally feel like that's what I want, that's what I like, and I post it because it inspires me. I know it might not inspire everyone, but the only reason I post it is just to show people what I'm trying to aim for.

Scarlett described her images as motivational and inspirational for people who 'want to change their body' as it shows them 'before and after going to the gym'. These prevalent posts are known online as 'transformation pictures'. Scarlett stated:

Even for me, and I already go to the gym, its (online fitness posts on SNSs) just so motivational. So for people that want to change their body, who aren't active, are eating bad food, I don't see how it would not inspire someone who wants a change! I think it would be able to help so many people, as long as that's what they want. If they want it, that will affect them positively.

Inspiration usually equated to two tasks: exercising/ 'training harder' or 'not eating that block of chocolate', but instead eating 'chicken and broccoli'. It is noteworthy that images were considered inspirational only to some members. Participants described that people who were 'satisfied' with their bodies or people who wanted to alter their body in some capacity would benefit from viewing the fitness related images. Users who already attended the gym were also described as people that would view the images as motivational. However, people who were unsatisfied with their bodies, or who already had 'body image concerns' were specified as users that would not find these images inspiring.

6.3.4 Shaping fitness behaviours

Involvement in fitness on SNSs was described as a contributing to participants' motivation to exercise or incorporate fitness in to their lives. Motivation or inspiration to exercise varied between participants. For some, it was stated that without fitness on SNSs, their life would be sedentary:

Cienna: If I didn't have Instagram I think that I'd be pretty sedentary and wouldn't do any fitness related stuff or anything because that it's my main source of inspiration and where I go to look for ideas of things to do.

Work-out videos posted to accounts were a popular source of motivation for participants. These short videos provided users with 'ideas' to use for their next work-out, or depicted body area specific exercises such as 'leg day', 'abs' and 'butt' work-outs. Appealing and motivational images were described to be those who had 'really great legs' or abs. Others were more specific with what and who inspired or motivated them to exercise:

Alexa: Kayla [Itsines] - She'll be in one of her fitness scenes doing push ups or chin ups or something like that. I'll be like, 'Hell yeah! Holy shit! I would love to be at that fitness level. That is so good of her.' Like even during her T chin ups just like when you go up and then to the side, that's ridiculous and that is so cool, so that really motivates me to go to the gym and train my back 8 days in a row and just pick up my game.

It was common practice to wake up 'looking at their phones to get that inspiration, just flicking through and getting some inspiration to work-out.' 'Screen shotting' an image or video to use as motivation was a common concept supporting the immediate motivation described by online fitness users is. Another option is to 'scroll through the Instagram feed' before working out, which applies the same concept. Scarlett explains:

Before the gym, they might flick through – I know girls that save pictures on their phones from Instagram who, before the gym will go on their phone and look at these pictures for inspiration, or they'll put their phone up on the treadmill with a picture of a girl's body, and they'll look at it, and that's their motivation, that's their inspiration. They get it all off the Internet...so many girls I know go on Instagram, or they look at a famous fitness model they'll just look at every single photo or video they post while they're at the gym or before the gym and it's like, 'yep, I'm going to train harder', and usually they do.

This technique was popular among participants who engaged with this activity to motivate or inspire them to 'work harder' at the gym. One participant, Jess also used it as a motivational tool. After intending to work-out at 6am, she used the technique of scrolling through her Instagram newsfeed to give her 'the extra push to raise me out of bed'. This is reinforced by another participant, Laura:

I see Instagram for me as a positive thing because it gets me going at 5am in the morning, like, 'fuck, I've got to get up, I've got to get up, I've got to go to the gym!' I see it as a positive thing for me, cos it gets me up every morning.

Another participant, Cora, also noted that 'it does inspire them (users of fitness accounts on SNSs) to go to the gym if they don't really want to'. Participants were exposed to new work out ideas, and inspired to do some exercise for the day:

Emily: When I see her work-outs, her 'at home' ones, it motivates me. I can go do chair pull-ups or something at home with stuff. I don't have to go to the gym. I might be sitting there like, 'oh I've just eaten more than I should have but let's go do some little work-out in the corner or something for 20 minutes.' Or you see a post '60 day ab

challenge' or something, where you do 30 sit-ups. So that night I might do 30 sit-ups and then I'll be like, 'oh, at least I did something.' I guess it motivates me for the rest of the week to go back to the gym two or three times.

This idea was reiterated by fellow participants who had expanded their ideas about fitness and exercise, introducing them to different aspects of training:

Lexie: At the start I didn't think of doing strength training as much, but looking at other people and like seeing what they said they did and how they look, that impacted how I planned my work-outs.

The incorporation of strength training into Lexie's work-out represented a change in the ideal body physique she desired. Another participant, Liz, discussed this change in her own body ideal, and reflected upon the impact of involvement with SNS fitness accounts on her work-out schedule:

I used to be in to running long distances for hours at a time and doing cardio all the time and pushing my body too hard with the cardio and really tiring my body out, stressing my body out. Over the last couple of months through reading online blogs and getting advice that is out there online and looking into it, I found that it's not all that. There are actually so many benefits of doing strength type training which I used to do but I moved away from it, getting a bit scared of gaining too much muscle and things like that. I have really come to terms with the positives of strength training and have included light weights and I don't do cardio anywhere near as much. I don't even train as much as I used to and I feel like I am a lot fitter and stronger than they used to be.

Liz described her involvement as a positive. She affirmed that online fitness accounts were an informative influence that helped her to create a 'healthy' way of viewing exercise. Other participants also reported a positive impact on their fitness regimes. Three participants were introduced to, and became involved in fitness and bikini modelling. Participants admitted that they had no knowledge of these competitions prior to their involvement with fitness on SNSs. After following a number of fitness and bikini model accounts in online fitness, they were exposed to the competition process, and body transformation. This sparked an interest to compete. One participant, Leah, commented on one profile she followed: 'she did the competition and she looked amazing, and I was like "I really want to do that".' Another participant, Tess, stated that her use of online fitness accounts altered after being inspired by the fitness and bikini models. She started principally following

'champions and pros' (professionals), people who she considered her 'role models' and who 'inspired' her to work out:

Tess: I get a lot of my ab(dominal) exercises from Bella Falconi, who I follow on Instagram. It's massive. That's one of the main reasons I like it because I can follow the pros, so I can get different exercises from them.

These statements recognise the infiltration of online fitness accounts in to the everyday lives of users. Although images and videos were drivers of motivation to exercise, a feeling of guilt permeated some of the interviews. This is illustrated by one participant, Isla, who claimed to be compelled to go to the gym after seeing images of people working out after she had slept in, describing herself as 'a bit lazy' and 'feeling a bit guilty'. Isla stated that she felt as if she 'should have gone to the gym' that morning. Harnessing this motivation, she would attend the gym for at least the next two days. Despite feeling motivated by images and a desire for an ideal body shape, it was evident that motivation was also driven by the guilt of not exercising.

Notably, participants acknowledged the negative aspects of motivation. It was expressed that some of the images had the potential to promote a desire to exercise to 'an unhealthy extent' in order to achieve an ideal linked to aesthetics, rather than utilising the information from the text provided with the image. One participant, Liz, proposed that 'girls can become obsessive over the physical result rather than the progress, rather than just being healthy and being in the present.' Participants suggested that the negative outcomes of adopting health information from online fitness accounts related to the potential to 'overtrain', and then 'burn out', pushing their bodies to the 'extremes.' This related to another participant, Alexa, whose experiences using images as motivation led her to the point of over exertion, training 7 days a week and then 'burning out'. She identified that this was a result of unrealistic body standards perpetuated by online fitness accounts.

6.3.5 Shaping dieting practices

Most participants attempted what others labelled as 'fad diets', with limited success. Tried and tested diets included clean eating, IIFYM, raw till 4, paleo, teatoxes, flexible dieting and more. A few participants implemented clean

eating for a few months, discussing the barriers to success and describing their experiences as 'crazy', 'strict' and 'hard'. After a four month attempt, Ava admitted that she was no longer following a diet of clean eating but she was rather 'eating healthier, doing the paleo diet now.' Another participant, Leah, discussed a life-changing implementation of a vegan diet labelled '80-10-10' which equated to 80% carbohydrates, 10% protein and 10% fat intake per day. Leah explained that she found the diet from a high profiled online fitness account run by 'Freelee the Banana Girl':

I saw one of her videos on tumblr (a SNS), and people were actually hating on her video. She is very controversial with everything she says. I started following her and I watched a few of the videos and I was like, 'This is absolutely crazy! How can someone eat this much fruit and eat this many carbs?' It just doesn't make sense in my head cos the diet industry puts carbs into our heads as a synonym to gaining fat, and that is definitely not true (laughs), and that kind of thing got me into researching nutrition a bit more.

After this 'drastic' conversion from eating meat to a vegan diet, Leah described feeling extremely ill; however, she pursued with the diet as she explained that her body was 'just detoxing'. Another participant, Cora, admitted to trying multiple 'fad diets' including teatoxes, and IIFYM, which she stated 'did not work' for her.

The ease of access to information regarding these diets through fitness SNS accounts further prompted the ease of implementation into participants' lives. Diets were often linked to weight loss and creating dramatic differences in body shape. Participants stated, 'if I take that then I will look like that.' One participant, Niamh discussed her motives for trying different 'fad diets' and how she used SNS accounts in this process. The desire for a particular body ideal was a driving force underpinning the search for diet plans:

I've been guilty over the years of going on these fad diets and feeling like I need to look like someone I see on social media. When I was a bit younger, before I really became ok with how I am, I would follow diets. I would go on Googling the hashtag 'get skinny', not Googling, but Instagramming.

Recipe ideas sourced from other fitness users were often attempted. It was common practice to ask for a recipe if a user shared a post of their food.

Some participants suggested that they would consume foods that they had never tried before based on their involvement with online fitness accounts:

Aisha: I never ate kangaroo before Instagram. I just never appealed to it. Some of their meals and recipes I wouldn't have ate before if I didn't see the images, or if I have seen the results.

Interestingly, Aisha refers to the results made visible by the body on display from the account posting the kangaroo recipe. By seeing food images and recipes, some participants indicated a desire to consume exactly what was displayed through the online fitness accounts they were following. One participant stated, 'if they post really good food like prawns or something, oh my god, like I feel like prawns'. Taking a more critical approach, some participants did not feel that what was being displayed was attainable for all:

Charlotte: People who have their MACCA powder smoothie with spirulina and their chia seeds, but it is not attainable for a normal person like someone who lives in a poorer community.

Further developing this critical view, some participants declared that many of the 'fad diets' or food recipes were not promoting a sustainable approach to providing a way of eating for life. While teatoxes were shamed and their use and promotion thoroughly dismissed, other diets created by online fitness account users were also shamed for potentially having negative implications on health:

Bec: That ... girl, she is creating eating disorders left right and centre! Nick and I signed up to her fitness plan, you can pay \$8 or something and you can get her guidelines. The diet that she had in there was like 1000 calories...of course that's going to work! Anyone eating 1000 cal is going to lose weight, it's just the wrong way to go about it, and she is not qualified to be giving the information anyway so definitely leads to eating disorders; that's a perfect example.

Contrastingly, other participants reaffirmed their use of food ideas from SNS accounts, stating that it allowed them to transform their previous views about dieting. Acknowledging her struggle with consuming enough food throughout the day, Jess used online fitness accounts to observe the portion sizes of the people she followed. By viewing what and how much 'fit and good-looking people' ate, it made her 'feel better' to not take measures to 'deprive' her intake of food. Furthermore, online fitness accounts were

described as a facilitator to 'keep people on track' by documenting their eating habits.

Alternatively, some participants used their online fitness SNS accounts as a platform to post images of food that they were 'unable' to eat because of their strict diet for competition preparation. Scarlett, a popular participant, was allocated a three-hour window to eat whatever she wanted every Sunday by her fitness coach. She used her account to post images of food that she longed for throughout the week:

During the week I want chocolate, I want chips, and my house has so much chocolate in it, cause my mum eats so much chocolate that I have to look at it all the time and I think 'oh, one chocolate won't hurt me, one chocolate bar won't hurt me, one biscuit won't hurt me', and then I'll be thinking about it, and then I'll go on Instagram and there will be a picture of a girl with abs and I'm like, 'that's why I'm not going to eat that', and it honestly works, and I just don't eat it, cause I'm like, 'that's what I want to look like'...I post them (pictures of processed foods) because when I see them I'm just like, 'I would love to eat that!' I know processed foods are bad for you, but we've been brought up with processed food, and I was such a sweet tooth, chocolate, McDonald's, blah blah blah. It's such a lifestyle change for me. I'm trying to keep headstrong and be really dedicated, and when I post those pictures, I'm just saying, 'oh I wish I could I could have them'. I'm not really trying to send a message, but, I know I post about Nutella and people are like, 'this is what we're having for our cheat day', so I write things about a cheat day or a cheat meal, so people read it, they don't think...well obviously they're not my pictures! I hope they don't think that! But I'm saying, 'I wish I could have this' so for me it's just, I can't eat it, so I'll post a picture of it, and it's kind of satisfying me, and then when I look at them (pictures of processed foods) I'm like, 'I'm having that on Sunday!'

6.4 Online body ideals

Bodies were strongly associated with discussions about inspiration and motivation. The conversation around bodies led to a change online 'from thinspo to fitspo'. Participants argued that this change positively reflected the way that 'muscles are perceived'. This change saw 'thinspo' accounts put to shame, losing popularity through follower count decreases. This collective movement was based on the decision that thinspo was 'really bad for you'. Thinspo was replaced by fitspo, where posts emanated from an exercise perspective, synonymous with fit bodies. One participant, Cora, reflected:

Having those (fit) images is taking you away from the starving model look to a kind of fitness model look. Whether or not they are achieved healthily, either of them is always going to be a problem but I think

there has been a changing landscape towards the ideal for the young women.

Participants recognised that fitness accounts on SNSs promoted images of different body shapes compared to what was usually viewed in 'general mainstream media'. Compared to television and magazines, participants observed fitness orientated bodies, and broadened their awareness of 'fitness model types'. As such, participants were able to label the array of body shapes seen in online fitness, determining different categories. Most participants recalled numerous examples of the ideals portrayed online and were able to articulate these with detail. One participant, Liz, stated that the main ideals portrayed were 'a lean stomach, a nice round bottom, the thigh gap, long lean legs, lean arms without the saddlebag type things'. Another participant, Ella, elaborated:

Mainly quite fit looking bodies. They're often really toned or not necessarily really muscular but just toned. Sometimes they might have a 6-pack or just really defined abs, toned arms and legs, but generally quite slim as well, because you can be toned but not be a size 6 or something. I think a lot of them are really small and also really toned. It's not necessarily people who are fit; I think it's a little bit biased towards people who are skinny and fit.

Participants also discussed seeing 'slim', 'skinny', 'thin' or 'stick' bodies, 'bikini' bodies', 'lean' bodies, 'more athletic', 'built' bodies with 'more muscle definition' and 'broad shoulders', 'toned' bodies, 'fit' bodies, and 'bodybuilders'. These responses also reflect the 'different levels of being muscular' presented within the images circulated online. The most common body shape described was the 'really thin girls with muscles' or 'thin but fit', that sees bodies 'taper in at the waist' with 'low body fat percentage'. Females with these bodies were labelled as fitness or bikini models.

While all participants advocated that there were 'a lot of different types' of body shapes in online fitness, very rarely did participants reflect on what they do not see. Only one participant specified that 'there's not a lot of hourglass at all.' As the following excerpt illustrates, she was able to easily state what was and was not the norm promoted from online fitness account users:

Leah: Some are promoting only the thin and others are promoting like muscular and slim. I don't see many accounts where the fuller figure

is (the) desired look. There are very very few accounts that have females that are bigger, that are happy with themselves to be honest.

The only larger bodies or 'overweight' bodies made visible were in a 'before and after shot', where progress or a transformation had been made and a visible amount of weight had been lost.

While some participants described the vast array of images as positive, endorsing a variety of ideals, some found it to be a negative influence. The following dialogue is an example of the negative influence that some participants recognised with respect to the images seen in online fitness culture:

Cleo: I think its negative because it puts the thoughts in people's heads that that's what they should look like, or that that is what is considered sexy, or that is what you should look like if you are fit, and because everyone responds to images, everyone responds to what people think is normal. If they keep putting that out there then it will become normal.

Although some ideals displayed online were considered unachievable, there was a firm belief from participants that these ideals were achievable or 'attainable'. Participants all held a sense that these toned ideals were achievable with time, 'hard work', 'motivation' and 'determination'.

6.4.1 Aesthetic ideals

Participants indicated that they determined whom they followed by their body shape, and whether these bodies were consistent with her idealised physique. Body parts of popular users were explicitly described. Some participants indicated that if they 'put them all together' it would visually determine their ultimate ideal. In describing the female fitness accounts she followed, one participant, Bec, stated:

Mostly, the girls that I like have a really round bum, they've got really tight abs, they've got that kind of an hour glass shape, I mean nobody wants that straight side stomach look...God knows why? The girls mostly have abs but you know as soon as they see like really defined abs then they get hated on because that's too much -girls are ruthless- broad shoulders, not too broad, small waist, big bum, still got breasts, which by the way, once you hit a certain body fat percentage is not possible, so breast implants I guess, and they are all tanned, heaven forbid if you've got translucent skin!

The following excerpts were descriptions of desired ideals from participants across interviews:

Scarlett: I want to have obviously a leaner stomach which you're meant to have, that's why you diet, because you don't want to have a flabby stomach. I want to have nice shoulders, a lean stomach, preferably with abs, but she [bikini coach] said it doesn't really matter, but genetically I have abs anyway so I'd have abs showing and then I really want to have just a nice high bum, like the girls have - that takes so long as well, and I want to have nice sculpted legs and not big legs but you can tell that they're muscular legs.

Alexa: 'Muscular (and) built with defined muscles and defined abs and a big bum.'

Emily: 'Toned and tight, slim but not a stick...muscle definition in abdominals, arms and legs.'

Tess: 'I strive to be really toned, a more muscular physique.'

Ava: 'I love in between bikini model and fitness model; not as skinny as the bikini models, but not as muscular as the fitness models, somewhere in between...nice defined arms, flat stomach, with defined abs, nice tight bum.'

Cienna: 'A slim waist...toned arms.'

Lexie: 'Thin and toned.'

Participants expressed diversity in the desire to be muscular. However, the comments highlight the commonality of ideals around being 'toned' and 'lean'. These ideals were held in high regard to all participants and visually permeated online fitness accounts. The definition of 'toned' was separated from 'muscular'. Descriptions referred to avoiding 'over the top' muscle definition, reflecting participants' desire to evade being 'too bulky'. Descriptions of being 'toned' also differed from 'skinny'. A body that was 'toned' reflected a low body fat percentage, with 'no jiggly fat', as well as not holding 'too much definition, so it's not like 1% [body] fat'.

All, bar three participants, stated that they were happy with their body at the current time. Two participants indicated that they were not yet happy, as they had not yet reached their ideal body. These participants acknowledged being heavily involved with fitness and 'healthy eating'. In one instance, a participant explained discontent with her body. After two years of

training (mostly seven days a week) to fit more in-line with her ideal, Bec was unhappy with aspects of her body that she felt she could not change:

I'm not really happy with what I see in the mirror even now. It's not that I want to be skinnier or lose more weight, I feel like I was almost happier when I was a bit chubbier to be honest. I like having a small waist so that's one of the things that I probably aspire to (have) but I feel like I've lost weight on my boobs which I'm not happy about but I've got like chest separation, which isn't really the aim of the game at all...my back is a bit lean, I don't know, I feel like it doesn't suit me. I've always been a (size) 10 and a bit curvy and now I'm a 6 or 8 and maybe it's not what I'm used to so yeah, we are always trying to change ourselves I guess.

For one participant, Leah, although she indicated feeling happy with her body, at some points throughout the interview there was an evident desire to make 'improvements':

Leah: I would feel healthy...I would feel good in myself if I were slimmer. I mean if I was told 'you have to stay the same shape that you are for the rest of your life', I would be more than happy to be honest. But I do feel like there is improvement to be made. And considering that I will be on stage [competing] within 13 weeks and I will be standing next to other girls that are similar height to me, but I am not really worried about that. I am more sort of using myself as motivation than looking at other girls. I think the ideal for me (is to) just get a bit more muscle, lose a bit of fat and stay that way as well.

6.4.2 Transformative aesthetic ideals: The fitness frame

The body ideals desired by participants replicated depictions of bodies from fitness accounts on SNSs. Participants suggested that their ideals were profoundly influenced by these accounts:

Scarlett: I'm pretty sure it's all cause of Instagram actually, I started seeing pictures of abs, not even abs, they might just have a flat stomach and they have those stomach lines. Do you know those lines when girls are really lean and they have those stomach lines? And I thought, oh, I really wish I looked like that. I really wish I could. I had no idea what I was doing, and I'd start doing crunches, sit ups, every night before bed. I thought that was how you got abs. I didn't think it had to do with food, I was like, "oh I got to build the muscle up". I didn't realise you got to build the muscle up, and you have to eat no bad food, like McDonald's, diet coke, chocolate, my sweet tooth, haha, everything bad, muffins, chocolate chip cookies. I was like, "these crunches are going to make me get this girl's stomach". For me, it wasn't in high school, it was after I left high school, started seeing a change in my body and then I started seeing these pictures and I'd say, "I want to look like her. I want to get a flat stomach like her". That's what started it for me.

Another participant, Tess, stated:

When I was younger all I wanted to be was skinny. Fitness has helped me in the fact that, I'm now eating a lot. I used to worry about the things I was eating. I used to not want to eat, and just run to get skinny. There was this thing in my head, and it would drive me insane. Fitness has helped me so much in that way. I am eating regularly and I'm feeling stronger rather than skinny. It really is true, strong is better than skinny, you know they say all that stuff on Instagram right now? It can stop eating disorders and stuff like that. What girls realise is that you need to eat to fuel your body, or to reach your fitness goals. I think that will help a lot.

Emphasis of the influence was placed on seeing photographs of bodies:

Laura: Well that never used to be such a big emphasis on having a big butt, but now it's all about having a round bum, and being shaped and toned and abs, any girl wants like a flat stomach. You've got your Michelle Lewin's and your Paige Hathaway's, those are the kind of girls that people are like, 'oh my God'. Those are the kinds of girls that girls will be like, 'wow, I want to look like that', but they probably diet you know 24/7, 56 days of the year.

The concept of 'exposure' to these images within online fitness accounts was noted as a primary reason for participants to alter their 'mindsets' or body ideals. Additionally, 'influence' was mentioned as participants described viewing an image as 'definitely having an impact'. An emphasis was placed on online fitness accounts for the role they played in altering participants' ideals:

Cienna: I used to actually prefer like skinny arms, but now after being influenced by seeing what I see, I actually prefer toned arms and toned legs as well.

The desire to emulate the images seen on online fitness accounts was also a prominent aspect of changing their ideals. Again, online fitness accounts, particularly on Instagram, were held accountable by participants. Through purely viewing images, there was an increased desire to attain an ideal. Scarlett explained that it was 'because I had seen those pictures of who I wanted to be'. She clarified:

I'm pretty sure it's all cause of Instagram actually. I started seeing pictures of abs, not even abs, they might just have a flat stomach and they have those stomach lines. Do you know those lines when girls are really lean and they have those stomach lines? And I thought, 'oh, I really wish I looked like that. I really wish I could'. – 'because I had seen those pictures of who I wanted to be'.

Demonstrating this influence, participants discussed a change in their

idealised and desired bodies. From the participants' perspectives, generally, the ideal female body had shifted from thin or skinny, to being characterised by well-defined or toned muscles, specifically in the upper body, abdominal region, and buttocks, as well as slimness at the waist. All participants described a previous appreciation for thinness, wanting to be 'stick thin', 'skinny' or 'slender' – 'nothing to do with toned or fit'. One participant, Alexa spoke at length about her perceived shift in body ideal. Approximately two years ago her ideal was to be 'lean' and she 'loved that look', however, she stated that she now preferred the 'fit look'. Participants divulged the extreme practices they would have undertaken in order to 'strive to have a lean physique', or to ensure they stayed skinny. This desire was associated with their time in high school.

Many participants indicated that they previously did not have an appreciation for muscular bodies. They stated that they were only 'exposed' to muscles on females through their involvement on SNSs, discovering that 'muscles aren't a bad thing'. Based on their experiences of involvement with online fitness communities, appreciation was developed for bodies to 'have a bit of muscle definition and embrace their strength'. One participant, Laura, reflected:

I reckon the last two to three years - I remember muscles never used to be hot when I was at school. No one did weights; you worked out and did some cardio. Now times have changed so much and you see so many more girls in the gym, there are so many more girls on Instagram that have all the muscles and stuff. For me personally I think that's sexy.

Noting the same 'shift' or 'change' as Laura, many participants also stated that their 'perceptions had changed' within the last two years. A desire to become 'toned', 'fit' or 'sculpted' or to have 'more muscle' and be 'more muscular' burgeoned. Discussions involved 'changing goals' to 'build muscle mass' at various levels for different participants. One participant, Sally, described her change in progress photographs taken from previous years. Her initial goal to lose weight was now replaced with a goal to 'bulk' in order to gain muscle. In this way, documenting a 'fitness journey' via an online fitness account enabled participants to realign their body ideals to that of the culture. One participant, Aisha, explained that she based her previous ideal

on clothing sizes and weight, striving to reduce to the smallest size possible.

From her involvement with the online fitness culture, her mindset changed:

I would be very happy to be um and extra like 3 to 5 kg than I am now, but with more muscle definition. It is not about the particular weight now, it's more about um my appearance. I believe I'm not happy [with my body] because when I look at myself I still see that there is room for improvement. It is through the stuff that I can do fitness wise compared to fitting into a size 8. I'm setting myself fitness goals rather than actual weight goals. now...It's completely different. It's really funny. I disliked those people that I used to be and that I used to want to look like because now I feel like I'm more educated and experienced in a healthy lifestyle and what is acceptable, or what is healthy and I just feel like I am more mature and educated in that sense. I can easily say that I am happy to weigh more but be stronger or to be healthier, compared to before when I was just like, "I don't want muscle, I just want to be this weight", because back then it was socially acceptable I think but I feel with this culture now, it's pulling it out of that way.

6.4.3 Circulation of ideals

Some participants concluded that through the constant circulation and sheer volume of body photographs, what they saw became 'normal':

Jess: I guess when you see images of women lifting weights, and in cross fit and things like that, you no longer feel that it is really abnormal.

Another participant supported this idea:

Cienna: It shows girls the norm or what the ultimate body is. That's how it shapes girls' views, because it's just like 'oh everybody wants that' and whenever something is wanted by everybody it becomes that number one thing.

Evidently, popularity represented by the visible amount of 'likes' generated an idea of 'acceptance' of others within the online community:

Aisha: OK this is if I was entering Instagram for the first time and I was sceptical with females with muscles and I was looking through the images and saw thousands of likes, then it would alter my thinking, being like, 'this is getting support. It's socially acceptable'. It even altered the way that I was thinking because I was against, well not against muscles on females but I didn't believe that that was socially acceptable or attractive. Through the comments and mainly through the likes, if you have high numbers then it surprises you as thousands of people support this.

This idea further perpetuated thoughts that the fit or muscular bodies were considered 'normal'. One participant, Tess, explained that by seeing the popularity of the images assigned to 'really ripped' females, she became

curious and founded the desire to replicate their body. In achieving this body, and going to extreme measures with exercise to acquire her fit ideal, she was rewarded with popularity measured by a large following. Another participant, Laura, reiterated this desire, explaining that she saw images of girls with an athletic muscular body that prompted thoughts of 'wow! Look at that girl; she's got so many likes. I want to look like her!'

The popularity of images provides accounts with power to construct the 'norm'. Projected images enabled arguably less experienced users to gain an understanding of the type of ideals that are expected and respected by other online fitness users. Problematically, inexperienced users merely reproduced and maintained the culturally endorsed norms associated with the images, rather than promoting individual expression or desire for a varied body ideal in fear of reprisal in the event of straying too far from these socially constructed body ideal norms:

Cleo: It puts the thoughts in people's heads in that that's what they should look like, or that that is what is considered sexy, or that is what you should look like if you are fit, and because it is so um what do you call it? Like everyone responds to images, everyone responds to what people think is normal. If they keep putting that out there then it will become normal.

With compounding reinforcement from high numbers of 'likes' and comments, these images are made popular, often resulting in higher circulation rates or a higher amount of shares. This increased visibility of fit images was what most participants attributed to their perceived change in desired ideals, altering their perceptions. However, it became evident to participants that the body ideal they desired may not be seen as 'normal' to the world outside of online fitness. Through talking to friends, one participant, Bec, recognised that her view differed from people who were not involved with online fitness culture:

From an outsider's perspective, sometimes if I see a photo and I am with somebody and I showed them that, I look at it and I think, 'that's bloody awesome', and whoever I show it to is like, 'oh it's a bit much, don't you think?' So my perception is definitely skewed by the online fitness community, because to me that's cool and probably two years ago if I looked at the same photo I would have thought I would have never looked like that. So I think definitely over time I've become more accepting of more muscle on women...maybe two years ago I would have gone for the skinny girl and thought that was awesome but now, it's more towards the second photo (more muscular).

6.4.4 Lean, not skinny

Although participants described their change in aesthetic ideals from a thin or skinny ideal to a more muscular ideal, it was particularly evident that participants still desired a lean physique. A lean body was reflective of a low percentage body fat, often a response of a highly monitored and controlled a diet, and fitness training to increase muscle tone. However, the word 'lean' was often conflated with the words thin or skinny. The desire to attain leanness had a negative effect on some members, as described by participants. Preconceived assumptions about how to attain a lean physique led to avoidance of eating, or exercising for the purpose of shedding fat. This is exemplified by statements from three different participants:

Isobel: I know people see me and they think that I do loads of cardio and that I don't eat much food. I guess it can give the wrong impression, even though, little do they know, I do no cardio and I eat constantly. But people just get the wrong idea of how to achieve certain bodies, like they see a body and think that they know how to achieve it. Their mind just says stupid things.

Scarlett: Some girls see these pictures and they straight away don't eat; they'll starve themselves.

Cora: I used to get a lot of hate on my page and a lot of people will call people in the fitness industry "anorexic", or "they need to eat a burger", or "they are too skinny". I think it's just a lack of education from people to know that there is a difference from being skinny and being lean. Having a low body fat percentage, which is being lean...you know I eat about six or seven times a day, compared to being skinny, eating 500 cal(ories) a day.

Participants suggested that this negative effect on health behaviours were founded on a lack of 'education' and 'understanding':

Cora: The lack of education and information that can be out there, it can be seen as a negative thing because a lot of women do still think that they (people in fitness images) look like that because they starve themselves or they don't eat enough or something like that.

There was an expectation for users to conduct their own research to ensure they had awareness in what was involved in attaining a fit and lean ideal. This viewpoint reflected participants' emphasis on individual responsibility to ensure that the information they assumed, and were receiving, was correct:

Alexa: If you are someone very impulsive and jump into things, not really doing the research and not really forming your own fitness plan,

like [have an] idea of how it should be done, then it would be detrimental.

Another participant, Sally, reaffirmed this individual responsibility:

With females, if they want to lose weight they feel that they need to eat less and they may end up not eating. They may end up not eating enough food and then they get metabolic damage and then things start to get really bad when they get eating disorders basically. I feel like if people are seeing these images and they think, "that's what I'm going to get to", and then they don't do their research, or they don't see a professional for help, that could lead them to an eating disorder.

6.4.5 Body comparison

Two common mentalities were identified in relation to body comparison: (1) the negative feelings of unattainability, and (2) the generation of positive motivation. This difference was reflected by Isobel, a participant who discussed the impact of images from online fitness accounts:

One of my friends finds them really depressing, cos she's like, 'I just wanna look like that. I'm never gonna look like that.' Whereas I'll look at them and take bits. I don't let the whole image affect me. I take bits of it and if I really want those legs, I'll work towards it. So I don't get depressed over Instagram.

Some participants indicated that comparisons to 'unrealistic' bodies posted by online fitness accounts had a negative impact on their mood, and body satisfaction, and often used the word 'depressing'. This impact is similar to that of comparisons made with bodies on other media such as television or magazines. Primary differences between the exposure of online images, compared to traditional, is the immediacy and recurrent circulation of images, and the images feature one's peers. Hence, those bodies may feel more attainable than the appearance of models or celebrities.

Users who experienced negative effects from involvement with online fitness culture were identified as 'unsatisfied' or 'insecure' with their bodies, or who idealised a body goal that was too far from their current body. Participants discussed that some users would 'take it to the extreme', or put 'too much pressure on themselves' to attain their desired ideal. At times this would amount to feelings of depression, and actions that led some to having an eating disorder. One participant shared that this desire to attain her ideal body did have an effect on her eating:

Laura: Well to be honest with you, like two or three years ago, if I ate something bad I would throw it up. It was because I would see these girls and want to look like these girls so bad so I would physically make myself sick. Because you see these images of these girls then you think, 'if I want this sweet I'm going to eat it but I'm going to vomit it up so I still look like them,' you know what I mean?

Researcher: is this in relation to fit images?

Laura: Yeah! Girls that look, you know, amazing, and toned. I think it could be really negative on some girls, especially if they are already mentally...I don't know...out of whack up there (points to head).

Noteworthy, some participants stated that they deleted people they found unrealistic as 'it was getting to my head'. Deleting followed accounts demonstrates agency in decision making around users' best interests.

Alternatively, body comparison was frequently described as a 'positive motivator' for exercise and 'healthy' eating. However, this was only considered a positive when the comparison was deemed achievable, for instance when the body shape was considered similar to the body they already had. Seeing images of idealised bodies would inspire or motivate participants to exercise harder, or eat better:

Cleo: When I see pictures on Instagram where maybe someone had a bigger top ab than me, I would be like, 'oh their obliques stand out way better,' or, 'their glutes are better.' It would make me want to train even more.

Some participants described an obsession with comparing their bodies to those found from online fitness accounts:

Laura: You get obsessed with it and you, you push yourself so far because you think well, you know "they're that lean and they're that ripped, I'm going to be that ripped".

Combinations of both negative and positive feelings were attached to viewing fitness images from SNS accounts. One participant, Laura, considered the images as typically having a positive effect on her, motivating her to go to the gym; yet she also discussed how sometimes she felt 'a little down' on herself after viewing the images:

It is positive but I also think that some days it does get me down. It got me down this morning when I saw my trainer and I said, 'how do these girls look like this?' I constantly feel like comparing myself to these girls, because I'm like, 'shit, a need to look like them in 11 weeks time, how am I going to make it work?' And she just kept

saying you know, 'trust the process, stop looking at those girls because ideally they don't look like that every day, they look like that one day over their competition and that's it.' So it has been positive, but it also is negative for me because I will look at those images and think, 'oh my God, you know she is amazing, why can't look like her?'

This excerpt from Laura's interview demonstrates frustration in the 'fitness journey' and frustration in her body and the training process. Another participant, Scarlett, echoed this frustration with herself for not starting her 'fitness journey' earlier. After following some of the most popular Instagram fitness accounts, Scarlett acknowledged the time it takes 'to get a body like that'. The idea of only attaining slight or little progress was a de-motivator, and participants encountered these feelings when comparing their bodies to others on SNS accounts associated with fitness.

6.4.6 The (new) femininity

The transformation of the desired ideal body for the online fitness users also amounted to a shift in the perceptions of 'femininity'. One participant, Alexa, compared her previous definition of femininity as 'being lean', 'soft', 'petite' and 'not having muscle', to her contemporary definition, inclusive of 'tone' and 'muscle'. It was stated that a female could appear 'more feminine with muscles, cos you can get more curves.' Rather than the traditional view of 'curvy' being associated to softness of the body and an hour-glass physique, a 'curvy shape' was described to include a 'nice round bum' tied with the concept of a 'nice curve on a lady'. As suggested by participants, curves were considered to be 'made' by muscle tone.

However, Alexa's contemporary view of femininity was contentious, as participants shared differing views on what constituted femininity today. While some participants affirmed Alexa's views, others asserted that 'too defined muscles were not feminine'. One participant, Isla, stated that it is 'not the way a natural female is meant to look.' Conversely, it was considered acceptable 'if they are just flat and toned then that correlates with what a feminine but fit person looks like.'

A dichotomy was divulged in participant interviews concerning wanting to look fit, but not manly. It was suggested that some females pictured within online fitness accounts 'lose their femininity' due to their increased

muscularity. Participants found it difficult to articulate the contradiction of femininity found within online fitness images of muscular female bodies. Promoted idealised images provided a conflation of traditional masculine characteristics, with feminine body traits. In discussing muscular or 'strong' females involved in online fitness, participants linked their physiques back to femininity:

Alexa: I mean even like Kayla, even though she is very toned, you can see she works out, you can see she is very fit she can do pull-ups and she has got a lot of strength, she is still a very small, petite and lady like.

A few participants articulated a fear of losing their femininity by working out 'too hard'. This was an important factor as the line between 'too muscular' and the amount of muscularity desired impacted feminine traits:

Isobel: How I looked the day before my competition is not ideal because you don't drink water for a day before and then my abs – to be honest looked really defined and I'm not into that. I just think someone that looks strong, you can tell that they work out, that they put a lot of effort and energy into their body, but I'm not into anything that verges on unfeminine. I still like something that's feminine and attractive, so not over the top.

Similarly, Jess described some of the females in the '#fitfam' as 'no longer feminine looking' because 'their deltoids are too big and their biceps are too big.' When females were considered 'unfeminine', there was an immediate association with the female being 'manly':

Alexa: I used to be all about the lean, slim physique. I loved that. Then I went to the muscular type of physique where other people, naive people, they're just like, 'oh she's manly'. That appeals to me, like not manly, I don't think it's manly, but the sporty, strong build.

Comments about females, who were completing competition training, pertained to: being 'really bulky and big', and 'too lean'. Therefore they were 'portrayed as manly.' 'Manly' features included 'really broad shoulders with big muscles,' whereas participants described feminine features as 'nice, feminine little shoulders, rounded shoulders.' Contrasts were often made between what shape was desired, and what was not. One participant, Ella, described her ideal and then concluded with 'not a boy shape, more like a girl.' Scarlett was also quick to explain her ideal as 'thick legs, but not manly thick.' At times this line between too muscular and the amount of muscularity

desired hindered participation in exercise for fear of becoming 'unfeminine'. Furthermore there was a desire to 'feel smaller next to males,' depicting dominant feminine discourse.

Few participants valued a muscular physique for women and worked-out with the intent of achieving it. While recognising that female muscularity can be perceived by some as atypical, shocking or 'disgusting', Tess had a particular appreciation for the bodies of athletic-ideal women pictured on online fitness accounts. In defending herself against her mother's views of what she wanted her daughter to look like, she stated:

The other day she (mum) was like, 'are you ever just going to be a slim beautiful girl?' And I was like 'no mum, probably not' (laughs). I like training and I like the lifestyle and that's why I do it.

6.5 Chapter summary

The findings from this chapter confirm that SNSs, in particular online fitness accounts, are an important source of health information for young females. Online fitness accounts constantly confront members with information related to various forms of health. This chapter explored the ways in which online fitness users access, understand and apply health information in their everyday lives. The health-orientation of the participants was apparent in their descriptions of preferences for health conscious decisions in food selection, and training regimes.

The voices of participants, reflected through the three primary themes, illustrate the impact of their involvement in online fitness on their constructions of health, and subsequently, their health behaviours such as diet, and exercise. This further demonstrates human agency in the construction of health outside of larger institutions and discourses of science. Instead, SNSs provide a platform for users to challenge the traditional construction of knowledge, as users articulate forms of health based on their practice, and personal experience, which followers consider as valid evidence. In some cases, online fitness accounts demonstrated capacity to be optimal sites for enhancing health understanding as described by

participants. In other cases, online fitness accounts potentially promoted unhealthy attitudes and behaviours.

Fitspiration images have an evident positive impact upon users' ideal body desires, moving away from thinness, as well as broadening and challenging participants' construction of femininity. Although fitspiration images may be celebrated for providing an alternative idealised body physique to that of the thin ideal, the exhibition of one particular body shape remains a concern. The constant circulation of fit ideal images reinforces another sociocultural standard of beauty for females, represented as 'thin and toned' or 'lean and fit'. By excluding images of people with 'too much' body fat or, conversely, 'too much' muscle tone, participant constructions of a healthy 'looking' body are restricted.

Data reflected participants' developed capacity to reflect on the health messages received from online fitness accounts. At times, the ability to be critical of the messages and information received was evident; however, this was not strongly stated or implemented by participants. The social constructions of health and body idealisation, reflective of the influence of online fitness accounts, emphasises a greater need to be equipped with a wide-ranging skill set to not only be able to access and understand health information, but also to be critical users and evaluators of this information. Given the current unpredictable, and innovative environment of SNSs, paired with the current political views that shape health in Australia, young people need to be actively engaged in conceptualising the health information they obtain. Findings point towards initiatives that develop young people's critical health literacy, and therefore evaluative stance, so that they can critically appraise conflicting online health information to help them make more informed choices. This is particularly relevant given the contemporary unregulated SNS landscape that is saturated with an array of so-called health information and advice.

CHAPTER 7

DISCUSSION

7.1 Introduction

This chapter develops the understanding of online fitness culture from a socio-cultural perspective in order to gain a greater insight into the impacts on young females' health beliefs and health behaviours. The views of young females, who identify as part of the online fitness community, are integral to developing this understanding. As such, this chapter will discuss the most pertinent points arising from the data, in relation to the literature and the theoretical frameworks. The chapter addresses the research objectives of the study:

- 1. To explore the types of health messages that are depicted within online fitness culture, and whether they are used as a source of health information**

Findings of this study reveal a plethora of diverse health messages from online fitness accounts. As acknowledged users of online fitness accounts, participants in the current study sourced a wide variety of health information from the SNSs Facebook and Instagram. Health and fitness-related content was posted by companies in the guise of selling a product or a service, or was user-generated (e.g. fitness selfies), or maintained through 'sharing' content. Messages related to diet, fitness and the body. Specifically, a number of diets were promoted, along with the consumption of 'healthy' foods made popular by other online fitness users. Fitness videos promoted work-outs dependent upon the desired ideal body. Instructional images and videos were also circulated by online fitness accounts. Although diverse in exercise promotion, perpetuated ideals about the fit body were fundamentally similar in their narrow construction of an idealised fit body. This body was represented as thin, but toned, with minimal visible body fat.

- 2. To develop an understanding of the perceived 'positive' and 'negative' aspects of participating in online fitness culture for young females**

Participants indicated that the involvement and creation of online fitness culture was a positive leisure activity. Strong associations with the community and culture created friendship groups and a feeling of connectedness amongst participants. Furthermore, images were described as inspirational and motivational, ultimately encouraging exercise and healthy eating. However, being involved within the culture was not always a positive experience. This is consistent with previous research, which has emerged from a 'cause and effect' paradigm. One aspect of online fitness culture, fitspiration images, has had negative implications associated with body image, exercise and eating behaviours, and body dissatisfaction (Boepple et al., 2016; Boepple & Thompson, 2015; Holland & Tiggemann, 2016a; Tiggemann & Zaccardo, 2015).

3. To understand how socially constructed norms around health and fitness are developed, maintained, perpetuated and circulated through online fitness culture

Understandings of health come from diverse interactions shaping people's health beliefs. Indeed, in exploring young females' experiences in online fitness culture, it was observed that online fitness community interactions played an important role in the social construction of health, fostering understandings of health for the people involved. Social networking site practices such as 'likes' and 'shares', as well as hash-tags, facilitated the construction of normative fitness community values and practices. Popularity of posts, as indicated by high volumes of likes and comments, led to the development of these norms. Subsequently, through the practice of 'sharing' content was reposted, and new users were able to view and engage with the image or video. In this way, online fitness culture can be described as a form of 'biopedagogy'. Social networking site practices such as communications through 'likes' and 'shares', as well as hash-tags are biopedagogic strategies help to promote disciplinary and regulatory strategies that govern bodies for the purpose of health and wellbeing. The online fitness biopedagogic strategies act to disseminate the values and practices of the online fitness community.

4. To explore how cultures on SNSs influence understanding and behaviour associated with young females' ideals of health and fitness

Interaction between members conceptualised truths, ideas, attitudes, perceptions and perspectives (Charon, 1979). Communication through hashtags is an interaction with other members that may prompt modifications of their understanding of a concept. Participants indicated that this new-found understanding had a substantial influence on participants' health beliefs and health behaviours, namely eating and exercise. A number of participants discussed the implementation of particular diets in their lives; for example, based on the information received from online fitness accounts on SNSs, one participant became vegan. A greater number of participants confirmed attaining inspiration to exercise from the images and videos, which led to enactment of fitness exercises and ensuing work-outs.

The current study makes an important contribution to the literature by examining young females' experiences of online fitness culture. This original contribution demonstrates the way in which health messages received on SNSs impact upon the construction of health beliefs and health behaviours of young females involved in the culture.

Health literacy, regarded as the acquisition, understanding and application of health related information (Jordan, Buchbinder, & Osborne, 2010), was a prominent concept to emerge from the data. Participants' health literacy was impacted through their involvement with online fitness culture. It is important to note that SNSs differ from traditional forms of media, and require specific skills and capabilities that form a part of the eHealth literacy construct. eHealth literacy is an important component of health literacy in which information is sought by using information communication technology. Drawing on constructs of eHealth literacy (Norman & Skinner, 2006) and health-related media literacy (Jain & Bickham, 2014), the term 'social media eHealth literacy' will be used to encompass the different elements involved in sourcing health information through SNSs. The findings of the study indicated that participants within the online fitness community were overwhelmed with information of health related practices. Participants admitted to consuming information from unknown sources and implementing health practices into their everyday lives based on information found through SNSs. Additionally,

the images from online fitness accounts were potentially viewed through a less critical lens than with traditional thin-ideal images because of the exercises basis, and functionality-based poses (Tiggemann & Zaccardo, 2015). These findings contribute to a broader understanding of how young females obtain health information, and emphasise the need for critical social media eHealth literacy, as well as critical media health literacy in general, to be developed at a young age.

7.2 The social construction of health within online fitness culture

7.2.1 Social networking sites and online health information seeking

Findings of the current study indicated that participants sourced a wide variety of information related to various forms of health from the SNSs Facebook and Instagram. While research indicates that health professionals such as doctors and nutritionists, as well as peers and adults play a vital role in creating meanings that influence young adults' health attitudes, SNSs are a relevant factor influencing a person's health understandings and health behaviour (Vaterlaus et al., 2015). The data identified SNSs as key socialisation agents in providing health information and influencing social norms around health and fitness. Health information provided by online fitness accounts varied depending on the focus of the account. Consistent with previous studies (Carrotte et al., 2015), participants involved in online fitness culture were specifically exposed to diet or nutritional information and fitness information from online fitness accounts on Facebook and Instagram. Participants claimed that online fitness culture frequently conveyed public messages about the fitness and exercise training regimes, as well as the importance of staying physically active, and eating 'healthy' foods. An emphasis was placed on the need for healthy consumption of foods, along with exercise every day, or an aim for at least three times a week. The saturation of these health messages, along with messages proliferating people's accounts (even if they do not necessarily wish to view it, i.e. SNS algorithms that note if one member 'likes' an image, this image will then appear in the newsfeeds of friends), presented online fitness accounts as sources of health information. Lying at the centre of the culture, online fitness

accounts provided members with a resource in which they were able to communicate, attain inspiration and gain experience and knowledge.

In this way, online fitness culture can be described as a form of biopedagogy in which methods to evaluate and self-regulate the body are advocated (Iriart et al., 2011; Miah & Rich, 2008). One participant in the current study stated that seeing popular images within online fitness culture showed her 'what to eat to get a flat stomach.' This suggests that online fitness culture facilitates self-development sessions for participants around 'healthy lifestyles', and 'responsible life choices'. Some online posts were deliberate attempts to change behaviour, or to instruct one about how they should live, for instance, exercise regimes or patterns or diet. However, other posts were subtler, with images depicting of female bodies with superimposed inspirational quotes, or before and after transformation pictures. Online fitness communities assigned labels to these images and, through action, determined a typical response. The typical responses were either considered appropriate or inappropriate based upon societal constructions, thereby functioning as 'rules' to govern this action (Gergen, 1985).

Through SNS practices, users of online fitness accounts effectively promoted disciplinary and regulatory strategies that advocated certain health behaviours in the name of health and wellbeing. Users of online fitness accounts acted as consumers of this information with assistance from regulatory strategies that presented information as objective and empowering. Site communications (e.g. 'liking', 'sharing' and interacting online) can be viewed as strategies for promoting particular health and body ideals. It is through these social interactions that meaning was developed, health messages were circulated, and that users came to identify and confuse popular messages in terms of what was perceived as seemingly 'correct'. It was through this interaction that members conceptualised truths, ideas, attitudes, perceptions and perspectives (Charon, 1979). Consistent with previous research, participants perceived that viewing some circulated messages led to feelings of motivation, and the desire to exercise (Vaterlaus et al., 2015).

Communicative developments, such as SNS practices, facilitated the transformation of the audience into participants changing the usual ways of

'production, distribution and consumption of media' (Meyers, 2012, p. 1022), creating an overlap in the roles previously defined as producer and consumer. This evolving role has been termed 'prosumer' (Tapscott, 1996). In accordance with the literature, this concept can be applied to the individual users of online fitness accounts. It can be used as a means to express or advocate an opinion, or to sell or endorse products, thereby redefining the way information is developed and consumed (Ritzer, Dean, & Jurgenson, 2012). Information can be easily recirculated, fostering social construction in an online social context. The ease in the distribution of information, characterised by open expression and engagement can be labelled a 'participatory culture' (Jenkins, Clinton, Purushotma, Robison, & Weigel, 2006). A participatory culture is one 'in which members believe their contributions matter, and feel some degree of social connections with one another' (Jenkins et al., 2006, p. 7). This was reflected in the sharing of information through online fitness culture, and the emphasis placed on 'liking' or commenting on posts. It is also a culture 'in which people work together to collectively classify, organize, and build information' (Delwiche & Henderson, 2013, p. 3). Again, this was reflected in the social construction of elements such as health, what it means to be healthy, and the types of exercises that are prescribed as being health-oriented behaviours and practices. Members engaged in this form of participatory culture each time they updated their online fitness accounts, circulated existing content, or added a post that built upon information.

By populating news feeds with images of healthy food, fit bodies and video exercises, accompanied by a proliferation of professional and unprofessional advice, the use of hash-tags was found to be another strategy for the promotion of health messages. Pooling information from geographically dispersed members to a single hash-tag, allowed members to see how others understood and interpreted a particular concept. Communication through hash-tags was seen to be an interaction with other members that prompted modifications of their understanding of a concept, supporting meaning as an ongoing process (Burr, 2003; Charon, 1998). Accumulated knowledge was subsequently used as a form of intellectual capital to convince members to initiate and maintain their involvement in attaining 'health'. Through the use of the hash-tag '#fitspiration', a

biopedagogy was created as the health messages circulated acted as 'instructions' which directed users to regulate their body by eating healthily and staying active (Wright & Halse, 2014). Meanings and knowledge attributed to these messages were sustained through daily interactions (Burr, 2003). These easily accessible messages offered a plethora of information for the user seeking to make 'informed' decisions about their health and lifestyle practices, and presented repeating messages of responsibility for one's health. This included, for example, posts that instructed one about exercise regimes or diet appropriate to the culture, or posts that highlighted before and after transformation pictures.

Another strategy observed within online fitness culture was the use of popularity status. Community users with stated health knowledge and/or credentials (e.g. personal trainers, or athletes), enjoyed a higher value within the community, whereby 'expert knowledge' about health was exchanged for popularity expressed by a large following or 'like' base. On Instagram these popular users were referred to as 'Insta-celebrities'. Insta-celebrities urged people to 'work' on their bodies, positioning their followers (or audience) as active agents to adhere to the created truths and standards produced around health and the body (Wright, 2009).

Through frequent health-related posts and sharing other accounts, popular users taught followers how to eat healthily, exercise, and transmit a number of ideals that frame a particular body shape as superior and certain products as desirable or exercises as necessary. In this way, bodies, products and exercises acted as symbols and 'meaningful gestures', as they held meaning for both the popular user, and the individual with whom the user was communicating, their followers (Mead, 1934). Popular users also utilised a range of approaches to teach followers how to maintain self-discipline and stay motivated, how to complete exercises, how to set goals, and more. Common techniques used to teach followers these practices included: suggesting they follow people on SNSs who embodied their goal, choosing a diet that worked for them, exercising with others, purchasing eBooks often designed by the popular user themselves, signing up for exercise events, and to remain regularly involved within the fitness family online through posting images and comments. Positive responses from followers often positioned the advice received as important and useful,

thereby encouraging the self-assessment and self-monitoring of bodies and behaviours against 'norms of appearance and body shape and moral imperatives regarding eating and exercise' (Wright, 2009, p. 10). This further reinforced the disciplining of bodies, urging people to work on themselves.

Edgley and Brissett's (1990) notion that health is a moral obligation, gives justification to people who wish to intrude into other people's lives who are either 'ignorant', 'unable' or 'unwilling' to act on health (p. 259). Increasing observation and implicit control over what people do with their bodies and what they put into their bodies was observed online through the public display of profiles, and through messages promoted by various popular users. This public surveillance, monitoring and regulation of people not following the socially constructed ideals of the health norm (Carlyon, 1984) can be labelled as 'Health Fascism' (Edgley & Brissett, 1990, p. 260). Health Fascism is strongly linked to the quest for a 'perfect body' for all (Edgley & Brissett, 1990). Throughout the past decade, the 'obesity epidemic' has become the most visible target of Health Fascists. Personal characteristics such as laziness, weak will power and defective character are often blamed for the causes of obesity (Gard & Wright, 2005). Hence, it becomes a moral obligation to ensure that the 'problem' is fixed and that people attain the perfect body or healthy ideal as perpetuated within online fitness culture. This occurs through the transmission of ideals in online interactions from popular users.

A hybrid mix of popular participants and advertising companies with business interests was noted to be increasingly governing the online health domain. The messages promoting specific diets and active leisure (such as jogging, aerobics, gym work, sport and other purposefully chosen forms of exercise) can be understood as neo-liberal practices implicated in the everyday exercise of power over the self (Markula & Pringle, 2006). Hence, the promotion of individual leisure and health practices through SNS platforms is a means through which neoliberal discourse is exercised over population groups. By endorsing particular truths about health and healthy living, governing power is likely formed, inherent in the processes of self-regulation and self-care (Fullagar, 2002; Rose, 1999). It was significant that promoted health messages acted as a strategy that was directed towards the body as an object for health, and an object of intervention.

Online fitness accounts provided the opportunity for a 'new' lens through which to view health discourses and for the development of alternative discourses of health (Miah & Rich, 2008), as well as opportunities for rebellion and resistance (Wright, 2009). While some health beliefs and body stereotypes were challenged (e.g. female muscularity), the participants did not suggest that dominant discourses are being challenged, irrespective of the potential for these 'safe' spaces and sites to do so (Siibak, 2010). Individuals were encouraged to govern their own healthy lifestyle practices in the name of freedom. This 'freedom' to develop users' own health discourses and identity did not appear to entice them to break the mould as they lapse into dominant health discourses associated with young females. This was further demonstrated by 'healthy ideas' being taken as truth.

Health movements such as online fitness culture are an example of a market for health through individual achievement. In this way, we can see how entrenched health discourses are and the way in which they are globally represented and yet narrowly understood and reconfigured. Hence, SNSs act as another media platform to govern health behaviour as a basis for the development of disciplinary and regulatory strategies. These concepts, drawn from analysis, strongly link to how online fitness communities persuade users, as individuals, to monitor and regulate themselves and others by 'increasing their knowledge around food and health, and by instructing them on how to change their lives by eating healthy and staying active' (Wright & Halse, 2014, p. 839). This is reflective of how the health discourse of neoliberal individual responsibility is deeply entrenched with promoted online health messages within online fitness culture. Often the quotes supporting images online invited individuals to take responsibility for their bodies, working towards the fit or athletic ideal, for example, 'Make yourself fit'. These messages asked users to invest in the information provided for body maintenance, in order to perform self-presentation appropriate to the culture (Sassatelli, 2010). It can be considered a matter of personal choice as to whether or not one succeeds in attaining this healthy lifestyle (Miah & Rich, 2008).

The focus on individual responsibility extended to the requirement to control body weight and sustain a healthy lifestyle in order to be considered a good global citizen. This supports previous studies that have identified the

responsibility of the healthy looking body as assigned to the individual woman (Kennedy & Markula, 2011a). The appearance of the body was seen to represent a morally responsible lifestyle choice, and an individual's lifestyle practices, attitudes, choices and relationship to the good of the rest of society (Wright, 2009). This concept is strongly tied to the ideology of healthism, where health as a fundamental pre-condition of a successful life (Edgley & Brissett, 1990), with optimal health achieved through the individual modification of lifestyles (Crawford, 1980; Monaghan, 2008). Such ideology failed to consider socio-economic, genetic, or cultural differences (Mosleh, 2014), creating a dichotomy between population groups. For example, with obesity linked to ill health (Crossley, 2004; Julier, 2008), larger body shapes were not seen to be widely publicised online, and were thus considered an unhealthy population whose health choices link to irresponsible self-management and require governing. Hence, individual responsibility was evident in the presentation of health and fitness issues and the way in which fatness or overweight bodies were shamed in before and after or transformation pictures. In turn, this created a restricted view of what it means to be healthy, potentially limiting the possibilities for certain body shapes and weights. It can be argued that a thin and toned body is aligned with being healthy, and has come to be viewed as a morally responsible lifestyle choice (Wright & Harwood, 2009). Consequently, this healthy ideal has become desirable as it is deemed online as essential for a happy life. Similar messages about diet, exercise and individual responsibility are also evident in the presentation of health in traditional media (Wright, 2009).

7.2.2 Constructions of health

Perceptions of health were based on the manner in which health is valued, experienced and understood by individuals. Findings situated social constructions of health and sociocultural norms promoting healthy and unhealthy behaviours as a pertinent aspect in the lives of young females. The nature of the views emanating from the interviews demonstrated a set of common ideas, or a cultural consensus around health and health-related practices. From a social constructionist perspective, these were dynamic, and fluid, influenced by innumerable social factors. It was evident that social constructions of health and sociocultural norms promoting healthy and

unhealthy behaviours were increasingly being influenced by health-seeking behaviours from SNSs (Feng & Xie, 2015; Oh et al., 2013). Indeed, users of online fitness accounts were situated in an online social context in which they created meanings, facilitated by their interactions, which influenced their health attitudes and behaviours. In other words, their actions were derived from the meanings they attributed to good health. Consequently, the strategies used within online fitness culture, as well as other interactions, shaped the health beliefs, norms and constructions around the body, diet, health and fitness.

One of the most significant observations from this study was the relation of the concept of health to aesthetics, linking the online fitness community and their construction of health to the notion of an omnipresent culture of appearance. This view aligns with previous research that has suggested that within popular media texts, health is intertwined with looking good (Kennedy & Markula, 2011a). Participants tended to describe health as a concept that was important. In the language of participants in this study, health was described using terms such as 'eating nutritious food', 'no junk food', 'a good balance of carbs, proteins and fats', and 'a minimum of 30 minutes exercise a day'. Of particular note, the participants discussed health in relation to personal responsibility in the interviews, and referred to multiple 'inspirational' quotes seen online, motivating one to take control of their life in a health context. Further, participants associated being lean and toned as indicative of being healthy, as seen through fitness images online. The discourses on which they drew to construct their understandings of health largely reflected biophysical aspects, which were often perpetuated by online fitness accounts. Within this community the concept of being 'unhealthy' also related to exercise and eating, with the overarching view to avoid at all costs 'a fat body representative of deviance' (Francombe, 2013, p. 589).

Consistent with other qualitative research, participants associated definitions of healthy with eating well and maintaining a physically active lifestyle (Drummond & Drummond, 2013a). Discourses of neoliberal individual responsibility are deeply entrenched with discourses of eating and exercise. Counihan states that self-control (denying themselves food which they like but believe are fattening) and individual choice (determining what foods are acceptable) that 'uphold hierarchical social relations' are rewarded

(1992, p. 55). Some participants identified happiness and balance as attributes of being healthy; however, those who did mention these attributes often failed to understand the true conceptualisations of their connotations. Indeed, balance was mentioned in relation to a balance of macronutrient consumption. Many of the participants in this study consistently failed to mention other domains of health including self-worth, socialisation, sleep and emotional wellbeing. As Drummond and Drummond (2013b) argue, children construct understandings of health based on biophysical corporeal descriptions of health. For participants who were at the age where they have completed secondary school and some enrolled or finished tertiary education, this relatable link to health knowledge showed limited growth in understanding of the holistic nature of health. Participants' ideas about health constituted narrow perspectives and reflected key messages that were promoted by various outlets including other media, and public health promotion. Such an attitude toward health was perpetuated by a contemporary culture that championed healthy bodies and hard body-work through an abundance of likes, comments and followings.

From discussions around health, it was evident that health and fitness were often conflated. This finding reflects other qualitative research, which found that young males conflated health with fitness (Wright, O'Flynn, & Macdonald, 2006). Interestingly, Wright et al. (2006) found that for young females in their study, health was more complex, associated with practices aligned with eating and exercise to maintain an 'appropriate' body shape. This was also evident in the health information seeking behaviours described by participants in the current study. For users of online fitness accounts, the concept of health, inclusive of fitness, aligned with the previously discussed constructed view of fitness. Smith Maguire (2008) asserted that the social construction of fitness is directly correlated with personal responsibility, disease prevention, body-work and 'looking good' in an appearance driven culture. The nature of the views emanating from the interviews demonstrated a set of common ideas around health and opposing definitions of unhealthy, associated with being overweight or obese, and the overconsumption of food. Overwhelmingly, there was a shared understanding that being lean and toned equated to good health. Importantly, being too lean, depicted as being skinny, was also found to be unhealthy. Participants' definitions of health

reinforced a link between their perception of health, and its relationship to the body.

Coinciding with Tiggemann and Zaccardo's (2015) findings, motivation to exercise was primarily linked to appearance, rather than health, leisure, or enjoyment. Rysst's (2010) study on body ideals and health and body practices in Norway found that Norwegian men and women in the study were governed by healthism and dominant body ideals depicted in the media. The study found that 'looking good' was the most important factor for various training and weight control effects (Rysst, 2010). Online fitness accounts was seen in this study to perpetuate healthy as appearing a certain way, linking to biophysical aspects. The interviews confirmed this as participants described their understanding of fitness in two ways: weights and plyometric training. There was evidence of a growing movement that views healthism as a positive empowering phenomenon that is not inherently coercive. This is exemplified through its popular uptake in the form of health practices including preventive medicine, yoga, meditation, fitness regimes, diets and the emphasis on lifestyle changes in mainstream Western society. Through textual and visual communication, the study observed that the online fitness community constructed a health discourse reflective of the association of weight and health and body shape and health, with participants reporting it as a positive and inspiring process.

From their participation within online fitness culture, participants discussed a notable impact on their definitions of a healthy diet and healthy practices. This prompted influences on their health behaviours, namely diet and exercise. Importantly, this study considered the social and cultural dimensions that may also play a role in shaping behaviours and attitudes that emerge in and through the involvement and development of online fitness culture. Interactions with others within online fitness culture allowed members to construct and reconstruct their understandings of health. Indeed, participants acknowledged that involvement in online fitness culture informed their reconstructions of health, denoting meanings as processes subject to change (Blumer, 1969). Furthermore, these meanings give rise to actions.

It was interesting to note that maintaining one's weight within their perception of the healthy range was the main reason associated with the importance of having a healthy diet. Participants often classified foods as

'good' or 'bad', and in this way, foods and their connotations were socially constructed. At times, such an attitude toward food resulted in the exclusion of some food groups, or food elements, for example, carbohydrates, dairy, and gluten (even when not gluten intolerant). These examples illustrated the significance of these socially constructed foods associated with an impact upon food consumption. Perception of food appeared to be a critical factor predicting food consumption, and participants' understandings of health (specifically, nutrition), and the benefits attached to specific foods. An interplay of culture and community in participants' food consumption decision-making is thereby suggested. The social environment of being involved with online fitness communities played a vital role in shaping these norms and constructions around food and health, drawing from wider social understandings of health and existing conceptual frameworks (Burr, 2003). Power of influence was given to those with popularity and users with practical experience of fitness transformation (depicted by aesthetic ideals). These users provided others with health information that was trusted and respected. Concurring with recent research, this information was legitimised through invoking medical discourses, and through the provision of support and attaining trust through depiction of positive personal narratives (Hall et al., 2016), adding to the construction of perceived 'credible' knowledge (Epstein, 1995).

The involvement within the online fitness communities and the development of culture provided users with the ability to interact to exchange ideas, creating a system of shared meaning. Another example of these sociocultural influences evident online was the emergence of cheat meals, symbolic of a reward, that was mutually understood. This, however, can be problematic in the context of promoting a restrictive lifestyle, championing food as a reward for hard body-work, and promoting the gorging of these foods within a specific time period, rather than within moderation. Furthermore, the word 'cheat' carries negative moral connotations that position the food consumer as conducting a negative action. Accordingly, deconstructing these experiences and challenging norms encourages interactive eHealth literacy, which involves more advanced thinking, literacy and social skills to extract and apply information to improve personal capacity (Nutbeam, 2001).

It is through these findings that the meaning of health can be understood in a broader context. For users of online fitness accounts, their production/creation of knowledge challenged the institutional forms of health promotion. It is evident that SNSs have the capacity to act as a platform for informal dissemination of health information to a broad audience. Health professionals have been encouraged to use SNSs to share quality information about health topics to the public (Robillard, Johnson, Hennessey, Beattie, & Illes, 2013). Previous evaluations of formal health interventions implemented using SNSs have had slight benefits (Williams, Hamm, Shulhan, Vandermeer, & Hartling, 2014). Significantly, Laranjo et al. (2015) found a positive effect from SNS interventions on health behaviour outcomes, although considerable heterogeneity was noted. While a number of health promotion campaigns are increasingly using social media (Freeman, Potente, Rock, & McIver, 2015), it is evident that online fitness culture holds great influence in the online space. Carrotte et al. (2015) assert that due to the saturation and popularity of the health related posts online, the content becomes easily normalised, despite the questioning of health benefits. In this study, online fitness culture challenged institutional and scientific frameworks of knowledge through creating social meaning, progressing the social construction of health knowledge. The fluidity of these knowledge forms have breadth in their public reach, and should not be overlooked. It is important to appreciate how online fitness users contribute to the construction of multiple meanings attached to health, and how deeply entrenched health discourses underpin these constructions. These meanings may not only provide an explanation for certain behaviours and attitudes that emerge within an online fitness context, but also serve to sustain particular discourses throughout the health experience. This further reinforces the significance of health promotion and the development of health literacy within schools.

While it is difficult to alter the use of SNSs in the process of understanding health, schools offer the ideal site in which to educate people on the issues associated with health posts on SNS relating only to aesthetics or biophysical aspects. Reframing the notion of health education to encompass developing fields of health and well-being and starting this process in primary years schooling would provide a significant opportunity for boys and girls to adopt positive attitudes and recognition for adolescence and

beyond. Extending this process on to SNSs is a challenge that needs to be addressed. Noting participants' admittance to passing judgement on other's health status based on aesthetics, the findings from this research suggest that more work may need to be done to promote the idea that healthy can be embodied in diverse shapes and sizes. This is an area of concern, which can be brought to attention through education concerning the societal construction of health, and through body image acceptance. Education has the capacity to challenge the messages of biopedagogies, either within a formal or informal setting. Education may also address the need for positive health promotion discourses in talking about the use of leisure time and health and critical analytical skills required for SNS practices.

7.2.3 eHealth literacy

From a socio-cultural perspective, it is clear that the socially constructed meaning of health in online fitness culture is complex and that members are integral to the construction and perpetuation. Many participants identified feeling equipped with a basic understanding of health promoting foods and exercises. Some participants expressed learning new ideas, or being confronted with information that they had not known about prior to engaging in online fitness culture. Others were prompted to conduct further 'research' on some of the information they found by being involved with online fitness culture; however, it was not evident what the extent of this further research was. While it was beyond the scope of the current research to systematically assess the accuracy of the health knowledge presented in online fitness, and expressed by participants, the findings showed that some participants had an alternate view on some health-related concepts compared to evidenced-based research. Moreover, peers and others members within the online community were seen to have the ability to provide false information, which can cause potential harm, or lead people to make ill-advised decisions associated to health (Eastin, 2001). This has implications for users (especially those with low eHealth literacy levels), to feel overwhelmed by the information received (Lauckner & Hsieh, 2013). A number of alternate perspectives to evidenced-based research became evident throughout the course of the interviews. Examples include the acceptance of particular diets that exclude certain food groups, a lack of understanding around detoxing,

the mechanisms of particular diets and how they support health, and the classification of 'good' and 'bad' foods. This may be the result of engaging in conflicting health messages produced and posted on online fitness accounts.

Online fitness culture proves to be an effective means of sourcing health information via four means: personalised information, accessibility, interactive nature, and trust. The current study supports the contention that the ability to provide personalised health information is an allurements of using online fitness accounts as a source of health information. Similarly, Oh et al. (2013) argue that by offering more personalised health information, SNSs are utilised more than search engines or blogs for seeking health information. Participants indicated that by asking questions of others, or posing questions to an audience through their online fitness account, they were able to source personalised information, tailored to their goals and desires. As evidenced by participants, it is the interactive, widespread access, and tailored information that separates this media source from traditional forms of media, reflective of previous research (Stevens et al., 2015; Vickey et al., 2013). The accessible messages offer a plethora of alternative health information that may not be evidenced based or peer reviewed. Hence, the onus is on participants to decipher this information before implementing in to their health and lifestyle practices.

Previous research has suggested that the information found on social media is highly trusted (PwC Health Research Institute, 2012; Vaterlaus et al., 2015). The current study appears to support this perspective as some participants reported that whatever they found to be depicted through health messages on online fitness accounts was 'truth'. In this way, online fitness accounts become a resource through which concentrations of people with collective interests come together, and where 'expertise' potentially facilitates information sharing, advice and social support. Significantly, the evidence from the current study also suggests that some participants were more critical of these truths. However, it was evident from discussions that participants had implemented a range of health information and advice from followed online fitness accounts, indicating some aspect of trust. This reiterates Ettel et al.'s (2012) contention that young people modify their behaviour on the basis of the information gathered from social media. More specifically, the current study reflects previous research indicating that social

media affects people's health decisions related to diet or exercise (PwC Health Research Institute, 2012).

The online setting may therefore comprise an effective means for health promotion and policy makers in devising new initiatives to encourage more people to eat well, and be physically active. However, given the unregulated environment of SNSs, anyone, including anonymous accounts, businesses, peers, or professionals, can transmit health-related information. Due to possible inaccuracy, this information has the potential to hinder helpful decisions and behaviours about health (Eastin, 2001; Feng & Xie, 2015). The case for change centres on the possibility for appropriate industry regulation on 'health' products available online. These include detox teas, protein supplements and other nutritional supplements. Although this is a difficult task within the prosumer culture, regulations to restrict unhealthy food promotion are nevertheless a necessary development. There is a need to ensure that health-related SNS content portrays suitable, responsible health messages advocating accurate information about health. By targeting users of health messages from SNSs, health promotion initiatives may endeavour to facilitate critical health literacy, teaching at-risk individuals to be critical of media messages in relation to what it means to be healthy. The objective of understanding the meaning attached to health through this medium may also assist health professionals and policy makers in recommending credible sites to people, as well as to provide tips for people to process online health information in a 'proper way' (Feng & Xie, 2015, p. 67).

Participants reported positives in relation to ease of accessibility, privacy, convenience and immediacy of health-related information via SNSs. On the other hand, they also reported challenges associated with ensuring the credibility of the information. Researchers have raised concerns regarding the integrity of health information presented online (Brodie et al., 2000; Ettl et al., 2012), or misinformation being given and received in a highly unregulated environment (Gray et al., 2005; Hallows, 2013; Jordan et al., 2010). Consistent with other qualitative research in this area (Velardo & Drummond, 2013), participants in this study acknowledged that the Internet was an unregulated environment. In contrast, the older participants in Velardo and Drummond's (2013) study were able to recognise that the most difficult aspect of online information seeking was their lack of ability to

critically appraise the dietary information, a difference between the cohorts interviewed. Where Velardo and Drummond's (2013) participants noted credibility independently, participants in the current study did not, unless questioned about the credibility of the information sought online.

Users of online fitness accounts notably require further critical analytical skills relevant to eHealth literacy. It is highlighted that past health literacy aspects of the curriculum have been insufficient to guarantee behaviours that positively influence the critical engagement of online text/images. These findings align with previous research that has found that adult Australians have limited health literacy (Barber et al., 2009). Consequently, this may have encouraged curriculum developers to incorporate health literacy as part of the current Australian Curriculum, in pursuit of improving the nature of children's critical health literacy skills, which are transferrable to critical social media health literacy. This study raises issues over the ability to achieve critical social media eHealth literacy, in order to distinguish accurate facts from misleading information, which is at times perpetuated by numerous SNSs users at any time. Critical health literacy is the inability to differentiate accurate from inaccurate online health information (Nutbeam, 2001). Due to the lack of sufficient online health-content regulation, SNSs users are at risk of using or disseminating information, which lacks credibility. Accordingly, it is imperative that health education focus on empowering students at a young age by developing skills in conducting analysis and evaluation of the quality of health information found online. It was unclear in the study if 'further researching' conducted by participants for further health related information was from established sites which are accurate. It is unreasonable to expect that adolescents and young adults thoroughly research into peer-reviewed health literature (Ettel et al., 2012). However, being empowered with the knowledge to be able to critique the Internet as a source for health information has the potential to limit the effect of false information on society. The online population should be aware of the bias of some online accounts, and the fact that some sources of information spreading are paid by private groups to pursue commercial interests. In practice, users should be able to critically analyse how the information is created, by whom and for what purpose, denoting the interests behind this information (Tiggemann & Zaccardo, 2015). Initiatives to improve

people's ability to critique food and nutrition advertisements may also challenge existing norms. Moreover, regulations on SNS content have the potential to ensure that the generation and distribution of health information are valid and non-biased. This may provide strength in SNS health interventions and communications. However, regulating information is a controversial matter.

7.3 Impact of involvement in online fitness culture

7.3.1 Community

Online fitness communities provide both value to users who may access health information that can generally be used to improve health status, as well as spiritual and emotional value in the form of connectedness and support. Evidently, participants in online fitness communities are seeking more than health information from their online community; participants also want to experience value through a shared experience and building relationships.

The interactive nature of SNSs, in particular, Facebook and Instagram, provides the opportunity to promote feelings of socialisation, support, and connectedness. Online fitness culture is comprised of a number of online communities that come together. From a conceptual perspective, criteria as to what constitutes an online community includes identifying characteristics such as shared or common interests (Baker & Ward, 2002; Burnett & Bonnici, 2003), meaningful conversations (Rheingold, 1993), developed social hierarchies, and rituals and norms of behaviour (Brown, 2002; Kozinets, 2010). These descriptions also encapsulate online communities, as well as individuals with a large following (Insta-celebrities). In most of the online fitness communities, the shared or common interests equate to health-related practices, as well as a particular ideal body. There are different communities that idealise different body shapes, from thin and toned as in Kayla Itsines' online fitness community called 'BBG', to more muscular bodies seen in online bodybuilding communities (see Smith & Stewart, 2012b). Conversations arise from these shared or common interests, and often involve health tips, and information exchanged through SNSs. In this way, users were provided with perspectives, an integral part of the symbolic

interactionist ideology. The exchange of information exposed users to diverse perspectives, potentially altering their understanding by analysing different perspectives from other users. In this context, other users and online fitness communities can be described as reference groups, sharing perspectives. Hence, the rules of the reference group become the users' (as informed by Charon, 1979).

In the provision of channels of information, meaningful conversations promoting feelings of connectedness occurred. Through participating in these meaningful conversations, online fitness accounts offered a medium through which more personalised information could be discussed or sought, as well as the opportunity to offer more personalised and emotive reactions to questions. This is consistent with claims that SNSs offer the ability to seek more personalised information and emotive reactions (Oh et al., 2013). Furthermore, participants indicated feeling a part of the '#fitfam', through connecting to people by following their online fitness account.

Social hierarchies were constructed on the basis of popularity. This was illustrated by the social construction of Insta-celebrities, who had a large following. The rituals and norms of behaviour generated and circulated in online fitness communities were specific to the community, including how often one should work out, whether the community prefers fitness selfies or fitness videos displaying functionality, for example. Ultimately, an individual within an online fitness community was guided by specific structures in order to align with the community, and to achieve fitness status (Hedblom, 2009).

Previous research has also indicated that online communities provide feelings of 'belonging' 'bonding', 'connectedness' and 'togetherness' (Blanchard, 2007, 2008; Welbourne et al., 2013). These feelings were evident in posts from online fitness accounts and through interviews with participants. This was predominantly expressed by users' posts acknowledging friendships, and thanking followers for the friendships created. This was also expressed in bonding and friendships going beyond the realm of the Internet, with a number of participants meeting up and connecting in 'real' life. Belonging within the community was also reflected in the construction of common ground, mostly underpinned by the desire to be healthier, to source information to carry this out, and to attain the ideal body.

Participants articulated feelings of belonging in identifying with people online who had similar interests, which they did not have in their 'real' lives.

The current study supports the contention that online health communities comprise a source of positive influence through socialisation, support (e.g. emotional), and the feeling of connectedness. This is consistent with numerous studies that have identified the importance of supportive and connected nature of people's involvement in online health communities (Evans et al., 2012). This perception corroborates previous studies that have suggested that online health communities are also a prominent way to source socio-emotional support (Welbourne et al., 2013). From the current study, socialisation was evident through the content and number of comments, and posts providing feedback to one another. Support was also depicted in the feedback provided to one another with a number of comments offering help or advice, and someone to talk to. Further, receiving support appeared to be associated with a greater sense of community, as well as developing greater feelings of connectedness, demonstrated by participant and SNS comments.

7.3.2 Motivation and inspiration

As observed, online fitness culture has the capacity to motivate and encourage healthy living, emphasising 'strength and empowerment' (Tiggemann & Zaccardo, 2015) through visual and textual messages. Consistent with Vaterlaus et al.'s study (2015), the health information gathered from online fitness accounts was labelled as 'inspirational', and often used as a motivator to eat healthily or engage in physical activity. However, studies have marginalised these feelings of motivation and inspiration in light of disconcerting negative implications relevant to body image, and eating disorder tendencies (Holland & Tiggemann, 2016a; Tiggemann & Zaccardo, 2015). It is important to note that such studies to date have not specifically focused on members of the culture themselves. Despite potential concerns, sufficient evidence emerged from the current study to suggest that a large number of online fitness users were inspired to become active and adopt nutritious dietary practices, in an attempt to emulate images or videos seen online. This finding is particularly important as it provokes greater understanding of these motivations and inspirations

from a socio-cultural perspective, expanding on claims from previous research.

In accordance with media claims, and interviews with online fitness users, it is apparent that online fitness accounts have the intent of motivating members through images of toned, lean females, typically engaging in exercise or dressed in exercise gear, as well as picturing healthy food. A part of the culture, '#fitspiration', is designed to inspire people to achieve healthy eating and fitness goals ("What is Fitspiration", 2013, cited in Tiggemann & Zaccardo, 2015). Furthermore, Tiggemann and Zaccardo (2015) affirm that 'overall health and well-being are strongly endorsed,' promoting a philosophy of 'strength and empowerment' through images and text involving healthy eating, exercise and self-care (p. 62). In their study of the effect of fitspiration images, results indicated that viewing fitspiration images created an increased feeling of inspiration from pre- to post-exposure, to improve their fitness $t(128) = 7.82, p < .001, d = 1.38$, and to eat healthily, $t(128) = 7.40, p < .001, d = 1.45$, when compared to the control group who viewed travel images (Tiggemann & Zaccardo, 2015). This can therefore be classified as a positive effect. The current study supports this claim that motivation and inspiration are a positive aspect of being involved with online fitness culture.

From a social constructionist perspective it is evident that images from online fitness accounts perpetuate images that are framed as health and fitness goals to strive towards. These goals are often perpetuated by the visual representations of the fit body. The finding shows that images within online fitness culture do have their desired effect of inspiring viewers to engage in healthy behaviours. Participants often discussed using images as their health and fitness goals, and being inspired by the quotes from online fitness culture to achieve these goals. Participants described using the images while engaging in fitness activities, or in the process of creating, and cooking, healthy meals. It was common for participants to use images of fitness goals as motivational material in daily life by applying the images as mobile phone backgrounds, placing the images on bedroom mirrors, or saving in their camera roll on their phones to view when engaging in activities at the gym. This inspiration translated into subsequent behavioural change as discussed by all participants. This finding is significant as it addresses a current gap in the literature noted by Tiggemann and Zaccardo (2015).

Findings from the current study indicate that images were used to encourage increased participation in physically active behaviours. The inspiration resulted in increased engagement in fitness activities such as going to the gym, or working out in general. Inspiration from the images also prompted healthy eating such as by using recipes as inspiration, and using images as motivators to maintain or re-direct their consumption of healthy foods. It was evident in discussion with some participants, that competition was a driving motivator. Gaining inspiration from other images was at times described in terms of competition: 'she can do it, I can do it!' Furthermore, participants widely claimed that involvement in online fitness culture was not only a positive for motivation and inspiration, but also for developing a suite of life skills such as commitment, hard work, and perseverance.

It is important to note that fitspiration images have been found to negatively impact on people's thoughts and feelings of their own bodies, and exacerbate appearance-focused attitudes towards the body, food and exercise (Holland & Tiggemann, 2016a; Tiggemann & Zaccardo, 2015), making it potentially an unhealthy motivational tool (Prichard & Tiggemann, 2008). While images of fit females arguably have similar concerns associated with the SNS trend, thinspiration, the images posted within online fitness culture appear more culturally acceptable to be used as inspiration, as the achievement of fitness remains highly celebrated, linked to determination and empowerment. Additionally, online fitness accounts provide images within the context of a personal narrative, which can shape the impact of the image.

Considering the evident motivation and inspiration aligned with online fitness images, the online setting may therefore comprise a target area for health promotion and policy makers in devising new initiatives to encourage more people to be physically active. Harnessing the positive elements attributed to this motivation is a challenge faced by researchers and health promotion. This research suggests that online fitness has the ability to motivate sedentary individuals, and further progress them to create health and fitness goals. Ultimately, this has the capacity to link to health promotion campaigns, having the potential to reduce the cost of physical inactivity to individual health, and also on society.

7.3.3 Feedback: The gym mirrors

The current study produced evidence to suggest that feedback was a prominent SNS behaviour that served to positively and negatively impact young females participating within online fitness culture. While many members received high levels of supportive and encouraging feedback, many also received highly negative feedback in the form of judgemental comments, derogatory jokes, and sarcastic comments often about the body on display. The feedback received was often based on that appearance. Even so, it was evident that participants desired feedback. In this way, the current study reinforces Jong and Drummond's (2016b) research, which established that adolescent females highly desire feedback in response to images and comments posted on SNSs. Stern (2004) proposes that this comes from the desire for self-validation or the formation of relationships. Importantly, it is understood that positive feedback is related to positive self-esteem and negative feedback to negative self-esteem (Pempek, Yermolayeva, & Calvert, 2009). More specifically, a study conducted by Valkenburg, Jochen, and Schouten (2006) investigating consequences of friend networking sites found that positive feedback benefitted adolescents' social self-esteem and well-being, whereas negative feedback had adverse effects.

Negative feedback was evident from both research phases. According to Ballantine, Lin, and Veer (2015) negative comments lead to poorer attitudes toward the posted status. Findings may further add that in such a setting, the presence of a single negative comment on an account or status may encourage other members to write negative comments on an image, post or video. In this way, negative comments play a role in normalising certain feedback behaviours within online fitness culture, which may play a role in socially constructing certain negative comments as somewhat acceptable. It may perpetuate the view that tiers of negative behaviour are permissible online. Without consequence, this could be interpreted as a 'green light' for engaging in other forms of negative feedback. Such comments may have inadvertent consequences given that people respond to peers online (Valkenburg et al., 2006). Imperative to this perspective were the voices of participants, who claimed that negative feedback did not render a negative impact. However, it was beyond the scope of the current research

to investigate the subconscious impact upon the psychological wellbeing of the individual receiving the negative feedback. In order to circumvent implications of this negative feedback, the user providing this was labelled as 'misinformed' or 'uneducated'. Retaliations were instigated by the account administrator or by followers of the account in an attempt to contest the negative feedback.

In the context of the current research, participants did not admit to seeking favourable feedback, and instead, emphasis was placed on how many likes an image, post or video received. Participants mentioned sharing images or pages in the hope of attaining more followers, introducing new ways of receiving feedback. It was clear from participants in this research that the pictures deemed to be acceptable for posting on SNS accounts were heavily influenced by the broader social and cultural ideals associated with constructions of health, popularity, and beauty. This form of receiving feedback therefore draws on the ability to gather popularity based on physical appearance, and has further implications for understanding health. Participants' desire for feedback from other SNS users primarily related to feelings around desire for popularity. Hence, validation of this popularity is based on the feedback others provide to them which signified approval or disapproval (Stern, 2004). If a post received what was described as a low number of likes and comments (which differed for every user), this was then deemed negative, especially when the post was of the body.

There are a number of assumptions one can make in regard to the reasons underpinning the desire for feedback associated to popularity. One might assume that participants may have sought favourable feedback in order to maintain high self-esteem, or that there was an underlying desire for peer acceptance. Alternatively, it could be the development of new media and the new participatory online culture driving this need for validation as a new socially constructed cultural norm. Evidently, the socially constructed ideology of popularity on SNSs resonates throughout participants' experiences. Regardless of the underlying reasons, Cassidy, Ziv, Mehta, and Feeney (2003) state that feedback from their environment impacts upon self-perceptions and self-esteem.

Additional research has indicated that external cues and social feedback result in reconstructions of identity and regulation, adhering to cultural

standards, and acceptance (Siibak, 2010). Contemporary SNSs have the ability to heighten the role of impression management through feedback and immediate responses of others. In this way, SNSs create a platform for immediacy of feedback where popularity influences ideals, beliefs and perceptions through the idea of biopedagogies. On SNSs, this notion of immediate feedback acts as an instant conveyor of messages to a wide audience producing a homogenising effect, thereby playing a pivotal role in social and cultural conformity.

This finding is particularly contentious because it provokes inevitable discussions around where the line is drawn between acceptable and unacceptable behaviour online. Recent research around 'online trolling' behaviour, described as starting aggressive arguments, and posting inflammatory malicious comments to deliberately provoke and upset others (Buckels, Trapnell, & Paulhus, 2014), raises concerns over the psychological effects of experiencing or receiving trolling comments, which are considered 'similar to the psychological effects of offline harassment' (Craker & March, 2016, p. 79). Consequently, policy makers arguably face a challenge in not only addressing the negative comments on SNSs, but also the cultural and social dimensions which normalise such antisocial behaviour, and the technological advances of SNSs.

Feedback on SNSs clearly has the capacity to impact users' online fitness culture experience. These findings are important as they provide a deeper insight into the embodiment of positive and negative influence within online fitness culture. Critically, they challenge the perception that all negative feedback subsequently impacts on self-esteem (Cassidy et al., 2003), as many participants stated that they were not concerned with the feedback, and felt empowered not to place care on others' opinions, whom they potentially did not know. This differs from previous research with adolescent females that found there was a strong desire to attain anonymous feedback (Jong & Drummond, 2016b). Instead, the reactions seen online, as well as noted within interview discussions, demonstrated a sense of liberation and pride in their bodies, their progress or their achievements. Placing the negative comments in the field of 'uneducated' or 'unaware' may be positive strategies to avoid negative implications.

7.3.4 The body

Online fitness culture is a place in which the body is observed through images and videos, and where relevant information on how to attain an idealised fit body is circulated. Participants are directed to achieving this ideal through messages within the culture and biopedagogic strategies. The activities promoted through information from online fitness accounts advocate that exercise can be undertaken alone or in a group, whenever and wherever (in a gym or not). By closely examining online fitness culture, and listening to the voices of participants, it was shown that although fitness and 'healthy' eating are portrayed as healthy behaviours, descriptions and depictions of a healthy body primarily foster one particular view of health, which is predicated on an instrumental notion of the fit body. The health messages circulated within online fitness culture emphasise attaining a 'healthy looking body', visually determined by the culture. Online fitness culture shows an abundance of images of different bodies, including those of a sporting body, a muscular body (e.g. body builders and muscle builders), a lean body, and more, implicating traditional notions of Western femininity and the female body. However, dominant representations of the fit body align with traditional media, as online fitness culture promotes a toned and 'feminine' or feminised body, which is supportive of the dominant feminine (white) aesthetic. This finding supports Thompson et al.'s (2004) claim that the shift towards a tight, athletic body, with a focus on exercise and muscularity is indeed, not a transient fad. It is further reinforced that women's health is 'culturally expressed in aesthetic terms as a thin, healthy looking body' (Kennedy & Markula, 2011b, p. 4).

Through textual and visual communication, online fitness communities construct a health discourse reflective of the association of weight and health, and body shape and health, and hence, place a strong emphasis on appearance. While shifting away from the depiction of thinness may be viewed in a positive light, physical attractiveness and 'perfect' aesthetic attributes are still at the centre of the 'healthy' looking ideal. In the words of participants, a 'healthy looking' body was attributed to 'being skinny and toned', and having 'a nice shaped body', with 'a little bit of muscle on them'. Although many hash-tags endorsed or encouraged a change towards a

healthy body, '#strongisthenewskinny' in female health, for example, such hash-tags did not replace the thin ideal as the elements of being lean or skinny are still apparent. Previous research reinforces the idea that media images of the fit body align closely with a singular ideal: the thin, toned and youthful looking feminine body, entwined with health (Kennedy & Markula, 2011b). By perpetuating this 'healthy' looking ideal, members within online fitness culture normalise a certain body shape and encourage certain attitudes toward health and the body. Markula (2001b) raises concerns pertaining to this desirable body, which potentially commands greater restrictions, for example, toned muscles on slender females.

Consistent with previous research with males in a weight loss forum, discussions focused on achieving a 'healthy' looking body with little reference to the body's improved functionality (Bennett & Gough, 2013). The emphasis on aesthetics was reinforced by transformation images in which fat was problematised, and in which otherwise imperfect bodies were criticised based on appearance. Arguably, the construction of the 'healthy looking' body created a cultural push toward regulated bodies.

The portrayal of females within online fitness, including bodies representative of good health and feminine features, further perpetuates an unattainable or unachievable ideal for most females (Kennedy & Markula, 2011b). Bordo (2003) suggests that this 'cultural idealisation' of the female body has negative implications to female psyches around the world. Importantly, the concept of not attaining this ideal has implications for body image, including concerns with body comparison and body dissatisfaction. Recent research encompassing fitspiration images raises other body image concerns related to internalisation. This further reiterates negative appearance-related or function-related comparisons (Boepple et al., 2016; Boepple & Thompson, 2015; Holland & Tiggemann, 2016a; Mulgrew & Tiggemann, 2016; Tiggemann & Zaccardo, 2015). Furthermore, Holland and Tiggemann (2016a) report that females who viewed fitspiration images scored higher on measures of disordered eating, drive for muscularity, and compulsive exercise, and suggest that some females who post fitspiration images may engage in a combination of both compulsive exercise and disordered eating. Tiggemann and Zaccardo (2015) suggest that females

may also view fitspiration images, and exercise functionality-based images through a less critical lens than with traditional thin-ideal images.

In contrast to previous research, the current study specifically researched females participating and contributing to online fitness culture. While it was beyond the scope of the current study to identify a relationship between the images viewed within online fitness culture and effects on body image, participants did indicate implications for their body image such as lower self-esteem, and negative impacts of body comparison. The data suggests that participants within online fitness culture are generally concerned with their body and body image; which was expressed through striving to achieve a particular body ideal. Evidently, this goal seemed to refer to a fit aesthetic ideal of some sort. It is unclear whether participants would be satisfied when achieving that goal, or whether they would construct a new goal to follow. Furthermore, participants' constructions of femininity added additional pressure to these ideals.

In line with recent research, it was apparent that participants made appearance related comparisons towards the images seen within online fitness communities. Researching fitspiration images, Boepple et al. (2016) found that upward appearance-related comparisons to media images of the athletic ideal 'may motivate exercise and dieting behaviors' (p. 132). Arigo, Schumacher, and Martin (2014) describe upward appearance comparison as making comparisons toward 'better-off targets' (p.1). Despite this, participants in the current study described a strong desire to attain the fit ideal endorsed within online fitness culture. Participants attributed positive thoughts to this ideal and all used these as goals, with a firm belief in themselves attaining these. Nonetheless, evidence suggests that engaging in health-behaviours for appearance-motivated reasons, is associated with negative body image and eating outcomes (Prichard & Tiggemann, 2008; Tiggemann & Zaccardo, 2015). Furthermore, those who exercise for appearance-related motives have strong correlations with compulsive exercise and disordered eating, as well as eating disorder symptoms (Adkins & Keel, 2005; DiBartolo, Lin, Montoya, Neal, & Shaffer, 2007). Findings from the current study add to this research as some participants identified body image concerns, links to eating disorder tendencies such as struggles with

eating, as well as being drawn to exercise above what they described as 'healthy' behaviour.

Given that these images of a fit and healthy body can dramatically influence young females' exercise, eating behaviours and body image, education plays a vital role in engaging people as critical media consumers. As such, educators and parents may therefore need to challenge these socio-cultural norms that are developed within body aesthetic cultures. Yet, changing the nature of these images may be difficult considering the plethora of images available on SNSs and the Internet, and how deeply engrained this norm is within contemporary Western society. Most participants indicated that online fitness was a key factor in creating body goals, and inspiration. In this way, this may be seen as a normalisation of this experience. Consequently, educators and parents arguably face an enormous challenge in not only addressing the potential negative influence of these body norms, but also the historical, cultural and social dimensions which normalise such behaviour.

7.3.4.1 The body as social meaning

The appearance of a fit or athletic body is a powerful icon within online fitness culture. Here, the body can be viewed as a receptor of social meaning, where one is judged upon their character (Shilling, 2012). The dominant fit body ideal perpetuated within online fitness culture is similar to that idealised within global fitness texts and media: lean and toned (Goldfield, Harper, & Blouin, 1998). This fit looking body, promised by idealised fitness images from accounts, focuses on appearance and is strongly correlated to personal qualities. There is an identified association between the fit body, control, self-discipline, success, happiness, self-determination, satisfaction, beauty, and sexual desirability (Bordo, 2003; Goldfield et al., 1998). Once hard work has been invested into achieving the fit body, reflected by the body's presentation, subsequent respect is acknowledged through the accumulated number of likes and shares, and also through encouraging comments. In the language of online fitness users, comments read, 'You're a perfect example of hard work and dedication! Much respect!!', and 'Stunning! Admire the effort, self-control and dedication it takes to get to that.' This type of feedback further perpetuates a fit body as ideal.

Goldfield, Harper and Blouin (1998) indicate that this cultural tendency to attribute moral values, success, and other positive personality traits to attractive people is known as the 'beauty is good stereotype' (p. 135). Evidently, this may result in more people pursuing weight training, or other effective measures to adhere to current standards of attractiveness. Hard body-work encompasses responsibility in the production of own health through undertaking regular exercise and eating a nutritious, balanced diet (Shilling, 2012). Data from the current study supports the idea of hard body-work, and Sassatelli's perspective of gym training. Sassatelli's (2003) research illustrates, that training time for females is 'well-organized productive time, producing physical changes and fostering a special notion of what is both natural and right to do for body and for self' (p. 86). This is further highlighted within online fitness culture, where fitness and body practices are posted online, open to public scrutiny, and cultural appropriation, whilst further reinforcing the responsibility of the individual to maintain their health and body. Aesthetic benefits of these are promoted by online fitness members, and are central to success within online communities. The entrenched benefits of this body-work are also promoted by Australian health promotion campaigns as ways to reduce prevalence of obesity, heart disease, diabetes and other chronic health issues. Researchers have noted that many people try to attain the ideal body in recognition of the expected health benefits, but also for what the ideal symbolises: success, control, happiness, competence, self-determination, satisfaction, beauty and sex appeal (Bordo, 2003; Sassatelli, 1999b). Noting how much the healthy body promised by fitness practices relates to these traits, we can problematise the idea that health is something that everyone is able to attain by following self-imposed practices. This fails to take in to account the social view of health, where other factors have the capacity to impact upon an individual's health, including education, and accessibility to resources.

Drawing on the work of Sassatelli (2003), this idea is again seen to be problematic as it ascertains that 'health is something possible to be obtained by following self-imposed routines' that discipline the body (p. 87). The health problem, in this context, being overweight, obese or having other obesity related diseases, is situated at the level of the individual. Once more, it is

evident that online fitness culture is an obvious example of a platform advocating health through individual achievement, where an emphasis on lifestyle changes are popularly followed, observed and taken up. The lifestyle practices promoted by the online fitness community often fail to consider socio-economic, genetic, or cultural differences. More complex barriers to achieve the culturally determined and perpetuated 'healthy' ideal, including food insecurity or income, are often not discussed when promoting fresh, non-processed foods. Additionally, discussions of time (e.g. working situation, and time committed to exercise) and energy required to dedicate to self-care practices to achieve the 'healthy' ideal are also evaded. Further, it is assumed that a user has the capacity to make imperative 'healthy choices' and act on them, with no acknowledgement of broader social and cultural barriers. Issues arise as the accessibility to the promoted resources to attain this desired ideal are not taken into consideration (Mosleh, 2014). Where a thin and toned body is aligned with being healthy, and has come to be viewed as a morally responsible lifestyle choice, the lack of consideration of broader social determinants of health may result in promoting inequality, and the inability of some to meet the culturally determined fit and healthy ideal.

The current study points towards strategies that can assist in shifting the responsibility of health. Engaging people in a social view of health and discussing wider views of health through education and health promotion will develop understanding of the various factors that combine to affect the health of individuals and communities (World Health Organisation, 2016). Conceptually, this is significant for schools as they play a vital role in developing this understanding in order to demonstrate the broader social determinants impacting upon the health of individuals. This may consequently encourage schools to consider broadening the curriculum in health education, in pursuit of improving the nature of children's understanding of health, and being critical consumers of directive health information.

7.3.5 Surveillance: The gaze

The overt nature of SNSs allows prosumers of health related information to expose the body on an open stage. The open nature of SNS accounts publicises the idea of being watched, or being under the 'gaze' (Foucault,

1979), from 'a generalized other who may be watching' (Dworkin & Wachs, 2009). The possibility of others watching puts the body on display to all users of online fitness accounts dependent upon privacy settings. Judgmental gazes on the bodies on display align with cultural expectations and have implications for body practices. Rysst's (2010) exploration of this concept with Norwegian men and women, and traditional media, indicated that magazines depicting body ideals drive health-related practices. One participant in Rysst's (2010) work was motivated by a 'dominant gaze', and responded by conducting exercise.

In an online context, the possibility that others are watching becomes a source of authority and judgement for females involved in online fitness culture. Through the gaze, reflected in feedback produced on SNSs (e.g. likes and comments, as well as follower numbers), the content becomes regulated. People within the culture come to experience their bodies as constantly scrutinised, leading to disciplinary body practices such as diet and exercise or, what Rose argues, is an aspect of 'governing the soul' (1989/1999). Before and after pictures explicitly represent this idea. Indeed, this study provides evidence to suggest that before and after pictures illustrating personal initiative and investment to losing weight and gaining muscle are also influenced by the gaze of followers. By engaging in a detailed exercise program that espouses a 'healthier looking' body, and by confessing behavioural deficiencies, including former poor eating behaviours, females within the images exhibit control over themselves as they continue to strive for the perfect healthy looking ideal. This finding follows Duncan's (1994) conclusion that magazine columns administer an invisible power that continually controls individuals' behaviour. Jette (2006) also found that a prominent fitness magazine, *Oxygen*, reinforced the neoliberal discourse of personal responsibility, by promoting 'feminine bodily norms' in Canada. Further, this idea reinforces the idea of exercising in order to attain an ideal body, the association between a fit ideal and morals, and the individualisation of health messages transposing from traditional media to an online space.

By displaying exercises that are highly effective for weight loss and body modification (e.g. high intensity interval training), the use of exercise in the quest for thinness is reinforced, and further, the association with thinness and healthiness is also enforced. According to Prichard and Tiggemann

(2008), exercise motivated by an appearance-focused rationale, such as attaining a fit ideal, can amount to poorer body image outcomes including increased self-objectification, lower body esteem, and greater disturbed eating. The health practices performed in order to attain this fit ideal vary in the posts circulated within online fitness culture. Exercises such as 'cardio', high intensity interval training, or plyometric training are commonly endorsed through videos and eBooks within online fitness culture. This reiterates Bender's (2006) contention that the common perception of these exercises is that they work to burn body fat and calories. Engaging in these prescribed, socially constructed exercise and fitness practices is the identified and ideal method of acquiring a fit body, representative of 'good health'. By achieving this ideal, physical capital is constituted by the body's appearance, health, function and form (Smith Maguire, 2008), producing status and rewards, which is reflected by popularity within online fitness communities. A person that is fit, toned and 'lean' is viewed as representative of investment in form, and an instrument of self-production, insinuating that health, and the body's form is a way to achieve a competitive position within a society which glorifies health (Smith Maguire, 2008).

Although online fitness users place emphasis on these health practices, such practices may be unhealthy when undertaken 'addictively' to the extreme. Participants' desire to attain the fit or healthy looking body was associated to some addictive or restrictive health behaviours as explained within the interviews. This belief is consistent with research that identified health promotion of this kind potentially encouraging participants to use inappropriate measures (Andrews et al., 2005). Examples of inappropriate measures included restrictive eating, exercise addiction, taking performance enhancing products, or 'nutritional' supplements to achieve the desired ideal body, or to use appearance-related motivators, which have been found to be unsustainable and not a healthy motivator (Prichard & Tiggemann, 2008). While the short-term implications are clear, concerns emanate as online fitness users may learn to appreciate unhealthy lifestyle behaviours in conjunction with attaining a 'healthy' ideal body. This has potential to undermine healthy diet and exercise practices in acquiring good health.

Regulation of SNSs such as Instagram and Facebook may act as an option for addressing potential harms of this media. As stated within the

literature review, Facebook's community standards state: 'We prohibit content that promotes or encourages ... eating disorders' (Facebook, 2016). However, as fitspiration is not recognised as harmful by SNSs, the pages and accounts attributed to online fitness elements are not shut down or censored. Furthermore, the content is not explicit to eating disorders, yet recent research has indicated links to unhealthy behaviours and body dissatisfaction. Moreover, current advertising guidelines on Facebook indicate that images that 'emphasize an 'ideal' body or body parts, or images showing unexpected or unlikely results, such as "before and after images"' are not allowed. However, these standards do not appear to be policed, or existent for user-generated content (any participants producing or sharing images). Instagram is not as specific with their community guidelines. However, it states that:

We remove content that contains credible threats or hate speech, content that targets private individuals to degrade or shame them, personal information meant to blackmail or harass someone, and repeated unwanted messages (2016).

It is not specified as to what extent 'credible threats' are measured. Instagram additionally suggests that members should use their ability to unfollow or block a person if they view post content that they do not like. Consequently, policy makers arguably face a difficult challenge in calling for the enforcement of the community standards.

It is clear that participants had some understanding of the relationship between exercise, diet and general health and therefore, it could be suggested that behaviours were underpinned by a broader health-related motive. Despite thoughts that participants may lack a holistic understanding of health, or eHealth literacy skills, the current study also found that some participants possessed a sound understanding of the potential harms associated with involvement in online fitness culture. For example, poor actions based on a lack of understanding to attain body ideals, poor body image, poor self-esteem, and negative appearance comparison. Although participants articulated these potential issues, they continued to partake in the culture. The acknowledgement of these potential harms demonstrates some awareness of the implications involved with online fitness culture. This suggests that appearance is the prime instigator for participating within online

fitness culture, and a motive to adhere to the health-related advice and information provided, despite additional concerns associated to credibility. Additionally, this highlights participants' use of the body as the focus of goal attainment, which may see participants to use inappropriate measures (e.g. restrictive eating or over exercising) to achieve the desired 'healthy' body.

Findings from this research suggest that more work may be needed to promote body positivity, as well as the idea that healthy can be embodied in diverse shapes and sizes. Adding to this, Bordo (2003) argues that there is an 'institutionalised system of values and practices within which girls and women (and, increasingly, boys and men as well) come to believe they are nothing (and frequently treated as nothing) unless they are trim, tight, lineless, bulgeless, and sagless' (p. 32). Cultivating social media literacy may also help with developing a critical approach to viewing idealised appearance images in traditional media, which has been shown to have a positive effect (McLean, Paxton, & Wertheim, 2016a). By questioning the truthfulness of an image, questioning whether an image has been manipulated to obtain a particular effect, and assessing the motives behind the way an image has been presented, it is envisioned that more people will understand the imagery manipulation within the social media world. Furthermore, it is anticipated that by increasing awareness of the modification of images, that body image will be less affected by viewing appearance media (McLean, Paxton, et al., 2016a). Social media literacy also includes understanding how others (peers, family and celebrities) use social media, as well as the background work in taking a photo for social media, and how people select the best images of themselves to present to the online audience. Hence, enhancing social media literacy through school programs, health promotion or social marketing campaigns, may have a protective effect in relation to body image.

7.4 Chapter summary

Guided by the objectives of the research, this chapter has comprehensively discussed the key findings in relation to the online fitness culture literature. The literature identified a number of unanswered questions and highlighted under-explored areas. At the heart of this chapter, such questions are addressed as the findings provide a closer examination of the conduits

through which online fitness culture may have a positive and negative influence on users. Specifically, this chapter articulated the significance of online fitness culture as an advisory field within health and fitness culture, and therefore, an important location for inquiry in order to widen the understanding of the construction of health and the fit body. More specifically, this chapter has made a distinct contribution to the literature by distinguishing the biopedagogic strategies used within the culture including the health messages, hash-tags, and popularity. These strategies encourage individuals to examine, understand and act upon themselves in certain ways, appropriate to the culture. In this way, examination of these strategies provides us with an understanding of how socially constructed norms around health and fitness are developed, maintained, perpetuated and circulated through online fitness culture.

The current findings are significant as they illuminate the construction of health through online communities. Findings suggest that online fitness culture challenges institutional and scientific frameworks of knowledge through creating social meaning online, progressing the social construction of health knowledge. The fluidity of these knowledge forms has depth in their public reach, and should not be disregarded. A theoretical perspective engaging social constructionism and symbolic interactionism encourages educators, society, policy makers and health promoters to consider factors beyond the individual. Alternatively, these theoretical approaches encourage consideration of the impact of society and culture (be that online as well) in constructing and maintaining a focus on the individual to achieve good health, which arguably influences the socially constructed meaning assigned to health.

Furthermore, online fitness culture also reinforces that ‘the body is the individual’s first and foremost important project’ (Smith Maguire, 2008, p. 41). Online fitness culture therefore fortifies other public health promotions that encourage healthy eating and exercise in order to reduce the risk of lifestyle diseases. The limitation of this related to the narrow parameters of what constitutes health: eating and exercise, rather than the acknowledgement of wider understandings including food insecurity, accessibility of resources and

education. As such, eating and exercise are assigned legitimacy to 'fix' poor health, reinforcing the neoliberal health discourse (Smith Maguire, 2008).

By understanding the nature of online fitness accounts, including the perceived 'positive' and 'negative' aspects of involvement within the culture for young females, researchers, educators and health promoters may better appreciate the multiple meanings attached to health. Furthermore, they may be better positioned to positively enhance eHealth literacy. Policy makers may also be more informed about the culture and the effects of online health communities upon health practices.

CHAPTER 8

CONCLUSION

8.1 Introduction

This study sought to explore young females' experiences of online fitness culture through the lens of their own eyes. By interviewing users of online fitness accounts themselves, and through researcher involvement within the culture, the study presented an alternative to the manner in which online fitness research is most often conducted. This lens, along with the theoretical underpinnings and online methods utilised, brought about perspectives and interpretations that are new to this field of study. This final chapter utilises evidence and insights from previous chapters to present a summary of the main findings and concluding remarks related to online fitness culture, with respect to health practices and eHealth literacy. These concepts are central to this thesis. Recommendations are based on the analysis of findings, positioned within broader research literature. With this in mind, recommendations focus on the development of eHealth literacy in schools, and also a call for stricter SNS content regulations. The recommendations are offered to practitioners, educators and policy makers who are best placed to enact them. Additionally, this chapter reflects on the qualitative nature of the research presented, describing the strengths and limitations of the study, before discussing some important implications for future research. It concludes with the researcher's reflections on how to advance these evolving fields of interest, and the methodological implications for future research.

8.2 A summary of the main findings

This thesis offers socio-cultural insights to deepen awareness about experiences of fitness on SNSs. Addressing the objectives of the study, important findings are summarised below, which shed light on these experiences, and how they impact understandings of health, and promote associated health practices.

- Online fitness SNS accounts have become a popular source of health and fitness information. This is due to the constant display of a

plethora of health and fitness related content, as well as the ease and ability to access this information. These factors also combine with SNS algorithms to allow an infiltration of content to a SNS account. Health and fitness-related content on SNSs is largely celebrated, user-generated, and discussed in a positive manner by users. Through SNS practices, users have the ability to reinforce norms (including health behaviours) to peers and online communities.

- There are a number of health messages promoted on online fitness accounts, often linked to diet and exercise and general care for the body. The messages link to diets, including 'IIFYM', clean eating, paleo etc., as well as exercise messages including plyometric training, weight lifting, and body building. Dietary messages or promoted diets are problematic as they often stray from an evidence based approach, and do not follow the Australian Guidelines to Healthy Eating, or other scientifically developed diets by qualified nutritionists. Similarly, promoted exercise regimes are often generic, and hence, may not cater to individual impairments, or fitness/strength limitations as well as disregarding body morphology (i.e. Ectomorph, Mesomorph, Endomorph or combination). All messages assume a level of comprehension.
- Many of the promoted messages prompt a change of behaviour, instructing users on how they should live in order to attain the healthy ideal. While these health messages within online fitness can be described as diverse, they can also be viewed as narrow. For example, many of the messages involving exercise circulated within online fitness on SNSs depict stereotypical, archetypal, thin, toned and 'fit bodies'. Importantly, this aspect of the visual messages surrounding fitness has the potential to negatively impact people's notions what it is to be 'fit and healthy', and may also raise body image issues.
- The messages circulated within online fitness on SNSs place the onus on achieving good health directly on the individual. Methods to self-

regulate the body are advocated by other online fitness accounts. Self-regulatory and disciplinary strategies including dieting and exercise practices proliferate SNS accounts with messages encouraging users to 'Make yourself fit'. Placing the responsibility solely on the individual demonstrates a lack of understanding of research on the social view of health, which addresses social factors such as lack of time, income, accessibility to health resources and nutritious foods. There may also be factors associated with genetic or cultural difference.

- The research reinforces previous online community literature that identifies members' feelings of support, and sense of community as key to participation. Like many online communities offering support, SNSs accounts facilitate peer-to-peer interaction, enabling information and advice to be shared, but also the facilitation of friendship and connection. In this way, online peers positively impacted perceptions of involvement within the culture. Community support was demonstrated through follower numbers, and in the provision of feedback through 'likes' and comments. This provided immense positive benefits to users' sense of belonging within the online fitness community.
- Embedded within young females' online fitness experiences were numerous examples of positive aspects which supported their continued participation in the online fitness movement. The ability to easily seek and find a variety of accounts providing health information, including perceived motivation and inspiration to exercise and eat well were all positive aspects of being involved within online fitness on SNSs. These elements, along with the community support, promoted ongoing involvement within the online fitness community.
- Being involved within online fitness communities on SNSs may also have negative implications on health behaviours by advocating restrictive eating and over exercising, as well as promoting exaggerated feelings about the body. These relate to feedback from

others, and the narrow views of health and the body, which have been associated with body dissatisfaction through social comparison.

- It is apparent, through the interactive nature of communication on SNSs, that online fitness accounts have become an alternative medium for the social construction of health, from traditional media and education forms. Involvement in online fitness communities challenges institutional and scientific frameworks of knowledge through creating social meaning online, progressing the social construction of health knowledge. Online fitness culture acts to provide an advisory field for health and fitness information, influencing users' construction of health understandings and beliefs. Users of online fitness accounts are situated in an online social context in which they create meanings that influence their health attitudes and behaviours. Constructions of health were linked to body aesthetics, and the biophysical model of health associated to eating and exercise.
- Popularity of posts, and popular status attributed to large followings, forms the credibility index within online fitness communities. In other words, rather than accuracy of information or scientific evidence, credibility of the post is determined by the number of 'likes' received. Ultimately, this influences norm creation, and can be deemed as a biopedagogic strategy used within online fitness communities.
- Social networking site practices such as the use of hash-tags, providing feedback, and sharing posts facilitate the transmission of information. These strategies encourage individuals to examine, understand and take action in certain ways, appropriate to the culture. It is through these strategies that socially constructed norms around health and fitness are developed, maintained, perpetuated and circulated through the online fitness culture.
- While at times some participants were able to distinguish facts from opinions when examining online health information, it was evident that most participants did not review authorship, endorsements or

sponsorship, nor did they assess credibility and applicability before applying it to their own life. This lack of critical awareness or critical health-related media literacy may have detrimental effects on the health and wellbeing of participants within the online fitness community. The inability to understand, analyse and evaluate health information found within SNSs could lead to damaging effects when applying this information to user's own lives.

- Social networking site policies (i.e. the SNS guidelines) are not maintained or enforced via the avenues of personal accounts, nor from posts that have been shared within the community. Failing to advocate, and enforce these policies permit a variety of posts to be circulated: some that may be considered a breach of policy in emphasising the ideal body, or not regulating 'trolling' type behaviour.
- There are significant indications that users of online fitness accounts on SNSs enjoy the overall experience. High levels of enjoyment are experienced by those within the culture, from the increased social interactions that are possible through connecting on SNSs.

8.3 Recommendations

The following section details a number of important recommendations for policy development, researchers, and practitioners for practices specific to an online context. These recommendations apply to a broad range of online sources of health information such as blogs, and new SNSs and social media.

8.3.1 Recommendations for practitioners

It is vitally important to note that the onus or responsibility for eHealth literacy must not solely rest with the individual. Instead, eHealth literacy should be supported by healthy environments (Velardo & Drummond, 2013). Studies indicate that low health literacy and associated skills are negatively related to the ability to evaluate online health information, and in turn, trust is placed in the information found online (Berkman, Sheridan, Donahue, Halpem, & Cortty, 2011; Diviani, van den Putte, Giani, & van Weert, 2015). Participants

in this study based credibility on aesthetics, personality, the amount of followers (popularity), and the number of pictures visible which describe a users' fitness journey. In pursuing understanding about the influence of online fitness social networking accounts on young females' health literacy, this study provides knowledge that has implications for educators. In particular, it demonstrates the importance of helping young people become critical consumers of online information. Healthy and supportive environments, such as schools, can support holistic health literacy learning and skill development (Paakkari & Paakkari, 2012; Paakkari, Simovska, & Paakkari, 2012). Given that social media has altered the contexts in which fundamental eHealth literacy skills are expressed, it is imperative that health education focus on empowering students by developing skills in conducting analysis and evaluation of the quality of health information found online. Developing eHealth literacy skills at a young age cultivates the ability to critically discuss, evaluate and analyse information. Creating a curriculum in which students explore eHealth literacy skills in relation to their most commonly used sources allows learning to occur in a practical environment where students gain skills in real-world application, developing holistic student health and wellbeing.

In this process it is important to recognise the educator's role in teaching effective eHealth literacy skills. Velardo and Drummond (2015) advocate for the development of teacher health literacy and capacity-building competencies. Ultimately, in developing teacher health literacy, critical thinking skills are employed to understand broader determinants that influence health. Specialised training builds confidence in navigating, understanding and evaluating the impact of contemporary media (e.g. SNSs). These are important skills to develop in students for use in the 21st century and beyond. Ideally, to help with this process, it has been argued that health practitioners and professionals should review online sites and recommend credible ones to people (Feng & Xie, 2015). Along with progressing this call for reviewers, there should be a general caution for people seeking health information from SNSs. Provisionally, the development of a general list of tips for people to use to evaluate online health information in a systematic manner may assist people, especially for those with lower health literacy skills.

For students to respond to pervasive media messages around the fit body ideal it is recommended that media literacy skills be developed. The development of media literacy with young adolescents has demonstrated effectiveness in reducing shape and weight concern and other eating disorder risk factors (McLean, Paxton, et al., 2016a; McLean, Paxton, & Wertheim, 2016b, 2016c; McLean, Wertheim, Marques, & Paxton, 2016; Wilksch & Wade, 2009). Media literacy skills will contribute to strengthening critical thinking, which will assist in the protection against a negative effect on body image (McLean, Paxton, et al., 2016a; McLean, Paxton, et al., 2016b), or poor self-esteem. In particular, social media literacy will reflect one of the most predominantly used media amongst this age cohort. Developing social media literacy will provide users of SNSs with skills to assess the messages behind commercial media advertising, and impact the way in which people interact on SNSs. This includes an understanding about how people use SNSs differently, and the manner in which images may be modified for impression management purposes to present the best pictures of themselves to their audience. Enhancing social media literacy through school programs or health promotion campaigns may encourage users to take a critical approach, and therefore, encourage users to make fewer comparisons of themselves to images seen on SNSs. Additionally, by empowering young people with these skills, social media literacy has the potential to yield effects beyond individual agency. Further outcomes could include developing opportunities to reconstruct norms in community contexts such as SNSs.

Promoting early education around social media, body image and the societal construction of health and beauty may enhance critique of SNSs and SNS practices. Education has the capacity to challenge the notion of the importance of social media within contemporary society as being one that provides validation for physical and bodily aesthetics. By holding proactive discussions and providing youth with the opportunity to discuss these issues in an open and nurturing environment, it may be recognised that actions on social media are not as significant as originally perceived (Jong & Drummond, 2016b). Educators can use this knowledge to create discussion about what occurs on SNSs and how individuals might respond in the event of disparaging remarks being posted. Girls may recognise that SNSs are not the panacea to life, but rather a communication tool that should be used in a

responsible manner. It is important to develop their understandings that these tools can be a source of engagement and fun, while recognising the potentially negative effect they can have on some individuals.

Ultimately, an entire cultural change around appearance is needed for body dissatisfaction rates to reduce. Promoting body positivity and body acceptance has been found to be protective, with females possessing higher body appreciation (Andrew, Tiggemann, & Clark, 2015; Halliwell, 2015). Promoting health in a variety of shapes and sizes, along with body positivity and achievements may add to the social acceptance of diverse body shapes. Further research should be promoted in this area to investigate the way in which body positivity works to combat elements of body dissatisfaction. Moreover, understanding how this can be developed at a younger age is imperative as there are increasing concerns of socially prescribed stereotypical body attitudes developing amongst young children (Holub, 2008; Spiel, Paxton, & Yager, 2012; Worobey & Worobey, 2014). This has potential negative implications for body image and eating behaviours (Harriger, Calogero, Witherington, & Smith, 2010; Lowes & Tiggemann, 2003; Phares, Steinberg, & Thompson, 2004; Puhl & Latner, 2007; Puhl, Moss-Racusin, & Schwartz, 2007).

Despite current challenges and problems with its use, the Internet, and more specifically SNS accounts about health and fitness, have become increasingly indispensable in providing information and addressing health promotion for young people. A number of factors may have played a role in this heightened use, including, 'belief' and 'distrust' of conventional health advice, and also its accessibility, as well as the personable nature that can be provided through SNSs. Future research may develop a deeper understanding of the implications of implementing this health knowledge in order to promote and facilitate more positive behaviours. More research is needed in this field to better understand the challenges posed to the eHealth literacy of young people, and to propose effective solutions. A multifaceted approach engaging educators, health information providers, parents and policy makers may be best positioned to make a successful impact.

8.3.2 Recommendations for policy

As described in the previous chapter, recommendations for policy include stricter SNS regulations on health and fitness-related content. Facebook advertising guidelines specifically state that images that ‘emphasize an “ideal” body or body parts, or images showing unexpected or unlikely results, such as “before and after images”’ are not permitted (2015). It would therefore appear that Facebook are ethically required to uphold their guidelines. They seem conflicted in achieving this due to varying rates of effective moderation and censorship rights, which they do not wish to impose. Furthermore, as the content is health and fitness-related, SNSs may believe this content is having a positive impact as it appears well intentioned. Additionally, there are challenges in managing the behaviour of ‘prosumers’, where consumers produce their own material, and circulate it within the online communities. Circulating these images assists with the development and reinforcement of particular body and health norms. This could have negative implications for individuals, depending on the impact of images that are circulated.

Facebook’s guidelines regarding healthy eating practices and supplementation also state, ‘ads that promote acceptable dietary and herbal supplements may only target users who are at least 18 years of age’ (2015). Such guidelines do not appear to be enforced as from a scan of the materials it is evident that this occurs, and due to the nature of the SNS environment, it is difficult to know the truthful age of users interacting with the content. If self- or SNS regulation is not occurring, there is a need to explore the best option to support and promote appropriate industry regulation on ‘health’ products available online. This would include products such as detox teas, protein supplements and other nutritional supplements. Although this would be a difficult task within the prosumer culture, there appears to be a need to develop regulations to restrict potentially unsafe and unhealthy food promotion. Hence, there is currently a need to ensure that health-related SNS content portrays suitable, responsible health messages providing scientifically based information about health and health products. Stricter regulations on SNS content may potentially ensure that the generation and distribution of health information provides consumers with confidence that health claims are valid and non-biased. Implementation and enforcement of

the guidelines may provide a beneficial avenue for health interventions and communications using SNS. However, regulating information in a free and democratic society is a controversial matter. In targeting users of health messages delivered by SNSs, health promotion initiatives should endeavour to facilitate critical social media eHealth literacy, informing at-risk individuals to be critical of media messages in relation to what it means to be fit and healthy.

8.4 Strengths and limitations of the research

This research explored online fitness culture from the perspective of participants who were currently active users in fitness culture on SNSs. Additionally, this study was grounded in an ideology that emphasises the importance of young people's viewpoints on issues primarily involving them (Bartholomaeus, 2013). Listening to the voices of individuals involved with the culture provided the researcher insight, and an opportunity to investigate the ways in which young females experience and develop the culture. In particular, the ways in which users navigate their way through contemporary health information and resources and on which information they choose to rely to make health decisions. As previously stated, former literature does not examine involvement in online fitness culture from the user's perspective. Through conducting netnography, a contribution was made to online research methods in the field of health and education. Using netnography as a research method provided insights in to the online space, language, practices, rituals and norms associated with online fitness culture. Netnography grounded the researcher's understanding of the culture, immersing the researcher in an ethnographic situation prior to conducting interviews. The subsequent semi-structured interviews allowed the researcher to gain a rich, in-depth understanding of online health messages, resources, and user eHealth literacy skills relevant to 18 to 24 year old females, derived from their own experiences. Unique to this study, all 22 participants were currently involved in online fitness culture. This study demonstrates how qualitative research can advance the current understanding of online health information seeking, and eHealth literacy as it relates to young females and their everyday lives.

Although comprehensive in many respects, the present findings need to be interpreted in the context of a number of limitations. Firstly, although arguably less relevant in qualitative research, the sample size was smaller than expected. This limitation was due to difficulties in the recruitment procedures. The sample has proven to be adequate for an exploratory study. Typically, small sample sizes limit the extent to which findings can be statistically representative, and generalised; however, consistent with the qualitative research tradition, generalisability does not apply. Despite canvassing a range of voices from various states across Australia, only the principle of naturalistic generalisability can be applied. Put simply, the findings may apply to comparable participant cohorts in similar situations. It is arguable that these findings may provide important insight into the operation and impact of other online health resources and communities involving young females. The voices of those most involved in online fitness culture were captured within the study. Furthermore, in conducting a blended netnography, the potential issue of lack of available data was ameliorated.

Secondly, while the study restricted participants to include anyone who considered themselves a part of the online fitness community, participants within the interview phase of study were predominantly white females. Furthermore, findings from Phase 1 of the research involving netnography suggest that females participating within online fitness culture were recognised as being predominantly represented as white, or from an Asian background. This observation is consistent with previous research about fit bodies on Instagram (Reade, 2016). The limited representation of diverse ethnicities online contributes to conceptualisations of the fit body as one that is white. As a consequence, many non-white users are 'out of the frame' presenting a narrowed picture of the range of fit bodies which exist in society (Dworkin & Wachs, 2009, p. 56). Thus, these findings may not generalise to other groups of women. However, the findings specifically relate to the observed participants in online fitness communities, and the study cohort of 18 to 24 year old females, providing greater insight into their day-to-day experiences involved with online fitness accounts.

Finally, given the open nature of the research recruitment of participants, socioeconomic status was not taken in to account in the analysis of findings. Understanding socioeconomic status of the participants in this

study could have provided deeper understanding about how this factor may impact upon the experience of involvement in online fitness culture, online health information seeking and eHealth literacy skills. While it was beyond the scope of the study to explore the influence of socioeconomic status as a factor of influence impacting experiences of online fitness culture, the present study has provided important information about the user characteristics of females involved in online fitness culture on Facebook and Instagram. This adds to the increasing body of current research in this field (Carrotte et al., 2015; Tiggemann & Zaccardo, 2015).

Despite these limitations, the present study has conducted an analysis of online fitness culture from a socio-cultural perspective, providing a greater understanding of the impacts on young females' health beliefs and health practices. It has also highlighted how strategies such as SNS practices and popularity impact upon the construction and circulation of norms. In so doing, it has extended and deepened understanding of the media impacts on perceptions of health, health information seeking, and body image through research into new media formats (i.e. SNSs). Accordingly, the findings illustrate the complexity of the role played by SNSs in this process. As both Instagram and fitspiration are developing contemporary trends, the findings provide a valuable first step toward clarifying their potential impacts.

8.5 Directions for future research

Online fitness culture is currently underrepresented in the online community and cultural research literature; as such, multiple opportunities exist for wider research. There is a clear need for further research to strengthen the limited evidence base. Further exploration of the ways in which eHealth literacy can influence young adults' experiences with seeking online health information is required to understand the impact on their health beliefs and behaviours. Research surrounding online fitness culture should develop to cultivate an evidence base inclusive of a range of populations. While it was beyond the scope of this research to it would be valuable to capture the influence of demographic location and/or SES on SNS participation as variables are important considerations for future research. Other population groups should include adolescents, as well as males, mothers, and older populations, such as 25–35 year olds. Examining broader cohorts will assist with a better

understanding about the diverse population using SNSs for health information, and allow for comparison of data. A possible direction for future research might include a specific exploration of online fitness culture and adolescent females (who are particularly high users of the Internet and SNSs, see Sensis, 2015). Such an approach may illuminate nuances between age cohorts, providing a further evidence base to support the current implementation of health literacy within the Australian health curriculum.

The work presented in this thesis confirms the utility of a qualitative, social constructionist and symbolic interactionist approaches to understanding communities, culture and online health information seeking. The current study adopted a qualitative interpretive approach on the basis that such methods are useful in ascertaining the sociocultural factors associated with exploratory studies. An opportunity exists to consider research using a mixed-method approach to examine the eHealth literacy of this cohort of people using SNSs, taking in to account the clear strengths of the methods used in this study. A future study may include a quantitative assessment of skills, alongside qualitative exploration of factors shaping eHealth literacy. Research of this kind is starting to emerge within Australia (see for example, Jordan et al., 2013). Recent developments recognise the role of health literacy in the evaluation of online health information, and measuring through a mixed methods approach (Diviani, van den Putte, Meppelink, & van Weert, 2016). Future research could focus specifically on SNSs, and the applicability of eHealth literacy skills to supporting consumers to make informed choices. In order for this research to be successful, a good deal of work is required to develop shared definitions and measures for assessing the impact of eHealth literacy. Furthermore, research in the field of eHealth literacy should devote more attention to evaluative criteria for online health information (Diviani et al., 2015). Reflecting on the recommendations for practitioners, further study is also warranted to explore how SNSs and other online platforms disseminate credible health information and promote positive behaviour change

Body image arose as an issue associated with the fit body ideal. Behaviours were described that have potential links to eating disorders and body dysmorphic behaviours. However, it is difficult to assess the precise

effect that viewing a plethora of fit images has on members within the online fitness community. For example, is it the fit ideal or the thin ideal that has an effect on body dissatisfaction? A number of studies have started to research these factors (Boepple et al., 2016; Boepple & Thompson, 2015; Holland & Tiggemann, 2016a; Tiggemann & Zaccardo, 2015); however, this topic continues to warrant future research. It is recommended that future research attempt to disentangle the impact of the thinness versus fitness dichotomy. Additionally, elements of the image, including the pose, movement, attire, setting of the image, as well as the influence of the inspirational quotations and their impact on the user requires further investigation. Some further areas of research could address the focus of individuals on the image (potentially through wearable eye tracker glasses), to determine what individuals are focusing on first, and which hold their attention for the longest period of time.

As a final recommendation, imminent research could monitor fewer accounts, and specifically focus on elements such as interactivity with images, for example, the decision to 'like' or comment on a particular image. Interactivity is one element that distinguishes SNSs from conventional mass media (Perloff, 2014). Future research should attempt to explicitly assess the effects of this form of interaction. Recent investigations with adolescent female participants, have found that immediate feedback was highly desired in response to images and comments posted on SNSs (Jong & Drummond, 2016b). The immediacy of the feedback was also found to directly influence the emotional state of adolescents. Further exploration surrounding the role of interaction and feedback will develop deeper understanding of the impact of SNS communication. This would specifically pertain to the popularity of the post including the impact on social norm development, as well as learning more about the emotional state of participants online.

8.6 Concluding summary

The research underpinning this thesis makes a significant and original contribution to the online fitness literature. From a methodological perspective, it progresses qualitative approaches, including netnography, in contemporary online community research. Most studies of one aspect of online fitness culture, fitspiration, have emerged from a quantitative

orientation, and employed a process which assesses the impact of fitspiration images on body image perceptions, from a psychological perspective (Boepple et al., 2016; Boepple & Thompson, 2015; Holland & Tiggemann, 2016a; Tiggemann & Zaccardo, 2015). Furthermore, research into the effect of online communities tends to focus on health issues in a medicalised field, specifically illnesses such as cancer, gluten intolerance, dementia, and eating disorders (Bean, 2014; Brotsky & Giles, 2007; Robillard, Johnson, Hennessey, Beattie, & Illes, 2013; Sharf, 1997; Weitzman, Kelemen, Quinn, Eggleston, & Mandl, 2013; Whitehead, 2010); there is comparatively limited literature about online fitness culture and communities. More recently however, there has been a growing interest in the use of sociological concepts within a qualitative paradigm in order to develop a greater understanding of online fitness culture (see Andreasson & Johansson, 2013b, 2013c, 2015; Smith & Stewart, 2012b; Stover, 2014). This thesis, through qualitative investigation, progresses this movement, and distinguishes itself from previous sociological studies by using a social constructionist and symbolic interactionist framework. Importantly, it listens to the voices of members who considered themselves a part of the online fitness community. Therefore, this thesis contributes specifically to a broader understanding of users' experiences of online fitness culture and community.

In addition to the theoretical and methodological uniqueness of this research, the primary contribution of this thesis is that it adds to the understanding of personal experiences of young females and their involvement within online fitness culture. Most online health-seeking research examines websites, generally overlooking the specific role of SNSs. In this way, the current study makes an important contribution to the literature by examining the range of health messages on SNSs and the impact upon health beliefs and behaviours. Specifically, this study has shed light on the combination of textual and visual communications, and the manner in which the online fitness culture cultivates the construction of health, and furthermore, how it impacts upon health behaviours.

On the basis of the evidence derived from this investigation, involvement with online fitness culture delivers both positive and negative consequences for user participation. Members of the online fitness community are a perceived positive influence on the involvement of other

members. Online communities also have the potential to enhance the quality of the experience by engaging in communications, and contributing to the construction of positive community culture. Engagement with images through likes, comments and sharing, advanced participants' 'sense of belonging' and 'connectedness' to the other members and the community. Constant updates of their 'fitness journeys' (with images and feedback) prompted the development of friendships and promoted continual participation within the culture. This aspect of the experience demonstrated the vital role of peers and community in the process of positively shaping users' experiences of online fitness culture and should not be undervalued.

Notwithstanding the positive influence of peers and the community, it is also necessary to acknowledge that the online fitness experience is not devoid of negative implications, which can manifest in various forms. One example is negative feedback, which is at times constituted by incidences of textual abuse. This is concerning, compounded by the lack of SNSs engagement in policy enforcement. Furthermore, aside from negative feedback, peers can provide alternate health information that may lead people to make unwise decisions regarding health and their bodies. This, sometimes solicited, information encourages specific diets and exercise behaviours that are appropriate to the culture, such as clean eating, and plyometric training. While this is celebrated as a positive aspect of participation for many users, from a health perspective the encouragement of this information (at times) undermines institutional, researched health information and advice. Moreover, the premise of the advice promoted within online fitness culture perpetuates an individualistic self-regulatory attitude to health, which reinforces the neoliberal discourse of health, excluding socioeconomic and demographic factors. Ultimately, this may cause a disparity in who can attain the type of health that is promoted within online fitness culture.

While this thesis provides a deeper understanding of the online fitness experience, it also adds depth to understanding of the way certain constructions of attitudes, behaviours and beliefs emerge within online communities and the role of peers and community members in reinforcing particular cultural and social constructions. Social and cultural imperatives, as well as interpersonal agents and organisational structures shape the construction of health. In particular, health

professionals, the media, schools, parents, previous experience, culture, and the cultural significance of health and physical activity in contemporary society are important. It is evident that involvement in online fitness culture does not replace these influences. However, for those involved, online fitness SNSs play a central role in shaping attitudes and behaviours toward health. In this way, users are not only influenced by broader social constructions, but make apparent the fluidity of these constructions and meanings of health through their participation within online fitness culture. In other words, health understandings, beliefs and practices change promptly due to their involvement in online fitness culture, and the ease of access to information.

This research has afforded users of online fitness accounts the possibility to be heard in relation to their choices about a health matter that affects them. Participants provide many wonderful examples of positive online fitness culture experiences. It may be possible to optimise the aspects of online fitness culture that positively shape constructions of health and physical activity. However, the way that health is socially constructed and other possible negative implications of involvement lessen the perceived positives. Social networking site practices, such as liking and providing feedback, play a role in normalising and reinforcing certain attitudes and behaviours that are not conducive to a positive experience. Therefore, to address these negative aspects, it may be necessary to challenge the deeply rooted values and beliefs that are socially and culturally imbedded. As such, there is a need to engage people to be critical consumers of health information received through SNSs.

The findings presented in this thesis indicate the opportunity for future investigations that further consider the ways in which other population groups experience online fitness culture and health information seeking via SNSs. Additionally, this research advocates health promotion via SNSs. Utilising SNS will extend the scope of health promotion to a broader audience of health conscious individuals, as well as non-health conscious individuals by taking advantage of SNS algorithms. In advance of increasing implementation of health promotion through SNSs, it would be timely to examine the outcome of the current implementation of health literacy concepts as they apply to online materials now that these are a focus within the Australian HPE curriculum. Likewise, examining existing health literacy

programs within schools in order to ensure the development of critical consumers of health information is vital regarding the construction of understandings of health. These programs should aim to reinforce the primary concepts of health literacy, which are to obtain, process, understand, evaluate and use health information in order to make appropriate health decisions.

The work presented in this thesis confirms the utility of adopting a qualitative, social constructionist and symbolic interactionist approach to understanding an online context. While the majority of studies to date have utilised quantitative methods, this research highlights the place of qualitative research in this emerging field, and lends itself to shaping future research using qualitative approaches, or a combination of qualitative and quantitative methods.

9 APPENDICES

9.1 APPENDIX A

Ethics Approval Report

FINAL APPROVAL NOTICE

Project No.:	<input type="text" value="6327"/>		
Project Title:	<input type="text" value="An exploration of young women's experiences and expressions of gym/fitness culture on social networking sites"/>		
Principal Researcher:	<input type="text" value="Ms Stephanie Jong"/>		
Email:	<input type="text" value="stephanie.jong@hotmail.com"/>		
Approval Date:	<input type="text" value="18 December 2013"/>	Ethics Approval Expiry Date:	<input type="text" value="11 February 2017"/>

The above proposed project has been **approved** on the basis of the information contained in the application, its attachments and the information subsequently provided.

RESPONSIBILITIES OF RESEARCHERS AND SUPERVISORS

Participant Documentation

Please note that it is the responsibility of researchers and supervisors, in the case of student projects, to ensure that:

- all participant documents are checked for spelling, grammatical, numbering and formatting errors. The Committee does not accept any responsibility for the above mentioned errors.
- the Flinders University logo is included on all participant documentation (e.g., letters of Introduction, information Sheets, consent forms, debriefing information and questionnaires – with the exception of purchased research tools) and the current Flinders University letterhead is included in the header of all letters of introduction. The Flinders University international logo/letterhead should be used and documentation should contain international dialling codes for all telephone and fax numbers listed for all research to be conducted overseas.
- the SBREC contact details, listed below, are included in the footer of all letters of introduction and information sheets.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 'INSERT PROJECT No. here following approval'). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

Annual Progress / Final Reports

In order to comply with the monitoring requirements of the [National Statement on Ethical Conduct in Human Research \(March 2007\)](#) an annual progress report must be submitted each year on the **18 December** (approval anniversary date) for the duration of the ethics approval using the annual / final report pro forma available from [Annual / Final Reports](#) SBREC web page. *Please retain this notice for reference when completing annual progress or final reports.*

If the project is completed before ethics approval has expired please ensure a final report is submitted immediately. If ethics approval for your project expires please submit either (1) a final report; or (2) an extension of time request and an annual report.

Student Projects

The SBREC recommends that current ethics approval is maintained until a student's thesis has been submitted, reviewed and approved. This is to protect the student in the event that reviewers recommend some changes that may include the collection of additional participant data.

Your first report is due on **18 December 2014** or on completion of the project, whichever is the earliest.

3. Modifications to Project

Modifications to the project must not proceed until approval has been obtained from the Ethics Committee. Such matters include:

- proposed changes to the research protocol;
- proposed changes to participant recruitment methods;
- amendments to participant documentation and/or research tools;
- change of project title;
- extension of ethics approval expiry date; and
- changes to the research team (addition, removals, supervisor changes).

To notify the Committee of any proposed modifications to the project please submit a [Modification Request Form](#) to the [Executive Officer](#). Download the form from the website every time a new modification request is submitted to ensure that the most recent form is used. Please note that extension of time requests should be submitted prior to the Ethics Approval Expiry Date listed on this notice.

Change of Contact Details

Please ensure that you notify the Committee if either your mailing or email address changes to ensure that correspondence relating to this project can be sent to you. A modification request is not required to change your contact details.

4. Adverse Events and/or Complaints

Researchers should advise the Executive Officer of the Ethics Committee on 08 8201-3116 or human.researchethics@flinders.edu.au immediately if:

- any complaints regarding the research are received;
- a serious or unexpected adverse event occurs that affects participants;
- an unforeseen event occurs that may affect the ethical acceptability of the project.

Best wishes for the Christmas season

Mikaila Crotty



[Mrs Andrea Fiegert and Ms Mikaila Crotty](#)

Ethics Officers and Joint Executive Officers, Social and Behavioural Research Ethics Committee

Telephone: +61 8 8201-3116 | Andrea Fiegert (Monday, Tuesday and Wednesday – all day)

Telephone: +61 8 8201-7938 | Mikaila Crotty (Wednesday, Thursday and Friday - mornings only)

Email: human.researchethics@flinders.edu.au

Web: [Social and Behavioural Research Ethics Committee \(SBREC\)](#)

9.2 APPENDIX B

Modification Request Form Approval

Project No.:	<input type="text" value="6327"/>
Project Title:	<input type="text" value="An exploration of young women's experiences and expressions of gym/fitness culture on social networking sites"/>
Principal Researcher:	<input type="text" value="Ms Stephanie Jong"/>
Email:	<input type="text" value="stephanie.jong@hotmail.com"/>
Modification Approval Date:	<input type="text" value="17 April 2014"/>
Ethics Approval Expiry Date:	<input type="text" value="11 February 2017"/>

I refer to your modification request for the project above that has been approved previously. I am pleased to inform you that the Chairperson has approved your request to modify the project as outlined below:

✓	Approved Modification(s)	Details of approved modification(s)	
	Modified research protocol:	Approval for researcher to contact Adelaide metropolitan mixed sex gyms as outlined.	
	Documentation Amendments and/or Additions	Amended Documents	1. Verbal script
		New Documents	1.

RESPONSIBILITIES OF RESEARCHERS AND SUPERVISORS

1. Participant Documentation

Please note that it is the responsibility of researchers and supervisors, in the case of student projects, to ensure that:

- all participant documents are checked for spelling, grammatical, numbering and formatting errors. The Committee does not accept any responsibility for the above mentioned errors.
- the Flinders University logo is included on all participant documentation (e.g., letters of Introduction, information Sheets, consent forms, debriefing information and questionnaires – with the exception of purchased research tools) and the current Flinders University letterhead is included in the header of all letters of introduction. The Flinders University international logo/letterhead should be used and documentation should contain international dialling codes for all telephone and fax numbers listed for all research to be conducted overseas.

- the SBREC contact details, listed below, are included in the footer of all letters of introduction and information sheets.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 'INSERT PROJECT No. here following approval'). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

2. Annual Progress / Final Reports

Please be reminded that in order to comply with the monitoring requirements of the [National Statement on Ethical Conduct in Human Research \(March 2007\)](#) an annual progress report must be submitted each year on **18 December** (approval anniversary date) for the duration of the ethics approval.

If the project is completed *before* ethics approval has expired please ensure a final report is submitted immediately. If ethics approval for your project expires please submit either (1) a final report; or (2) an extension of time request and an annual report.

Student Projects

The SBREC recommends that current ethics approval is maintained until a student's thesis has been submitted, reviewed and approved. This is to protect the student in the event that reviewers recommend some changes that may include the collection of additional participant data.

Your next report is due on **18 December 2014** or on completion of the project, whichever is the earliest. A copy of the Report Pro Forma is available for download from the [Annual / Final Reports](#) SBREC web page. *Please retain a copy of this notice for reference when completing annual progress or final reports.*

3. Modifications to Project

Modifications to the project must not proceed until approval has been obtained from the Ethics Committee. Such matters include:

- proposed changes to the research protocol;
- proposed changes to participant recruitment methods;
- amendments to participant documentation and/or research tools;
- change in project title;
- extension of ethics approval expiry date; and
- changes to the research team (addition, removals, supervisor changes).

To notify the Committee of any proposed modifications to the project please submit a [Modification Request Form](#) to the [Executive Officer](#). Download the form from the website every time a new modification request is submitted to ensure that the most recent form is used. Please note that extension of time requests should be submitted prior to the Ethics Approval Expiry Date listed on this notice.

Change of Contact Details

Please ensure that you notify the Executive Officer if either your mailing or email address changes to ensure that correspondence relating to this project can be sent to you. A modification request is not required to change your contact details.

4. Adverse Events and/or Complaints

Researchers should advise the [Executive Officer](#) of the Ethics Committee on 08 8201-3116 or human.researchethics@flinders.edu.au immediately if:

- any complaints regarding the research are received;
- a serious or unexpected adverse event occurs that affects participants;
- an unforeseen event occurs that may affect the ethical acceptability of the project.

Kind regards
Mikaila

[Mrs. Andrea Fiegert](#) and [Ms Mikaila Crotty](#)

Ethics Officers and Joint Executive Officers, Social and Behavioural Research Ethics Committee

Telephone: +61 8 8201-3116 | [Andrea Fiegert](#) (Monday, Tuesday and Wednesday – all day)

Telephone: +61 8 8201-7938 | [Mikaila Crotty](#) (Wednesday, Thursday and Friday - mornings only)

Email: human.researchethics@flinders.edu.au

Web: [Social and Behavioural Research Ethics Committee \(SBREC\)](#)

Manager, Research Ethics and Integrity – [Dr Peter Wigley](#)

Telephone: +61 8 8201-5466 | email: peter.wigley@flinders.edu.au

[Research Services Office](#) | Union Building Basement

Flinders University

Sturt Road, Bedford Park | South Australia | 5042

GPO Box 2100 | Adelaide SA 5001

CRICOS Registered Provider: The Flinders University of South Australia | CRICOS Provider Number 00114A

This email and attachments may be confidential. If you are not the intended recipient, please inform the sender by reply email and delete all copies of this message.

9.3 APPENDIX C

Flyer for Gym Recruitment



SHAPE STUDY

**PARTICIPANTS
REQUIRED**

**FEMALES AGED 18-24 YEARS OF AGE ARE
NEEDED TO PARTICIPATE IN
A STUDY INVESTIGATING
ONLINE FITNESS
CULTURE
ON FACEBOOK AND INSTAGRAM.**

PARTICIPANTS WILL BE REQUIRED TO:

- HAVE A ONE HOUR TO ONE AND A HALF HOUR ONLINE INTERVIEW WITH THE RESEARCHER ABOUT YOUR EXPERIENCES IN ONLINE FITNESS
- BE ALREADY INVOLVED IN FITNESS CULTURE/ #FITFAM ON INSTAGRAM OR FACEBOOK
- MUST HAVE ENGLISH AS A FIRST LANGUAGE

**IF YOU ARE INTERESTED PLEASE VISIT ANY ONE OF
THESE AVENUES:**

**INSTAGRAM - @SHAPESTUDY
FACEBOOK - SHAPE STUDY
EMAIL - SHAPE.STUDY@FLINDERS.EDU.AU**

**PARTICIPANTS WHO VOLUNTEER WILL BE
REIMBURSED BY A \$25
HONORARIUM.**

9.4 APPENDIX D

Participant Photographic Release Form

PARTICIPANT PHOTOGRAPH RELEASE FORM

'An exploration of females' experiences of and expressions of gym/fitness culture on social networking sites'

I (write your name).....

agree to the photographs I/others have taken of my body relating to fitness, which have/could be posted to social networking sites to be used for:
[please circle/highlight whichever applies]

display in online focus group interviews	agree/don't agree
display in thesis materials	agree/don't agree
display in academic articles and presentations	agree/don't agree

1. I have read the information provided in the Participant Information Sheet.
2. Details of procedures and any risks have been explained to my satisfaction.
3. I am aware that I should retain a copy of the Information Sheet and Participant Photograph Release Form for future reference.
4. I understand that:
 - All photographs will be de-identified using computer editing software
 - Photographs will be numbered not labelled to maintain anonymity.

Participant's signature (or typed name).....

Date.....

I certify that I have explained how photographs will be used to the volunteer and consider that she understands what is involved and freely consents to participation.

Researcher's name..... Stephanie Jong

Researcher's signature



Date...29/04/2014.....



This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (6327). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

9.5 APPENDIX E

Letter of Introduction for Participants



School of Education
GPO Box 2100
Adelaide SA 5001
Prof Murray Drummond
Tel: (08) 8201 5306
Email: murray.drummond@flinders.edu.au
CRICOS Provider No. 00114A

LETTER OF INTRODUCTION

Dear potential participants,

My name is Professor Murray Drummond and I hold the position of Professor of Sport, Health and Physical Education at Flinders University in The School of Education.

I am introducing Stephanie Jong who is studying a Doctor of Philosophy in Education at Flinders University over the next four years. I am Stephanie's supervisor for the research project.

Stephanie will be completing a research project on: 'An exploration of young adult females' experiences of and expressions of fitness culture on social networking sites'. Stephanie will be conducting online focus group interviews to explore the effects of social networking sites on young adult female's perception of body image. This research will lead to a thesis.

I would be grateful if you would volunteer to assist in this project, by consenting to your participation in an individual interview with Stephanie, covering certain aspects of this topic. On one occasion, 1-1 ½ hours would be required.

The researchers do not need your name and pseudonyms (fake names) will be used, however, due to the nature of the study, it is not possible to guarantee anonymity and confidentiality, however pseudonyms (fake names) will be used. You will be free to withdraw from the interview at any time or decline to answer questions if you wish. If in Adelaide, Stephanie will meet with you for the individual interview in a library convenient to you. If you are from interstate, Stephanie will conduct an online face-to-face interview with you via an online method convenient to you (i.e. Skype). The interview will be audio recorded and transcribed (put into words) in a word document. It will then be de-identified for anonymity. If you wish to participate in the study you will also be asked to consent to a photograph release, agreeing to release 5 to 10 fitness related photographs to Stephanie for the research project. There will be measures taken to de-identify the photographs (e.g. faces cut off).

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on 8201 5306 or by email (murray.drummond@flinders.edu.au).

Yours Sincerely,
Professor Murray Drummond
School of Education
Faculty of Education, Humanities and Law

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 6327). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

9.6 APPENDIX F

Information Sheet for Participants



Stephanie Jong
School of Education
PhD Student
GPO Box 2100
Adelaide SA, 5001
Tel: (08) 8201 5223
Email: sj00009@flinders.edu.au
CRICOS Provider No. 00114B

INFORMATION SHEET: INDIVIDUAL INTERVIEW

Title: 'An exploration of young adult females' experiences of and expressions of fitness culture on social networking sites'

Investigators:

Ms. Stephanie Jong (researcher)
PhD in Education
Flinders University
Ph: (08)8201 5223
Professor Murray Drummond (supervisor)
Flinders University

Description of the study:

This study is part of the project titled 'An exploration of young adult females' experience of and expressions of gym/fitness culture on social networking sites'. This project will explore how online fitness communities impact upon the health of females. The project will be looking at the social networking sites such as *Facebook* and *Instagram*. This project is supported by Flinders University Education department.

Purpose of the study:

This project aims to examine the role of gym/fitness culture online to look at how ideals are transmitted to females to shape their health beliefs around perceptions of body image. A further aim is to investigate how images (photographs) are used as a form of communication in this process.

What will participants be asked to do?

Participants will be invited to attend an individual interview with the researcher at a library convenient in location. The researcher will ask a few questions about the participant's experiences of online fitness culture and their views and attitudes about body image, social networking sites and about what is 'ideal' and 'popular'. The interview will take approximately one hour. The interview will be recorded using a digital voice recorder to help with looking at the results. Once recorded, the interview will be transcribed (typed-up) and stored as a computer file and then destroyed once the results have been finalised. Participation is voluntary.

inspiring
achievement

What benefit will I gain from being involved in this study?

The sharing of your experiences will improve the planning and delivery of future programs relating to media analysis, body image, health and well-being.

Will participants be identifiable by being involved in this study?

The researchers do not need your name and pseudonyms (fake names) will be used, however, due to the nature of the study, it is not possible to guarantee anonymity and confidentiality, however pseudonyms (fake names) will be used. Once the interview has been typed-up and saved as a file, the voice file will then be destroyed. Any identifying information will be removed and the typed-up file stored on a password protected computer that only the coordinator (Professor Murray Drummond) and the principal researcher (Stephanie Jong) will have access to. Your comments will not be linked directly to you.

Are there any risks or discomforts if I am involved?

The researcher anticipates low risks from your involvement in this study. If you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the investigator.

Following the interviews if you feel emotionally distressed or anxious, the free counselling/support services of the Butterfly foundation (The Butterfly foundation (<http://www.thebutterflyfoundation.org.au/>) relates specifically to body dissatisfaction, body image concerns and eating disorders. The website offers a range of articles participants can read and a support line. The Eating Disorders Victoria site (<http://www.eatingdisorders.org.au/>) is also available and information, education and help-lines are free of charge. Also Beyond Blue's site: <http://www.beyondblue.org.au> is easily accessible and the same educational facilities are available there as well as online chats and help-lines.

How do I agree to participate?

Participation is voluntary. You may answer 'no comment' or refuse to answer any questions and you are free to withdraw from the individual interview at any time without effect or consequences. A consent form accompanies this information sheet. If you live in Adelaide and you agree to participate please read and sign the form and hand it back to me when we meet for the interview. If you live elsewhere in Australia, please read and type your name on the consent form and send it back to me at shape.study@flinders.edu.au. Verbal consent will also be asked of you at the start of the interview.

How will I receive feedback?

Outcomes from the project will be summarised and given to you by the researcher if you inquire via email.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (6327). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

9.7 APPENDIX G

Consent form for Participants



CONSENT FORM FOR PARTICIPATION IN RESEARCH (by individual interview)

'An exploration of young adult females' experiences of and expressions of fitness culture on social networking sites'

I (write your name).....

being over the age of 18 years and female, hereby consent to participate as requested in the **individual interview** for the research project on **exploring young adult females' experiences of and expressions of gym/fitness culture on social networking sites**.

1. I have read the information provided.
2. Details of procedures and any risks have been explained to my satisfaction.
3. I agree to audio recording of my information and participation.
4. I am aware that I should retain a copy of the Information Sheet and Consent Form for future reference.
5. I understand that:
 - I may not directly benefit from taking part in this research.
 - I am free to withdraw from the project at any time and am free to decline to answer particular questions.
 - The information gained in this study will be published as explained, and it is not possible within this type of study to guarantee anonymity and confidentiality, however pseudonyms (fake names) will be used.
 - I may ask that the recording/observation be stopped at any time, and that I may withdraw at any time from the session or the research without disadvantage.
6. I agree to the transcript being made available to other researchers who are not members of this research team, but who are judged by the research team to be doing related research, on condition that my identity is not revealed.
7. I have had the opportunity to discuss taking part in this research with a family member or friend.
8. I agree for the researcher to use the transcript produced in the interview if I do not indicate otherwise after I have been given the chance to read it.
9. I agree for the researcher to publish my information as reported unless I have indicated otherwise after I have been given the chance to read it.
10. I am a female participant who considers themselves involved within online fitness culture. Please tick the box if you agree to the final statement:

Participant's signature (or typed)

.....Date.....

I certify that I have explained the study to the volunteer and consider that she/he understands what is involved and freely consents to participation.

Researcher's name.....Stephanie Jong.....

Researcher's signature

A handwritten signature in black ink, appearing to be 'Stephanie Jong', written on a light blue background.

Date...29/04/2014.....

NB: Two signed copies should be obtained. The copy retained by the researcher may then be used for authorisation of Items 8 and 9, as appropriate.

9.8 APPENDIX H

List of interview questions

Semi structured individual interview questions or topics to be discussed, as appropriate

*Please note that these questions are semi-structured and will include questions that 'pop-up' in the interview

Social networking site use

- Tell me about how you use social networking sites
- How were you introduced to online fitness culture?
- What types of accounts do you follow? Why? How do you determine who you follow?
- Describe your experiences of being involved with online fitness culture. How do you participate in online fitness culture on Facebook and Instagram?
- How often do you post photographs online?
- Why do you think people follow you?

Fitness culture

- Describe your experiences of #fitfam
- What do you get out of the online fitfam that you don't get in real life?
- What type of information do you get from online fitness social networking site accounts?
- How do you use this information?

Health

- Define healthy.
- Has your definition changed over time?

Communication via pictures

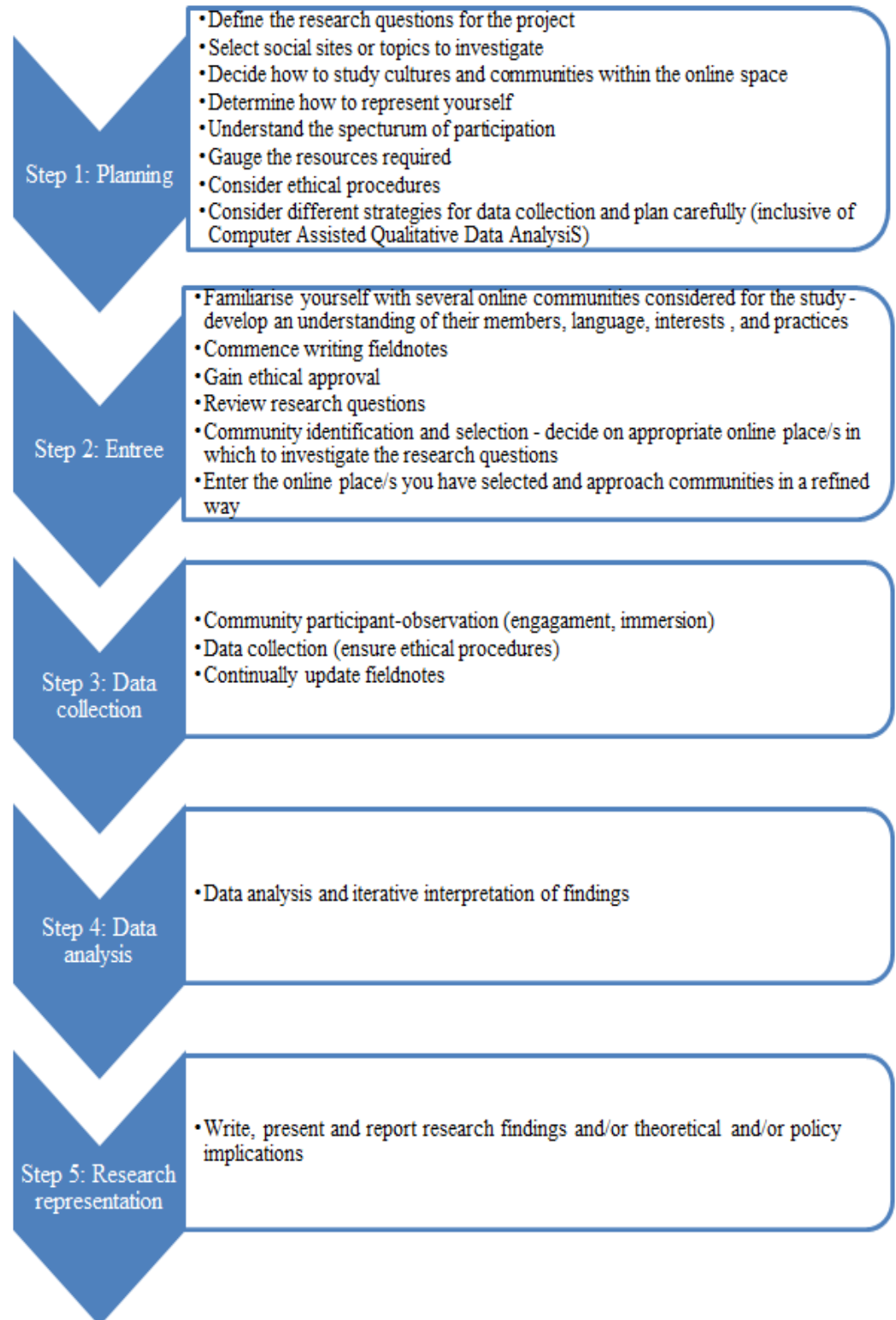
- Tell me about the images that you see in your newsfeed
- What do the pictures you see tell you about the person in the image?
- How do you feel about the images you see?
- What message do you get from these images?
- When you post a picture what message are you trying to get across?
- What images have a positive impact on females? What aspects does it affect?
- What images have a negative impact on females? What aspects does it affect?

Ideals

- How do you define an ideal body shape?
- What ideals are portrayed in the pictures on online fitness social networking site accounts?
- What two body parts do you see most from online fitness accounts?

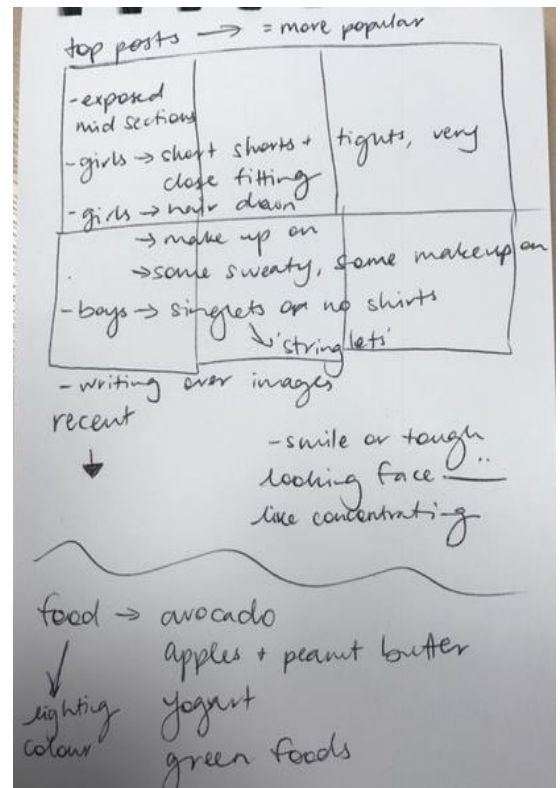
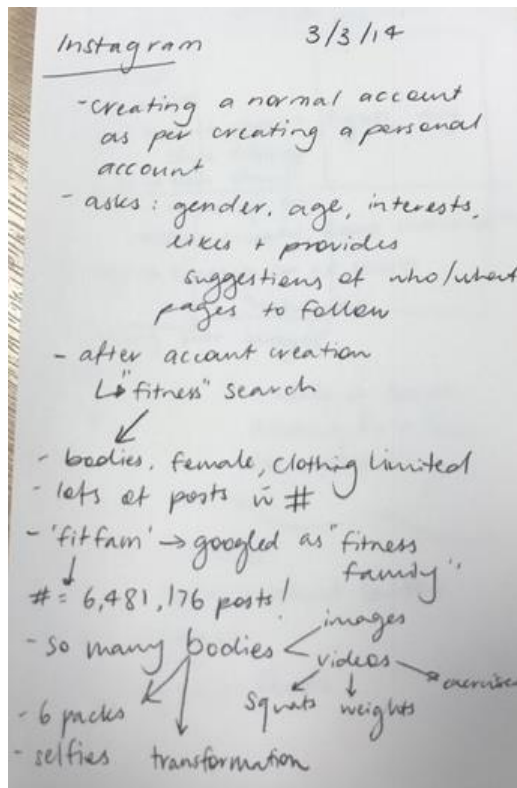
9.9 APPENDIX I

Five steps of the netnographic process



9.10 APPENDIX J

Researcher field notes



Expanded field notes

When entering Instagram, it prompts you to either 'Log in' or 'Sign up'. It was necessary to enable full access to sign up with the site and to enter researcher details that were requested: sex, gender etc. The site then prompts you on how to use it, and, after identifying general areas of interests, suggests accounts and people to follow.

After typing in 'fitness' to search posts attributed to this word, a significant amount of posts were displayed. The posts were presented as a matrix with 6 boxes up the top of the page under the label 'top posts'. These posts had a significant amount of likes attributed to them, and hence, were considered 'top'. Following on from this matrix were more posts, under the label 'recent'.

Posts attributed to fitness showed the body. Mid sections of bodies (stomachs), often with six packs were prominent. Images were of all sexes, but were dominated by the female body. Some females had six packs,

whereas others had lines on their stomachs outlining oblique muscles. Crop tops were worn in every image visible. Images of males were dressed in track pants and singlets or 'stringlets' – a type of singlet that is low cut at the front and side of the singlet, and where the straps over the shoulders are so thin that they are string like.

People involved in the images were either pictured as smiling or with a face that looked as if they were concentrating intensely with a sole focus. Images were also before and after pictures of a full body demonstrating progress from one point to another. These images were often of those with not much clothing – and hence, quite a bit of flesh exposed (particularly in the mid region of the body). The images were referred to by those who posted them as "transformation" pictures. These transformation pictures were taken in the mirror, by the person in the image, making it a selfie. Transformation selfies usually partly cover the face of the person in the image with the phone.

Videos of people enacting fitness related exercises were also pictured. These were shown as still images and had a camera symbol in the top right of the image to indicate this as a video. Videos were seemingly filmed in the gym by someone who was not pictured in the video itself. Weights were involved in all videos seen in the 'top posts'.

Some of the images had writing over the top of them: "strive for perfection", "if you can't stop thinking about it, don't stop working for it".

Images of food were also attributed to the search of 'fitness'. Food was pictured in bright, vibrant colours, in appealing lighting with a diversity of colourful food, including: avocado, green apples and peanut butter, yogurt, acai bowls, and many other orange and green coloured foods.

One search of another hash-tag, #fitfam, equated to 6,481,176 – demonstrating the sheer volume of posts attributed to this hash-tag, how many people were talking or using the hash-tag at one time.

10 REFERENCE LIST

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