Undergraduate paramedic student experience with workplace violence whilst on clinical placement

By

Brad Mitchell

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ABSTRACT

Paramedics frequently face violence and aggression directed toward them while performing their duties. This is an international problem with studies worldwide showing that paramedics experience workplace violence (WPV) due to their unique working environment. Culturally there appears to be a normalisation of the experience of WPV by paramedics due to its frequency and is considered a 'normal part of the job'. True prevalence rates are predicted to be higher than documented due to a lack of reporting partly due to the perceived normalisation of this phenomenon. Undergraduate paramedic students undertake placements in the clinical setting as part of Work Integrated Learning (WIL) for their university studies, exposing them to the same environment of WPV. Currently a paucity of evidence exists regarding the lived experience of paramedic students with WPV and how they perceive their own safety and preparedness for WIL given the existence of WPV. This study investigated the prevalence, and experience of, paramedic students' exposure to potentially violent situations whilst on clinical placement and identifies the training needs of undergraduate student paramedics to inform the design of a contextualised Operational Safety Training (OST) program. The findings from this study demonstrate that currently paramedic students are at risk of injury while undertaking mandatory education component of their degree. This has a significant impact on the future of undergraduate paramedic education internationally by highlighting the required training needed for students to be safe.

An extensive literature review was performed to determine the prevalence data of health care worker experience with WPV internationally, with a focus on paramedics and paramedic students. This informed the development of a survey and in-depth interviews as part of a mixed methods approach using a convergent parallel design. The participants were undergraduate paramedic students and the study examined the lived experience of paramedic students with WPV and evaluated the current training that students receive as part of their education. Constructivist grounded theory was utilised to acknowledge and explore the social and cultural nature of this issue.

This research confirms that paramedic students are exposed to WPV when undertaking clinical placements as part of their university studies. The results show that 35% of paramedic students have experienced verbal abuse, and 9.5% physical abuse whilst on clinical placement. In addition, almost half of the respondents experienced further exposure via witnessing WPV directed toward the paramedic preceptors they were working with. Concerningly not one of these incidents was reported to the University which supports the literature around the underreporting of WPV in this space. The characteristics of each incident also aligns with the literature with the patient being the perpetrator in the majority of cases, and the incidents occurred late in the afternoon or overnight. Despite these statistics, students feel overall prepared and safe while on placement. This feeling of safety comes from the protective nature of the supervision that the paramedics they are working with provide. Students feel they need more education around communication and de-

escalation to assist them on placement, as well as more time dedicated to disengagement/breakaway techniques. Overall, they feel the training they receive should be more frequent.

This study advocates for the promotion of reporting any WPV incident so that more accurate data can be collected to inform what and how often training is needed, and to develop and instigate appropriate support and guidance post an incident for students. Findings from this study provide useful background to the development of a contextualised OST program for all undergraduate paramedic students in the future. Undergraduate curriculum must include a tailored safety training program delivered at least twice per year. This is to be supported by a repository of information and resources pertinent to OST for students to access and review as they need. This allows for students to be better prepared for WPV as part of their university curriculum providing a more holistic and realistic education.

DECLARATION

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:

Date: 23/10/2020

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GLOSSARY

De-escalation – a method of calming a heightened individual or responding to challenging behaviour through effective communication to prevent conflict from intensifying.

Disengagement Technique – a physical manoeuvre designed as a self-defence skill to 'breakaway' or release from a grab or protect oneself from a strike.

Emergency Medical Services (EMS) – the umbrella term referring to ambulance organisations or paramedic services providing out of hospital care and treatment to injured or unwell individuals.

Operational Safety Training (OST) – specialist training designed specifically for paramedics on how to identify and respond to violent and aggressive individuals within the workplace to minimise risk of harm or injury.

Paramedic – a health professional (who holds registration in Australia) generally associated with the provision of emergency or unscheduled care to acutely ill or injured persons, predominantly in an out of hospital or primary care environment. This may involve autonomous practice, complex patient assessments and delivery of treatment which may include the administration of scheduled medicines (Paramedicine Board of Australia 2018). Often referred to by society as an 'ambulance officer'.

Paramedicine – the field of medicine practiced by Paramedics.

Preceptor – the experienced paramedic providing guidance to undergraduate paramedic students during the clinical learning experience; clinical facilitator (McClure & Black 2013).

Situational Awareness – the conscious dynamic reflection and understanding of one's surroundings taking into consideration past experiences in order to identify any risks and mitigate them early if possible (Stanton et al. 2001).

Workplace Violence (WPV) – "incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, wellbeing or health" (ILO et al. 2002, p. 3).

CHAPTER 1 - INTRODUCTION

1.1 Background to the Research

Attacks against paramedics during the performance of their duties is a contemporary issue across the ambulance industry. Workplace violence (WPV) is a current focus in the media and research literature, with many studies highlighting the frequent nature of violence and aggression directed toward paramedics within the ambulance environment worldwide (Gabrovec, 2015; Oliver & Levine 2015; Gormley et al. 2016; Pourshaikhian et al. 2016b).

The World Health Organization (WHO) defines WPV as "incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, wellbeing or health" (ILO et al. 2002, p. 3). WPV is a significant public health crisis and is broken down into two main types – physical violence and psychological (non-physical) violence. Physical violence includes pushing, biting, punching, slapping, and spitting. Psychological violence on the other hand includes verbal abuse, swearing, threatening behaviour and bullying (ILO et al. 2002).

No form of public education campaign or training program will fully eradicate all WPV directed towards paramedics (Bourne 2013). However, coping with violence and aggression is not considered a primary task for paramedics (van der Velden et al. 2016), whose focus is on the holistic healthcare management of people in their time of need. Nonetheless, those undertaking the job must be trained to deal with situations of potential and real violence and aggression should they arise to improve their chances of managing risk and protecting the safety of themselves and others. It has long been appreciated that paramedics are often placed in settings where they must defuse violent situations whilst ensuring personal safety (Lucas 1999). While paramedics may have the ability to deal with and manage potentially violent situations due to experience, undergraduate paramedic students undertaking clinical placements generally do not, placing this cohort at considerable risk. There is an increasing amount of research regarding WPV in healthcare settings including Emergency Medical Services (EMS), however there is little information regarding WPV against undergraduate paramedic students whilst on clinical placement.

One strategy to address WPV is Operational Safety Training (OST), arming paramedics mentally and physically to deal with threatening situations. It helps to equip frontline paramedics with the essential skills required to identify potential problems, mediate and minimise harm and risk where possible, and deal with physical assaults if necessary. Essentially, OST aims to mitigate the risks of violence by helping paramedics to identify, de-escalate and withdraw safely from potentially dangerous or confronting situations by utilising disengagement techniques. These disengagement techniques are designed to assist the paramedic to safely remove themselves from a violent situation when other non-physical strategies have failed. OST is a relatively new concept for ambulance services having been introduced within the past 10 years, and whilst it is only

undertaken in a few jurisdictions across Australia, it is slowly gaining appreciation for the benefits it can provide in the current climate. Currently, no training exists in the UK regarding non-technical skills for paramedics such as OST (Shields & Flin 2013). It is also not part of the compulsory curriculum in accredited paramedic science degrees in Australian universities.

1.2 Significance of Research

Within tertiary education of paramedicine, there is the shift from 'road readiness' to 'road resilience', reflecting the changes in the profession in terms of workload fatigue, governance requirements, increasing accountability, continuing education demands, and exposure to distressing events (Lazarsfeld-Jensen 2019). Including this extra necessary content as well as the traditional curriculum around patient management, does not lend itself to additional courses such as OST.

Recent recognition of the need for OST in paramedicine has identified there is a gap and lack of evidence regarding the effectiveness of the limited OST programs, with a call for studies to investigate specific programs to help paramedics manage violent and aggressive situations (Oliver & Levine 2015; Pourshaikhian, et al. 2016a). There is minimal literature to suggest what content should be covered in such a training program. However, what is currently known is that such an OST program should incorporate the components of situational awareness, de-escalation skills, and defusing or disengagement techniques (Bourne 2013). As OST is a new concept, particularly for undergraduate paramedic students, there is no literature discussing such an educational module for students, identifying a pertinent gap.

The mandate of safety first is entrenched within the teachings of paramedic students from day one. Students are told that with every case or call-out they are tasked to, they must follow a DRABC approach – being Danger, Response, Airway, Breathing, Circulation – with 'Danger' being the first and foremost priority. This is replicated in the classroom environment where danger must be mitigated in each and every practical scenario or case study. Safety of oneself, followed by safety of one's partner, precedes that of safety to the patient. This is a fundamental principle of paramedic practice. OST assists in ensuring safety of oneself and one's work partner.

1.3 Research Aims

As educators it is our responsibility to ensure a safe learning environment for our students. This study seeks to identify how well university curricula prepare paramedic students for the operational component of unpredictable paramedic practice, and the lived experience of paramedic students and their exposure to

potentially violent situations whilst on clinical placement. Having insight into these aspects can help inform a well-structured and educationally aligned training program targeted specifically to meet the needs of paramedic students. Such a preliminary study is required because before we start to evaluate and implement education in this space, we need to know the current situation and how students are actually experiencing WPV.

The objective of this research is to investigate the prevalence, and lived experience, of undergraduate paramedic students' exposure to WPV whilst on clinical placement and identify their training needs to inform the design of a contextualised OST program. The study uses a mixed-methods design incorporating a survey and interviews analysed through the lens of constructivist grounded theory to answer the research question: Does an existing educational training program assist undergraduate paramedic students in their preparedness to manage violence and aggression whilst on clinical placements and their lived experience?

1.4 Summary

The following chapters in this thesis investigate WPV as experienced by paramedic students. Chapter two reviews relevant literature regarding WPV, explores the health care sector experience with WPV and the paramedic context. Included in the discussion are estimates of the prevalence of WPV, the challenges with defining and obtaining consistent data on WPV and how it relates to paramedic curriculum and undergraduate paramedic students. Chapter three outlines the methodology and methods, including analysis, used in this study. The study used a mixed-methods approach with a constructivist view to investigate the experience of WPV by paramedic students whilst on clinical placement. The data collection involved a survey and semi-structured in-depth interviews with paramedic students enrolled in an undergraduate paramedicine degree at an Australian university. Chapter four presents the results of this research which identified six key themes emerging from the data: Awareness of WPV; Education and Preparation for Placement; WPV Experiences; Student Feelings and Perceptions; The Paramedic Preceptor; and Reporting of WPV. The discussion chapter (chapter five) details each of these themes and provides a narrative of their meaning to how culturally paramedic students construct their experience of WPV, how they interpret that experience and how that influences education and learning. Included in this section are the limitations of this study and recommendations for the future. WPV is an important issue in paramedicine and the preparation of paramedic students to manage this phenomenon is paramount. This thesis addresses a critical gap in understanding the WPV phenomenon and how it relates to paramedic students and their lived experience.

CHAPTER 2 - BACKGROUND

2.1 The Paramedic Context

Paramedics form part of a unique profession in that the setting in which they practice is ever-changing and they must fit patient assessment and medical treatment into their work context, which is "a context rife with chaotic, dangerous, and often uncontrollable elements with which hospital-based practitioners need not contend" (Nelson 1997, p. 162). The workplace of a paramedic includes unstructured environments (Pourshaikhian et al. 2016a), and paramedics are generally the first ones to respond to people's needs in time of an emergency or crisis (Suserud et al. 2002). Paramedics encounter patients when they require immediate medical attention which is often in stress-filled situations (Hosseinikia et al. 2018). Paramedics work in confined spaces in "very close proximity to patients, and the nature of their work requires them to be face to face with their patients" as they assess and treat them (Taylor et al. 2016, p. 155). They are frequently alone with patients and relatives and attend a wide range of emergency situations such as those resulting from abuse and assaults, which are often drug and alcohol related (Petzall et al. 2011). Due to this unpredictable nature of emergency paramedicine, it is difficult to control the environments which are essentially the paramedics' workplace. The increasing workload that involves attending those with mental health concerns, those experiencing social disadvantage, substance use, family and relationship breakdowns, and the crisis-driven nature of many ambulance callouts naturally comes with inherent risks.

> "Threats and violence are a recurring work-environment problem within ambulance care provision creating a feeling of insecurity among ambulance personnel and which, by extension, can negatively affect the treatment and care of patients" (Petzall et al. 2011, p. 6).

The environmental context within which paramedics work differentiates them from other health professions predominantly due to the unpredictable and dynamic setting of their workplace (Drew et al. 2018), which places them at increased risk of violence (Lucas 1999).

> "The environmental context in which paramedics operate is unique within healthcare due to the significant role it plays in both defining and dictating decision-making processes and social interactions" (Drew et al. 2018, p. 1082).

Safe Work Australia (2020) recognise that hazards for WPV include working alone, the inability to call for assistance, working in the community, and working in unpredictable environments. They also exist in situations where workers carry restricted items like medicines, and provide care to people who are distressed, confused, ill, or intoxicated. There is no designated workplace for paramedics, they work alone or in pairs, and possess valuable items and equipment such as restricted medications (Thomas et al. 2020). Some EMS organisations also incorporate tactical response paramedics who frequently co-respond with

police teams to high-risk incidents such as hostage situations and drug raids to ensure any health issues of police staff, victims and bystanders are managed (Lucas 1999).

It is essential that paramedics have the necessary knowledge, skills and competencies to create and maintain a safe work environment in order to perform their tasks professionally, safely, and effectively because they are readily exposed to acts of threats and violence due to the nature of their work environment and the medical needs of the presentations they attend as described above. During clinical placements undergraduate paramedic students are placed in the same circumstances with arguably limited experience to manage these same presentations.

2.1.1 Search Strategy

The literature was searched to identify the extent of the problem of WPV in paramedic practice and how OST is being integrated into undergraduate curriculum and its relevance to student preparation. Boolean operators were used to maximise the relevance of the searches. Both Google Scholar and Medline databases were explored with the following search terms:

- 'paramedic OR EMS OR ambulance' AND 'operational safety training'
- 'paramedic OR paramedic student' AND 'violence OR aggression'
- 'paramedic OR ambulance' AND 'workplace violence'
- 'paramedic safety'

The literature was examined for the prevalence of WPV both globally and here in Australia, causes of WPV, the notion of reporting WPV incidents, education and curriculum around WPV, and interventions to mitigate WPV in healthcare. The reference lists of each source were explored for additional pertinent publications.

2.2 Prevalence of WPV

2.2.1 Overall Prevalence

According to the World Health Organisation (WHO) (2014, cited in Quigg et al. 2017), violence contributes to half a million deaths per year across the globe, with many more people directly or indirectly affected. Violence and aggression are considered highly prevalent in the workplace, with two million incidents per year in the US, and almost 650,000 incidents in the UK. Historically, in 2001 violence accounted for 639 work-related homicide cases in the US (Flindorff et al. 2004). In Canada, 27% of all incidents of violent victimisation in 2014 occurred in the workplace (Lanthier et al. 2018). In Iran 25.6% of school teachers experienced some form of WPV, with comparative results to studies in Canada and Taiwan with prevalence rates of 27.6% and 30.1% respectively (Hameed et al. 2019). However these rates are much lower than other studies in the USA showing an incidence of 80% (McMahon et al. 2014 cited in Hameed et al. 2019). In addition, women are at an elevated risk relative to men for experiencing WPV regardless of work characteristics (Lanthier et al. 2018).

While WPV is recognised as a critical issue in Australia, there is no nationally collected data to support national policy and prevalence estimates. The lack of data influences how workplaces prepare and manage violence and therefore training and preparation for students entering the health professions (Hopkins et al. 2018). Nonetheless, the significant impact of WPV globally has resulted in the instigation of education to manage actual and potential aggression and violence for healthcare professionals and its evaluation for its effectiveness (Ellwood 1996). In addition, the consequences of WPV and legal requirements for workplaces to address issues affecting their staff has seen a growth of resources toward WPV mitigation strategies (Drew et al. 2018). These include staff training, hazard and incident reporting, and zero-tolerance policies.

2.2.2 Healthcare Sector

Research into the trends of workplace violence have clearly identified that different occupations are more susceptible to WPV than others, and the health sector is no exception. While WPV in healthcare is a universal issue, the local characteristics vary between countries and profession (Zahra & Feng 2018). In the USA, it is reported that healthcare workers have the highest rate of WPV compared to all other industries being five times more likely to experience WPV (Bureau of Labor Statistics, 2018), with Franz et al. (2010) reporting that almost 84% of healthcare workers have been exposed to physical violence. Greater than 10% of those employed in the healthcare system in Sweden have been subject to threats or violence on a daily basis as part of their duties, and up to 75% have experienced threats or violence several times in a month (Menckel & Viitasara, 2002 cited in Petzall et al. 2011). An Italian study showed that levels of WPV remained consistent over a four-year timespan, with 9% of staff experiencing physical aggression and 20% of staff experiencing verbal aggression (Magnavita & Heponiemi 2012). The levels of WPV are also an issue in the Middle East, where a 2009 study of Saudi Arabian health care workers found that 28% of participants had experienced WPV in the past year (El-Gilany et al. 2010). A later Saudi Arabian study of healthcare workers reports that 57.5% of respondents had experienced some form of WPV at least once in their careers, of which 55.9% experienced verbal aggression, 32.9% physical and verbal violence, and 11.1% physical violence only (Alsaleem et al. 2018). In their study of healthcare workers in the emergency setting in Santiago Chile, Jiménez et al. (2019) report that 71.3% (n=387) of their survey respondents had been victims of WPV during the previous 12 months.

Flindorff et al. (2004) conducted a study of 1751 employees of a US healthcare organisation to identify how WPV is affected by job type, family and culture, patient contact, and manager support. The participants included a range of occupations from clinical roles such as nurses, carers, and doctors, to non-clinical roles such as clerical staff, kitchen staff, and management. While there was no significant difference in risk of non-physical violence for the various occupations studied, patient care assistants had the greatest risk of physical violence, whereas clerical workers had the lowest risk (Flindorff et al. 2004). Overall intensive care, mental health, and emergency departments experienced the most physical violence, whilst mental health and

emergency departments also had high levels of non-physical violence (Flindorff et al. 2004). This emphasises that patient-facing roles in high-acuity departments are more likely to experience WPV.

Out of all healthcare settings, the literature is rich with examples of high incidents of WPV within hospital emergency departments. Emergency department workers are at increased risk of violence due to patients under the influence of alcohol or drugs, experiencing mental health crises, and carrying weapons, all in an environment which is open 24/7 and often the end-point of violent incidences in the community (Gates et al. 2006). Ryan and Maguire (2006, cited in Petzall et al. 2011) reported an Irish study where greater than 80% of staff has been exposed to forms of verbal aggression across two emergency departments. However, the actual frequency of incidents is most likely higher due to common non-reporting (Gabrovec 2015). Reasons as to why healthcare workers may not report incidents of WPV will be discussed later.

Gates et al. (2006) conducted a study of 242 participants to describe the violence experienced by a range of emergency department workers in four American hospitals over a six-month period. All paramedics, 98% of nurses, and 96% of doctors claimed to have been verbally harassed by patients. In the study 98% of nurses had also experienced verbal harassment from visitors (Gates et al. 2006). Almost half of the emergency department staff had experienced physical violence by patients, with 11% of staff from a psychiatric emergency department being assaulted seven or more times (Gates et al. 2006).

Patient aggression has been shown to be the most significant source of both physical and non-physical occupational violence in health care settings (Flindorff et al. 2004; Taylor et al. 2016; Gerdtz et al. 2013). Nikathil et al. (2017) demonstrated that patients are also the main perpetrators of WPV in emergency departments, with incidences of physical and verbal aggression being the most common form of WPV. Verbal aggression itself has been reported to be as high as 90% of all WPV incidents in the emergency department (Nikathil et al. 2017).

Mitra et al. (2018) performed a study retrospectively reviewing and describing the security response to WPV within a single emergency department in Australia over a 3-year period. There were 1853 episodes of violence requiring security intervention, involving 1244 patients. The majority of responses by security were to duress alarms (76%, n=1410), requests over the public address system (15%, n=273) and on request of staff as violence was expected. Of the incidents 1668 required physical restraint, 650 had mechanical restraints applied, 923 required chemical restraint (sedation) and 419 required all three to make the patient and staff safe. The study also showed that in 144 (7.8%) incidents the presence of security alone was sufficient to manage the behaviour (Mitra et al. 2018). In 43% (n=796) of cases the patient was brought in by police, and in 57% (n=1057) the patient was brought in by ambulance or self-presented (Mitra et al. 2018). This shows that paramedics frequently transport potentially violent patients to emergency departments without the protection of the police. While Mitra et al. (2018) did not find any significant difference in the time of day when episodes of violence occurred, other studies have identified that violent episodes are more likely to

occur after hours, commonly between 1600hrs and 0400hrs (Nikathil et al. 2017; Zahra & Feng 2018). In either study, there is no specific day of the week when WPV is more prevalent.

Due to their primary contact with patients in a range of settings, nurses and doctors are some of the groups at greatest risk of violence and aggression in the workplace (Hopkins et al. 2018; Magnavita & Heponiemi 2012). A UK study of over 1000 healthcare workers in 2004 showed that 43% of nurses had been assaulted in the previous 12 months compared to 13.8% of doctors (Winstanley & Whittington 2004 cited in Hopkins et al. 2018, p. 159). Of 1257 doctors in China, Duan et al. (2019) report that 66.2% (n=832) have experienced WPV within the past 12 months, with the average frequency being 2.31 times. In Australia, one study of nurses identified that 63.5% of participants had experienced some form of WPV within the previous month (Farrell et al. 2006), while another more recent study showed that 67% of nurses had experienced WPV at least once in the past 12 months, with 20% experiencing it one a weekly or daily basis (Shea et al. 2017). The specific location within a hospital however has an influence on the rates of WPV experienced.

Nurses working in the emergency department are more likely to be victims of verbal and physical violence compared to nurses working in other sections of hospitals (Gates et al. 2006). This is because the emergency department can be a stressful environment with overcrowding and long wait times increasing the likelihood of emotional distress and associated behaviour (Gates et al. 2006). Whilst examining violent incidents experienced by nurses in Indonesian emergency departments, Zahra and Feng (2018) found that 10% (n=17) of respondents had experienced physical violence in the past twelve months, and 55% (n=89) had experienced non-physical violence over the past twelve months with verbal abuse the most common in 81% of cases. According to the International Council of Nurses (2001, cited in Nau et al. 2009), following emergency departments, general hospital wards have replaced psychiatric units as the second most frequent area for assaults. WPV in healthcare settings is not a new phenomenon, as for more than two decades (Yassi 1994 cited in Hopkins et al. 2018) it has been suggested that all nurses will face some form of WPV throughout their career. This correlates with the findings of Derazon et al. (1999) who report that 90% of nurses in Israel are verbally or physically assaulted at some point during their careers. This raises the question of implications for education and training for healthcare students being exposed to high levels of WPV in their clinical setting.

2.2.3 Healthcare Students

In comparison to prehospital and emergency department statistics, medical students and social work students are documented as experiencing threats of violence at 72% and 48% respectively, with 9% of medical students and 6% of social work students having been physically assaulted in the workplace (Ellwood 1996). The same study identified that 50% of medical student and 41% of social work student respondents had been fearful for their safety from violent patients (Ellwood 1996). A Swiss study by Zeller et al. (2006), found 26% of 117 nursing students encountered weekly occurrences of aggressive behaviour, 27% were physically assaulted, and 87% reported verbal assaults. More recently Boyle and McKenna (2016) reported

that 84% of midwifery students in their study had experienced verbal abuse and 70% had experienced intimidation whilst on clinical placement. Hopkins et al. (2018) conducted a study of WPV focused on nursing students, showing that more than half of second year (n=55) and third year (n=32) nursing students had experienced verbal aggression whilst on clinical placement. Of concern, more than one third of the second years (n=33) and one quarter of the third years (n=18) were faced with physical aggression. These statistics show that junior healthcare workers may not be able to easily identify signs of pending aggression, are novices when it comes to de-escalation, or are seen to be 'easy targets' by perpetrators.

2.3 Paramedicine

In addition to WPV experienced within the hospital setting, there are many studies which highlight that the frequent nature of violence and aggression directed toward paramedics is a concerning issue within the ambulance environment worldwide (Pourshaikhian et al. 2016a). The WHO (2020) report that staff directly involved in patient care, such as paramedics, are the most at risk of WPV. This is because paramedics deal with situations that are filled with negative emotions and often complex individual, social, and interpersonal circumstances. The most common forms of violent acts experienced by paramedics include pushing, hitting, grasping/gripping, stranglehold, spitting, biting and wrestling, and the patient's place of residence is most often the location of the incident (Petzall et al. 2011). The scale and complexity of WPV in paramedicine means the phenomenon has been classed as a 'wicked' problem by Thynne and Rodwell (2018), using Head and Alford's (2015 cited in Thynne and Rodwell 2018, p. 273) definition of a problem which is "complex, unpredictable, open ended or intractable".

Petzall et al. (2011) report that the incidence of threats and violence within ambulance provision has increased over the past 10 years, but it is relatively safer to work in Sweden as a paramedic than it is in the USA or Australia. An American study of 331 ambulance personnel showed that over 90% had been subject to acts of physical violence during the course of their duties (Pozzi 1998, cited in Petzall et al. 2011), whereas an earlier study showed that number to be around 60% (Corbett et al. 1998).

WPV related injuries are reported at 6.8 cases per 10,000 for all occupations, and 15.5 for EMS personnel (US Bureau of Labor Statistics 2015, cited in Maguire & O'Neill 2017). In the USA in 2016 approximately 3500 EMS personnel were treated in an emergency department for injuries sustained due to WPV (Centers for Disease Control and Prevention 2016 cited in Murray et al. 2020). These numbers suggest that EMS workers in the US are at twice the risk of injuries as a result of violence and aggression compared to all other occupations (Maguire & Smith 2013 cited in Reichard et al. 2017). Paramedics already have the highest injury rate of any profession in Australia, and according to Maguire (2018), recent newspaper reports have indicated that violence against paramedics is increasing. Between the years 2000 and 2010, 2.6% of all paramedic injuries

reported to Safe Work Australia were as a result of violence (Maguire et al. 2014, cited in Maguire 2018). Whilst this figure appears small, it takes into account all injuries including musculoskeletal strains in what is deemed to be a highly physical job.

In a small Swedish study regarding experiences of WPV by paramedics, 41% (n=20) of respondents experienced threats of violence or acts of violence at least once every three months (Suserud et al. 2002). This study showed that 75% of ambulance personnel had experienced threats or acts of violence, of which 17% were threatened with a weapon (Suserud et al. 2002), and similar figures of 75% have been reported in Canada (Bigham et al. 2014). In Slovenia it is reported that 78% of ambulance personnel had been exposed to verbal abuse from patients in the previous 12 months, with 27% experiencing ten or more episodes (Gabrovec 2015). Almost half of these respondents (49.6%) claim they have been exposed to physical abuse from patients in the previous twelve months, with almost one quarter (24.4%) being exposed to sexual harassment by patients (Gabrovec 2015). According to a study by Senol et al. (2018), three quarters of paramedics in Turkey have fears for their personal safety whilst at work, with half having been seriously assaulted on the job.

In a critique of a study conducted in 2007, Petzall et al. (2011) reported that 26% of ambulance workers had been subjected to threats, and 16% physically attacked while performing their duties, and a report into workplace violence in ambulance personnel in the Netherlands showed that it is a "common occurrence" for ambulance workers to be frequently confronted with such situations (van der Velden et al. 2016, p. 93). A study by Hosseinikia et al. (2018) of 206 ambulance workers across Iran looked at the prevalence of WPV and the factors behind the incidents. In this study 78.1% of participants had experienced verbal violence, 39.3% physical violence, and 31.1% cultural violence, again with the patient and/or their family being the main perpetrator. A similar study in Iran by Bozorgi et al. (2018) investigated the experiences of WPV of 157 emergency ambulance staff and found that 68% (n=110) had been exposed to verbal aggression and 35% (n=57) had experienced physical violence at least once during the previous year. In Saudi Arabia nurses and paramedics were shown to be 13% more likely that other healthcare workers to experience WPV, and older healthcare workers were 3% more likely to experience WPV compared to their younger counterparts (Alsaleem et al. 2018).

As violence against paramedics is a global problem, Australian paramedics are not immune, with 87.5% of paramedics having been exposed to WPV at least once in 12 months, with 20% reporting more than one episode a month (Boyle et al. 2007). In a US review of WPV incidents against paramedics, 50% of cases occurred during 4pm and midnight, and a further 11% between midnight and 8am (Maguire & O'Neill 2017). However, Petzall et al. (2011) did not identify any significant difference in day of the week, or time of the day, for violent events to occur. Looking at violence and aggression at ambulance cases in Australia, Coomber et al. (2019) report that alcohol intoxication is a significant risk factor for WPV, with incidents more likely to

occur during 'high alcohol hours' being from 2000hrs Friday to 0600hrs Saturday and 2000hrs Saturday to 0600hrs Sunday. The increased societal demand for ambulance assistance is reflected in the upward trend in workload for ambulance services worldwide. This increase in workload and patient interactions increases the potential WPV exposure for paramedics (Sahebi et al. 2019; Murray et al. 2020).

2.3.1 Paramedic Students

According to McManamny, Boyd and Sheen (2013), undergraduate paramedic students in Australia spend a varying amount of time undertaking clinical placements in the ambulance environment and are subject to the same occupational risks as their paramedic supervisors. Thus, they are not exempt from experiencing WPV in the ambulance clinical setting.

A 2013 study using self-reporting methods (questionnaire and focus groups) into undergraduate paramedic students' experiences of occupational risks whilst on clinical placements, found that 10.7% of respondents reported experiencing verbal abuse (from patients or staff) whilst on clinical placement. They also identified that 4.1% (n=5) reported being physically assaulted, and 4.9% (n=6) experienced sexualised behaviour (McManamny et al. 2013). In summary this study indicates that almost 20% of paramedic students are exposed to some form of occupational violence whilst on clinical placement, with patients responsible for 68% of incidences and ambulance personnel accountable for the other 32% (McManamny et al. 2013). It is essential to make the distinction as to who the perpetrators of WPV are so that this can be taken into consideration and help inform training programs.

Another Australian study of paramedic students and WPV incidents found that 21.2% of students (n=28) were exposed to verbal abuse whilst on clinical placement (Boyle & McKenna 2017). When student hours of clinical placement are extrapolated to that of a full-time paramedic, the rates of exposure to WPV are similar (Boyle & McKenna 2017). The perpetrator of WPV in this study was not investigated, however given the findings above from McManamny et al. (2013), as well as that from other international studies into nursing students, it is likely that paramedic preceptors are responsible for some of the WPV experienced by paramedic students as a form of vertical violence. This could occur whereby a student does not perform to an expected standard and the paramedic preceptor is inappropriate in their feedback or criticism to the student.

However, when it comes to physical violence, paramedic students are at low risk of exposure even when placement hours are extrapolated out, which shows they are likely protected by the paramedics they are working with (Boyle & McKenna 2017). An earlier study supports the notion that qualified paramedics are more likely than student paramedics to experience WPV, and this may be due to qualified paramedics intervening or mediating potentially violent situations to 'protect' their student from issues (Koritsas et al. 2009). Paramedic students undertaking clinical placements usually take on an 'observer' role as a 'third' crew member and are subsequently protected by the paramedics they are working with (McManamny et al. 2013).

Paramedic students are also more likely to work daytime shifts where rates of WPV are generally lower (Boyle & McKenna 2017).

Nonetheless, paramedics with on-road experience and time in the profession may be equipped to deal with and manage violent situations, whereas undergraduate students who undertake clinical placements as part of Work Integrated Learning (WIL) for their studies, are not. These students are placed in the exact same unpredictable environments as their paramedic supervisors, but minus the experience and awareness, and possibly minus the emotional intelligence, of their paramedic counterparts. The lack of experience and interpersonal skills may be due to millennials and young paramedics having a greater reliance on technology and social media to communicate, so interpersonal skills may be less-developed and this cohort relies on different methods of learning (Lazarsfeld-Jensen 2019). Therefore, paramedic students on placements are at increased risk of harm or injury from acts of violence or aggression.

Occupational risks such as violence when on clinical placement may impact on the student's opportunity to learn, plus have a negative effect on their mental health and wellbeing, so safe learning environments are paramount (McManamny et al. 2013). Hakojärvi et al. (2014) state that a student's ability to learn and their view of the profession can be negatively affected by poor experiences whilst on clinical placement. The risk posed to students means they should undertake similar training to paramedics to ensure their safety when on clinical placement. According to Suserud et al. (2002), new ambulance staff must be prepared to expect and deal with WPV as part of their day-to-day ambulance work.

There appears to be very little literature investigating the undergraduate paramedic student's experience with WPV, which impacts the ability to create targeted education around WPV. This current study aims to provide a solution to that problem.

2.4 Causes of WPV

Reichard et al. (2017) undertook a study of paramedics presenting to an ED post an injury from a WPV incident in the US. Over half of the incidents involved physical violence only (n=3300), and 34% (n=2200) involved verbal and physical violence. In almost all of the violence and aggression incidents the patient was the perpetrator (n=6100), with almost half appearing to be under the influence of alcohol (2,800) (Reichard et al. 2017, p. 8). This study showed that 43% (n=2700) of violence and aggression incidents occurred to EMS workers with four or less years of experience. The majority of incidents were weapon-free (n=6200), police were not present (62% n=4000), and nil police report made (58% n=2700) (Reichard et al. 2017).

These results support the earlier findings of Petzall et al. (2011) who state that 27% of paramedics have experienced threats where a weapon was involved. They purport that the most common reasons for the

threats were: the patient being under the influence of drugs/alcohol; the patient or relatives being frustrated and angry with the lack of promptness of ambulance arrival; disenchantment with treatment and feelings that their care needs are not being met; mental health issues; feelings of anger; and helplessness during the emergency (Petzall et al. 2011). Furthermore, Petzall et al. (2011) report that neither gender, job role, nor experience, has any statistically significant difference on the risk of paramedics being exposed to threats or violence. This is supported in the systematic review by Murray et al. (2020) who did not find any conclusive evidence to the age, gender or years of experience of paramedics being an indicator for increased risk of WPV. This highlights that other factors must be influential in determining an individual's risk of being a victim of WPV which is considered later in the discussion chapter. In Iran however, paramedics over 35 years of age are more likely to be victims of physical attacks at work (Bozorgi et al. 2018).

Cultural factors and role understanding have an effect on the incidence of WPV as evidenced by this research from Iran, where the main factor behind the incidents of WPV is a lack of understanding and awareness of the duties of the ambulance worker (Hosseinikia et al. 2018). The authors suggest that some patients may expect that a doctor is treating them and expect a higher level of care and the prescription of medications. The level of training and service provision offered by EMS personnel differs across jurisdictions therefore misunderstandings and public expectations change and need to be managed. It is likely that cultural and societal differences in this country may mean that ambulance workers do not hold a status of professionalism or respect within the community and so have less authority when managing patients and providing advice. In Saudi Arabia the main causes of WPV were reported as lack of education and long waiting times, culture and personality, staff shortage, overcrowding, and workload (Alsaleem et al. 2018).

In their systematic review of WPV in the ambulance setting, Pourshaikhian et al. (2016a) identified several concepts as risk factors for WPV. They determined that slow ambulance response times is a predisposing factor, and that violence is often as a result of drugs and alcohol and psychological issues. Patients under the influence of drugs and alcohol, or those exhibiting a mental health crisis can place paramedics at risk as they may "lack the reasoning abilities possessed by healthy individuals" (Vierheller & Denton 2014, p. 50; Coomber et al. 2019), whereas other individuals will always be recalcitrant. The stress of waiting in the emergency department environment as mentioned above could be correlated to long response times in the ambulance setting as a cause of WPV toward paramedics. They also claim that lack of police presence and incompetent or poorly skilled workers may contribute to WPV incidents, worsened by the fact that 52% of ambulance personnel are unaware of protocols for handling WPV.

In their systematic review, Murray et al. (2020) identified that the patient's medical status frequently contributed to their behaviour, patients were not likely to be identified as carrying a weapon, and they are more likely to engage in violent activities against ambulance personnel due to dissatisfaction with response times, lack of understanding, communication barriers, and frustration/helplessness.

When looking at predictors of WPV for paramedics, Koritsas et al. (2009) found that those who experienced verbal aggression had more patient contact hours per week than those who had not experienced verbal aggression, and that they were more likely to operate as part of a two-person crew and be experienced paramedics. This demonstrates that exposure increases with length of service. They also identified that females are more likely to feel intimated and experience sexual harassment or sexual assault compared to males with one reason for this finding being that females may be considered as a softer target by the perpetrators (Koritsas et al. 2009). Understanding factors associated with WPV such as those which predict incidents or predispose paramedics to incidents is required in order to successfully implement mitigation strategies (Koritsas et al. 2009).

The details and causes of WPV need to be thoroughly investigated and understood to be able to design and implement mitigation strategies, but this requires staff to report incidents of WPV.

2.5 Reporting of WPV

The literature makes it apparent that the actual incidence of WPV in a range of healthcare settings may be higher than what is frequently published, due to the notion of under-reporting. Gates et al. (2006) state that out of 115 participants who had experienced an assault by a patient, 65% never reported the incident. In Indonesia, 92% of nurses who witnessed WPV did not report the incidents (Zahra & Feng 2018). Studies into the reporting of WPV incidents identified a number of reasons as to why individuals may not report their experiences, and the issues that arise from under-reporting.

WPV is recognised as being under-reported in health care and specifically in the prehospital and ED environments. There are several cultural, social and organisational factors which contribute to this phenomenon. The most predominate factors identified are a lack of recognition of incidents, fear of revenge, poor support post reporting, lack of reporting processes, and poor management of the reports with nil actions eventuating (Nikathil et al. 2017; Pourshaikhian et al. 2016a; Bozorgi et al. 2018; Reichard et al. 2017). In an Indonesian study, most nurses responded that their workplace did not have reporting procedures for incidents of WPV, with more than half reporting that they did not receive any support or encouragement to report incidents, and only 10% having received any training or information regarding WPV (Zahra & Feng 2018). In relation to reporting of WPV in Iran, 46.1% (n=95) of respondents believe that following-up violent incidents is pointless (Hosseinikia et al. 2018). Bozorgi et al. (2018) also conducted a study of paramedics in Iran whereby none of their respondents identified a specific reporting mechanism for WPV in their workplace, and for those that have reported incidents of WPV almost half (45%) were ‘not at all satisfied’ with the outcome. Other factors which may impact on under-reporting in the ambulance environment

include a lack of effective management strategies or reporting structures within organisations, and workload not permitting the completion of incident reports.

Greater than half of those reported cases of WPV in US EMS personnel occurred in those employed for more than 5 years, indicating that younger or newer employees may not report incidents for fear of losing their job or being seen as inadequate (Maguire & O'Neill 2017). In their study of paramedic student reporting, McManamny et al. (2013) highlight that only 11.5% (n=14) of students reported any emotional or psychological distress regardless of the cause whilst on clinical placement. Of the 43 students in the study who did experience an incident whilst on clinical placement, only one (a needlestick injury) reported this to the ambulance service and their university, and the majority did not use support measures such as debriefing an incident when made available to them (McManamny et al. 2013). Anecdotally, students do not report acts of WPV for fear of it affecting job prospects, and that ambulance services will only investigate written allegations of WPV (Boyle & McKenna 2017). Students may also feel that they have failed by allowing themselves to become a victim and may not want to disclose this for fear of being ridiculed. This has the implication of further affecting true prevalence data and impacting on training programs which could be tailored for the need of the student population.

To ensure that accurate data is collected around the prevalence and impact of WPV, reporting of all incidents of WPV should be encouraged. This can be achieved by correcting the attitude of staff and managers, ensuring rigid processes are in place, and encouraging staff to report all incidents on simple and effective reporting forms (Pourshaikhian et al. 2016a; Morphet et al. 2018; De Jager et al. 2019). Post-incident debriefing, although often not undertaken, has been shown to increase staff awareness of WPV and reporting of WPV issues (Morphet et al. 2018), and staff members who are aware of policies are more likely to report incidents, thus creating a safer environment (Dillon 2012, p. 18).

While the recent increase in the statistics around WPV is alarming, one positive is that this upward trend may be a reflection of more accurate reporting of incidents. Hopkins et al. (2018) state that this increase in WPV reported globally may be as a result of staff education, and evolving health and safety measures, legal requirements and reporting mechanisms. In California, since 1 January 2017, all WPV that occurs in healthcare settings must be reported, and it is recommended that staff report all incidents to police (California Department of Industrial Relations Labor Code 2016, cited in Mitra et al. 2018). Such reporting of incidents is imperative because strategies to deal with WPV are informed by data collected in incident reports (Morphet et al. 2018).

Also, the reason behind an episode of violence or aggression may dictate whether or not it is considered worthy of reporting. People may not report if they do not believe the incident to be intentional, such as from an underlying medical condition or a confused elderly patient. Paramedics in the Swedish study by Suserud et al. (2002, p. 131) demonstrate the caring nature of the profession and desire to understand patient

experiences results in the downplaying of acts of WPV with comments such as “most of the patients are in a state of shock or are mentally unwell. That’s why we try to overlook this type of conduct”. A confused elderly patient does not appear to as much as threat as a younger person who is under the influence of drugs. They are not viewed as being capable of causing serious harm or endanger one’s health (Suserud et al. 2002). However, the most common reason as to why incidents of WPV go unreported is due to the accepted notion that WPV is just a normal part of the job (Reichard et al. 2017; Hosseinikia et al. 2018). Any reasonable worker would not report something they see as normal or commonplace for their job, so if it is a reasonable expectation that one will experience acts of violence or aggression toward them during the course of their work then it is unlikely that it would be reported. Experiencing WPV as a paramedic is so common that it loses its significance as a noteworthy event as it becomes an inherent aspect of the job.

2.5.1 ‘Part of the Job’

Underreporting of WPV in the ambulance setting may be due to the perception that it is part of the job, and reporting such incidents implies an inability to perform one’s job role and provide patient care (Murray et al. 2020). It may also be mistakenly understood that if there is no injury from a WPV incident then there is no need to report that incident. Even though coping with violence and aggression is not considered a primary task for ambulance personnel (van der Velden et al. 2016), a large proportion of ambulance staff consider it to be a normal aspect of their occupation. In their systematic review of WPV, Pourshaikhian et al. (2016a) discovered that 50% of EMS personnel consider WPV to be a normal part of the job. Whereas levels of up to 75% of ambulance personnel believe it is ‘part of the job’ to be threatened and mishandled (Pozzi 1998, cited in Petzall et al. 2011). “This study shows that threats and violence are a frequently occurring workplace problem within ambulance services” (Petzall et al. 2011, p. 9). Unfortunately, “threats and violence are a reality in ambulance service provision” (Suserud et al. 2002, p. 134).

WPV is so rife throughout healthcare that staff expect it as part of the job, hence it is underreported. Morphet et al. (2018) confirm that the normalisation of WPV by paramedics and other healthcare workers is a key factor in the under-reporting of this phenomenon. The acceptance of WPV by paramedics themselves is evidenced through a study by Kansagra et al. (2008) whereby despite the high level of WPV prevalence, 73% of respondents feel safe at work.

This idea of normalisation is mirrored in other health disciplines. Nursing staff attitudes to patient aggression were not significantly changed following a training program aimed to promote the use of effective communication skills and de-escalation techniques to prevent patient aggression (Gerdtz et al. 2013). The participants of this study “remained undecided if it was possible to prevent patient aggression in the ED and continued to be unsure about the role and safety afforded by physical restraint” (Gerdtz et al. 2013, p. 1443). The authors propose that this is due to the workplace environment and nature of the presentations that

arrive in the emergency department. This often creates a conflict between the need to intervene rapidly in a crisis-driven situation and following best practice guidelines with non-coercive de-escalation techniques.

Zero-tolerance policies have been implemented to counter the belief that WPV in healthcare is simply 'part of the job' (Parliament of Victoria, 2011 cited in Morphet et al. 2018), however these fail to address the reasons behind the causes of WPV in health settings, and have done little to curb the increase in incidents (Mitra et al. 2018). The perception and cultural belief by health care workers that WPV is a 'part of the job' and not considered an important issue is reinforced by the lack of evaluation of current WPV policy, management and training in the health care setting (Nikathil et al. 2017). Of great concern is the paramedic student expectation, even after minimal exposure, that WPV is an occupational risk inherent in the dynamic pre-hospital environment (McManamny et al. 2013).

2.6 Education and Curriculum

As previously discussed, healthcare students will probably be exposed to WPV during their clinical placement experience, and so should be well prepared to manage these incidents. The adverse consequences of aggression on healthcare workers underpins the necessity for junior staff to receive "special preparation in order to provide a healthy vocational future" (Nau et al. 2009, p. 198), to ensure they can deal with WPV as part of their high-risk profession (Boyle et al. 2007). Nau et al. (2010) believe in the premise that effective training involves preparing students for the challenges of the profession, and that this is lacking in terms of healthcare and WPV preparation.

According to Nau et al. (2009), many violence and aggression management courses are only available to post-graduate staff, with no pre-registration nursing curriculum in the UK providing such training despite recommendations by the English National Board for Nursing since 1993. Nau et al. (2009) identified specific problems for nursing students around their lack of knowledge, lack of learning opportunities with instructors to develop aggression management skills, and minimal ability to interpret aggressive situations, manage these patients, and cope with stress.

Ellwood (1996) suggests that due to their exposure to workplace violence, medical and social work students require more training in how to deal with the violent or aggressive patient. Less than 10% of medical students report any training in responding to threats of violence, compared to 43% of social work students, who received this training by agencies they were working for and not by their university. "Organisations responsible for teaching medical and social work students should be mindful of the risk of violence to the students and provide appropriate support, prevention and training" (Ellwood 1996, p. 491). They also suggest that this violence and aggression training should be enhanced and updated regularly like basic cardiac life

support training (Ellwood 1996). This concept is supported by Nau et al. (2009) who state that their findings should persuade nursing schools to invest in such training courses in their curriculum to help build their students' self-confidence. Despite these suggestions initially being made greater than two decades ago, such training is yet to be broadly undertaken.

The literature does provide examples of aggression management training to different cohorts with mixed results. Gates et al. (2006), questioned emergency department staff on their violence prevention training in the preceding 12 months, to which 64% stated they had not undergone any training in that timeframe. Only 11% of respondents saw a correlation between the lack of violence prevention training and frequency of assaults, which may highlight that the training which is provided is not contextualised to the emergency department environment (Gates et al. 2006). In a study by Gillespie et al. (2013) evaluating a comprehensive emergency department violence prevention program, employees believed that classroom training was superior to online training as it helped them translate the skills more efficiently to their clinical practice. This confirms the notion that it is necessary to develop programs catering for the specific needs of the target group and setting (National Institute for Clinical Evidence 2005, cited in Nau et al. 2009). Such training programs need to be tailored for the student cohort and take into account their specific needs, which are often different to that already working in the profession (Nau et al. 2010), such as identifying triggers and knowing how to report incidents.

There is limited literature around training courses in aggression management for nursing students, so Nau et al. (2009) developed a training program and evaluated whether this had an influence on nursing student confidence in dealing with patient aggression. While there is no evidence that the training in aggression management influences the actual performance of the students, there is evidence that it has a positive effect on self-confidence. Nau et al. (2009) state that their findings should persuade nursing schools to invest in aggression management training courses in their curriculum to help build their students' self-confidence.

Nau et al. (2010) also report that nil evidence existed regarding how staff training programs impact upon one's performance of de-escalating aggression, so they undertook a further study to analyse whether or not aggression management training for student nurses in Germany had an impact on their ability to de-escalate violent patients. Their results show that students who have undergone training are more likely to perform significantly better than prior to the training when dealing in simulated aggressive patient interactions. There was no correlation between a student's age and previous nursing education on their improvement levels post the training, highlighting that performance does not improve with age nor will individuals necessarily learn how to manage violence and aggression on the job (Nau et al. 2010). This provides evidence that training is effective in improving students' ability to de-escalate aggressive patients, and that students who benefit the greatest were those requiring the most development, supporting their suggestion that such training should occur as soon as possible during university education (Nau et al. 2010).

Martinez (2017) reports that a simulation of an agitated patient enhanced undergraduate nursing students' knowledge about WPV and increased their level of confidence in dealing with such incidents. According to Kolb's (1984) experiential theory, student learning is augmented through directly participating and practicing. Hands-on experience allows students to practice their communication skills, evaluate their confidence level, integrate assessment skills of recognising violence and aggression, and use interventions (Martinez 2017).

Elgie et al. (2010) demonstrated in their study that nurses can effectively learn knowledge and practical skills by an online course module, thus it would be appropriate to have OST as part of an e-learning package for students. However, the nurses' confidence did not increase, and so this shows that it cannot be a solely online training program. Campbell et al. (2008) conducted a study of paramedic students to see if a training module on restraining violent patients increased their likelihood to use these techniques, as well as increased their knowledge and understanding around this concept. While their results showed a growth in knowledge, there was no overall change in one's potential likelihood to perform the techniques. This emphasises the importance of a well-structured training program to meet student need and build student confidence. Lamont et al. (2012) conducted a similar study whereby they evaluated the benefit of breakaway technique training for nurses to manage aggressive patients. Their pre- and post-test intervention questionnaire showed an increase in nurse confidence in undertaking 'breakaway' techniques, and they conclude that it is important to implement such safety training modules to ensure participants are more equipped to safely manage violent situations. OST in undergraduate paramedic degree curricula has the potential to increase the safety of future paramedics.

In addition, McManamny et al. (2013) suggest that universities should provide more information to students regarding occupational health and safety/work health and safety (OHS/WHS) legislation and procedures, and promote both the reporting of incidents and accessing of support services as required. As the key training provider, universities have a responsibility to ensure that OHS principles are upheld and to promote the reporting of WPV to students. This may involve creating partnerships with host organisations who often have their own induction processes and have immediate responsibilities to manage the safety of students on clinical placement. The disconnect between universities and host organisations does not allow for easy sharing of information so often the university may be unaware of specific WPV incidents faced by their students. To overcome this universities should promote reporting of WPV incidents so that data is collected from their end which can be used to better prepare students for the workplace.

Koritsas et al. (2009) believe that paramedics must undergo training to assist in identifying early warning signs of violent behaviour and de-escalation of patients, as well as covering the importance of support networks, self-care strategies and debriefing post WPV incidents in an effort to minimise the harmful effects that WPV has on staff and patients. Social sciences and the teaching of 'soft skills' within paramedic curriculum assists students to be able to deal with the demands of the profession such as violence and

aggression through communication and de-escalation (Lazarsfeld-Jensen 2019). According to Skiba (2020), a successful training program gives individuals the skills and knowledge required to de-escalate conflict situations and requires a foundation in effective communication techniques. Interpersonal communication skills with patients of different ages and cultures, showing empathy, and the ability to give bad news and reassure patients and their families are necessary skills of healthcare workers which may reduce the likelihood of violence and aggression (Mostafavian, Farajpour & Raisolsadat 2018).

According to Taylor et al. (2016) there is no standardised training program on WPV initiated by patients towards paramedics and the associated injuries these encounters may result in. This lack of training is affirmed by Boyle and McKenna (2017, p. 96) who claim that there is "currently no formal education package about how to handle and cope with exposure to WPV for paramedic students" which is a pre-requisite for clinical placements in a majority of Australian universities. This study attempts to address this concern and the gap in curriculum because according to Pourshaikhian et al. (2016a) a lack of formal education of staff is a predisposing factor to WPV. If staff or students do not have an appreciation for factors associated with WPV or are not trained to recognise triggers of WPV, the opportunity for de-escalation or risk mitigation may be lost, leading to a potentiated violent situation and risk of harm.

2.7 Interventions for WPV

Research into WPV within paramedicine offers little in terms of prevention programs, policies, and evaluated interventions. Most policies developed to combat WPV are tertiary in nature (e.g. criminal charges and mandatory sentencing), rather than being primary prevention strategies (Murray et al. 2020).

While dated, the most recent official data from the US shows that half of all large organisations within the US have reported incidences of WPV, yet only one third have a formal policy in place to manage WPV (Bureau of Labor Statistics 2006, cited in Dillon 2012, p. 15). According to the National Institute for Occupational Safety and Health in the US, EMS should establish a program and set policies to prevent WPV. It is also suggested they provide risk management, de-escalation and self-defence training to employees (National Institute for Occupational Safety and Health 2017). Frequent employee training, covering content such as recognition of violent behaviours and de-escalation approaches, can reduce the likelihood of being assaulted (Reichard et al. 2017; De Jager et al. 2019). The training should be supported by a greater understanding of the effects of alcohol, verbal and non-verbal communication skills, and strong organisational policies to prevent the high level of incidents involving intoxicated patients (Cork & Ferns 2008 cited in Reichard et al. 2017). 'Best Practice in the Treatment of Agitation Project' has promoted the use of non-coercive de-escalation as the optimal intervention when dealing with patient aggression in healthcare settings (Knox & Hollman 2012 cited in Gerdtz et al. 2013). However, "the crisis driven nature of many emergency

presentations demand that clinicians intervene rapidly to ensure the safety of staff and patients" (Gerdtz et al. 2013, p. 1444). Staff who appreciate the role of the environment and interpersonal communication are generally more likely to use a wide range of management strategies when dealing with patient aggression, as opposed to those who see the cause of the aggression to be patient-related and subsequently favour methods such as sedation or seclusion (Duxbury 2002 cited in Gerdtz et al. 2013).

While training staff to routinely ask patients about the presence of any concealed weapons may assist in identifying potential weapons, staff may be uncomfortable or unwilling to do so and will subsequently be inconsistent in this type of screening (Gillespie et al. 2013). Thus, the use of a screening tool to flag patients at risk of violent behaviour is a reliable way to identify patients who may perpetrate WPV and allow for the use of preventative measures (Kling et al. 2011). Screening tools however may act as a trigger for violence, and many clinicians may prefer to instead use indirect questioning, observation and clinical judgement (Morphet et al. 2018). Mitra et al. (2018) identified that a high proportion of violent episodes are perpetrated by repeat offenders. Their study in an emergency department setting showed that 46% (n=916) of episodes of violence and aggression were by repeat offenders, with one individual committing 21 violent episodes, and seven others more than 10 episodes. Subsequently the authors suggest that there is benefit to pre-notifying of any potential WPV, and to keep alerts on patients' medical records regarding their violent tendencies. If data from other emergency departments could be shared and accessed then this may also alert staff to the potential for WPV and allow them to initiate pre-emptive de-escalation strategies (Mitra et al. 2018). Nonetheless, it is suggested that emergency departments should have 24hr security staff presence to dissuade WPV and increase staff sense of safety, and ensure that these security staff are adequately qualified and trained to deal with violent and aggressive patients from a range of causes (Mitra et al. 2018). This takes on a different meaning in the out-of-hospital context where paramedics rely on police to provide this support and is mentioned further in the discussion chapter.

Currently the literature mentions many different potential strategies to combat the WPV phenomenon in healthcare, predominantly focusing around training programs. However, training programs for managing WPV in healthcare settings have been poorly evaluated or not evaluated at all, with many not based around organisational outcomes (Gerdtz et al. 2013; Allen et al. 2020). No previous study which evaluates WPV mitigation strategies for EMS personnel can be found in the literature (Drew et al. 2018). According to Gates et al. (2006), violence prevention training should involve all staff, and incorporate role-playing and simulation to increase staff confidence and ability to recognise potentially dangerous situations. According to Klosiewicz et al. (2019) education programs for paramedics should include high-fidelity simulations of dealing with aggressive patients to improve paramedics' safety. Conversely, both Dickens et al. (2009) and Rogers et al. (2006) report results of studies whereby participants were unable to apply self-defence techniques learnt in a simulated setting.

The studies undertaken by Nau et al. (2009; 2010) mentioned above were formed on the basis that the nursing profession has one of the highest assault risks, and student nurses need to know how to manage challenging situations with aggressive patients. This is fundamentally identical to the current issue with paramedics and paramedic students. Hosseinikia et al. (2018) state that the level of WPV in paramedicine is increasing due to the absence of effective preventative strategies, however there are no peer-reviewed studies which outline violence-prevention interventions or initiatives for paramedics (Maguire et al. 2014 cited in Maguire 2018).

In terms of reacting to WPV, 61.6% (n=127) of paramedic respondents in Iran state they have asked the aggressor to stay calm during the incident, and 25.7% (n=53) try to show no reaction (Hosseinikia et al. 2018). The authors suggest paramedics expect violence and react in such ways due to specific training at the beginning of their employment, and that they shouldn't respond with violent reactions. It appears this may be a type of culturally specific de-escalation technique which is taught to them as part of a wider induction program. The authors confirm that the best approach by the paramedic is to control their own behaviour and emotional response in an attempt to settle the situation and the aggressor. De-escalation remains the most effective means in managing actual and perceived aggression (Gerdtz et al. 2013; Shaikh et al. 2020; Skiba 2020). The risks of being a victim of WPV are reduced when the healthcare professional has a knowledge and appreciation for what prompts violent reactions and an understanding of conflict resolution (Suserud et al. 2002).

EMS personnel, managers, researchers, and policy makers must collaborate to create appropriate solutions to manage WPV at all levels which includes guidelines and training around how to reduce and control violence in the EMS setting, enacting legislation to protect personnel, public education campaigns, response time reduction, and social support for staff who are victims of WPV (Pourshaikhian et al. 2016a; Sahebi et al. 2019; Allen et al. 2020; Thomas et al. 2020). According to Gabrovec (2015), the feelings of fear, insecurity, and powerlessness are experienced by paramedics when faced with an aggressive patient. Whilst paramedics believe they have adequate knowledge to manage aggressive patients, they still place importance on WPV training with multiple refresher workshops and written guidelines and would prefer these over one-off practical or theoretical workshops (Gabrovec 2015). Maguire and O'Neill (2017) suggest that any interventions to address WPV should include personal strategies, such as communication, situational awareness, and self-defence; engineering interventions like the use of restraints; organisational interventions being shift configurations, overtime, and inter-agency relationships; and community interventions such as legislation and education. Similar suggestions are made by Morphet et al. (2018) who believe there are three key approaches to education around management of WPV: recognising at risk behaviours and triggers; communication and de-escalation; and evasive self-defence or break-away training. De-escalation is a simple, effective, person-centred strategy which could play a key role in all staff education programs for managing WPV (Morphet et al. 2018). Nonetheless, methods of prevention of WPV is a key

priority as part of the United Nations Sustainable Development Goals (Quigg et al. 2017). Nikathil at al. (2017, p. 9) conclude that future research into WPV is warranted to establish intervention strategies and methods of "predicting violent behaviour in order to combat it prior to having to contain it". Such mitigation interventions include training programs to assist staff with hazard awareness, de-escalation and conflict management techniques, as well as self-defence manoeuvres to equip staff with the appropriate skills and environment to operate with maximal safety (Drew et al. 2018).

2.8 Effects of WPV

Employers need to understand the causes of violence in their workplace to be able to introduce policies and programs for prevention and management of WPV and the associated emotional, physical and financial impacts (Dillon 2012). Policies aimed at mitigating WPV for men and women should be industry specific (Lanthier et al. 2018). In addition to potential physical injuries, WPV has a massive toll on the human resources of an organisation with employees who are victims experiencing increased health issues like insomnia and gastrointestinal symptoms, and mental health issues like depression, decreased self-esteem and reliance on drugs and alcohol. It is not necessarily the specific act of WPV which affects an individual, but the sense of losing control and vulnerability that can affect self-respect and integrity for healthcare professionals with subsequent ongoing mental anguish (Suserud et al. 2002; Bigham et al. 2014).

The fear of encountering WPV may impact upon an organisation's effectiveness and negatively affect staff by invoking stress (Pourshaikhian et al. 2016a; Dadashzadeh et al. 2019). The psychosocial impact of stress is frequently reported by EMS survey respondents as a result of exposure to WPV, as well as job 'burnout', exposure to traumatic incidents, shift work, and feelings of lack of support (Murray et al. 2020). Stress peaks in workplaces and instances where life is threatened, and this stress can lead to loss of motivation and productivity, and burnout (Jiménez et al. 2019). There are subsequently financial and productivity complications for employers, as unhappy employees are less likely to put in effort at work as workplace morale, culture and job satisfaction declines (Dillon 2012). Lessened work output and efficiencies in the healthcare setting may result in substandard or diminished levels of care to patients (Nikathil et al. 2017; Hosseinikia et al. 2018) as well as decreased organisational effectiveness and increased levels of hospital acquired infections (Johnson et al. 2018). WPV has been shown to be positively correlated with job burnout and the intention to leave employment, as well as negatively associated with job satisfaction and social support (Duan et al. 2019; Jiménez et al. 2019; Dadashzadeh et al. 2019).

Although nurses may see WPV as inevitable in the job, they are "psychologically and emotionally unprepared for the incident and ensuing events" (Hopkins et al. 2018, p. 160). Hence one can assume that if experienced nurses are ill-prepared for the effects of WPV, then student nurses may be at greater risk of harm. Essentially,

a career in paramedicine may be less attractive to current students and future employees if the risk of violence or injuries is not managed.

2.9 Summary

This chapter has explained that violence and aggression are a significant problem in the workplace, particularly in the health care environment and specifically paramedicine where published incidence rates are considered to be only a proportion of the true prevalence due to a lack of reporting. WPV has been shown to negatively affect healthcare and ambulance organisations, patients, and clinicians, with no interventions properly evaluated to rectify the phenomenon. Paramedic students are not immune and require appropriate education in order to be prepared for the unpredictable nature of paramedic practice and subsequent risk of WPV. This requires adaptation of university curriculum and delivery of OST prior to the commencement of clinical placements in the ambulance environment. The aim of this research is to investigate the prevalence and lived experience of undergraduate paramedic students' exposure to WPV whilst on clinical placement and identify their training needs to inform the design of a contextualised OST program. The following chapter details the research process and methodological framework of this study.

CHAPTER 3 – METHODOLOGY AND METHODS

3.1 Introduction

This study was undertaken to more deeply understand the paramedic student experience with WPV whilst on clinical placement using Constructivist Grounded Theory (CGT) to help inform the future design of a contextualised OST program. Because I personally have experience in the field and an understanding of, and experience with WPV, using the following methods including double coding was necessary to obtain the full meaning from the data and to ensure rigour in the process through testing thematic constructs. CGT is useful when exploring a practice issue such as WPV that occurs in a specific context, has complex and multifaceted causes and management in a very dynamic work environment. This chapter will describe the theoretical framework underpinning this study, the method undertaken (mixed methods design), and the survey design and the semi-structured interviews including how they were analysed.

3.2 Methodology

3.2.1 Grounded Theory and Constructivism

Grounded theory (GT) is a research methodology which was developed by Glaser and Strauss (1967) as a way of generating theory from observations by following a systematic method of analysing and collecting data. It starts at the base of an area of interest and works its way up in an inductive manner to understand people's experiences and views to formulate a theoretical proposition (Taylor et al. 2007). The methodology of grounded theory is "based on the assumptions that problem identification and solution generation are within the realms of interpretive research" (Taylor et al. 2007, p. 331). Essentially this means that pragmatic approaches can be created to solve apparent issues.

Constructivist Grounded Theory (CGT) is a contemporary form of the GT method adapted by the sociologist Charmaz to take a more philosophical and practical approach. It extends the focus to include the social, historical, cultural, situational and interactive contexts of one's experiences (Charmaz 2006). This allows the issue to be defined in more detail first prior to data gathering. Piaget believes that learning occurs by construction of meaning rather than passive acquisition of knowledge. When we experience something new, an imbalance occurs, and we must create a new meaning and understanding of that experience to recreate the balance or equilibrium (Amineh & Asl 2015). Although this is an individualistic perspective, "we make sense of new information by associating it with something we already know" (Amineh & Asl 2015, p. 10). Constructivists believe that we not only take past experience and our individual construction of meaning as a basis for learning, but we also interact with others and our environment, and socially incorporate these into how we understand our experience. Therefore, we need to understand how WPV is understood culturally, how it is defined, how students interpret behaviour, how they use OST and incorporate it into

practice, and how they learn from others regarding WPV. These concepts helped form the basis of the survey and were built in the semi-structured interviews.

There are three main tenets which CGT encompasses:

1. Nothing is taken for granted,
2. Creation of knowledge is a shared process, and
3. Reality is constructed

This implies that personal construction of meaning by the learner is open to interpretation and occurs through individual experience. There is an interaction of new knowledge and prior knowledge which influences the interpretation and meaning. Further experiences can then build on or alter the original understanding and perception of ideas (McLeod 2019).

Constructivist Grounded Theory (CGT) is best utilised when there is a lack of understanding about the issue being investigated. This is pertinent in the case of paramedic student experience with WPV as there is little evidence or literature in existence about this phenomenon. The constructivist lens is needed to fully understand the relationships involved with this issue, hence the use of CGT as the methodology to overarch both methods of data collection and analysis as described below.

In contrast to traditional GT's principle where the researcher takes the role of an objective observer, the constructivist view sees the researcher and participant as partners in the research process and creation of meaning. Thus, the data are co-constructed with the interaction through the researcher and participant. This was particularly important in the open questions of the survey where the responses informed and added to the interview structure. CGT also allows for the acknowledging of the researcher's views enabling the participant's voice to remain dominant and drive the understanding of the phenomenon. The semi-structured interviews allowed the interviewer to further examine the experiences of the participant and ask questions as they become relevant and investigate tangents. Rather than being an objective observer the researcher has intimate knowledge of the issue and that influences meaning making when it is a shared process and when interpreting data. The interviews thus give meaning to the survey results.

Essentially constructivism is making meaning from the data in terms of social context and relationships. Constructivism relates to the how of learning and thinking and describes the way a learner makes sense of material (Amineh & Asl 2015). Knowledge is generated as we interpret experiences and situations and can be altered if new information conflicts or expands on previous information. An underpinning principle to the constructivist view of learning is that it is an active process whereby learners negotiate their understanding in relation to new experiences, thus altering their existing understanding to build new knowledge of the current experience. It is also accepted that prior knowledge influences new knowledge (Amineh & Asl 2015).

Constructivist Grounded Theory (CGT) rejects positivist epistemologies (Charmaz 2017) and "addresses how people's actions affect their local and larger social worlds" (Charmaz 2006, p. 132). Society and the way people experience and operate in the world in rarely black and white, hence the rejection of positivism. For this reason, CGT can be viewed as an heuristic method and facilitates "defining and developing emergent critical questions systematically" (Charmaz 2017, p. 35). The aim of CGT is to investigate how the issue is perceived, how it is influenced by historical, social, cultural and organisational factors and how those relationships and their meaning create one's own experiences. Constructivist grounded theory asks questions about the data and scrutinises the researchers and their processes within historical, social and situational conditions (Charmaz 2017).

The following steps highlight the CGT approach (Giles et al. 2016):

1. Research Question
2. Recruitment and Sampling of Participants
3. Data Collection
4. Initial Coding
5. Focused Coding and Categorising
6. Theory Building
7. Write Up

To fully understand the participants experiences we must delve into their meanings and actions (Charmaz 2017). CGT allows an appreciation of 'why' and not just 'how', essentially moving from the act or description to what is underpinning it by considering why the person feels or thinks that way by looking for tacit assumptions. E.g. why did the student respond in that certain way? What was it exactly that made them feel unsafe?

Constructivist Grounded Theory (CGT) requires additional critical questions of the data by the researcher to confirm whether what they see from the data is a reality, what the implications are of this, and whether there are additional assumptions they can make from the data (Charmaz 2017). E.g. Does a student not report experiences with violence and aggression simply because they do not know who to talk to or how to report? Or is it because they feel it is culturally accepted within the paramedic workforce and they do not want to appear like they can't cope in the profession if their role-models are not making a big issue out of it? This study, through the use of semi-structured interviews and rigorous processes such as double coding and regular team discussion on the data, allows for the critical questioning required by CGT and identifying underlying meaning of such topics, e.g. the rationale for reporting or not reporting incidents of WPV.

The practical nature of OST aligns with constructivism as a learning theory as students build their individual understanding based on past experiences. Overall, CGT starts from a position of doubt and provides a

pragmatic method for critical inquiry and challenging assumptions through seeking multiple perspectives, identifying experiences in social contexts, paying analytic attention to language and joining the researcher with the researched (Charmaz 2008).

3.2.2 Mixed Methods

According to Taylor et al. (2007), a mixed methods research approach utilises whatever means are deemed beneficial to achieve the objectives of the project, and usually involves combining methods across the quantitative and qualitative paradigms. Quantitative gives us a large general surface picture. Qualitative gives us the in-depth picture with rich details. Mixed methods research utilises the strengths of both quantitative and qualitative processes and allows the researcher to view the issue being studied from different perspectives and enhance the validity of their findings (Grbich 2013). Combining both quantitative and qualitative data is considered a "mix of postpositivism and social constructivism, a leaning toward postmodernism, and an emphasis on empirical knowledge, action, triangulation and the changing interaction between the organism and its environments" (Grbich 2013, p. 9).

A mixed methods approach was chosen for this study as greater breadth and depth was required to fully understand student experiences with violence and aggression than one method alone. Quantitative studies cannot explain violence completely because this phenomenon is based on culture and context with varying perceptions by individuals (Jafree 2017). The interviews help to give meaning to the survey results and help to provide detail to the individual experiences behind the statistics, using a sequential design (Grbich 2013). Equal weighting was given to both the quantitative and qualitative data and mixing of data from the survey and interviews allows the process of confirmation and corroboration.

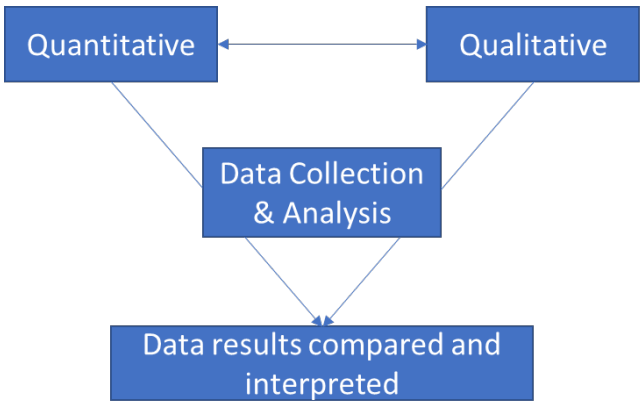
As this is a sociological problem, it is inadequate to attempt to investigate it using only one type of process. Quantitative data were required to highlight the prevalence of the issue, whereas qualitative data were required to delve into participant perspectives and experiences. Following a concurrent triangulation strategy using separate methods helps to offset any weaknesses inherent with one particular method and results in well-validated and substantiated findings (Creswell 2009).

3.3 Methods

To address the research objective, this study was designed using a mixed methods approach, using a survey and semi-structured interviews. The study collected data from undergraduate Bachelor of Paramedicine students from an Australian university. The mixed methods design with qualitative components provides more rich and compelling data into students' experiences and perspectives of violence and aggression which is used as complimentary to the quantitative components (Braun & Clarke 2014). Despite the time-intensive

nature of analysing both text and numeric data, the mixed methods design allows for each approach to explain and build on one another (Creswell 2009).

The entire study followed an inductive process, and is a convergent parallel design, as depicted in the following diagram:



Adapted from Creswell et al. 2003

Figure 1 - study design

3.3.1 Participant Recruitment and Sample

The participants for this study were recruited via convenience sampling of the student cohort currently enrolled in the Bachelor of Paramedicine degree at an Australian university. All students currently enrolled as of 30th October 2018 in the paramedicine degree were invited to participate in the study through an email from the senior executive faculty member with overall responsibility for student and education matters. Permission was granted from the Course Coordinator of the paramedicine degree to access the university email addresses of the students. The email outlined the research aim and invited participants to share their experience with violence and aggression whilst on clinical placement. The email included a link to an online survey, an information sheet, and consent form. The information sheet and consent form are attached as appendix 1 and appendix 2. The information sheet detailed the research, expectations of the participants, contact details of the researchers and relevant support services should they be needed by the participants. Participants were instructed to click on the survey link once they had read the letter of introduction and the information sheet if they were willing to participate. Participation in the survey was voluntary and students could withdraw at any time. After agreeing to the informed consent, participants were able to commence the survey.

The online format for the survey minimised any perceived or real power relationships between researchers and participants as the key researcher is a current lecturer with the degree. The survey ensured anonymity and maintained participant autonomy. Participants were able to complete the survey in their own time and not in a public forum as would be the case with a paper-based survey, and enabled participants to remain

anonymous. The survey was available from 26 November 2018 through to June 2019 on the online platform Qualtrics™. Reminder emails were sent on 18th December 2018 and again on 9th April 2019 before the survey closed.

3.3.2 Ethics

An ethics application was approved through the University Social and Behavioural Research Ethics Committee (project number 8157). The ethics approval notice is attached as appendix 3.

3.3.3 Survey Design

Many studies of WPV in healthcare focus on the career workforce and not that of students, with even fewer related to paramedicine. This study aimed to identify whether the findings from similar studies were translatable and apparent in the local context; or were there unique barriers and circumstances which influenced the paramedic students' experience of WPV in a clinical placement environment.

A search of the literature was undertaken as described in the background chapter above which provided the basis for the development of the survey and the semi-structured interviews for this study. Existing quantitative and qualitative research about the nature of WPV in healthcare was used to inform the design of the survey. The researchers wanted to utilise existing understandings of WPV and consider how these concepts and findings from other studies were relevant to paramedic students and their experience during clinical placements. Using existing validated areas of concern relevant to WPV the following questions were considered to identify specific areas for investigation, such as reporting of WPV incidents, as well as the use of common definitions of WPV so that the data obtained will be comparable to other studies. To reduce subjective interpretations of words and concepts of which the participants may not be fully aware definitions of key concepts were provided throughout the survey providing meaning and context for the questions being asked. If participants answered that they had experienced a physical assault of any kind they were reminded that this constitutes an illegal activity and that they should report this to the appropriate authorities. This study utilised the WHO definition of WPV because it is broader than most other definitions and includes reference to the psychosocial aspect of WPV.

The survey consisted of 56 questions. Most of the survey questions were quantitative in nature and used a Likert scale to measure responses. The survey also utilised free text responses to expand on the detail about events and experiences related to WPV. This added to the data obtained from the qualitative interviews.

The key areas covered by the survey questions were: demographics; previous work experience; previous experience with challenging behaviours or formal training to deal with violence or aggression; preparation for clinical placements; self-reported preparedness and sense of safety on clinical placement; awareness of WPV as a contemporary issue; observations of, and personal experiences with WPV whilst on clinical placement; observations or personal use of OST techniques, characteristics of perpetrators of WPV; details

and common traits of WPV incidents; WPV risk mitigation; reporting; assistance/support mechanisms; and an evaluation of the current OST provided to students (participants). The purpose of this survey is to obtain information on the level of violence and aggression experienced by paramedic students whilst on clinical placement. In particular, the survey is looking into factors that may prevent violence and how to ensure students are adequately prepared to deal with any episodes should they occur.

The survey questions were guided by the established and validated tool produced by the Australian government as outlined in the *Australian Human Rights Commission National Report on Sexual Assault and Sexual Harassment at Australian Universities* (Australian Human Rights Commission [AHRC] 2017). The specific questions in relation to demographics and help-seeking behaviour post an incident were specifically based on this report, with the remaining questions being original to this research. Modifications were made to the guiding questions from the report to ensure that they were tailored to the paramedic student cohort and paramedic context with supporting foundation provided by the literature reviewed. Questions covered the participant demographics, the nature of the event, perpetrator characteristics, relationship to perpetrator, assistance or support sought, satisfaction and experience with help seeking or support, and barriers to reporting or seeking assistance. After the survey was developed, it underwent review by three independent reviewers to check readability and to ensure it was not too onerous given the number of questions. These reviewers were colleagues of the researchers who understand the paramedic context and are involved in education, with one being a recent graduate of the paramedic program from which the participants were sourced. Minor changes to the wording of questions and semantics were suggested and incorporated in the final design, however nil alterations were made to the order, context or types of questions being asked based upon the reviews.

The survey was designed to elicit and provide the opportunity for participants to expand on and give further information dependent upon the area of WPV being asked about. If a participant had been exposed to violence or aggression, then additional questions were asked to enable the specifics related to their experience to be documented. This included information on the type of incident, details of the perpetrator, and factors related to the incident. If a participant answered that they had not experienced a particular type of WPV, the survey would automatically move onto the next section.

The survey's open-ended and free-text sections enabled the participants to describe their experience and nature of the WPV. The participants were encouraged to provide as much details as possible to enable thematic and further analysis of the incidents themselves and their response to the incidences. Free-text responses were also used when it would be inappropriate to provide a selection of choices, such as previous work experience, characteristics of perpetrators, student opinions for WPV mitigation, and evaluating the OST program.

At the completion of the survey, students were thanked for their time and reminded of support services available to them in the event that they experienced any discomfort from the material covered in the survey. The contact details (website and phone number) were provided for the Flinders University Health, Counselling and Disability Service, 1800RESPECT, Beyond Blue, eHeadspace, and Kids Helpline. The full survey is available as appendix 4.

3.3.4 Survey Analysis

Survey analysis and results identified prevalence data around the risk of exposure to violence and aggression which exists for undergraduate paramedic students whilst on clinical placement and whether the current OST provided adequately prepares them for this. The survey results were downloaded from Qualtrics® and entered into IBM® SPSS® version 25 for description and analysis.

The data from the survey initially were reviewed and cleaned to account for missing and incomplete or not applicable data. The data were reviewed twice by the research team. The team undertook a first pass clean of the data which involved assigning missing values to questions which were either not relevant to all respondents or not answered by all respondents. Missing data were assigned a numerical code and value label (999 = missing). Data that were missing due to the respondent not being required to answer that particular question, based on their responses to previous questions, was also assigned a numerical code and value label (998 = not applicable) to differentiate it from data that were missing because the respondent had chosen not to answer the specific question.

The second review of the data involved removing incomplete responses to further clean the data. A review of individual responses was performed and those responses which were less than 20% complete were removed. These responses did not progress further than the demographic questions. From the initial 106 responses, a total of 21 were removed from further analysis, which resulted in a total of 85 survey responses being analysed.

Quantitative/categorical data were assigned numerical codes and value labels (e.g. 1 = male, 2 = female). The frequency data were examined for each of the quantitative questions in the survey. Specific qualitative (free-text) questions (e.g. previous health service experience) were analysed descriptively before being coded into a new quantitative/categorical variable with the responses being categorised and assigned numerical value labels (e.g. “ambulance assist” and “volley” categorised as ‘volunteer ambulance officer’). Other qualitative (open-ended) questions were analysed thematically. The survey responses were used to inform the development of the interview questions.

3.3.5 Interview Design

Whilst the surveys were anonymous, if a student was willing to attend an interview to discuss their experiences further then there was the option for them to provide contact details. Those students who

volunteered to attend an interview were contacted by an independent research assistant who has no direct contact or relationship with the existing student cohort. This recruitment of participants utilised purposive sampling.

A total of 18 students expressed their interest in attending an interview, but after initial contact only 7 interviews were conducted. 4 males and 3 females with ages ranging from 20 to 41 years (average age 25.7 years) attended interviews. Each student provided written, informed consent prior to participating in the interviews, with the research assistant going through each point on the consent form with them. The students were informed that anything they said would have no impact on their grades or placements and were reminded that the interviews were confidential and anonymous. Students could decline to answer any question and could stop the interview at any time. All interviews were held in the research assistant's office and were audio recorded and then sent for transcription. The participants were given the option to review their transcript once it had been completed and returned. The transcription service used for this study signed a confidentiality agreement and all transcripts and audio recordings were stored securely in a protected folder and within the University's paramedicine degree offices. The transcript and audio files were de-identified and sent over protected electronic means.

The semi-structured interviews allowed the participants to further describe and explore their experiences with violence or aggression whilst on clinical placement and how they viewed the OST they receive within the degree. The interviewer identified any key themes or trends that the participants believed were associated with WPV and explored these further with the participant to greater understand their meaning. They also discussed the notions of preparedness, experiences, reporting, and OST. A semi-structured question list was used to initiate and guide the interview and conversation. The interviewer also had structured meetings with the team to gain an understanding of terms and context before commencing the interviews. The interview question guide is attached as appendix 5.

3.3.6 Interview Analysis

The interview data were analysed using CGT which allowed the lived experiences and perceptions of the students to be captured more richly and interpreted into themes. The content was coded using thematic analysis in NVivo version 12.

We undertook qualitative analysis through open coding which involved looking for and categorising emerging themes. The qualitative component of the study used CGT to ascertain key themes which related to the social and individual meaning making of WPV through the lived experience of paramedic students with the aim of achieving thematic saturation. We were able to generate meaning through interaction with the data by interpreting the way events were viewed. The qualitative data greatly enriched the understanding of individual student experiences and reporting of confidence and preparedness for the ambulance environment as a result of OST.

Data analysis was guided by Braun and Clarke's (2006) six phases of conducting thematic analysis. These six phases are: 1. Familiarisation with data, 2. Initial code generation, 3. Searching for themes, 4. Reviewing themes, 5. Defining and naming themes, 6. Producing a report.

After the first transcript was received, this was reviewed and initially coded by the research team. The researchers were able to identify a broad range of preliminary themes emerging from the data, with the following diagram (Figure 2) being created. It was decided not to alter the interview questions moving forward as the data was valuable and provided relevant lived experience related to WPV.

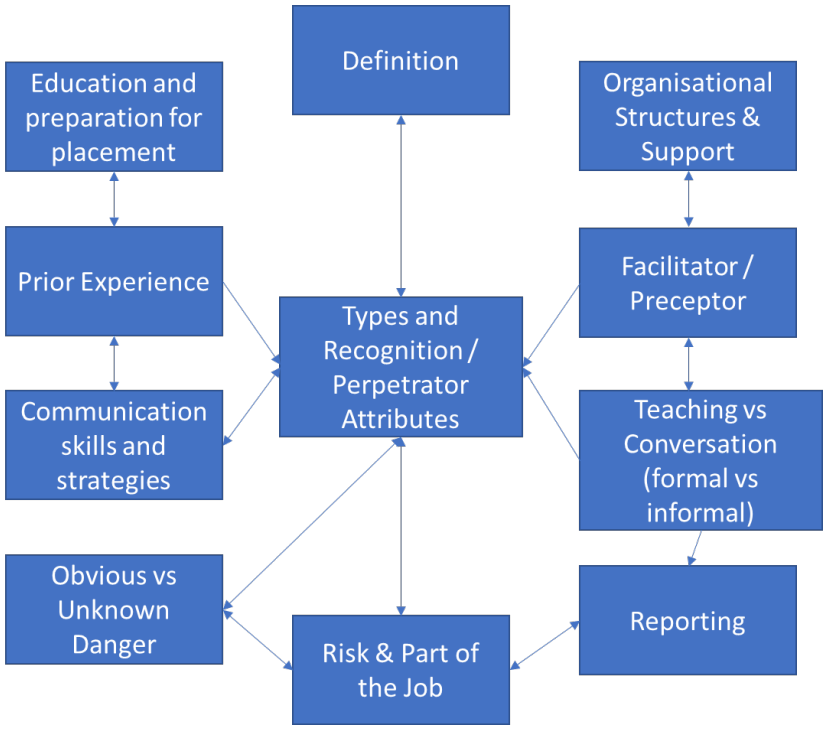


Figure 2 - preliminary data themes

Open coding was conducted as part of the initial analysis. Open coding allows for word-by-word analysis and grouping of data conceptually as common themes appear (Grbich 1999). These themes were generated in alignment with the tenants of constructivist grounded theory mentioned above. Codes were adjusted as each interview transcript was examined. As different concepts became apparent the naming of codes was altered, and then further consolidation of codes/themes occurred with 2nd pass coding.

As categories emerged, more focused coding was conducted to combine like themes and develop a final selection of themes for analysis. This resulted in 6 major themes:

1. Awareness of WPV
2. Education and Preparation for Placement
3. WPV Experiences
4. The Paramedic Preceptor

5. Student Feelings and Perceptions
6. Reporting of WPV

Once final themes were established, the survey questions and results were discussed as a group and allocated to the theoretical themes and reported under each theme. The initial demographic data was kept separate and this provides the initial context in the chapter four.

3.4 Summary

This chapter has provided an overview of the methodology and methods of this research study. The mixed methods approach of a survey and semi-structured interviews resulted in extensive data collection, and the use of CGT allowed the phenomenon of WPV to be viewed through a social and cultural lens. Co-construction of meaning from the data through CGT ensures a deeper understanding of the lived experience of participants. The results of this study help to identify the training needs of paramedic students to inform the design of a contextualised OST program, and are presented in the following chapter under each of the six major themes emerging from the data through thematic analysis.

CHAPTER 4 - RESULTS

4.1 Introduction

A total of 387 students were invited via email to participate in this research study, with 106 students commencing the survey. Of these 106 responses, 21 were removed due to incomplete and missing data, leaving a total of 85 completed responses for analysis, resulting in a response rate of 22%. A total of 7 semi-structured interviews were conducted, which took an average time of 41 minutes 35 seconds to complete. Figure 3 below shows the age and gender of each interview participant, as well as the length of time each interview took.

Interview	Age	Gender	Length (mins)
1	37	Male	38:40
2	20	Female	46:17
3	21	Female	49:05
4	20	Male	37:07
5	20	Male	36:19
6	21	Female	45:04
7	41	Male	38:36

Figure 3 - interview participant age, gender and interview length

4.2 Demographics

4.2.1 Age and Gender

The survey participant demographic data is as follows; 56.5% (n=48) of respondents were female and 43.5% (n=37) were male. This is consistent with the demographics of the course enrolments with 56.4% being female and 43.6% being male in 2019. With reference to age, 56.5% (n=48) were 21 years of age or younger, 25.9% (n=22) were between the ages of 22 and 25, and 17.6% (n=15) were 26 years of age or older. The spread of responses across each age group shows a similar spread representative of the current cohort of enrolled students. The 2019 course enrolment demographics were (being 353 full time students):

- Up to 19 (14.4%) – 19 males and 32 females
- 20-24 (58.9%) – 78 males and 130 females
- 25-29 (13.9%) – 30 males and 19 females
- 30+ (12.7%) – 27 males and 18 females

Figure 4 shows the age and gender distribution of the survey participants:

		Gender			
		Male	Female	Total	Percentage
Age	≤ 21	18	30	48	56.47%
	22-25	10	12	22	25.88%
	26-29	5	4	9	10.59%
	30-33	1	0	1	1.18%
	34-37	1	1	2	2.35%
	38-41	1	0	1	1.18%
	≥ 42	1	1	2	2.35%
Total		37	48	85	100%

Figure 4 - survey participants age and gender distribution

4.2.2 Experience with Work and WPV

Almost all (85.9% (n=73)) respondents had no work experience in the health sector prior to enrolling into their undergraduate paramedic degree, with only 7.1% (n=6) having more than 3 years' experience. Since enrolling into the paramedic degree, a total of 25.9% of respondents (n=22) have had some experience working within the health sector. To gain experience many students seek employment in workplaces such as hospitals, or volunteer as ambulance officers to gain exposure to the health sector which would account for the change in percentage over the students' time in the degree.

Whilst some students may have experience in settings such as hospitality and customer service roles where potentially they have been exposed to WPV, the overall lack of prior work experience would suggest that the respondents have had minimal experience with any WPV prior to entering their university clinical placements. This is not uncommon given the majority of undergraduate students enter university direct from high school and as such are young, as demonstrated by the age distribution table above.

From the 22 respondents who have some experience working in the health sector, 77.3% (n=17) believe this to be in a setting in which WPV is likely.

When participants were asked whether or not they have had any experience with challenging behaviours in the workplace prior to their university clinical placements, 60% (n=51) of respondents answered in the negative. These results are depicted in Figure 5 below. Demonstrating that the majority of students have minimal or no experience when it comes to WPV. This result is not surprising given the limited work experience and life experience of the respondents.

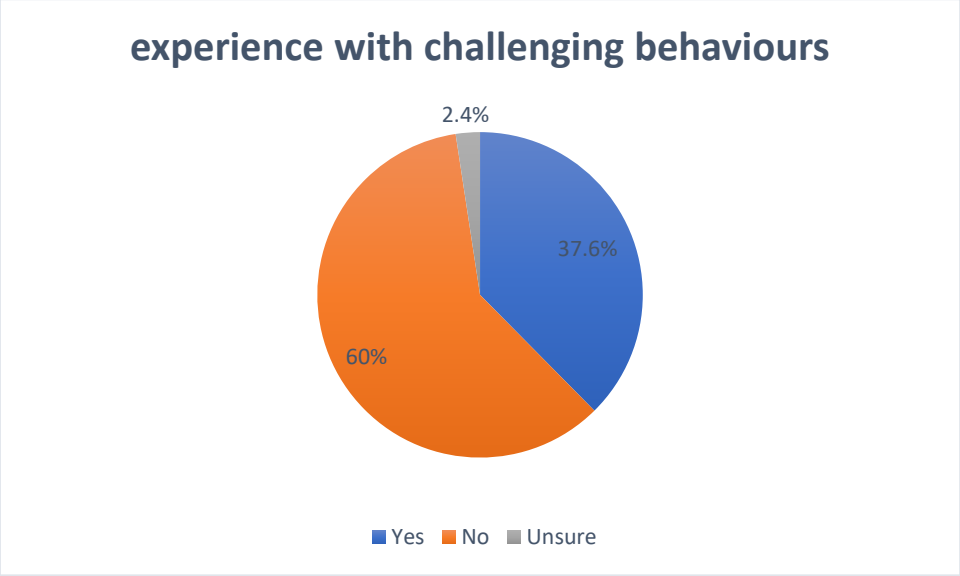


Figure 5 - prior experience with challenging behaviours relating to the survey question 'Have you personally had any experience prior to clinical placements with violence or aggression in the workplace?' (Q8)

Of the 37.6% (n=32) of respondents who answered that they have personally experienced challenging behaviours in the workplace, 87.5% (n=28) gave an example of what they have experienced. The majority of the examples provided involved the respondent experiencing aggression whilst in a customer service role involving direct contact with customers, patients with mental health conditions or under the influence of drugs/alcohol whilst in a caring role.

> *"Verbal abuse from intoxicated patrons at multiple venues I have worked in throughout my hospitality career"*

> *"Working in customer services and having customers become extremely upset and raged"*

The interviews with participants again highlighted how little experience the average paramedic student has with challenging behaviours, and even experience within the workplace itself. These students may draw upon their own familial circumstances and relationships in an effort to appreciate and understand challenging behaviours and WPV.

> *"I used to work a little bit in construction sites and there was 1 or 2 occasions where work mates relayed to me occasions where they'd experienced aggression in the workplace"* (Interview 1)

> *"I've got a very autistic uncle who flares up quite a bit, so we learnt a lot from him as well"* (Interview 5)

"I've seen good, bad and ugly in a lot of different people. I've had threats toward me in various establishments; some I've just brushed off and others I've thought about" (Interview 7)

In addition to this limited experience, only 17.6% (n=15) of respondents have undertaken formal training in dealing with WPV outside of the OST program delivered as part of their university studies. Figure 6 below shows the breakdown of WPV training undertaken by survey respondents. These results imply that just over 80% of students have their first exposure to WPV and how to identify and manage it, at university. These data show that paramedic students enter the degree with minimal knowledge or experience of how to manage challenging behaviours and so it is a responsibility of the university to prepare them sufficiently for clinical placement.

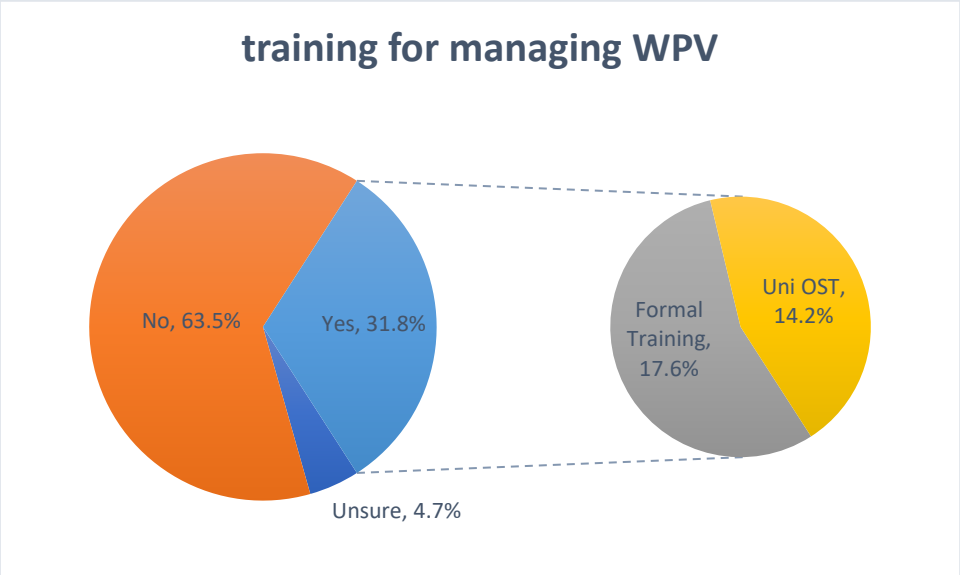


Figure 6 - responses to survey question 'have you personally had any formal training in dealing with WPV?' (Q9)

Figure 7 below shows the number of clinical placements that have been completed by the survey participants. Extrapolation of this data given the clinical placement requirement throughout the paramedic science degree suggests the majority of respondents were more than half-way through their studies, and potentially becoming well-ingrained in ambulance culture. It could also be reasonable to assume that the more placements a student attends, the more likely they are to experience WPV.

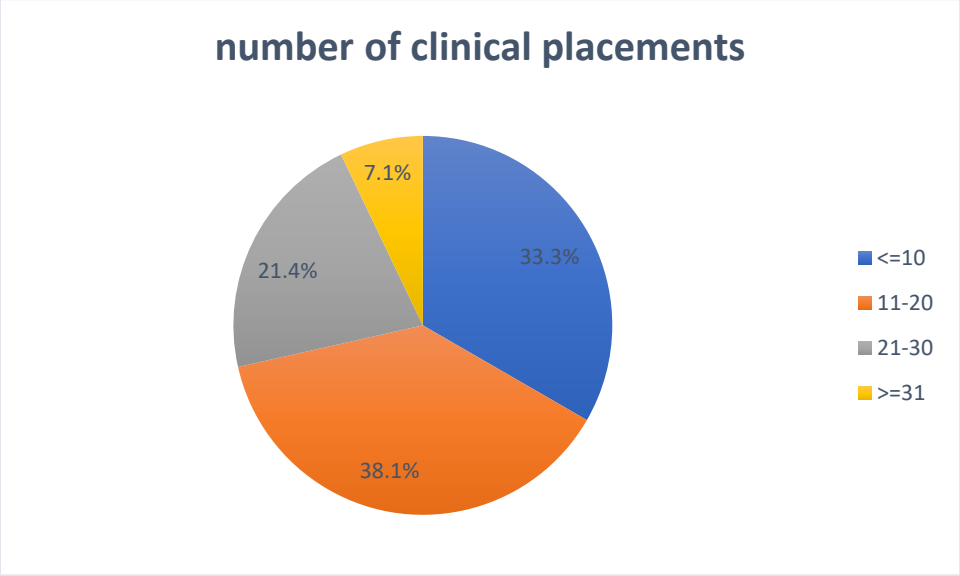


Figure 7 - responses to survey question 'how many ambulance shifts have you completed as clinical placements?' (Q6)

4.3 Theme 1 – Awareness of WPV

4.3.1 WPV in Paramedicine

When survey participants were asked whether they were aware of violence and aggression in the paramedic setting, 77.5% (n=62) strongly agreed. A further 20% (n=16) somewhat agreed, and 2.5% (n=2) were undecided. No student responded that they were unaware of violence and aggression as an issue. These results are displayed in Figure 8.

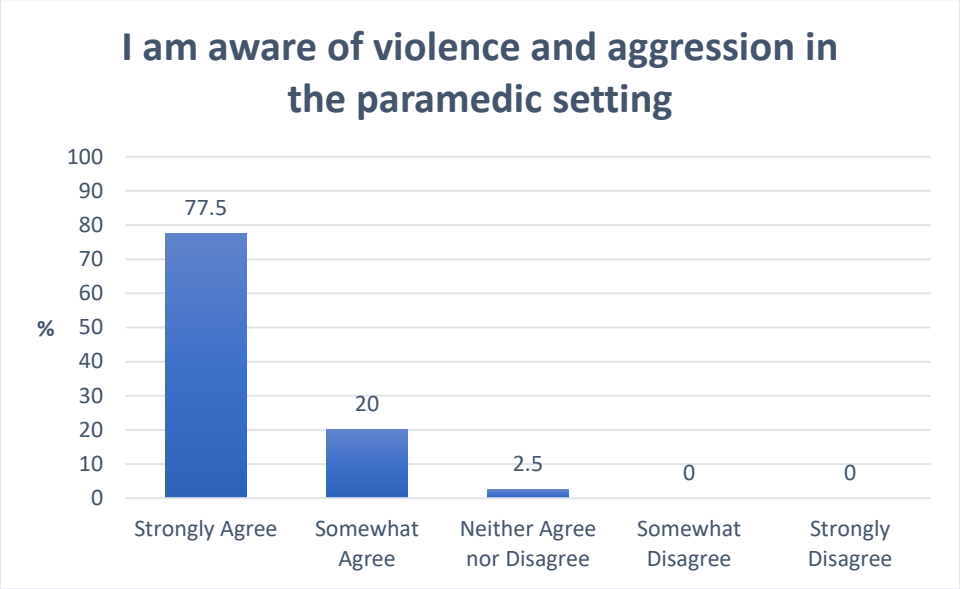


Figure 8 - survey participant awareness of WPV in paramedicine taken from 'I am aware about violence and aggression in the paramedic setting' (Q17)

This could be as a result of media campaigns whereby the general population have been provided with an idea of this as a contemporary issue, or from the emphasis at university or whilst on clinical placement. This awareness was investigated through the interviews with participants who described the way WPV within paramedicine is discussed and the way it is portrayed within the media.

> *"there's always the conversation about the advertising campaigns"* (Interview 1)

> *"yeah there's definitely violence in the workplace"* (Interview 4)

> *"I think there should be more education about that. So I think news and social media only focus on physical abuse but there is more than that that paramedics actually encounter on an everyday basis"* (Interview 3)

The students were also asked about their understanding of what they believed constitutes WPV to formulate a foundation as to what the participants believed is inappropriate behaviour within the workplace setting. This confirmed that each participant was aware of the types of actions and behaviour which are considered WPV.

> *"anything that makes a person feel like they're under threat in any way…physical, it could be verbal, it could be even something like spitting or something like that or even body posture"* (Interview 1)

> *"I think it's anything from verbal to physical abuse"* (Interview 2)

"I reckon not necessarily physical abuse, sometimes some words or phrases can actually impact on you and that not necessarily from the patient, sometimes from surrounding family or friends" (Interview 3)

4.3.2 Normalisation of WPV

As part of the survey students were asked whether they thought that experiencing WPV is a normal part of the job for a paramedic. Fifty three percent (53.8%, n=43) of respondents were in broad agreement that WPV is a normal part of the job for a paramedic, 22.5% (n=18) were undecided, and only 23.8% (n=19) were broadly against the notion, as displayed in Figure 9. These results suggest that students may have already normalised WPV as something paramedics deal with and essentially expect to experience as part of their role.

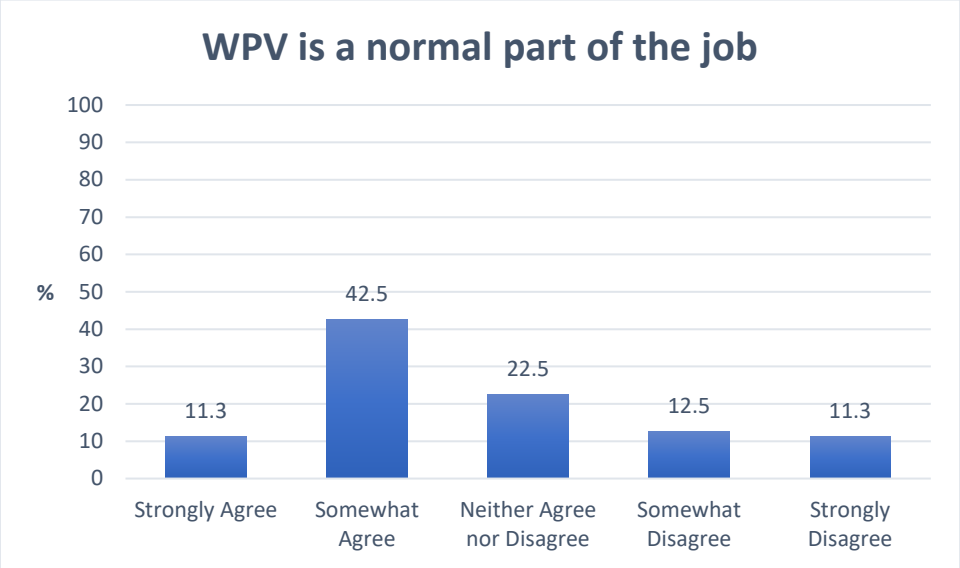


Figure 9 – survey participant belief to normalisation of WPV derived from 'experiencing WPV is a normal part of the job for a paramedic' (Q16)

The interviews with participants confirmed that 'normalisation' of WPV was widespread, as not only was it expected as part of the career but becoming a health professional in the emergency field you would come across verbal and physical abuse frequently.

"*Oh it's bound to happen at some stage"* (Interview 1)

"*I don't think it's avoidable, so I guess in a way we do have to put up with it"* (Interview 1)

As part of this understanding and normalisation of WPV it was considered a reality which has implications for how students and those on the front-line supervising students perceive their role. There was a recognition of the need to be mindful and aware when working during clinical placements, an almost 'on alert' default position with assumptions that WPV would be something to be coped with and managed in a professional

capacity. The reaction of paramedic preceptors towards WPV during clinical placements was closely observed by students and influenced how they constructed their view of WPV and it was seen as a learning opportunity to identify and watch what worked or didn't work when confronted by verbally or physically aggressive patients.

> *"I think that if the paramedics I'm working with, they really just don't see it a big of an issue, then I probably wouldn't either"* (Interview 2)

The perception of WPV as a reality and a significant issue, a "big issue" as stated by one participant, engenders a sense of tolerance and acceptance to the experience. The sense of "it is not an easy job" builds the expectation that professionally you need to be ready and be able to cope in the event of WPV. As a contrast to the view that WPV is something that should be professionally expected there was discussion on how culture, public education and social factors also play a role. There was the suggestion that as paramedics you are working with groups that are vulnerable and come from different backgrounds which can influence how they cope with and respond to the circumstances they find themselves in. The challenge then becomes how empathetic or tolerant of the patient response are you as a paramedic and how do you reconcile that to verbal aggression, in particular, directed towards you as someone who is trying to provide support and care. Students recognised what was considered legitimate reasons behind a patient's frustration e.g. delays in care or previous maltreatment by health professionals and that the way these are managed and acknowledged can be different than other forms and reasons of aggression.

> *"one of the challenges of it is drawing that empathy out of any situation. But I think mental health is probably easier to be empathetic for"* (Interview 5)

In terms of the public's role and responsibility there were clear statements that strongly pointed to a minimum respect and treatment from the public that should be shown to paramedics as they are providing care and service and that their workplace should be a safe space. The need for public education was seen as very important but a culture shift by the public was viewed as occurring over time and would take a concerted effort.

> *"people like him shouldn't degrade paramedics…for the job they do…we're here to help you, we're not here to cause you any harm or any stress like that, and so, you should respect us"* (Interview 1)

> *"there would need to be a major society shift for that to no longer be part of the job"* (Interview 1)

> *"the least you can expect from these patients is to respect you and treat you in a good manner"* (Interview 2)

It also suggests that the little exposure students have had to the clinical environment has already had a large influence on how they see the profession and absorb the culture of those they have worked with. This has further implications when it comes to reporting WPV, as the literature suggests that individuals do not report something if they do not consider it as abnormal.

4.4 Theme 2 – Education and Preparation for Placement

4.4.1 Preparation for Clinical Placement

The survey asked each participant to self-report their feelings of preparedness to manage challenging behaviours whilst on clinical placement. Figure 10 shows that half of the respondents (50.6%, n=43) were in broad agreement that they feel adequately prepared to deal with any violent or aggressive situations.

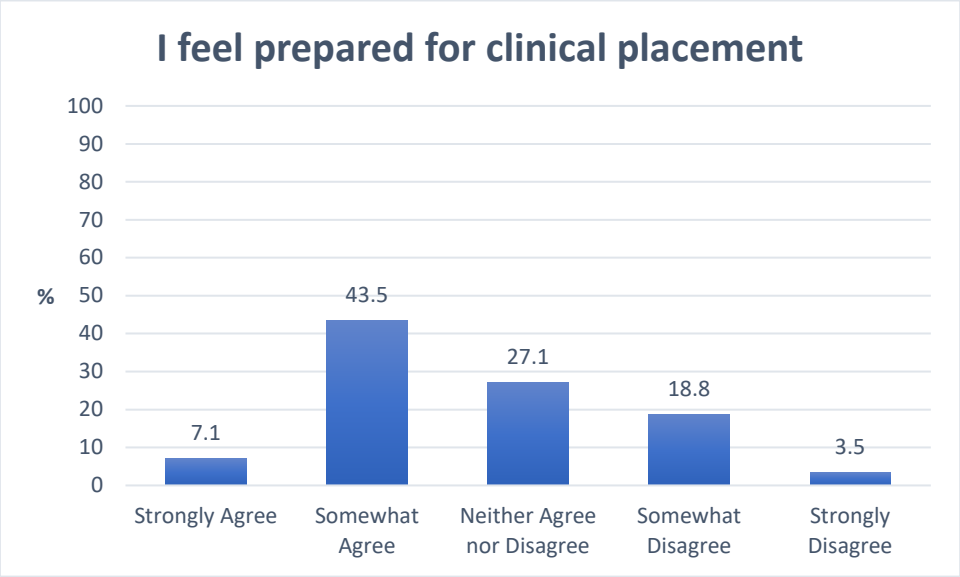


Figure 10 –survey results from 'I feel adequately prepared to deal with any violent or aggressive situations in the clinical setting' (Q12)

A cross-tabulation was performed using chi square test to identify if there was a correlation with age or gender and perceptions of preparedness whilst on clinical placement. No correlation was identified therefore it suggests that there is no statistical significance whether the gender or age of a student impacts on their feelings of preparedness.

Participants added to this concept of preparation in the interviews and expressed the importance of being ready to deal with WPV to decrease levels of anxiety and stress.

> *"if you're not comfortable with [an aggressive patient] and they do actually abuse you, then you would be stressed, you'd be worried, you'd be shocked, you wouldn't know how to deal with the*

situation properly, and that could make the stress even worse. If you're comfortable, if you know what you're doing and if someone harasses you on placement, like they hurt you, you would know how to deal with the situation properly" (Interview 1)

"I actually didn't know that we were trained to be so vigilant with safety and putting our safety first. I thought we would almost be throwing ourselves into more dangerous situations more often than we do" (Interview 6)

The survey respondents were asked about the ways in which the university prepares them for clinical placement in terms of their personal safety, listing the approaches used and asked the students to select which ones they recalled or recognised. The survey showed 64.7% (n=55) of respondents remembered information provided in face to face lectures, only 36.5% (n=31) recalled any written information provided to them, and only 27.1% (n=23) could recall online resources provided. Fortunately, 96.5% (n=82) recognised the OST program as preparing them for clinical placement. Whilst one respondent (1.2%) selected 'other', they did not describe or explain what this method was. These results are displayed in Figure 11.

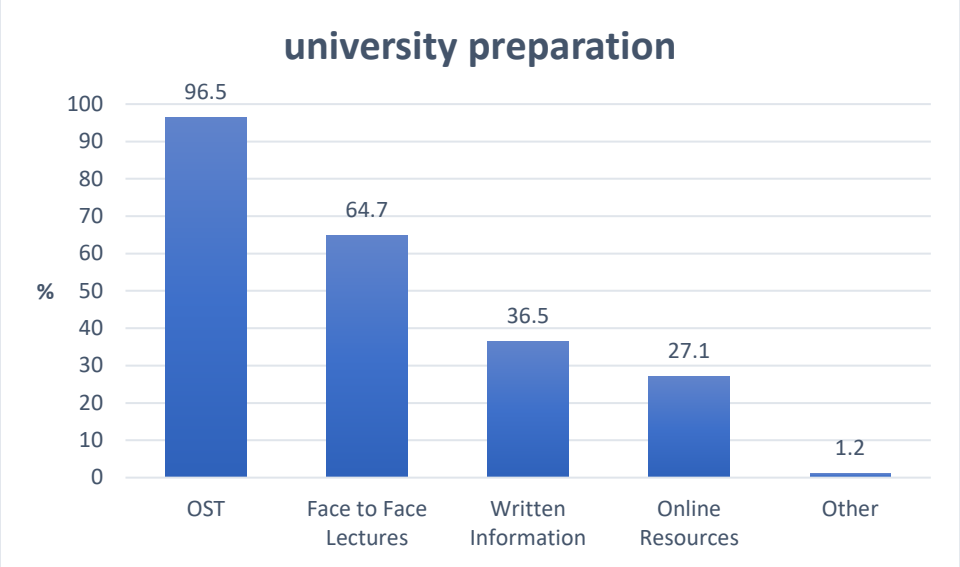


Figure 11 – survey respondent recognition of university preparation methods derived from 'the Paramedic Science degree at Flinders University uses a range of methods to prepare you to protect your personal safety whilst on clinical placement. Which of the following do you recognise or recall? (choose as many as apply)' (Q10)

The OST currently offered to students appears to be memorable, and students consider it as the main way of protecting their personal safety. The results also suggest that pertinent information which is provided online needs to be reinforced or added to the OST program to increase the chances of recollection and embedding in practice.

The respondents were asked about the ways in which the ambulance service (industry) prepares them for clinical placement in terms of their personal safety, listing possible approaches. A mandatory formal induction by the host organisation was reported by 16.5% (n=14) of respondents, 11.8% (n=10) report revising OST techniques, and only 3.5% (n=3) state they are provided with any written information. Half of the respondents (54.9%, n=45) identified role modelling by the paramedic preceptors they are placed with as a form of education in relation to WPV, whilst 83.5% (n=71) receive WPV advice from the paramedic preceptors they are working with, and 87.1% (n=74) are provided with additional personal protective equipment (PPE) as required. Of interest 11.2% (n=6) of respondents selected 'other' forms of education 'on the job' such as taking notes, the application of the patient restraint net, discussion around situational awareness, being advised to "step back", and one comment of "they don't really", meaning this student felt that the host organisation did not care for their personal safety, or they were completely unaware of any means. These results are displayed in Figure 12.

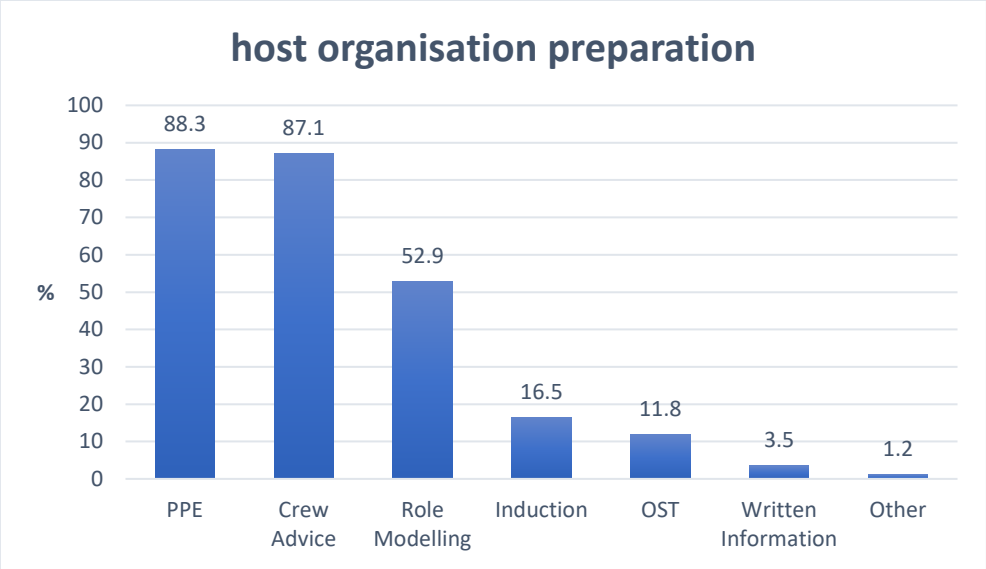


Figure 12 – survey respondent recognition of ambulance service preparation methods derived from 'when you arrive on clinical placement how does your host organisation (the ambulance service) prepare you to protect your personal safety whilst on clinical placement? (choose as many as apply)' (Q11)

4.4.2 OST Program Content Evaluation

Students were asked what they thought would be the ideal frequency for OST training as well as how long each session should take. Figures 13 and 14 show the widely held views that the training should occur once to twice per year and be somewhere up to half a day in duration.

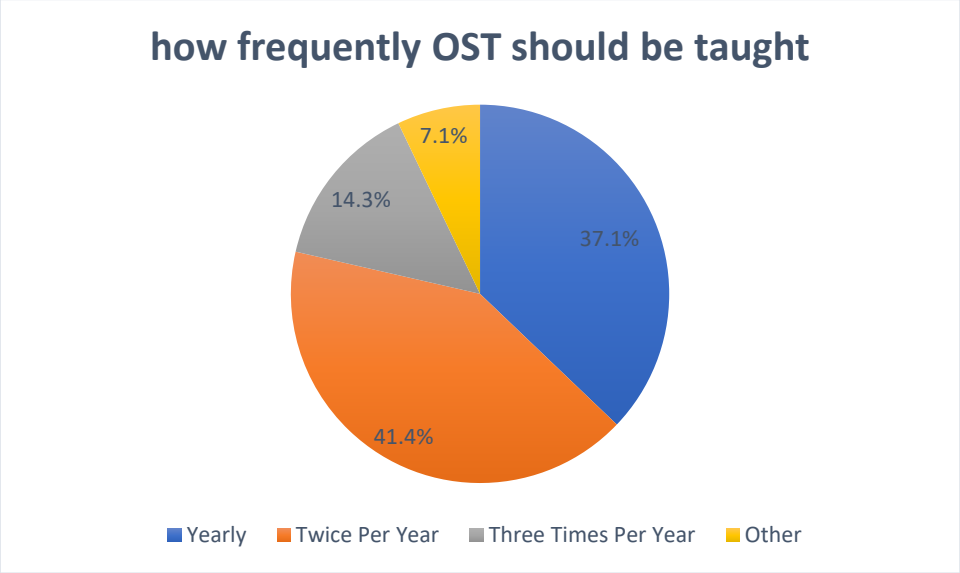


Figure 13 - recommended frequency of OST sessions taken from the survey question 'how often should operational safety training be held?' (Q44)

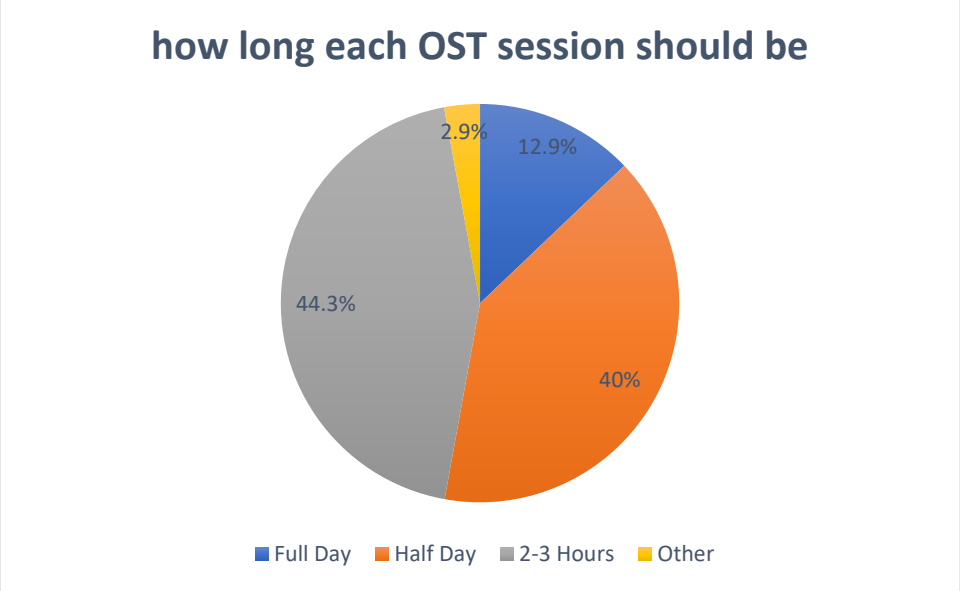


Figure 14 - recommendation duration of OST sessions taken from the survey question 'how much time do you think should be dedicated to an operational safety training session?' (Q45)

Each of the components of the current OST program were listed and students were asked which of these do they feel there should be a greater focus on throughout the training. De-escalation was believed by respondents to be of most importance at 80% (n=68) and more time should be spent on it, and 56.5% (n=48) would like more time on disengagement techniques. A greater focus on situational awareness was requested by 65.9% (n=56) of respondents, and 14.1% (n=12) want more discussion around WPV statistics and general information. These results are depicted graphically in Figure 15 below. This shows which areas of the training

students feel are of importance and aligns with the literature which states that being skilled in de-escalation is one of the most important aspects of WPV prevention.

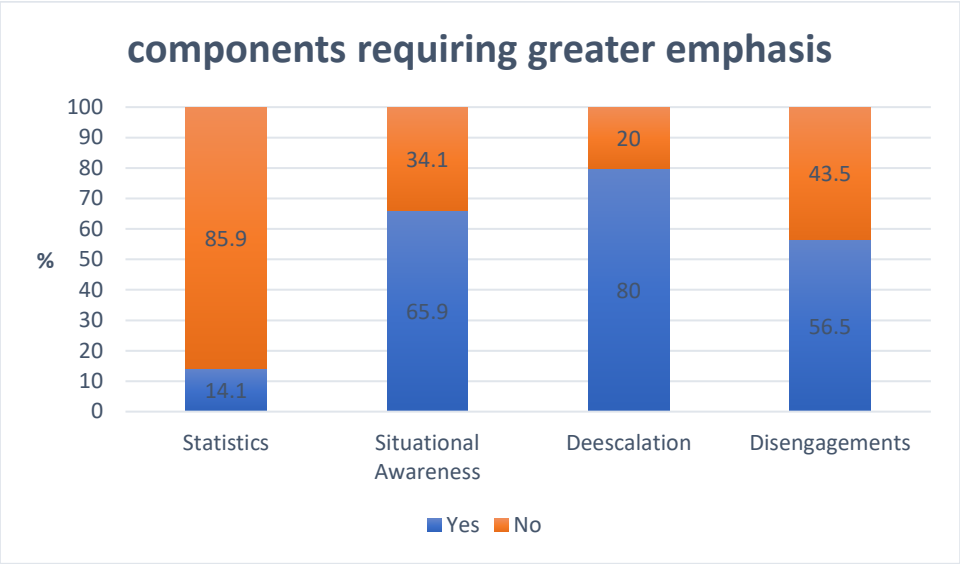


Figure 15 - OST components suggested for greater emphasis relating to the survey question 'which of the following elements should there be a greater focus on?' (Q46)

In the reverse, each of the components of the current OST program were listed and students were asked which of these do they feel there should be a reduced focus on throughout the training. As illustrated in Figure 16, while almost one quarter want less time spent on statistics, only 2.4% (n=2) of respondents suggest that less time could be spent on disengagement techniques. These results suggest that the students think that each of these components are important and if anything, there should be a greater focus on all parts.

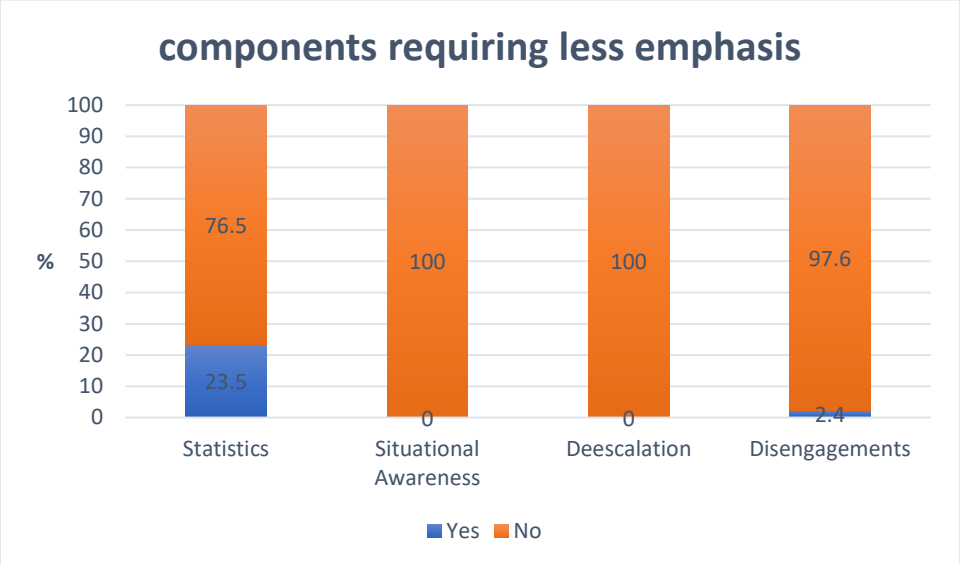


Figure 16 - OST components suggested for decreased emphasis relating to the survey question 'which of the following elements should there be a lesser focus on?' (Q47)

The students were also asked if they thought that there was anything else that needed to be included in the delivery of the current OST program, to which 19 students provided a free-text response. Common ideas were around the logistics of how to report incidents and the services available to students, how to communicate effectively with a range of patients and family members, greater explanation and examples of de-escalation in action, more scenarios in realistic environments and the use of video examples, legalities around self-defence and the options available, and links to additional resources.

> *"De-escalation is a big one, on placement I have found myself lost for 'what-to-do' with aggressive patients, I've been learning through watching my crew. Some more in-depth self-defence would be ideal too, just in case we are put into a situation. Even if we were referred to resources for further education in self-defence in our own time, that would be handy."*

> *"Possibly training within an ambulance or residential address for 'true life' application of such skills"*

The students were also asked for their suggestions of how the delivery of the OST program could be improved, to which 47 responded. An overwhelming theme emerging is that the students want the training more regularly. They would also like for the trainers to share their personal stories/experiences, smaller group sizes for the practical components, and for the session to be higher fidelity in terms of scenarios.

> *"More frequent - needs to be revisited constantly to reinforce the skills and ensure the student is competent and able to utilize them when under pressure"*

> *"Bring in tutors with personal experience to discuss their experiences/stories where appropriate"*

4.4.3 OST Program Delivery Evaluation

The students were asked to evaluate the current OST program in a range of areas. The results demonstrated that 87.2% (n=61) of respondents are in broad agreement that the program is useful and 91.4% (n=64) broadly agree it is relevant. A high response rate at 72.9% (n=51) demonstrated that the respondents consider the program to be engaging, and 66.7% (n=46) agree that they learnt techniques. However just over half of the respondents (52.8%, n=37) considered it to be memorable, supporting the comments around the need for more frequent delivery of training sessions. Conversely, an outlying 2.9% (n=2) of respondents strongly disagreed that the program was useful, relevant, memorable or that they learnt techniques. Figure 17 and Figure 18 depict this data.

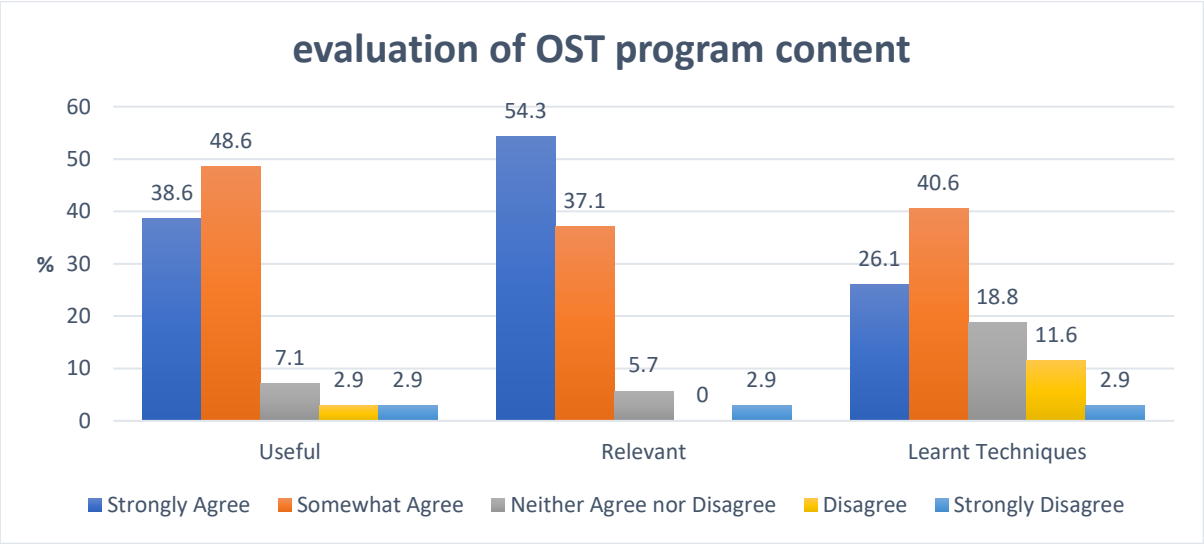


Figure 17 – survey respondent evaluation of the OST program content as derived from 'thoughts on the operational safety training' (Q50)

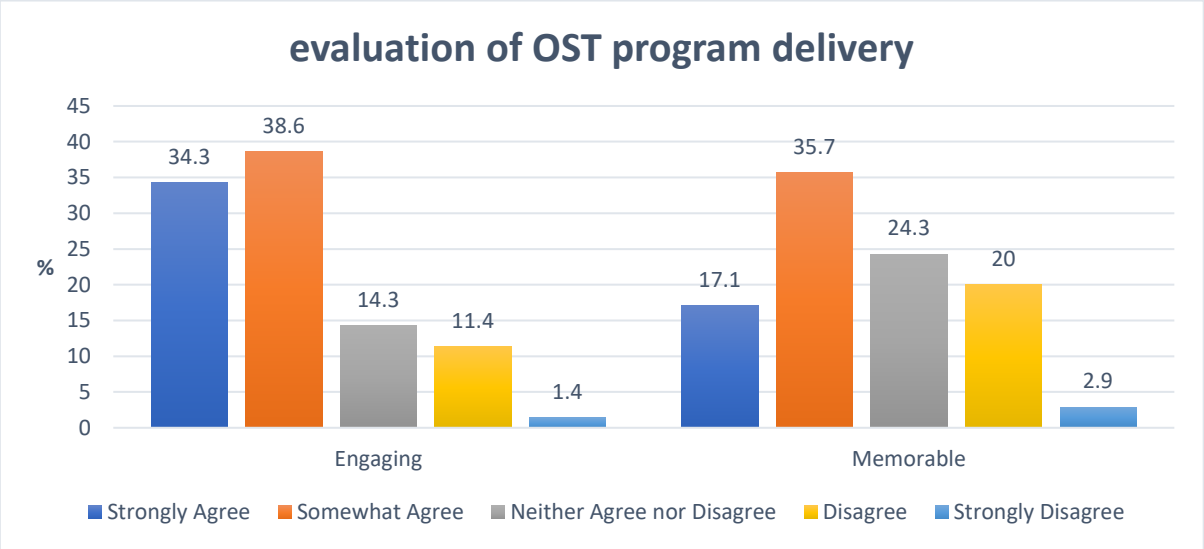


Figure 18 – survey respondent evaluation of the OST program delivery as derived from 'thoughts on the operational safety training' (Q50)

In a subtle effort to examine retention of OST content, the students were asked five multiple choice questions which covered general theoretical principles covered in the OST program. Figure 19 shows the ratio of correct and incorrect answers for each question posed to the survey respondents. Fortunately, the majority answered correctly highlighting some retained knowledge. Whilst the understanding of situational awareness was shown to be poorest, quotes taken from the previous responses and interviews suggest that students do not recall the physical disengagement techniques, so this needs to be re-visited and considered when constructing curriculum in this area, as it's imperative they know what to do when in a physically threatening situation.

"Increase frequency of programs per year to solidify techniques, particularly disengagements"

"I don't remember any of how to get someone off me – like the specific moves we learnt because we haven't really gone over it that much"

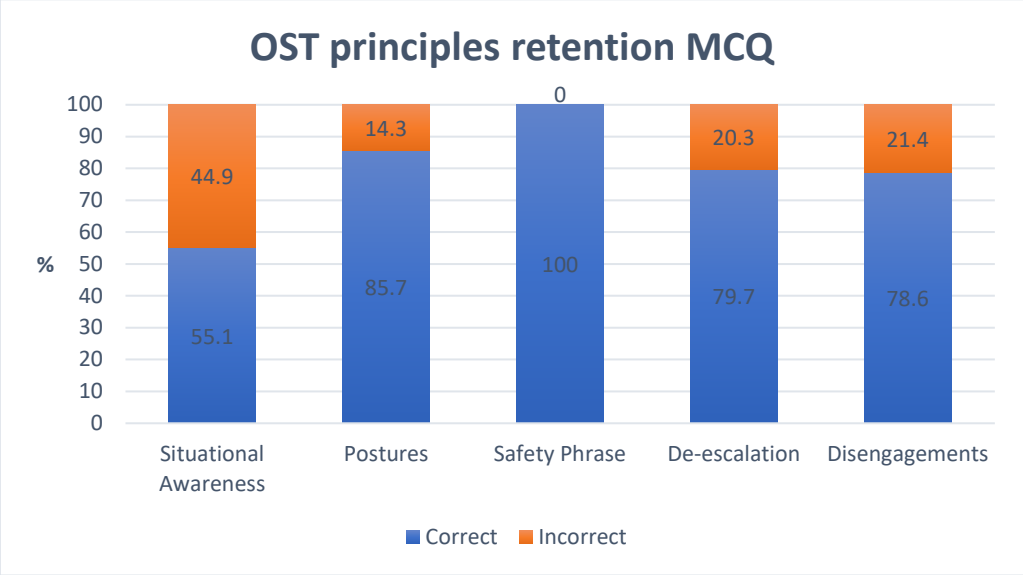


Figure 19 - percentage of correct responses from survey participants to OST principles questions (Q51-Q55)

The current OST program was discussed thoroughly with the interview participants to gain further detail on how it is perceived by students, and to highlight specific areas for improvement. While the participants believe that the content is important and they enjoy the training sessions, overwhelmingly they would like the sessions to be held more frequently.

"I feel like with the operational safety classes they're giving us, they are helping us and they're trying it to their best, but having it more regularly, I think would be better, and more beneficial to students" (Interview 2)

"I think we only did it once really, so you kind of forget…it would be nicer if we had another class or two just to like nail those things down in case that situation ever happens" (Interview 4)

"it is just the one-off health safety thing a year, which I think we, yeah, we probably tend to forget about very quickly because there's lots of other stuff happening" (Interview 6)

In terms of making the real-life stories told within the OST program more relatable and memorable it was suggested that prior experiences with WPV be discussed by current or former students rather than experienced paramedics.

"I think it would be really powerful if we got former students or current students who stand up and say what they've been to and what they've seen" (Interview 5)

The participants reiterated the need for greater development of de-escalation skills, as well as communication skills in general to more readily talk to a wide range of patients. They mentioned the elevated expectations of them clinically when on placement, so there is a heightened level of pressure when it comes to the 'simple' tasks of speaking to patients.

"you're expected to, like know everything, and know how to handle patients and communicate with them and that kind of thing, so it's a bit nerve wrecking, but very exciting" (Interview 2)

"just being able to talk to patients – de-escalation that's a big one" (Interview 4)

Ultimately it is appreciated by participants that OST should hold a place of greater significance within paramedic curriculum given the importance of the content on one's safety.

"there should be some – more education support about that because it is serious" (Interview 3)

"you can really never be prepared enough. What the [university] does is good, but I think there's always room to do a little bit more" (Interview 7)

This information from the survey respondents and interview participants will help in "doing a little bit more" by informing changes to the current OST program. This will ensure a contemporary and contextualised program is delivered to students and is based off their actual experiences encountering WPV on clinical placement.

4.5 Theme 3 – WPV Experiences

4.5.1 Observations of WPV on Clinical Placement

When it comes to witnessing episodes of WPV, 54.4% (n=43) of respondents have never observed any WPV towards others (their paramedic preceptors) whilst on clinical placement. Just over 22% ((22.8% (n=18)) of respondents have observed one incident of WPV towards others, 15.2% (n=12) have observed two incidents, and 7.6% (n=6) have observed three incidents. No respondents answered that they have witnessed four or more incidents of WPV towards others. Those who have observed WPV were asked to describe any incident, with common characteristics of incidents being verbal aggression, drug and alcohol affected patients, and mental health cases.

"A patient who had been in an MVA [motor vehicle accident] and had taken illicit drugs verbally abused my crew, swearing at them"

"During care and control [the use of the South Australian Mental Health Act 2009 to enforce someone to be taken to further definitive care against their will] of a mental health patient, crew experienced verbal abuse"

"A mentally ill patient was experiencing discomfort and so was lashing out at attending crew"

Whilst on clinical placement 25.3% (n=20) of respondents have witnessed or observed their paramedic preceptors utilising techniques taught within the OST program. The greater majority of respondents at 64.6% (n=51) did not identify their preceptors utilising OST techniques and 10.1% (n=8) answered that they were unsure.

It would be reasonable to deduce that paramedic preceptors utilise OST practices constantly throughout their interactions with patients, yet the student may not identify these implicit actions hence the majority answering that they have not witnessed any OST techniques.

Upon describing some of the observations, the respondents predominantly mentioned such things as their paramedic preceptors role-modelling body positioning and postures, and communication and de-escalation skills.

"I don't recall if this was taught, but one paramedic mentioned calmly lowering one's voice while talking to a loud and aggressive patient to help deescalate the situation."

"Mainly talking with the patient to try to deescalate the situation. I've never witnessed anyone have to use the physical self-defence."

4.5.2 Experiences of WPV on Clinical Placement

In regard to the individual experience of WPV, 24.1% (n=19) of respondents have personally experienced some form of WPV whilst on clinical placement. Of these, 19% (n=15) have experienced one incident, 3.8% (n=3) have experienced two incidents, and 1.3% (n=1) responded that they have experienced six or more incidents. Fortunately, 75.9% (n=60) of respondents have not had any form of WPV directed toward them whilst on clinical placement.

From those students who have had some form of WPV directed toward them personally, there was a variety of experiences and situations described. These ranged from being verbally abused and threatened, to acts of physical assault.

"[patient] experiencing psychosis tried to kick me and my crew when we had to enforce [the part of the State's mental health act that applies to paramedics and allows them to take a person under involuntary care]"

"a patient has spoken aggressively towards me and made me feel uncomfortable"

"Patient lit a lighter in my face when leaning over and taking a blood pressure. Patient was then restrained by [the police] but managed to get a leg out of his seatbelt and kick me."

Despite these experiences by students, the University was not aware of any of these incidents as students have not formally reported them. The concept of reporting and barriers to reporting is discussed in more detail below.

Each of the survey respondents were asked if they themselves had personally used any techniques taught within the OST program. Figure 20 below shows that 24.1% (n=19) answered in the affirmative. They were also asked to describe any of those actions taken to which the common answers related to concepts regarding body positioning and situational awareness.

"Haven't required the physical defence skills we've learned, but practiced that 'triangulation' [refers to a technique where paramedics position themselves within a room in order to have full view of the space and keep themselves in proximity to exits to remove themselves quickly if necessary] technique of scene management"

"When talking with patients I have mostly tried to avoid becoming too relaxed (alert posture). No use of any active defensive techniques."

Only 2.4% (n=2) of students mentioned some form of disengagement or breakaway technique.

"'Hairgel' manoeuvre [a technique to free one's hands if taken hold of by a patient] when patient lit a lighter in my face and tried to grab me."

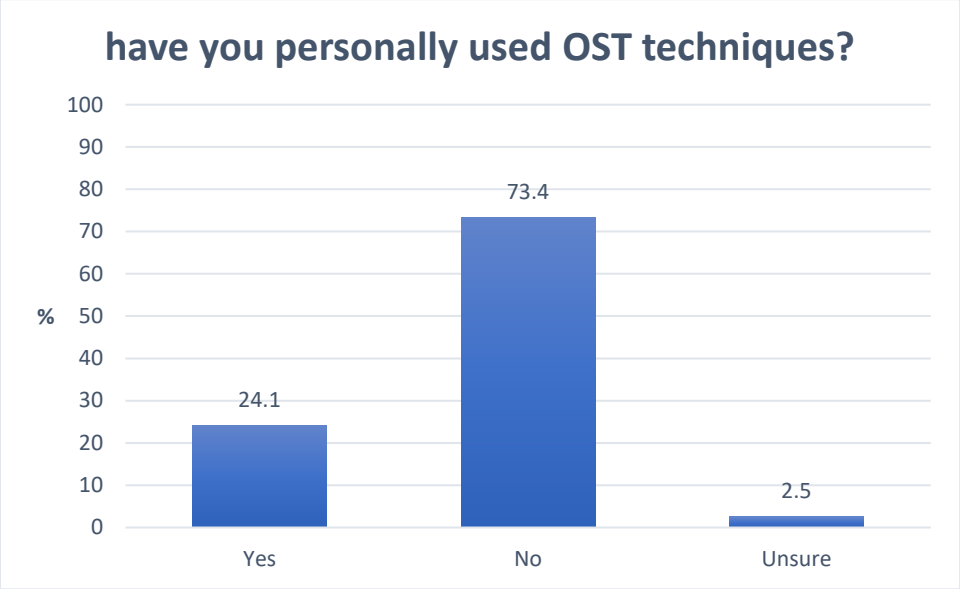


Figure 20 - survey respondent use of OST techniques on clinical placement taken from 'have you personally utilised any techniques taught within the operational safety training sessions?' (Q21)

4.5.3 Witnessing Episodes of Verbal Abuse

The respondents were asked whether the paramedics they have worked with on clinical placement have ever been verbally abused. The results showed 48.1% (n=37) of respondents answered yes and that they had witnessed this verbal abuse, and 16.9% (n=13) answered yes but they did not witness it. Those who answered yes were asked to describe the incidents with many students mentioning swearing and name-calling, patients experiencing acute mental health disturbances, and "*drunk people being aggressive*".

> *"I worked with female crew and we had a patient who was verbally aggressive. He shouted at the crew, swore at them, challenged their position and overall was very discriminative. I still remember him saying "why did they send me a f*****g female crew" he was not compliant refused any treatment and continued insulting the crew."*

Conversations during the interviews with participants also covered situations whereby students witnessed verbal abuse directed toward their paramedic preceptors or the police, confirming that often students were not at the centre of targeted abuse.

> *"a lot of their verbal aggression was directed toward [the police] and directed towards the paramedic preceptors"* (Interview 1)

> *"[the patient] was swearing at the police officers and at the paramedics and just this whole situation in general"* (Interview 6)

4.5.4 Experiencing Episodes of Verbal Abuse

The number of student respondents who felt they had been the target of verbal abuse during their clinical placement was 35.1% (n=27). The majority of these students recounted being sworn at and threatened as their experiences.

> *"been sworn at multiple times, and called names using offensive language. I was called a fat white c**t"*

> *"Patient said he would kill me due to the effect Penthrane [an analgesic medication] had on him - he blamed me"*

Predominantly the perpetrator was the patient in 77.8% (n=21) of the cases, family or friends of the patient in 14.8% (n=4) (one respondent selected both the patient and the family or friends of the patient), and the general public in 3.7% (n=1) of cases, representing only a small percentage. The remaining 7.4% (n=2) of incidents were selected as 'other' (where one respondent wrote 'no one cared' and the other said it didn't occur on clinical placement but within their own paid work environment). These results are displayed below in Figure 21 and are consistent with the literature where the patient is the perpetrator in the vast majority of healthcare related WPV incidents. Fortunately, none of the students selected their peers or supervisors as perpetrators, which is prevalent in nursing literature as horizontal or vertical violence.

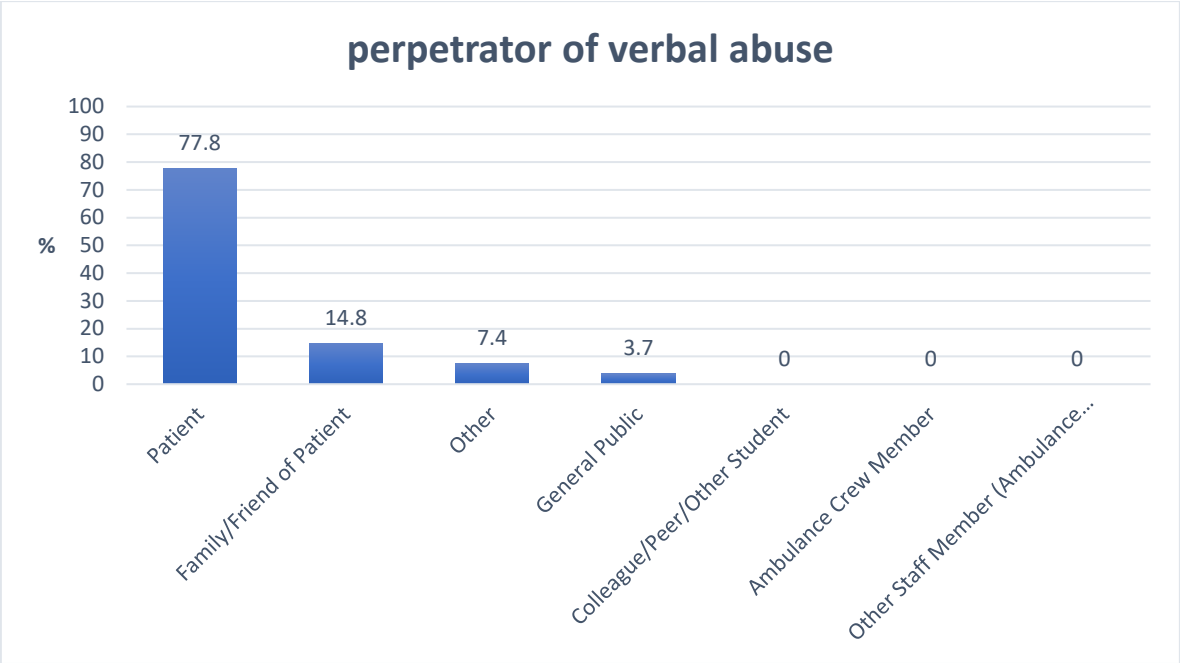


Figure 21 - responses to survey question 'as you have personally been a victim of verbal abuse whilst on clinical placement, who was the perpetrator? (choose as many as apply)' (Q24)

From these incidents, 25 students answered the question regarding the sex of the patient, with 60% (n=15) being male, 32% (n=8) being female, and 8% (n=2) answered as 'unsure'.

These experiences of verbal abuse were explored further during the interviews with participants who described incidents of being yelled at and threatened by patients in a variety of circumstances.

> *"he kind of walked up and starting and yelling abuse at us and the police had to help calm him down"* (Interview 4)

> *"[the patient] didn't want me anywhere near her, she just screamed and yelled all sorts of profanities"* (Interview 5)

The participants also touched on the concept of communication with patients in general, and how that can influence the outcome when presented with verbal abuse. It was highlighted that setting boundaries, as well actively listening and showing concern and understanding can prevent verbal abuse and aggression from escalating.

> *"because it was my first time encountering verbal abuse and so I learnt – I developed some skills, I learnt how to be assertive and try to get the patient back in line"* (Interview 3)

> *"I have noticed that there have been a lot better outcomes with less verbal abuse and being hostile when the paramedic takes the patient's side"* (Interview 6)

4.5.5 Witnessing Episodes of Physical Attacks

The respondents were asked whether the paramedics they have worked with on clinical placement have ever been physically attacked. A small number of respondents (6.8%, n=5) answered yes and that they have witnessed this physical attack, and 14.9% (n=11) answered yes but they did not witness it. Those who answered yes provided examples of incidents describing paramedics being bitten, punched, pushed and spat on.

> *"Patient in the back of the ambulance kept trying to lash out at my supervisor - she had to hold his hands down the entire trip to hospital to prevent him from hitting her"*

> *"my crew member was bitten by the patient in the back on the ambulance"*

The incidents recounted suggest that during transport the small area of the back of the ambulance is a particularly vulnerable space and often students are placed in the front passenger seat as a precaution to manage the potential injury and reduce exposure to violent behaviour.

> *"if they want [the police] to ride along or the, yeah, they just don't want me in that situation at all, they sit me in the front of the ambulance for transport so I'm not in the back at all"* (Interview 6)

4.5.6 Experiencing Episodes of Physical Attacks

Students were asked if they themselves had been the target of physical assault or unacceptable contact which would constitute WPV, of which 9.5% (n=7) answered in the affirmative. The respondents describe being kicked or spat at as part of their experience of physical violence. One student described being inappropriately touched. The patient was the perpetrator in all these cases, of which 57.1% (n=4) were male and 42.9% (n=3) were female.

> *"Drunk female, became abusive and aggressive and tried to punch me, moved out of her way, defused situation"*

Fortunately no student answered that they were injured as a result of any WPV incident.

4.5.7 Threatening and Intimidating Behaviour

The students were also asked if they had experienced any other behaviour which they felt to be threatening, intimidating, hostile or offensive whilst on clinical placement. A total of 27.4% (n=20) of students answered yes, with these mainly made up of inappropriate sexual comments and threats of violence.

> *"One particular patient was extremely drunk - threatening us (all of us were female) with acts of physical and sexual violence"*

> *"Had patient touch my leg inappropriately"*

One student commented about experiencing this type of behaviour, but not from within a workplace setting, meaning that their prior life experience may influence their preparation and anticipating for facing WPV in the clinical environment.

> *"Violence, threats, intimidation, hostile and offensive behaviour in life. Nothing in workplace setting"*

4.5.8 Characteristics of Violent or Aggressive Behaviour

The students who answered that they had experienced behaviour which they deemed to be intimidating, hostile or offensive were also asked about the characteristics of the perpetrator's behaviour which they considered to be violent or aggressive. In a free-text response participants provided examples of patients who were agitated, rude, intoxicated and generally combative or hostile.

> *"A hostile tone in talking which felt had intent to be hurtful/offensive"*

> *"Patient was verbalising his intention of wanting people who hurt him dead. At the same time he was staring at me and would not focus on the doctors who were talking to him at the time."*

"Invading my personal space and the tone of voice and how that patient spoke to me. She also sat right up as if to try and get in my face."

The tone of voice and body language of the patient were key to what made the respondents recognise and identify that the interaction had become aggressive and potentially violent. Patient behaviour was further explored in the interviews with participants who conveyed their experiences of patients exhibiting a vast array of behaviours and attitudes which were unsettling and unpredictable. It became obvious from the participants that patients may quickly change their behaviour and that as students they must be aware of the signs to identify specific mannerisms that may pose a threat to their safety.

"she could be I guess unpredictable at that point" (Interview 1)

"they may be completely placid and fine, or they could be really aggressive and really arked up" (Interview 5)

"it probably just makes me a little bit more aware of people and a bit more predictive of their behaviours" (Interview 7)

Again the importance of sound communication skills with the ability to build a rapport with patients and interact with others was discussed during the interviews with participants.

"rather than going along with someone's aggression you've got to model what you, what level you want them to be at" (Interview 1)

"just talk to them like a normal person" (Interview 4)

"I've seen paramedics that deal with the situation a bit more lightly and trying to build a rapport is really important because patients can quickly turn if they feel like you're not on their side or building a rapport with them" (Interview 6)

The participants also expressed an appreciation for de-escalation being an integral component in managing WPV incidents. It was generally understood that effective de-escalation can prevent the need for more invasive interventions like restraint or sedation and can prevent the current situation from escalation into a bigger issue.

"not always but most you can if you give the patient time and you try and understand them and talk to them a bit you can de-escalate things a lot of the time" (Interview 4)

"the aggressive violent bloke but then we managed to calm him down enough that we could poke and prod him as much as we needed to" (Interview 5)

"they do say in Operational Safety Training that de-escalation is the first thing you do before you have any physical removing or getting out of the situation" (Interview 6)

4.5.9 Common Aspects of WPV Incidents

Students were asked to describe the common aspects associated with each incident of WPV they have experienced in relation to time of day, those who were present at the time, and any environmental, social or psychological/emotional factors that might have been involved in the interaction. Of the 14 students who answered what time of day the incidents took place, 50% (n=7) occurred in the afternoon, 42.9% (n=6) at night, and 1.2% (n=1) in the early hours of the morning. This correlates with the student perception that WPV incidents generally occur after-hours as demonstrated by these interview quotes:

"the first one with the female [preceptors] was a night shift, and the second one – the second was a night shift as well" (Interview 1)

"definitely night shifts and weekends, Friday nights, they're the days where you get a lot of aggressive patients" (Interview 1)

"it was fine because I had morning shifts" (Interview 2)

In terms of who was present when each incident occurred, most commonly (50%, n=10) they occurred with ambulance crews in attendance, but the police were also mentioned in 25% (n=5) of incidents. 15% (n=3) of incidents occurred with the general public around, and 10% (n=2) in front of family members.

When respondents were asked to highlight any specific environmental or psychosocial aspects related to the incidents, there was an even spread across mental health, alcohol, and illicit drugs as influencing factors, each making up 33.3% (n=5) of the free-text responses. These figures compare to the literature which reports that WPV incidents in healthcare frequently occur in the afternoon or night and can be attributed to those under the influence of drugs or alcohol or experiencing a mental health issue or situational crisis.

In terms of identifying risks and potentially unsafe situations, the participants discussed circumstances in which they believe there may have been a risk to their safety during clinical placement, and how they recognised this or things that they considered to be risks. They spoke about body language and certain signs, predominantly guided by their paramedic preceptors.

"someone's directly threatening you or if they're moving towards you in a threatening manner" (Interview 1)

"there was a baseball bat, [the patient] is an ice-taker, all the conditions, [the paramedic preceptors] pointed out his house, his living conditions, that sort of thing, his friend, and they are all sings this

person could be violent toward us. Maybe not now, but on the journey to hospital, he could have been really aggressive to us, and we don't want to put ourselves in a risk like that" (Interview 2)

"you just don't know what you are going to walk into" (Interview 5)

During the interviews the participants described the influence that a patient's partner or family member can have on the situation, often attempting to rationalise with the patient or assisting with explaining details to paramedics.

"[the patient's partner] would literally tell him off in front of us for when he was rude or doing the wrong thing" (Interview 2)

"sometimes family members stress the patient a lot and make them just go crazy. Yeah, and sometimes they're really supportive and they understand us and they understand our job and the things we face on-road, and they're just really nice towards us so it makes the patient nicer to us as well" (Interview 2)

Patient's presenting with acute mental health crises were identified as the predominant cause of challenging behaviour experienced by the interview participants. The role that specific drugs and alcohol have on altering one's behaviour and emotions was also mentioned as a common theme in the types of cases where violence and aggression was experienced. The students found these cases difficult to manage due to the unpredictable reactions of patients who may have an altered perception of reality due to their psychological state or intoxicating nature of substances consumed.

"I definitely think mental health is, is a major common thread, for I guess obvious reasons, it's people that aren't necessarily in control of their emotions" (Interview 1)

"I'm not really sure whether it was drugs or whether it was just their mental health" (Interview 6)

"probably psychosis, yeah. They're the ones that probably I don't know enough about what they're going through, what they're seeing, and what they think is real. So, I guess they're the more unpredictable ones" (Interview 7)

4.5.10 Police Assistance

The inherent risk in paramedicine creates a reliance on police support to ensure staff and student safety. As mentioned above, paramedics and police frequently work together in the out-of-hospital environment, with paramedics calling for police assistance whenever there is an obvious danger or a history of violence. All respondents who had experienced some form of WPV during an ambulance callout were asked whether or not the police were in attendance when the incident occurred. The respondents showed that in 40% (n=6) of cases the police were already in attendance when the ambulance crew arrived, and a further 40% (n=6) state

that the ambulance crew requested police attendance. In 6.7% (n=1) of cases, the ambulance crew rendezvoused with police before proceeding to the patient, and in a further 6.7% (n=1) the police were not in attendance. In an additional 6.7% (n=1) of survey responses there was a mix of police attendance in the multiple incidents of WPV they had experienced.

The role of the police was explored during the interviews with participants who described their interactions with the police when attending a dangerous situation. Paramedics would frequently wait to rendezvous with police before approaching a location where there was the risk of violence or if there was a known history of violence.

> *"Going into a job you might have to hold back and wait for police"* (Interview 1)

> *"there was a guy who had a history of apparently sticking people with needles. We had the police there with us"* (Interview 4)

The presence of police gives paramedics and students the ultimate sense of safety and are considered to offer a supportive and collegiate approach to patient management, often travelling in the ambulance when paramedics are transporting a violent or aggressive individual to hospital.

> *"the police are always really good when they come – sort of supportive and everything and they just – it's nice to know if something were to go pear shaped that they have the means to help"* (Interview 5)

> *"I've had a [police officer] travel in the back of the ambulance with me before, so I felt a bit more safe that they were there to physically restrain [the patient] if that was needed"* (Interview 6)

Conversely, there were comments made by some participants who believe that police attendance can exacerbate a situation as their mere physical presence can potentially inflame an already aggressive individual.

> *"I was thinking in that situation with the patient I think [the police] got a bit too impatient were they were too fast and they kind of escalated the situation when they could have tried to be more calm"* (Interview 4)

This may hinder the rapport which paramedics have developed with patients, and so paramedics need to weigh up the risk when deciding when they require the police to remain with them. Nonetheless, police presence has a direct impact on the participant's feelings of safety and generally minimises the risk of WPV. This study shows that police have a role in the way paramedic students react to and perceive WPV and how the use of backup is essential in training and education during OST.

4.6 Theme 4 – The Paramedic Preceptor

The concept of paramedic preceptors as shaping how students understood, defined and culturally built their perceptions of WPV was an important part of this theme. The students were asked whether they had been part of conversations or heard conversations about WPV whilst on clinical placements. In 41.8% (n=33) of the responses the participants answered yes, with 66.7% (n=22) of those providing a description or example. The respondents who provided a description referred to physical threats and violence such as biting and kicking, verbal abuse, discussions around reporting incidents, scene awareness, and the increase in incidence of WPV generally.

> *"Heard conversations regarding injuries inflicted on paramedics by drug affected patients"*

> *"Paramedics at station have spoken to each other about needing to report recent incidents involving patients assaulting them"*

In relation to the recounting personal stories by paramedics, 52.9% (n=45) of respondents state that they have heard paramedics tell their specific stories of WPV whilst on clinical placement, of which 68.9% (n=31) provided further information. These respondents relayed stories predominantly of verbally abusive patients and paramedics being punched and spat at.

> *"Have heard a number of stories ranging from spitting/biting to someone hiding in a house with a weapon in an attempt to ambush paramedics"*

> *"One paramedic told a story of how he had been strangled by a drug user in the back of the ambulance while his partner was outside"*

The role of the paramedic preceptor was explored extensively throughout the interviews with participants. Students typically idolise the paramedic preceptors that they work with, considering them as mentors for their personal and professional development. Students see their preceptors as supportive and tend to look up to them as role models, mimicking their behaviours and actions in order to conform to the professional culture.

> *"They were really supportive, and they don't judge you, they help you out, and they teach you, and they're just like, really easy going"* (Interview 2)

> *"I love them. They were the best crew"* (Interview 2)

"It's just three of us in a car at the end of the day but it's a pretty warm environment once we're in there" (Interview 3)

"the crew are really good, the crew's always really good" (Interview 5)

Informal learning also comes from observing how the paramedic preceptors deal with patients and WPV, with students copying skills and techniques that they can apply in the future if in a similar situation.

"before we actually started dealing with the patient, [the preceptors] chatted with the nurses, made sure that, what distances we needed to keep, what eye contact all that thing, just basically how we needed to approach the patient…it was a good thing to learn from as well" (Interview 1)

"sometimes they play the good cop bad cop so that [the patient] knows that if they step out of line the bad cop is going to put them back in…they've still got the good cop they can talk to" (Interview 6)

The notion of a gut-feeling or intuition in identifying a potentially dangerous situation was also highlighted by participants during the interviews. This tacit knowledge is something which forms with increased exposure as identified through the comments and actions of the paramedic preceptors when entering different environments. The paramedic may notice something that poses a risk, which the student would not recognise.

"you've got to trust your gut when you're going somewhere and something doesn't feel right, you hold back…my gut feeling now is probably, it's not sensitive enough to those things where like I say, I probably wouldn't have even thought of that, but everything [the paramedic preceptors] said made really good sense" (Interview 1)

"I didn't realise it. I didn't realise that there was this risk" (Interview 2)

"It was all things that I hadn't thought about and unless I got told" (Interview 6)

"I've got a gut feeling to a point but I know that as you develop in your career your gut feeling will develop a lot more than what we've got at the moment" (Interview 1)

This gut-feeling can develop over time with experience and may be based on a prior similar incident whereby if faced with comparable circumstances one may act differently the second time around.

"what we consider to be a safe situation might be to other paramedics something that they would hold back on just in case thing, because they've seen other things happen or develop" (Interview 1)

> *"because [paramedics] have so much experience and stuff, they can point out when things can go wrong, and they were able to identify that, whereas me, I just thought it was normal"* (Interview 2)

The participants reported that it was beneficial in being able to discuss the case with their preceptors afterward as a form of debriefing, particularly after a confronting incident. These informal debriefs consisted of reflecting on the communication with, and management of, any violent and aggressive patients and ensuring the welfare of the student.

> *"there wasn't really much support needed for anyone I don't think, but they did ask 'are you alright?' afterwards and we had a debrief about it and had a chat through why everything was done the way it was done"* (Interview 1)

> *"they made sure I was okay, and they asked, and we just went over the case, what was wrong with him, that kind of thing, and they did agree that he wasn't the nicest person"* (Interview 2)

While students were aware of the preceptors' main role to teach them within the clinical environment, they were also aware of the busy and fatiguing nature of paramedicine and did not want to be a burden on the preceptor.

> *"my crew had lots of students with them, so one week having four students on board with the same crew, that's really stressful for them, so I felt that they were actually really tired and busy so I couldn't just add more and more on them"* (Interview 3)

This feeling of being an inconvenience during busy times also has an impact where students want to please their preceptors due to the power-differential in place as preceptors have the responsibility of evaluating the students and completing reports on each clinical placement. Thus, the students do not want to appear as an inconvenience and do whatever they are told by the preceptors.

> *"if I behaved in another way, I think my crew would get mad or something, so I was just like, yeah. And that's a really hard situation because you have your crew on one side and you have the patient on the other side and [the preceptors] write my report"* (Interview 3)

One participant further discussed the organisational factor of a heightened workload during busy periods and the effect that this has on the paramedic preceptors they have worked with, and ultimately to a decline in patient care. The notion of fatigue influencing one's ability to communicate effectively and de-escalate an aggressive patient was emphasised with the participant describing their preceptor's communication as "assertive". When asked to clarify if this assertiveness occurs when a break has not been taken on time or if the shift is busy the participant responded with "Sometimes, for sure, yeah".

"I think they could have been delayed a bit more possibly to try and just talk her around" (Interview 1)

4.6.1 Preceptor Protection

The notion of the preceptor as protector was evident throughout the interviews, with discussions around safeguarding by the paramedic preceptors in any situation where someone was violent or aggressive. The paramedics see it as their responsibility to care for the students that they have on clinical placement with them, often removing them from situations that had a heightened level of risk.

"because she'd escalated so much the crew were really taking care of things" (Interview 1)

"I was attending at first and then when he got really aggressive my crew took over" (Interview 3)

"they did speak about danger and say keep talking to [the ambulance communication centre] and they just kept verbalising that they are not going to put me or themselves in that situation unless they know they're safe, so yeah, they just reiterated that danger is the most important and out safety is the most important thing" (Interview 6)

"they have a duty of care, where they feel they want to protect a little bit" (Interview 7)

A negative consequence of this protective mechanism is the false sense of security that students could develop knowing that someone is there to look after them, which may impact on their appreciation of the subject matter taught within the OST program, and their self-directed motivation to review the content. This may result in some students feeling a greater sense of confidence whilst on placement and subsequently lack insight into their actual levels of competence to deal with WPV.

"obviously you got your crew there as well who if anything was to ever happen to me, they're straight in because that would be pretty bad for them if anything were to happen to us" (Interview 5)

It was identified however that an onus is also on the individual student to ensure their general safety whilst on clinical placement, taking responsibility to encompass a range of measures to minimise their risk to WPV.

"we have to I think pull ourselves back a bit and say, they're not always going to be able to see everything that's happening with us. So we need to make sure that we're keeping ourselves safe as well at all times…we can't wait for them to tell us to do everything, especially in a sudden situation" (Interview 1)

The role of the paramedic preceptor as a protective mechanism has a direct influence on a student's perception of risk and safety. Students also want to appear capable in front of their preceptors, attempting

to step outside of their comfort zone in order to prove their worthiness in becoming a paramedic, whereby doing so may involve taking a calculated risk.

> *"us students, we just like to show we're tough and that we've got things under control, and that kind of thing, even on placements, like with the things that maybe make us – we're not comfortable doing – we would do it, just to prove that we know how to do things and we're able to take risks and that kind of thing"* (Interview 2)

4.7 Theme 5 – Student Feelings and Perceptions

4.7.1 Safety and Risk

The survey asked each participant to self-report their overall feeling of safety whilst on clinical placement. Figure 22 shows that three quarters of the respondents (75.3% (n=64)) were in broad agreement that they feel safe. While no respondent selected that they 'strongly disagreed' in terms of feeling safe, this does leave 24.7% (n=21) either disagreeing or neutral in their response.

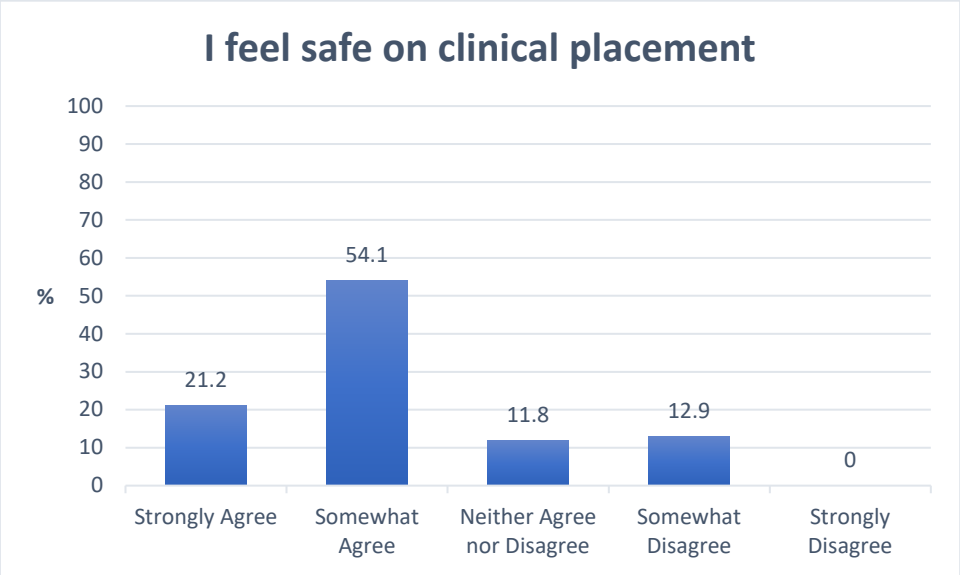


Figure 22 - self-reported feeling of safety on clinical placement relating to the survey question 'when thinking about violence and aggression, I feel safe on clinical placement' (Q13)

A cross-tabulation was performed using chi square test to identify if there was a correlation with age or gender and perceptions of safety whilst on clinical placement. No correlation was identified therefore there is no statistical significance whether the gender or age of a student impacts on their feelings of and safety.

The sense of safety is a significant finding when you consider that the majority of students have no clinical experience prior to university, have not experienced challenging behaviours in the past, have no formal self-

defence training, and only half feel prepared to deal with such incidents. Thus, there must be another protective mechanism during clinical placements (e.g. the paramedic preceptors or police) which gives students this sense of security.

In the survey each of the students were asked for their opinion on the one most effective thing they believe that paramedics and students could do to minimise the risk of WPV. Sixty-four respondents answered this question via an open free-text response, providing a vast array of thoughts and suggestions across a range of subjects. Sound communication skills with the ability to de-escalate situations, being prepared through education and frequent safety training, the ability to recognise early warning signs of aggression and call for additional resources early featured as key themes. In addition, remaining vigilant and not putting oneself into any risky situation that makes them feel uncomfortable were also critical to managing risk of WPV. Some students also touched on the role of legislation and education of the public to promote a zero-tolerance culture.

> *"Always request police backup when in doubt, but more importantly - keep your distance from unpredictable patients and ensure you have space to escape should the situation change."*
>
> *"Be constantly aware and remove themselves from any situation that could potentially bring themselves harm. Have a plan and be ready to evacuate when needed"*

The clear message from the above two quotes is to be aware of one's surroundings and be conscious of when backup is required and be willing to instigate early access to that backup. The following quotes focus the social context and whether the students can read social and patient cues to enhance their safety and the use of their own communication skills as a tool to de-escalate.

> *"Be nice to patients. Whilst assaulting a paramedic, or anyone for that matter, is not acceptable, I generally think if you are friendly, polite and considerate toward patients, it gives them no reason to become violent."*
>
> *"Education on how to best communicate with a hostile patient to defuse the situation."*
>
> *"Continually promote awareness of it in society and that it is not acceptable. For paramedics and students themselves, know tricks and techniques to keeping safe and know your limits when entering a scene and when to call for the police"*
>
> *"I feel that more training in verbal/general de-escalation could be very effective to minimise the incidence of any WPV, along with always maintaining a degree of alertness to any potential risks."*

The concept of risk and safety also became apparent during the interviews when the participants discussed situations when they did or did not feel safe and how their experiences with WPV, or lack thereof, impacts on their feelings of safety.

> *"I've only had good experiences with avoiding workplace violence, so I feel probably more safe"* (Interview 6)

> *"I haven't been put in any situations where I felt like I wanted to put the patient's wellbeing over my safety"* (Interview 6)

> *"my senses were elevated but yeah, there was no point where I felt unsafe"* (Interview 7)

4.7.2 Feelings Post WPV Exposure

The way that students have been affected by WPV experiences became evident throughout the interviews, with many discussing their thoughts and feelings after witnessing violent events or having violence directed toward them personally. The students expressed such feelings as being shocked and annoyed at the situation when confronted with WPV. The long-lasting impact of experiencing WPV was also conveyed.

> *"I wouldn't say I was scared, I was just in a state of shock, because I didn't really expect that"* (Interview 2)

> *"I was very sad and very disappointed. I was really, really upset"* (Interview 2)

> *"it kind of impacted on me for a couple of days and I felt that I actually need, because I'm still a student, someone with me [in the ambulance] when I have such patients"* (Interview 3)

> *"violence and aggression can have an impact on people long-term as well as, not just the immediate threat of danger but they can take it away and they can think about it for days, and weeks, and months, and it can play on your mind"* (Interview 7)

The participants also described feeling uncomfortable in a range of settings when attempting to manage violent patients, with one student mentioning an event where they were alone with the patient in the back of the ambulance while their paramedic preceptors were talking to hospital staff. The patient used this opportunity to speak inappropriately with the student.

> *"I was definitely uncomfortable and I couldn't do anything because I'm the one with [the patient] and my [paramedic preceptors] were in the hospital"* (Interview 3)

> *"I felt so confident talking to him but as soon as he started asking those private questions I felt really annoyed"* (Interview 3)

This raises the idea of setting boundaries and what one may perceive as normal depends on the situation, and how the same incident can be deemed okay in one setting but not another, demonstrating that not all WPV incidents would be captured or reported. The idea that there is a threshold to accepting WPV as a 'normal part of the job' was also raised, and that this threshold may differ between individuals based upon their previous experiences.

> *"they're going to have their personal limitations, you know, like a bit of a slap on the arm of something might be acceptable to a few people, and to another person it might be just full-blown assault"* (Interview 7)

> *"I am 6 foot 2, I am much more comfortable with someone trying to intimidate me than somebody else [might be]"* (Interview 5)

4.7.3 Resilience, Self-Care and Empathy

The results also highlight that the concept of resilience whereby someone can move on and adapt post experiencing a WPV incident, and that training in self-awareness and self-care is important. The more experience and greater exposure students have, potentially gives them the skills to feel more comfortable when confronted with these situations, suggesting the longitudinal benefit of clinical placements.

> *"knowing what you're feeling, understanding what you're feeling and how to approach it and how to talk to people and that [WPV] is not okay"* (Interview 6)

> *"if someone said something to me on placement and it did upset me, I'd…have more of a self-awareness of why I'm feeling that way…and I know to talk about it"* (Interview 6)

> *"I think if you're a little bit self-aware you might be able to understand your emotions a little more and come to terms with that is actually going on inside"* (Interview 7)

> *"I wouldn't say I'm comfortable yet but I am more comfortable than I was originally"* (Interview 4)

Aiding in self-care and being able to cope with WPV incidents is made easier through talking about one's experiences with peers who can understand and relate. This mode of support was mentioned by some participants who found it reassuring to be able to speak to close friends about any violence or aggression that was directed toward them.

> *"when I encounter such situations, I think when I speak about it to a friend or someone, a staff member or something about it, it helps"* (Interview 3)

> *"you can share the experience and you feel a bit comfortable when you talk to someone who actually encountered worse than you and they're still coping"* (Interview 3)

At times empathy toward the patient was expressed highlighting that the students attempted to relate to the patient's situation and pinpoint a reason for their challenging behaviour.

> *"It gives you more empathy towards someone who's not in control"* (Interview 1)

> *"I don't want to necessarily see [the patient] hurt, or slammed down, or netted [a form of restraint] and detained"* (Interview 7)

> *"I think it's just understanding they're still human at the end of the day"* (Interview 5)

> *"it probably helps to know what the patient is going through so you can have a bit more empathy"* (Interview 6)

It is apparent that if a patient is violent or aggressive due to a mental health crisis or medical episode there is a greater tolerance and acceptance of their behaviour. This attempt to find a reason or understand why someone may be violent or aggressive may lead to WPV incidents going unreported as specific causes are identified.

4.8 Theme 6 – Reporting of WPV

4.8.1 Processes for Reporting WPV

The respondents were asked about the ways in which they can report WPV whilst on clinical placement, listing the possibilities available to them, and asked the students to select which ones they were aware of, and which ones they had utilised. The ambulance team leader was recognised by 98.6% (n=69) of students as a person they can speak to, 78.6% (n=55) acknowledge they can report incidents to the police, 87.1% (n=61) know they can speak to the university course coordinator, 90% (n=63) to their university topic coordinator, and 92.8% (n=64) to the university health and counselling service. Only 27.5% (n=19) know that they can meet with a university equal opportunity advisor, and only 21.7% (n=15) are aware they can make a report via the university-wide incident reporting system.

When it comes to actually reporting WPV incidents however, only 3.1% (n=2) have spoken to the police, 1.5% (n=1) to their ambulance team leader, and 1.5% (n=1) raised their experience with the University's confidential health and counselling service. The discussions with the police and ambulance team leader would not have constituted formal incident reports and taken the form of case discussions as the University was not officially made aware of these incidents. These results are displayed comparatively in Figure 23 below.

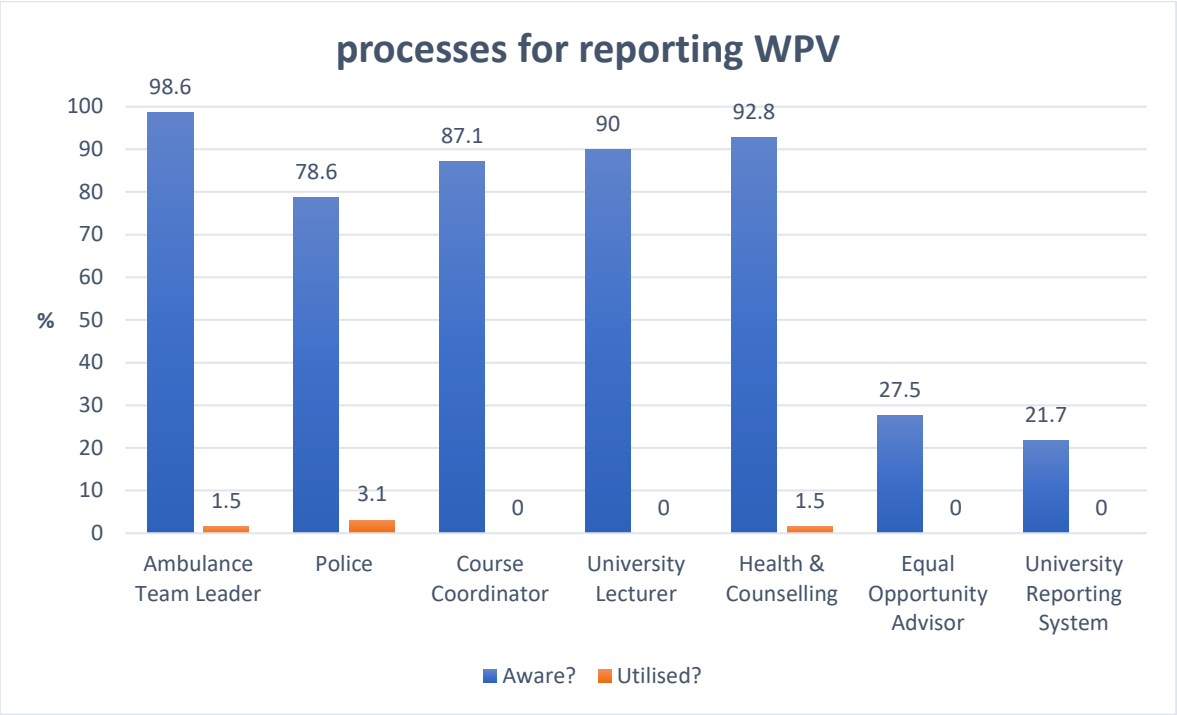


Figure 23 - awareness and utilisation of WPV reporting processes derived from the survey question 'there are several processes available for reporting WPV. From the below list please indicate which processes you are aware of and if you have utilised them' (Q37)

During the interviews the participants discussed the reporting process further and it was highlighted that while students may not be aware of the methods of reporting incidents, they would seek this out if needed.

> *"I think I wouldn't have any trouble finding it…I talk to staff here and would be pretty easy to find out how to do it"* (Interview 1)

> *"I've got the numbers and emails saved down somewhere"* (Interview 4)

They comment that they would be comfortable talking to someone from the ambulance service or the university regarding their experience as part of the reporting process. There is also the confusion between reporting an incident and a welfare check post an incident.

> *"In major cases I think we get contacted from [the ambulance service]"* (Interview 2)

These results are evidence as to why the university was not aware of any incident of WPV experienced by students. This data matches that from the literature which shows that many incidents of WPV go unreported, hence any formal data is an under-representation of the true prevalence of this phenomenon. As discussed earlier, there are many reasons as to why someone may not report WPV, and it appears that paramedic students are no different.

4.8.2 Seeking Support Post WPV

Figure 24 below shows the methods of support sought by survey respondents following a WPV incident whilst on clinical placement. Only 2.9% (n=2) of respondents have personally sought assistance from the ambulance service peer support program or the university health and counselling service, and 12.9% (n=9) have sought informal support from a university lecturer, tutor, or paramedic. However, 44.3% (n=31) have discussed experiences of WPV with friends. It appears students debrief informally with their peers regarding any experiences and don't formally report WPV which adds to the difficulty in identifying the exact prevalence and causes of these incidents.

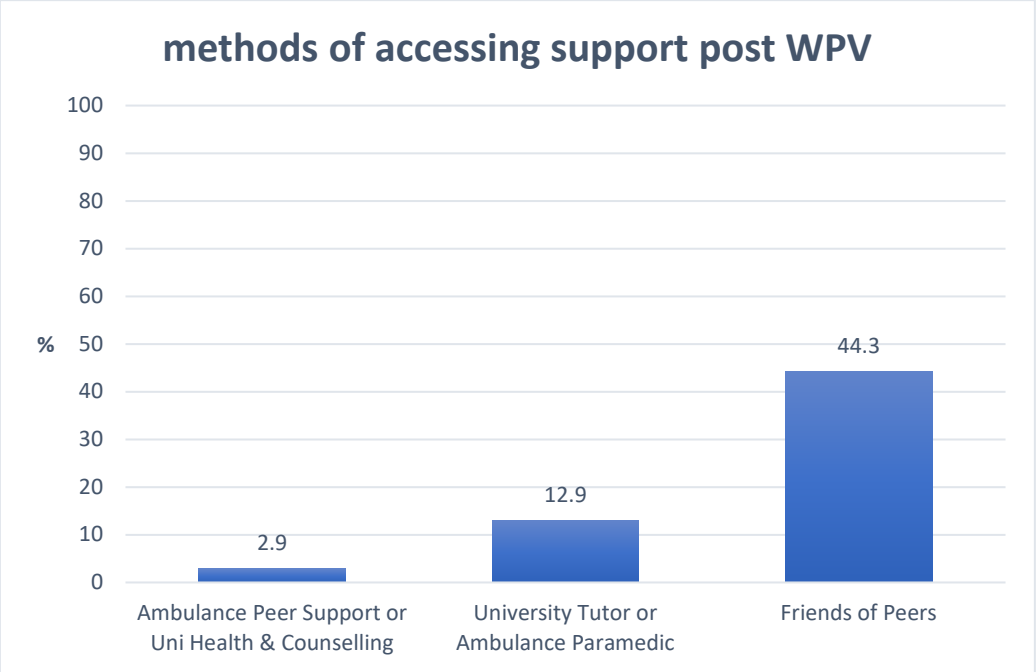


Figure 24 - support sought post WPV incidents from survey respondents, as derived from Q38-Q40

Each of the 18 respondents who answered that they had experienced WPV but did not seek support or assistance from the university or ambulance service was asked as to the reason why. Of the respondents, 94.4% (n=17) selected '*I did not think I needed any help or that it was serious enough*', and 5.6% (n=1) selected '*I was concerned about future job prospects/employability*'. This is consistent with the literature whereby it is a common occurrence for victims of WPV to not consider the incident to be severe enough, and where students think if they report issues it may affect their future employment prospects. This is because of the perception that reporting an issue which is often accepted as 'a normal part of the job' would indicate that this individual cannot cope and may not be suited to the profession.

Those students who have reported an issue of WPV or sought assistance from the ambulance service or the university were asked if they would like to provide comment on their reporting experience. In this instance 33.3% (n=2) agreed to provide a comment, to which 1 said their university tutor was supportive of a zero-

tolerance concept, and the other said their paramedic crew on clinical placement was given additional time before the next tasking and they were reminded of the resources available to them.

4.8.3 Barriers to Reporting WPV

The concept of reporting WPV incidents was investigated through the interviews, with participants discussing their understanding of barriers to reporting WPV. One other reason flagged as to why students may not report incidents is if they do not consider them to be significant events that will have a long-lasting impact.

> *"it did not impact on me in a way that I don't want to continue my degree or something, so if it was to that point that I would have, for sure, report to [the ambulance service] or university"* (Interview 3)

> *"maybe it was just something minor…and they are quite toughened and used to that"* (Interview 7)

The students tend to use their paramedic preceptors as a guide as to whether something should be reported or not. If the paramedic was not impacted by an incident or reported an incident, then it may look negatively if the student wished to make a report. This reiterates the earlier finding that students want to appear as if they are 'cut out' for the job as a paramedic, and if it appears they cannot tolerate violence and aggression then they may not be suited to the profession.

> *"to report something that probably wasn't of a big deal to paramedics but it was a big deal to me would make me seem like…a bit of a softie"* (Interview 2)

> *"first thing I would do is probably talk to the crew about it and gauge their feelings"* (Interview 7)

There is also the finding that violence and aggression is more accepted in the ambulance setting, whether or not the behaviour is due to a medical condition. The impression created is as if the ambulance environment is another world where poor behaviour is more readily accepted than what it would be to the rest of society.

> *"I don't think they're worth reporting, because they seem like big incidents, but on placements really they don't"* (Interview 2)

There is also the fear that making reports may impact future job prospects with students willing to tolerate WPV so as not to be perceived as making a fuss. They also do not want to document it as part of their placement experience and would prefer an anonymous and confidential reporting system.

> *"I don't want anything on my report about the situation because I know my report is going back to [the ambulance service] at the end"* (Interview 3)

"if there is a website or something confidential that would be much helpful" (Interview 3)

The notion that reporting WPV incidents is worthless also appeared throughout the interviews with participants questioning the value in submitting a report. This further emphasises the importance of the OST program to not only prepare students for managing WPV, but around highlighting the need to report any WPV incidents and to remove the stigma in doing so.

"I was busy with uni and I thought nothing is going to happen…it won't change anything in my perspective" (Interview 3)

Each student was asked what they thought would be worth highlighting or reiterating to other students regarding the university's policies, support services and reporting processes related to WPV, to which 60% (n=51) responded. Common themes were: encouraging and explicitly stating that all types of WPV need to be reported, clarifying the options available to report incidents and the value of reporting, reiterating the support services available, destigmatising debriefing and talking about WPV, and emphasising the importance of situational awareness and safety. The concept that reporting incidents as a student will not affect employability also appeared.

"Important to let someone know if something has happened. Don't be afraid to seek help for something even if you believe is only minor."

"Students should also be made more aware of the steps that can be taken in reporting WPV and what actions may be taken when they report an incident"

"That it is not okay and that you MUST report it. WPV should not be part of a paramedic's 'usual' shift"

"It could be useful to reiterate that there are multiple means of reporting and support available"

"Simply talk to your crew about the job, debrief and share how you feel. If you feel your crew aren't easy to talk to then consider contacting the team leader, university teaching staff or friends/peers."

4.9 Summary

This chapter reported the key results of the survey and interviews under the six main themes which became apparent from analysing the data. The following chapter presents discussion under each of these themes linking back to the literature. It also addresses the limitations and constraints of this study and provides a

range of recommendations and future directions to consider when preparing and educating undergraduate paramedic students for WPV in the clinical setting.

CHAPTER 5 - DISCUSSION

5.1 Introduction

The aim of this research was to investigate the prevalence, and lived experience, of undergraduate paramedic students' exposure to WPV whilst on clinical placement and identify their training needs to inform the design of a contextualised OST program. An online survey instrument was developed, and semi-structured interviews were conducted to gather this information. Thematic analysis with a constructivist grounded framework was utilised to evaluate the results which identified six major themes: Awareness of WPV; Education and Preparation for Placement; WPV Experiences; The Paramedic Preceptor; Student Feelings and Perceptions; and Reporting of WPV. Key findings and meaning from the data within this study are summarised in this chapter under each of these themes. In understanding the nature of WPV for paramedic students and the implications for education and OST, an overarching theme is that WPV is both culturally and role-driven with student experience formed within this framing of competence to do the job, actual experience, and barriers in reporting.

5.2 Demographics

The cohort of participants in this study reflect the student population enrolled in the targeted undergraduate paramedicine degree in terms of gender, age and previous work experience. This provided a representative cross section, allowed both male and female perceptions to be included, and created a solid descriptive base to investigate the issue of WPV through the analysis and discussion. This research did not show any statistical significance of age or gender in relation to experiencing WPV or feelings of safety and preparedness to deal with WPV. This is supported by a recent study by Shaikh et al. (2020) which showed that age, work experience and gender had no effect on the likelihood of experiencing WPV. This demonstrates that it is organisational, institutional or societal factors that influence the experience of WPV more than personal factors.

5.3 Awareness of WPV

The cohort of this study had minimal prior experience to WPV before commencing clinical placements, yet almost all the participants in this study were aware that WPV is a contemporary issue faced by paramedics during the course of their duties. This awareness may be partly due to the role the media plays in portraying the significance and frequency of WPV and the nature of the paramedic role, but also through conversations with preceptors regarding WPV. The notion that WPV is 'part of the job' has become mainstream and almost

an expectation when working as a paramedic. Paramedics are subject to WPV so often they become desensitised to it and essentially accept it as a feature of their employment meaning that the phenomenon is normalised within the culture and therefore a major barrier to reporting. It becomes the norm rather than the exception. The findings here are consistent with previous research showing a normalisation of WPV in paramedicine and thus an expected part of the job (Ashton et al. 2018; Morphet et al. 2018; Thomas et al. 2020). There is the need to challenge this normalisation in order to increase the levels of reporting, which is mentioned below in the recommendations. When WPV is not acknowledged and goes unchecked it becomes generally accepted and therefore part of the culture. The literature discusses this challenging of WPV through zero-tolerance policies, mandatory sentencing, and identifying organisational factors which may contribute to violence and aggression (Morphet et al. 2018).

Awareness as a theme incorporates the notion of situational awareness. Bedny and Meister (1999 cited in Stanton et al. 2001) define situational awareness as the conscious dynamic reflection on the situation by an individual, considering the past, present and future to develop mental models to achieve a certain goal. Situational awareness in the context of WPV is about understanding your surroundings in order to identify any risks and mitigate them early if possible. Loss of situational awareness is correlated with poor system performance, slower detection of problems, and increased time needed to react to issues (Stanton et al. 2001). Situational awareness is thus critical in ensuring crew and scene safety (Hunter et al. 2019) and is a cognitive skill which can be taught (Stanton et al. 2001). Because WPV is often a result of conflict or anger which is not managed and subsequently escalates, any training that helps people recognise and defuse anger can help to minimise harm through the identification of volatile situations (Skiba 2020). The way situational awareness was viewed by students was as a learnt phenomenon not only from teaching (OST) but from working ‘on road’ through clinical placements. The ‘real’ understanding of potential risk and how to interpret the surroundings they were entering, and the behaviour they were observing, comes from watching others particularly career paramedics who were their preceptors. Hence the value placed on including contextualised stories from paramedics within the OST as they learn from not only theory but having those they see as people with real knowledge providing the guidance and education.

5.4 Education and Preparation for Placement

The area of preparation for clinical placement was a key theme throughout this study and part of the overall research aim. Half of the participants reported feeling prepared for violence and aggression whilst on clinical placement from the current curriculum delivered. This leaves the other half not feeling prepared and needing additional education. This could be because the host organisation does not have a formal induction process for each student prior to commencing placements. This is usually performed ad hoc by the paramedic preceptors that students are placed with so there is no consistent message when it comes to WPV and safety.

The implication for this is the added pressure on paramedic preceptors and students to clarify processes at the start of each shift to ensure they have the tools to manage in the environment which may detract from other important learning moments. The difficulty in providing consistent messaging and education around risk and operational safety for students across the transition from university to industry during clinical placements is significant when you have varied levels of experience and training in mentorship and clinical education, and communication between the university and industry is potentially fragmented. The implications are that when individual students receive differing messages their real and perceived readiness and safety is dependent not on a consistent culturally agreed and developed educational framework and close ties with industry, but on individuals' own experience and the severity of that experience. As mentioned, this leaves preceptors with an increased burden to monitor and provide not only role modelling but fill in the 'gaps' or expectations and protect the student.

No definitive evidence exists to suggest that specific interventions to combat WPV are effective, which may be because of the complexity of the phenomenon that must be managed at multiple levels (Thomas et al. 2020). According to Thynne and Rodwell (2018) training programs of key skills such as situational awareness, scene management and de-escalation as a short-term intervention to manage WPV in paramedicine are the most feasible and will have the most powerful and immediate impact over other interventions like policy and system changes.

By evaluating the current OST program delivered to students and investigating their self-reported levels of preparedness to manage WPV, gaps within the education offered were identified. Murray et al. (2020) report that there are currently no evidence-based interventions in the literature to assist paramedics in their preparedness for WPV. They mention industrial literature calling for improvements to the quality and quantity of training provided to staff in areas such as de-escalation, and warnings regarding arming staff with weapons such as capsicum spray and tasers, which in itself may be an acceptance that WPV is part of the job and should be expected. Many training programs for dealing with WPV are generic in nature and have their foundations based upon healthcare workers within a hospital, thus not being contextualised to the paramedic and their unique mobile environment (Murray et al. 2020). It is easy for an experienced paramedic to plan an OST program based upon what they believe students need without seeking their input. However, the current OST program should be altered based upon the findings from this study to ensure that the learning needs of the paramedic students are met. The severity of the WPV incidents experienced by students should also inform the content of the OST program, including support structures and debriefing.

The results of this study show that the OST program should be delivered more frequently than what it currently is, with sessions being longer in duration. The results also show that the content delivered is of relevance to students who only want more emphasis on each component and suggest that the OST content be delivered and reviewed as part of the wider curriculum. The importance of the OST program was

appreciated by participants in this study with the suggestion that more resources and emphasis should be placed on WPV and acknowledging that this is a significant issue for students on clinical placement. “I think our university should take it more seriously, to be honest” (Interview 3) is a strong quote which resonates through this entire research study.

Further embedding OST into the curriculum would allow students to bring their placement experience to the fore as they travel through the degree rather than OST just being a stand-alone concept. This would allow for the co-construction of meaning as students are able to add context to each OST session with each additional clinical placement experience, because interaction and collaboration leads to meaningful learning (Amineh & Asl 2015). Students are still novices when they are first introduced to OST at the beginning of their studies and they are then influenced by subsequent learning experiences and workplace interactions. This is supported by the theorist Vygotsky who takes the socio-constructivist perspective whereby what we know is affected by other people with the influence of culture and community (Amineh & Asl 2015). Students will be able to reflect on the training and construct new meaning based upon their experiences. Essentially, being exposed to WPV will help them to connect experiences back to their training through reflection, recall and metacognition (Amineh & Asl 2015). Further reviews throughout the semester, or the incorporation of OST into weekly classes will help to cement the skills and techniques, because “developing the skills to identify and control violence is highly important” (Sahebi et al. 2019, p. 327).

It was overwhelmingly apparent that students want greater emphasis on communication and de-escalation skills based upon their personal experiences dealing with patients. This could be because students generally struggle with these concepts whilst on clinical placement and so feel they need more education and preparation in this area until they become more experienced. De-escalation is also more readily used in their daily interaction with patients. They identified the importance of good interpersonal communication and how this can settle a patient and negate the need for police backup, disengagement techniques, or chemical or physical restraint. This however is juxtaposed with the need to protect oneself properly if grabbed by knowing what to do. Despite the OST program making it very clear that disengagement techniques are a last resort and are usually only needed because of failures of scene awareness or de-escalation, the students felt that the emphasis of the program is on disengagement techniques rather than teaching and improving de-escalation skills. Whilst the importance of de-escalation is discussed within the OST program, exact examples and techniques of how to communicate with a heightened individual is not explicit, and is an area targeted for improvement. Within the context of the paramedic curriculum which these participants are part of, the main teachings around communicating with patients experiencing mental health crises or exhibiting challenging behaviours occurs after the OST program sessions. This may account for the students feeling under-prepared in this area. Increasing the length of the OST sessions will create the capacity to cover communication and de-escalation to a greater extent and fulfil this identified gap. Ideally these sessions

would be extracurricular classes if efficiencies could not be found within the curriculum proper to allow for the increased length of time required to deliver the program.

The effect of education delivery is particularly important with this type of training as while you may not need the skills often, when you do, it is imperative you know how to act. Therefore, there are significant implications if the training is not consistent or structured in a practice context. This is extremely important in the ambulance environment without the additional support structures of staff and security that come with the in-hospital environment (Mitra et al. 2018). The educational aspect also needs to be improved to ensure that the learning is relevant for the individual student and a consistent educational experience is had. A blended or hybrid modality of an OST program may increase knowledge retention over a face-to-face session alone (Gillespie et al. 2014). This would incorporate online modules to be completed before attending a practical classroom session where the skills are put into practice. Online video resources which can be accessed post the training for students to review as needed.

Overall, the current OST program is effective and theory is retained, but needs to be held more frequently with greater time allowed for practical components, supported by implementation into everyday curriculum and access to a repository of resources.

5.5 WPV Experiences

The experiences of WPV whilst on clinical placement was a major area of interest in this study. The findings show that paramedic students are exposed to WPV whilst on clinical placement. They reported an exposure rate of 35% to verbal violence, and 9.5% to physical violence. The true exposure to WPV is greater when witnessed episodes of WPV are added to the mix, with almost half of the participants witnessing WPV incidents. While there is a lack of literature into paramedic student experience with WPV with only two previous studies published (McManamny et al. 2013; Boyle & McKenna 2017), the findings from this study corroborate those two studies and support previous literature involving other disciplines regarding the exposure rates of students. In spite of this, the rate of exposure to physical violence of 9.5% in this current study is higher than the reported rates of 4.1% by McManamny et al. (2013) and 0.8% by Boyle and McKenna (2017). This may be a caused by a rising WPV incidence in paramedicine, but is more likely attributed to more open self-reporting by participants, or that the students in this study are more actively involved in patient care while on clinical placement rather than taking a passive observer role.

This research showed that although physical violence occurred in less than 10% of cases, when it did it was a significant event with the potential for severe injuries.

"Patient lit a lighter in my face when leaning over and taking a blood pressure. Patient was then restrained by [the police] but managed to get a leg out of his seatbelt and kick me."

Estimates of prevalence vary between studies which use different methodologies. This makes it difficult to compare results when some use official injury reports, others use surveys, and all use varying time intervals (e.g. past 12 months, past 3 months, entire career etc.) (Murray et al. 2020). Often the definitions of WPV used in research are developed by the researchers based upon their specific question or aims and so the measures are varied between studies (Murray et al. 2020). Many studies do not define violence for participants meaning it is open to interpretation from each participant, and some may not include all types of verbal abuse or aggression as part of their definition of WPV or assault. This lack of standardisation impacts on prevalence data and types of violence experienced, and how types of WPV are measured (Murray et al. 2020). The definitions used within the study came from the WHO (ILO et al. 2002) and were provided to participants at the relevant times to ensure a consistent understanding of what each question specifically referred to.

The literature also varies in relation to the time of day when most WPV incidents occur (Zahra & Feng 2018; Murray et al. 2020). The general acceptance, which is supported by this study, is that WPV frequently occurs outside of normal business hours. The paramedic students are allocated to a range of shift configurations which often includes evenings and night shifts thus have experience across different times of the day. This shift work can have an impact on a student's fatigue level making them more vulnerable as they may have slower response times, less able to adapt to changing circumstances, less tolerant of challenging behaviour, or less able to instigate the learnings from the OST program. The notion of shift work and fatigue impacting on one's decision-making ability and capacity to problem solve and react is well-reported in the literature (Ramey et al. 2019).

The perpetrator of each incident experienced also fits the literature in that it was generally the patient or a family member of the patient (Maguire & O'Neill 2017; Hosseinikia et al. 2018; Murray et al. 2020). No student reported any WPV from peers, paramedic preceptors or other staff members which is inconsistent with nursing literature showing that vertical violence within the hospital setting is common (Flindorff et al. 2004; Gabrovec 2015). This is a promising finding and demonstrates that the paramedic preceptors are acting professionally toward the students, and that the students are assimilating into the paramedic culture. Or alternatively students are not reporting these incidents as they do not see it as WPV and may feel they are being targeted because they aren't good enough to undertake the role.

The case types involving WPV which the participants have reported also aligns with the literature (Petzall et al. 2011; Pourshaikhian et al. 2016a; Reichard et al. 2017). It is important to record the types of cases students are attending where WPV is occurring to assist with education and preparation. Bringing in specific examples which are common will help to contextualise the learning and make it relevant for the students. This will

involve understanding and identifying red flags, types and definitions of violence, and include personal accounts to engage students and provide the 'real life' human factor. *"I think it would be really powerful if we got former students or current students who stand up and say what they've been to and what they've seen"* (Interview 3).

The current OST program does not cover specific case types, but violence and aggression in general regardless of the cause. Placing an emphasis on individuals under the influence of drugs and/or alcohol and those experiencing an acute mental health disturbance may go some way to highlighting the increased risk when attending to these cases. The findings regarding experiences of WPV indicate that there is a distinct risk to students. The implications for this not only include possible physical and psychological injury but a deterrent to undertaking paramedicine as a career. Having students well-prepared for potential WPV through a tailored OST program minimises this risk, as does the standardisation of undergraduate paramedic curriculum to cover this content.

5.6 The Paramedic Preceptor

The paramedic preceptor was one of the most prominent themes identified through the data analysis, with preceptors holding a pivotal leadership and educative role for students. As mentioned in the results, students frequently idolise the paramedics they work with and will subsequently copy or mimic attitudes and actions that they witness in an effort to integrate into the workplace culture. Students are entering a period of socialisation as they become part of the culture and are currently in a liminal space. Students will watch for the social and clinical cues and implement those as they become part of the 'emergency services family'. Students know that they must be seen to assimilate into the paramedic culture because preceptors also play a pivotal role in facilitating students in gaining future employment within the local industry. They complete reports on each student's performance during the clinical placement which is then used by the ambulance service as an indicator of the student's ability when considering employment offers at the finalisation of their degree. Thus, this has a significant impact on students being proactive and developing a professional relationship with their preceptors as mentors.

A desired outcome of clinical placements is that learning often comes on-road and from the paramedic preceptors, with the preceptor being instrumental in student learning by facilitating the bridging of the theory-practice gap (McClure & Black 2013). Informal stories and discussions with paramedic preceptors are common and provide the students with a real time and historical perspective on the 'on-road' experience of WPV. One potential deficit in terms of education, safety and preparedness with this form of information sharing is that students often hear the story but with no full context, management strategy and how to apply the lessons learnt to their own practice. *"Any verbal or physical abuse has either been pointed out but never*

discussed on effective ways to handle the situation". Students try to emulate the actions of their paramedic preceptors which is usually their interactions with others. The students may then be exposed to risk if they attempt to mimic these actions without a full understanding as to why, or the potential complications that may arise. An example of this could be either general communication, or de-escalation or disengagement techniques. The interview quotes from participants on page 64 describe how having a limited insight into a given situation has influenced the way in which an action has been interpreted and the benefit of experience. If students try something different by way of altering the techniques they have been taught because they have witnessed or heard a paramedic do something differently, then they are also at risk of physical harm or injury.

On the other hand, not speaking about WPV may insinuate that it isn't much of an issue. Consequently, the paramedics working with students have the internal conflict about whether to bring up the matter of WPV at all. While they may appear to make it an issue to be considered at all times, it may deter the student from continuing with their studies as they develop a sense of not feeling safe – "*are they deliberately not speaking about it, or are they…not bringing it up because it's really not an issue".* Students' views of WPV are subsequently shaped by the personal accounts of the paramedics and information shared. They then view their paramedic preceptors as mentors and will role-model the behaviour and opinions that are expressed.

Consistent with the literature of studies into student experience with WPV participants were somewhat protected by the preceptors they were working with. Carver and Lazarsfeld-Jensen (2018) report the concept of preceptor protection of novice paramedics in terms of not just clinical safety or from WPV, but emotional wellbeing too. "Preceptors in this study were cognisant of their role in ensuring that novice paramedics unfamiliar with the dangers of paramedic practice remained safe" (Carver & Lazarsfeld-Jensen 2008, p. 8). The protective mechanism of the paramedic preceptors is unique to paramedicine as the students are rarely left alone, unlike other disciplines or within a hospital where there is potential for this to occur. Very rarely are paramedic students left alone 1-1 with a patient thus the exposure to WPV is different – often directed to all members and not just the student. The exception to this is the account from the participant who was left alone in the ambulance with a patient and subsequently experienced inappropriate behaviour. The students are generally offered protection due to this direct supervision and this influences student feelings and perceptions of safety, potentially leading to a false sense of confidence. This could explain why most students reported feeling safe on placement, even if they have experienced WPV or do not feel prepared to manage it.

A negative implication of this protection is that it may foster a sense of complacency within the student. Some students may not take accountability for their own actions and rely on the protection of the preceptors. For instance, they may not review the OST techniques or think too much about risks and safety because they know they have their preceptors to rely on. While the preceptor protection may help shield the student from

a negative experience, this has implications on student learning and implementing skills, creating a disconnect between learning skills in a safe environment and being able to translate these skills into the on-road clinical setting. A further negative outcome of this is that students may not be faced with violence or aggression until they are working as a qualified paramedic themselves and only have their partner to rely on. As they have been somewhat sheltered through their studies, they have not developed the necessary communication skills to be able to deal with such incidents personally. This will become a greater issue when they act as a preceptor for a future student – attempting to manage WPV first-hand as well as take a protective role over their student, only to find out they cannot cope due to a lack of preparation. This is the fine balance between being protected versus being able to practice and develop skills. For this reason, the concept of protection and protecting others should be covered as part of an holistic OST program as a collaboration between the university and the ambulance service so that preceptors are fully aware of what students know and allow clinical facilitation to be taught.

The paramedic preceptors are also responsible for debriefing with the students after any incident of WPV, taking the ad hoc role of counsellor which is something they are unlikely to be trained for. Given the majority of incidents occur outside of business hours, students do not have access to formal support services in the event of a significant incident and so rely on their paramedic preceptor to provide this assistance. While the University has 24hr access to crisis counselling service via text message, this is not appropriate in the setting of WPV and lacks contextual understanding. Participants in this study who sought support post exposure to WPV mainly did so informally through discussions with their friends. This peer to peer interaction appears to be the most comfortable for students and may also contribute to the underreporting of WPV incidents. These methods may negatively affect the way the WPV is managed and personally interpreted by the student, hence emphasising the importance of sufficient preparation in identifying and responding to acts of violence and aggression. Alternatively, a 24hr help line could be created to fill this need specific to paramedic students. Effective social support, such as timely encouragement and empathy, from friends, family and colleagues has a positive effect to minimise the harm caused by WPV on workplace behaviour, and can be attributed to greater job satisfaction, lessened job burnout and turnover (Duan et al. 2019).

5.7 Student Feelings and Perceptions

One of the most interesting findings of this study was the range of feelings, emotions and perceptions expressed by participants when faced with WPV or when explaining the phenomenon. Feelings of sadness, disappointment and annoyance were the most common when the participants experienced any form of WPV whilst on clinical placement. While unsettling, being exposed to WPV didn't seem to make the participants scared or change their desire to continue with their studies to enter the paramedic profession. This is contrary to the literature showing that those who experience verbal or physical abuse also report a higher level of fear

on the job (Gabrovec 2015). This is potentially a product of preceptor protection or an adequate level of resilience within the cohort.

Participants in this study consistently described the notions of risk and safety throughout their survey and interview responses, becoming a pertinent subtheme of this study. In terms of feeling safe whilst on clinical placement, neither age nor gender had any statistical significance in being an influential factor. As mentioned above, students feel safe due to the protective mechanism offered by the paramedic preceptors. Paramedics are generally well-versed at 'serving within the context of violence' as described by Pourshaikhian et al. (2016b), whereby despite being victims of WPV, paramedics still treat patients as medically necessary. Campeau (2008) describes the 'space-control theory' whereby paramedics control the space in which they are working to ensure their safety. This involves the use of social skills to manage the space they enter as well as the interactions they have within that space which includes the recognition of changing behaviours which may lead to violence and aggression, as mentioned above. Paramedic students themselves are inexperienced and so rely on the paramedic preceptors to undertake these higher tasks which ensures their safety. With this customer service role however comes the notion that paramedics should be valued for the work they do. The participants touched on the concept around the entitlement to respect whilst working in paramedicine; socially constructed by the uniform and the care-giving nature of the role.

Police attendance at cases where violence or aggression occurred would also naturally assist in the feeling of safety due to their sheer presence. However, students need to be made aware that police assistance is not always readily available, so they need to take the OST seriously, particularly around concepts of situational awareness and performing dynamic risk assessments. The concept of a dynamic risk assessment requires the student to be able to recognise and process the scene, verbal and non-verbal cues and interpret the way the individual is interacting and engaging with their physical and social environments. Recognition of conflict escalation requires identifying specific signs and behaviours such as changes in body language or postures and tone of speech (Skiba 2020). These are skills that take time to develop and recognising changes in behaviour can be difficult in high stress and constantly changing environments. The value given to the OST skills might not be fully realised until the student is placed in or witnesses a situation where they are needed or explicitly mentored when paramedics are using them in their everyday interactions with patients. The complexity of operational safety and the culturally driven nature of WPV further supports the findings that the more frequently and embedded OST principles are within curriculum the more beneficial and higher likelihood of recall.

It appears that the ability to cope with episodes of WPV was influenced by the perceived reason behind the behaviour exhibited. The participants made judgements regarding the reasons behind violence or aggression which contributed to an acceptance of poor behaviour in certain circumstances. This is a well-recognised occurrence as a part of health professionals wanting to be in a caring role and clinically aware of medical

reasons for changes in behaviour and how they may manifest (Gerdtz et al. 2013). Where it was established that a medical cause was responsible for someone's hostile conduct or demeanour, then this was tolerated and even ignored, compared to if someone appeared to intentionally act out. The participants felt that the context needed to be taken into consideration where often the patient may be aggressive because of a situational crisis or under the effects of drugs and/or alcohol and would not normally act in this way. They also often felt that certain comments from the paramedic crew or police would potentially inflame the situation and add to someone's hostile behaviour. This notion of rationalising WPV has been documented in previous research (Ashton et al. 2018). The findings of this study show that the paramedic students generally display empathy toward the patients they come across, and often believe the cause of any violence or aggression can be attributed to pain, stress, a medical or mental health condition. This requires emotional intelligence which is important in responding to given situations by showing empathy and being able to read other people's emotions and contributes positively toward de-escalation (Skiba 2020). The OST training needs to understand how students construct this culturally expected tolerance to aggression and violence and navigate how to maintain the empathy and clinical understanding of behaviour while still reinforcing how to place boundaries around behaviour and maintain their safety.

5.8 Reporting of WPV

The lack of reporting of WPV incidents emerged as a critically important aspect to identifying the true paramedic student experience with WPV whilst on clinical placement. Despite the results which show that students do experience WPV whilst on clinical placement, nil incidents of WPV were formally reported to the University. Instead, students preferred to seek informal support from their peers post any incident. This informal debriefing with peers was identified as a coping mechanism by some. The easily obtainable nature of this support seems to have negated the need for formal support from the university. In doing so, students cannot be adequately supported by the university or ambulance service, nor processes put in place to prevent further incidents. The non-reporting of WPV is a known concern within the literature and is consistent with the paramedic student study by McManamny et al. (2013) where 43 participants described incidents whilst on clinical placement, yet only one of these was formally reported. Thomas et al. (2020) report that the true extent of the WPV problem within paramedicine is uncertain because of systemic issues with reporting. Underreporting of WPV incidents can also be attributed to a lack of policies, procedures and support in some organisations (Murray et al. 2020). Without incidents being reported, the true prevalence remains unknown, so one can estimate that the true WPV level is at least that stated in this study. In order to create a solution to the low levels of reporting WPV incidents, one must understand why individuals do not report.

The main reason given for not reporting incidents in this study was that students did not believe each incident to be serious enough to constitute reporting. How one is to measure the severity of an incident is totally

subjective, and will differ based upon each person's individual experience, threshold, and resilience. The cultural expectations also influence reporting whereby students do not want to appear as if they are 'upsetting the apple cart' and complain if their paramedic preceptors do not make an issue out of it. The student may also feel as if they are not 'cut out' to be a paramedic if they can't manage any WPV directed toward them because as far as they are concerned it is a normal part of the job for a paramedic. They also feel that it may impact job prospects if they report WPV incidents as they may be making a 'big deal out of nothing'. In lieu of reporting, students discuss their experiences with peers as mentioned above.

Duan et al. (2019) believe it is necessary to create reporting systems and provide training for health professionals on how to report WPV incidents to reduce the prevalence and impact of WPV. The results from this study show that students are not explicitly aware of how to report an incident with less than a quarter aware of the university reporting system. While a common response is that a student will find a way to report if they feel they need to, making the process simple and easy to find will remove any potential perceived complication in doing so. "The provision of a clear WPV reporting tool/process/procedure is essential to the reduction of WPV in the healthcare sector" (Adedokun 2020, p. 17).

A coordinated response between the ambulance service and the university also needs to be developed as currently the two organisations are separate in terms of policies and procedures. If a student did make a report through the ambulance service, the university is not privy to that and remains unaware that one of their students was involved in an incident. In the opposite view, if a student makes a report to the university, the ambulance service is not informed. When it comes to WPV and paramedic and student safety a reciprocal arrangement needs to be formalised. Without such a coordinated response, students may become confused and struggle to navigate the reporting procedures. A clear and consistent message regarding the need for reporting all WPV incidents (Pourshaikhian et al. 2016a) and a sharing of information between the ambulance service and the university must be developed.

The education design for OST also needs to address the concept of normalising WPV and treating it as just 'part of the job'. The training must include the process of how to report an incident and explain the investigative follow-up that will occur (Duan et al. 2019; Thomas et al. 2020). By showing students how to fill in an incident report they will be more comfortable in doing so should they be a victim of WPV. By making a blanket recommendation that all incidents must be reported any subjectivity can be removed. This also creates an overall cultural effect whereby the students will continue the same process once they become employed as paramedics. It may even have an influential effect on current paramedics who will think twice about not reporting incidents they determine to be minor in nature.

5.9 Limitations

This study contains limitations which must be acknowledged and appreciated when interpreting the research findings. The first limitation is that the literature review performed for this study was restricted in certain aspects for the purpose of this thesis and not intended as a full systematic review. Studies from certain countries, particularly in Europe where ambulance services are predominantly provided by doctors and nurses, were not included as the paramedic profession does not exist like it does in Australia, the UK, and the US. The majority of the articles and studies reviewed by the author were published within the previous five years, which limited the number of sources utilised. Key publications which fell outside this timeframe but considered important were utilised, as were several systematic reviews.

The second limitation relates to the online survey which had a response rate of 22% which ideally would be higher. A further 21 participants commenced the survey but dropped out at various intervals which may be a result of the time commitment needed to appropriately respond to the number of questions. Had these participants completed the survey then the response rate would have been 27%. In addition, no statistically significant results were identified through the quantitative data analysis. Despite this response rate, the respondents were representative of the overall cohort. There is also the potential for a response bias whereby those choosing to complete the survey did so because they have personally been exposed to WPV because as in any survey there is a likelihood that response rates will be higher amongst people who are already engaged with the topic (AHRC 2017). Conversely, each student experience is different and influenced by the culture of the profession. As the narrative results of this study highlight, students may not have considered WPV a significant issue and thought to participate in this study. The figures regarding the prevalence must therefore be interpreted with caution. Notwithstanding, as the survey was asking for experiences with WPV as a retrospective self-report over a period (up to almost three years for some students) there may be recall bias in the results.

Thirdly, only seven participants undertook an in-depth interview which may have limited the amount of data obtained from this method. Nonetheless, consistent and recurring themes were transpiring that suggest data saturation. Therefore, this number was deemed sufficient to understand the phenomenon of WPV and answer the research question when combined with the quantitative results.

5.10 Recommendations and Future Directions

The findings from this study outline a number of key issues and common themes which exemplify the lived experience of undergraduate students when learning about and confronted with WPV on clinical placements. These findings are significant because they can help to tailor an OST program to be efficient and contextualised to the needs of undergraduate paramedic students. This will subsequently enhance their

preparedness to manage violence and aggression whilst on clinical placement. As such, the following recommendations are made based on the results of this study:

1. The awareness of WPV as a critical issue in paramedicine needs to be reinforced to paramedic students so that they remain cognisant of the inherent risk of the profession and appreciate the negative consequences that can occur as a result of WPV exposure. While paramedics, and therefore paramedic students, will always experience violence or aggression for a number of reasons, the overall notion that WPV is just part of the job must no longer be accepted. The influence that one can have on recognising signs of threatening behaviour and responding to this proficiently to maximise their safety needs to be emphasised. This should assist the students to acknowledge that as an individual they can have a direct impact on the outcome of violence or aggression and their personal safety through effective de-escalation and maintaining situational awareness.
2. Managing WPV requires the consideration of operational safety and the use of these specific skills and techniques should be incorporated into everyday teaching within undergraduate paramedic curriculum. One way to achieve this is the inclusion of more scenarios within practical sessions whereby patients exhibit challenging behaviours forcing students to practice their communication and de-escalation skills in a low-risk safe learning environment. Simple measures like this and reinforcing the concept of safety and performing dynamic risk assessments will help students to become more comfortable in managing such scenarios when confronted with them in the clinical setting.
3. The reporting of all WPV incidents whilst on clinical placement, regardless of outcome or injury, must be promoted. In lieu of creating a specialised WPV reporting platform, all reports should go through the official university incident reporting system and students need to know how to access this and complete a report. This can be facilitated through the creation of information media such as posters to display in the corridors around teaching spaces, and handouts to give to students which show the step by step process of how to make a report. These resources can be available online and reiterated during clinical placement induction lectures and the OST program. This will remind students that if incidents are not reported then strategies to address WPV are not as successful and implemented without full knowledge.
4. Collaboration on WPV and managing risk between universities and ambulance services hosting students on clinical placements needs to be encouraged and coordinated. The sharing of information regarding WPV can ensure a more detailed understanding of the problem and the specific challenges faced on a local context. This should include discussions around the expectations of paramedic preceptors in educating paramedic students and providing support and debriefing opportunities post significant events. This may help inform a joint approach to developing interventions to tackle the

phenomenon and creating mechanisms to support paramedics and students in the immediate post-WPV exposure phase.

5. Changes to the delivery and content of the OST program are required to better prepare paramedic students to manage violence and aggression whilst on clinical placement. OST should be undertaken by each paramedic student at least twice per year, with each session being held for half a day. This will allow for adequate time to be spent on the program content and increase the proportion of the practical element to allow for students to consolidate the physical skills and de-escalation skills under supervision. The OST program should include greater emphasis on situational awareness and the recognition of warning signs of challenging behaviours and increasing threats of violence and aggression. Demonstrations and practice in de-escalation is another key area which requires a concerted focus when teaching students as this is the single most crucial element when dealing with heightened individuals. This can be achieved using personal recounts of WPV experiences by paramedics and current and former students, exploring empathy and understanding of the context of each incident. This aligns with the constructivist view of generating joint meaning through such examples to reinforce key learnings. Ensuring OST facilitators are appropriately skilled and follow a structured lesson plan is also important so that a consistent message is delivered to students, and a collaborative and safe learning environment is fostered. A hybrid education model of completing online modules prior to attending the face-to-face session would ensure students have background knowledge to assist their learning and ensure adequate time for the specialised practical content.
6. A repository of online resources should be developed to complement the face-to-face teachings of the OST program and provide a blended delivery model. This includes videos of each disengagement technique as well as examples of simulated de-escalation in practice for students to review as required. The online content could help to create foundation knowledge which is then built upon within the face-to-face sessions and can be updated frequently in terms of prevalence data and links to published literature on WPV in paramedicine. Moving introductory content to an online platform would allow time for de-escalation discussions, disengagement techniques, and simulation scenarios within the OST program. Allowing more time to learn practically will assist in the integration of information and appropriate scaffolding of knowledge (Gillespie et al. 2014).

5.10.1 Areas for Future Research

This research project identifies areas for potential investigation in the future to further explore the phenomenon of WPV in paramedicine and how it relates culturally to paramedic students to add to this body of knowledge. These include research into the reporting of WPV specifically and how structural and policy changes affect the process and how a shift in culture can be achieved to ensure more accurate reporting. Other cultural studies examining the development of the ethos within paramedicine and how WPV is perceived by paramedics could help with the creation of targeted interventions to manage the phenomenon.

Additional research could also examine the need for OST to be formally assessed to ensure students meet a specified standard before they can commence clinical placements. This could be supported by a pretest-posttest study design of self-reported levels of confidence and ability to de-escalate a simulated patient before and after OST attendance. Furthermore, the construction, implementation and evaluation of a comprehensive paramedic preceptor training package as a collaboration between universities and industry would contribute to a coordinated approach to student facilitation and allow for the development of mentorship skills, learning and teaching principles and mutual understanding around OST.

To date this is the only study which evaluates an intervention to minimise WPV exposure in paramedic students and suggests specified content for an OST program. As a follow-on project a repeat survey could be administered to evaluate the effectiveness of a contextualised OST program in terms of self-reported feelings of safety and preparedness to manage violence and aggression post implementation of the recommendations described above. It would also provide the opportunity to collect additional prevalence data to identify trends and assess the efficacy of promoting the obligation to report all WPV incidents through the number of official incident reports being received. A future longitudinal study could also evaluate the level of retention of paramedic student knowledge of, and ability in, OST to fully determine levels of competence rather than relying on self-reported confidence.

CHAPTER 6 - CONCLUSION

The purpose of this mixed methods study was to present the lived experiences of paramedic students with WPV whilst on clinical placement and to gather evidence to inform the development of a contextualised OST program. Essentially it looked to answer the research question: does an existing educational training program assist undergraduate paramedic students in their preparedness to manage violence and aggression whilst on clinical placements and their lived experience?

This thesis demonstrates that paramedic students are exposed to WPV when undertaking clinical placements as part of their university studies and are subsequently at risk of injury while undertaking this mandatory education component of their degree. The results show that 35% of paramedic student participants have personally experienced verbal abuse, and 9.5% have personally experienced physical abuse whilst on clinical placement. Further exposure to WPV by witnessing incidents directed toward their preceptors was described by almost half of the participants.

Thematic analysis with a constructivist framework was utilised to evaluate the results which identified six major themes: Awareness of WPV; Education and Preparation for Placement; WPV Experiences; The Paramedic Preceptor; Student Feelings and Perceptions; and Reporting of WPV. The use of CGT allowed the phenomenon of WPV to be viewed through a social and cultural lens and the co-construction of meaning from the data.

The key findings emerging from this study are that paramedic students are aware of WPV in paramedicine and consider it to be an inherent part of the job which they feel underprepared to manage. Exposure to WPV whilst on clinical placement is a regular occurrence and preceptors commonly provide a level of protection shielding students and contributing to their feelings of safety. It was also identified that preceptors have a highly influential role over students, shaping their understanding of the cultural norm of paramedics and perceptions of WPV, which negatively affects the levels of reporting of WPV incidents. No WPV incident experienced by the participants was formally reported to the University.

Evolving from this study is the opportunity to reflect on some of the challenges that undergraduate paramedic students face when it comes to their learning and preparation for the clinical environment. The findings provide useful background to the development of a contextualised OST program for all paramedic students in the future. This includes greater content around situational awareness and de-escalation skills, and the promotion of reporting any WPV incident so that more accurate data can be collected. Undergraduate paramedic curriculum must include a tailored OST program delivered at least twice per year supported by a repository of information and resources pertinent to OST for students to access and review as they need. Education through the OST program can result in increased knowledge and cultural and social

change. Future benefits of such a program would improve the paramedic student experience when exposed to WPV, maximise their safety, and ensure an optimal learning environment.

This is the first study of its kind to extensively investigate the lived experience of undergraduate paramedic students with WPV and evaluate an OST program, contributing to the literature in this area. It influences the development of an OST program to meet the needs of paramedic students to ensure they are adequately prepared for clinical placement. This has a significant impact on the future of undergraduate paramedic education internationally by highlighting the required training needed for students to be safe in the clinical setting.

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APPENDICES

Appendix 1 – Research Study Information Sheet (Content removed for privacy reasons)

Appendix 2 – Interview Consent Form (Content removed for privacy reasons)

Appendix 3 – Ethics Approval Notice (Content removed for privacy reasons)

Appendix 4 – Survey Questions

Appendix 5 – Interview Question Guide

Paramedic Student Experience with Violence and Aggression and Operational Safety Training Survey

The objective of this research is to explore how targeted education regarding operational safety prepares paramedic students for the unpredictable environment of paramedic practice and its associated safety concerns when on clinical placement. The study's research question is: *Does an educational intervention designed to prepare undergraduate paramedic students for potential aggression in the workplace increase self-reported confidence in their preparedness to manage violence and aggression on clinical placements?*

The World Health Organisation (WHO) defines workplace violence as "incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, wellbeing or health.

The purpose of this survey is to obtain information on the level of violence and aggression experienced by paramedic students whilst on clinical placement. In particular, the survey is looking into factors that may prevent violence and how to ensure students are adequately prepared to deal with any episodes should they occur.

Background Questions

1. What is your age?

   ☐ ≤ 21
   ☐ 22-25
   ☐ 26-29
   ☐ 30-33
   ☐ 34-37
   ☐ 38-41
   ☐ ≥ 42

2. What is your gender?

   ☐ Male
   ☐ Female
   ☐ Transgender
   ☐ Indeterminate/unspecified
   ☐ Not willing to disclose

3. How many years experience have you had in the health sector prior to enrolling in the paramedic science degree (not including any clinical placements)?

   ☐ None
   ☐ < 1
   ☐ ≥ 1 < 2
   ☐ ≥ 2 < 3
   ☐ ≥ 3 < 4
   ☐ ≥ 4 < 5
   ☐ ≥ 5

4. How many years experience have you had as an employee in the health sector since enrolling in the Paramedic Science degree (not including any clinical placements)?

   ☐ None
   ☐ < 1
   ☐ ≥ 1 < 2
   ☐ ≥ 2 < 3
   ☐ ≥ 3 < 4
   ☐ ≥ 4 < 5
   ☐ ≥ 5

5. If you have experience from question 3 or 4 above, what healthcare setting have you worked in? _____

6. How many ambulance shifts have you completed as clinical placements? _____

The World Health Organisation (WHO) defines workplace violence as "incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, wellbeing or health.

7. If you have experience from question 3 or 4 above, is it a setting in which a worker is likely to experience workplace violence (WPV)?

   ☐ Yes
   ☐ No
   ☐ Unsure

8. Have you personally had any experience prior to clinical placements with challenging behaviours like violence or aggression in the workplace?

   ☐ Yes If Yes, dialogue box to describe
   ☐ No
   ☐ Unsure

9. Have you personally had any formal training in dealing with WPV?

   ☐ Yes If Yes, dialogue box to describe
   ☐ No
   ☐ Unsure

Student Journey Questions

10. The Paramedic Science degree at Flinders University uses a range of methods to prepare you to protect your personal safety whilst on clinical placement. Which of the following do you recognise or recall? (choose as many as apply)

    ☐ Face to face lectures
    ☐ Written information
    ☐ Operational safety training
    ☐ Online resources

☐ Other If Other, dialogue box to describe

11. When you arrive on clinical placement how does your host organisation (the ambulance service) prepare you to protect your personal safety whilst on clinical placement? (choose as many as apply)

☐ Induction
☐ Written information
☐ Operational safety training
☐ Role Modelling
☐ Crew advice
☐ PPE
☐ Other If Other, dialogue box to describe

Please answer the following questions from your perspective:

12. I feel adequately prepared to deal with any violent or aggressive situations in the clinical setting:

☐ Strongly disagree
☐ Disagree
☐ Neither agree or disagree
☐ Agree
☐ Strongly Agree

Physical violence refers to the use of physical force against another person or group, that results in physical, sexual, or psychological harm. It can include punching, kicking, slapping, stabbing, pushing, biting, and pinching.

13. When thinking about violence and aggression, I feel safe on clinical placement:

☐ Strongly disagree
☐ Disagree
☐ Neither agree or disagree
☐ Agree
☐ Strongly Agree

14. Whilst on clinical placement I have been part of conversations, or heard conversations regarding WPV:

☐ Yes If Yes, dialogue box to describe
☐ No

15. Whilst on clinical placement I have heard paramedics tell their stories of WPV:

☐ Yes If Yes, dialogue box to describe
☐ No

16. Experiencing WPV is a normal part of the job for a paramedic?

☐ Strongly disagree
☐ Disagree
☐ Neither agree or disagree
☐ Agree
☐ Strongly Agree

17. I am aware about violence and aggression in the paramedic setting:

☐ Strongly disagree
☐ Disagree
☐ Neither agree or disagree
☐ Agree
☐ Strongly Agree

WPV and Clinical Placement Questions

The following questions relate to your clinical placement experience as part of your studies at Flinders University:

18. How many times have you ever observed any WPV towards others whilst on clinical placement?

☐ None
☐ 1 If Selected, dialogue box to describe
☐ 2 If Selected, dialogue box to describe
☐ 3 If Selected, dialogue box to describe
☐ 4 If Selected, dialogue box to describe
☐ 5 If Selected, dialogue box to describe
☐ ≥ 6 If Selected, dialogue box to describe

19. How many times have you ever experienced any WPV towards yourself whilst on clinical placement?

☐ None
☐ 1 If Selected, dialogue box to describe
☐ 2 If Selected, dialogue box to describe
☐ 3 If Selected, dialogue box to describe
☐ 4 If Selected, dialogue box to describe
☐ 5 If Selected, dialogue box to describe
☐ ≥ 6 If Selected, dialogue box to describe

20. Have the ambulance officers or paramedics you have worked with on clinical placement ever utilised any techniques taught within the operational safety training sessions that you have witnessed?

☐ Yes If Yes, dialogue box to describe
☐ No
☐ Unsure If Unsure, dialogue box to describe

21. Have you personally utilised any techniques taught within the operational safety training sessions?

☐ Yes If Yes, dialogue box to describe
☐ No
☐ Unsure If Unsure, dialogue box to describe

Verbal aggression = communication intended to harm or hurt another person, or which could be perceived to be harmful or hurtful (e.g. swearing, shouting, screaming, name-calling)

22. Has any ambulance officer or paramedic that you have worked with on clinical placement ever been verbally abused whilst undertaking their normal duties?

☐ Yes, which I have witnessed If Yes, dialogue box to describe
☐ Yes, but not witnessed by me If Yes, dialogue box to describe
☐ No
☐ Unsure

23. I have been the target of verbal abuse or unacceptable conversation in the clinical setting which would constitute WPV (e.g. sworn at, called names)?

☐ Yes If Yes, dialogue box to describe and Q24-25 appear
☐ No

Perpetrator = any person who commits act(s) of violence or engages in violent behaviour(s)

24. As you have personally been a victim of verbal abuse whilst on clinical placement, who was the perpetrator? (choose as many as apply)

☐ Patient
☐ Family/Friend of patient
☐ General Public
☐ Colleague/Peer/Other student
☐ Ambulance crew member
☐ Other staff member (SAAS/Health)
☐ Other If Other, dialogue box to describe

25. What sex were they?

☐ Male
☐ Female
☐ Unsure

Assault/Attack = intentional behaviour that harms another person physically, including sexual assault

26. Has any ambulance officer or paramedic that you have worked with on clinical placement ever been physically attacked whilst undertaking their normal duties?

☐ Yes, which I have witnessed If Yes, dialogue box to describe
☐ Yes, but not witnessed by me If Yes, dialogue box to describe
☐ No

☐ Unsure

27. I have been the target of physical assault or unacceptable physical contact in the clinical setting which would constitute WPV (e.g. shoving, hitting, kicking, biting, slapping, spat at etc.)?

☐ Yes If Yes, dialogue box to describe and Q28-29 appear
☐ No

Perpetrator = any person who commits act(s) of violence or engages in violent behaviour(s)

28. As you have personally been the victim of a physically attacked whilst on clinical placement, who was the perpetrator? (choose as many as apply)

☐ Patient
☐ Family/Friend of patient
☐ General Public
☐ Colleague/Peer/Other student
☐ Ambulance crew member
☐ Other staff member (SAAS/Health)
☐ Other If Other, dialogue box to describe

29. Were they male or female?

☐ Male
☐ Female
☐ Unsure

As the above questions may constitute a criminal offence this is a reminder that the survey is anonymous and that any behaviour or action which is defined as WPV can be reported.

Threat = promised use of physical force or power (i.e. psychological force) resulting in fear of physical, sexual, psychological harm or other negative consequences to the targeted individuals or groups

30. Have you experienced any other behaviour felt to be threatening, intimidating, hostile or offensive?

☐ Yes If Yes, dialogue box to describe
☐ No

31. Can you describe the characteristics of the perpetrator's behaviour which you considered to be violent or aggressive? _____

32. For each episode of WPV you have experienced or witnessed, please provide details around the following aspects: The number of lines will correlate with answer to Q18

- Time of day
- Anyone else present (e.g. crew, family members, the public)
- Any environmental, social or psychological/emotional factors (e.g. anger, alcohol, illicit drugs, acute mental health disturbance, situational crisis, pain)

- If faced again with this situation is there anything you would have done differently or anything different you would try? (e.g. be more rested, active listening, not enter scene, await police, early de-escalation, not be argumentative)

33. In the majority of WPV cases were the police in attendance?
    ☐ Yes, already in attendance
    ☐ Yes, requested by ambulance crew
    ☐ Yes, met at an RV before proceeding to scene
    ☐ No
    ☐ Other If Other, dialogue box to describe

34. In your opinion, what is the most effective thing paramedics and students could do to minimise the risk of WPV? _____

35. Are you willing to discuss your experiences of WPV with the researcher in an interview?
    ☐ Yes If Yes, link will appear to provide details
    ☐ No

Reporting/Outcome Questions

36. Were you injured as a result of any WPV whilst on clinical placement?
    ☐ Yes If Yes, dialogue box to describe any medical treatment for injuries
    ☐ No

37. There are several processes available for reporting WPV whilst on clinical placement. From the below list please indicate which processes you are aware of and if you have utilised them:

Process	Awareness		Utilisation	
	Yes	No	Yes	No
Speaking to Ambulance Team Leader				
Reporting direct to Police				
Informing the University Course Coordinator				
Informing the University Topic Coordinator				
University Health and Counselling Service				
Student Equal Opportunity Advisor				
Making a report on FlinSafe				

38. Have you personally sought out assistance from SAAS Peer Support or Flinders University Health and Counselling service as a result of a WPV incident whilst on clinical placement?
    ☐ Yes
    ☐ No

39. Have you sought informal support from a Flinders University lecturer, tutor, or SAAS paramedic about any WPV incident whilst on clinical placement?

☐ Yes
☐ No

40. Have you discussed experiences of any WPV incident whilst on clinical placement with friends or peers?
☐ Yes
☐ No

If Yes to experiencing any WPV but No to Q38 or Q39:

41. Are any of the following reasons as to why you did not seek support or assistance from the University or SAAS? (choose all that apply)
☐ I did not know who could provide me with the support or assistance
☐ I did not know where I had to go to get the support or assistance
☐ I felt embarrassed or ashamed
☐ I thought it would be too emotionally difficult
☐ I did not want anyone to know
☐ I did not think I needed any help or that it was serious enough
☐ I was concerned about future job prospects/employability
☐ Other If Other, dialogue box to describe

If Yes to experiencing any WPV and Yes to Q38 or Q39

42. Would you like to provide any comment on your experience of reporting any incident to the University or SAAS? Please do not mention any identifiable characteristics.
☐ Yes If Yes, dialogue box to describe
☐ No

43. In terms of the University's policies, support services and reporting processes on WPV whilst on clinical placement, what do you think would be worth highlighting or reiterating to students? _____

Future Training Questions

44. How often should operational safety training be held?
☐ Once during the degree
☐ Yearly
☐ Twice a year
☐ Three times per year
☐ Other If Other, dialogue box to describe

45. How much time do you think should be dedicated to an operational safety training session?
☐ Full day
☐ Half day
☐ 2-3 hours
☐ 1 hour
☐ Other If Other, dialogue box to describe

The next few questions relate to the current operational safety training program offered and the relevance to student needs for clinical placement:

46. Which of the following elements should there be a greater focus on?
    - ☐ Statistics/Information
    - ☐ Situational awareness
    - ☐ De-escalation
    - ☐ Disengagements
    - ☐ Other
    - ☐ None

47. Which of the following elements should there be a lesser focus on?
    - ☐ Statistics/Information
    - ☐ Situational awareness
    - ☐ De-escalation
    - ☐ Disengagements
    - ☐ Other
    - ☐ None

48. Is there anything extra you think should be covered in the training?
    - ☐ Yes If Yes, dialogue box to describe
    - ☐ No
    - ☐ Unsure

49. What are your suggestions to how the OST program could be improved (time of day, location, trainers etc.)? _____

50. Thoughts on the operational safety training: (Likert – strongly agree to strongly disagree)

- Useful
- Relevant
- Memorable
- Delivery engaging
- Learnt techniques

Operational Safety Training Understanding/Retention Questions

Please answer the following questions in relation to the SAAS and Flinders Operational Safety Training that you attended at the beginning of 2nd year as part of PARA2002:

51. The S in the pneumonic 'S.A.F.E.' stands for:
    a. Safety comes first
    b. Safety comes last
    c. Sound decision making
    d. Situational awareness

52. In terms of Operational safety, the posture you should be in to begin ALL ambulance call-outs is:
    a. R – relaxed

b. A – alert
c. C – cautious
d. E – evacuate

53. The operational safety universal phrase is:
    a. I think we may need the brown kit
    b. I think we may need the green kit
    c. I think we may need the black kit
    d. I think we may need the purple kit

54. In de-escalation, which of the following is NOT a recommended tip:
    a. Clear language
    b. Set limits
    c. Explain to them you know how they feel
    d. Remain calm and listen

55. The keywords to remember in the disengagement IMPACT DEFENCE are:
    a. Head cover
    b. Shell and fence
    c. Bicep curl and push away
    d. Heart attack and push down

Thank you for your time in completing this survey. The researchers would like to remind you of the free support services available to you in the event that you experience any discomfort from the material covered in this survey: website links to be provided

- Flinders Health Counselling and Disability Service – 8201 21118
- 1800RESPECT – 1800 737 732
- Beyondblue – 1300 224 636
- eHeadspace – 1800 650 890
- Kids Helpline – 1800 55 1800

Paramedic Student Experience with Violence and Aggression and Operational Safety Training Interview Questions/Topics

1. What is your age?
2. Do you consider WPV to be an issue for paramedics today?
3. Is WPV something your paramedic crews have spoken about whilst you've been on clinical placement?
4. Have you experienced WPV prior to enrolling in the Paramedic Science degree?
5. Have you worked in another health setting either before or since enrolling in the Paramedic Science degree?
6. Is this something you would say you have dealt with a lot or are comfortable with?
7. If you've had any formal training to deal with violence or aggression like self-defense training, can you please explain what you have undertaken?
8. Have you experienced any verbal aggression whilst on clinical placement? If so, can you describe the incident(s) in detail?
9. Have you experienced any physical aggression whilst on clinical placement? If so, can you describe the incident(s) in detail?
10. Have there been any common traits/characteristics across these incidents?
11. How did the incidents(s) make you feel?
12. Did you utilise or wish you utilised any techniques taught within the Operational Safety Training program during the incident(s)?
13. Were you adequately supported after these incidents? Please explain your thoughts.
14. Did you report the incident(s) at all? If yes, how and what was your experience, and if no, why not?
15. Do you think Paramedic Science students are adequately prepared for the non-clinical aspects of clinical placements? Are they prepared for any potential violence or aggression? Please explain your thoughts.
16. What do you remember about the advice and resources given to students prior to clinical placement regarding dealing with WPV?
17. Is there anything more the University could do to help prepare students for potential WPV whilst on clinical placement?
18. In terms of the Operational Safety Training program students undertake, what are the good aspects?
19. In terms of the Operational Safety Training program students undertake, what aspects could be improved?
20. Do you have any further comments on the Operational Safety Training program?
21. Anything else you would like to add at all regarding WPV, clinical placements, or preparedness for placement?
22. Are there any other sections throughout the survey that you would like to elaborate on?