Understanding the relationship between the social determinants of health (SDH), Paediatric Emergency Department use and the provision of primary care: a mixed methods analysis

Yvonne Karen Parry
RN, BA (Psychology & Public Policy), MHSM, GradCertEdu (Higher Education)
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School of Medicine,

Social Health Sciences,

Flinders Promotion Prevention and Primary Health Care,

Flinders University

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CONTENTS

FIGURES

TABLES

Summary

Understanding the relationship between the social determinants of health (SDH) and the use of emergency departments (ED) for triage priority 4 and 5 presentations, that are discharged, that would be better serviced by primary care providers, rather than an emergency response, is complex. The difficulty with a SDH approach, is in determining appropriate measures. A number of researchers have addressed this difficulty by focusing on the relationship between deprivation, as a measure, and attendance at ED. This thesis provides an overview of relevant research on the relationship between deprivation and attendance at a Paediatric Emergency Department.

This research employed a mixed methods approach utilising Hospital Admission Status data (HAS ED), Social Health Atlas data (demographic data), measures of deprivation (Socioeconomic Index For Area [SEIFA] the Index of Relative Social Disadvantage [IRSD]), levels of primary care provision data (epidemiological) and parent and staff interviews to explore the factors relating to high attendances at a paediatric ED in South Australia.

The qualitative findings indicate that a dearth of services, such as limited service provision (lack of GP appointments), or after hours services and a lack of broader community based primary services (for example the provision of blood tests, x-rays) influences high Paediatric ED attendances rather than distance to ED, or cost. In addition, the quantitative findings found the highest levels of primary care Paediatric ED attendance were from areas with high levels of deprivation. Further, there were significant positive relationships between possible primary care attendance and discharge status, distance to ED, and attending ED using a private vehicle (rather than emergency vehicle). The epidemiological data suggests that there is a dearth of GP services in areas with higher than average levels of illness. Reasonably, this may impact on the ability of parents to access timely and appropriate health care services from primary care providers.

The lack of a child specific skill set in GPs, no after hours GP services, and differences in familial health access were some of the major qualitative findings from the study. These findings differ from other studies that showed: intra-familial consistency of ED use; and that parental anxiety increases ED use. Further, the respondents described the influences and characteristics of service provision that influence their use of ED for primary health care. These factors are of a structural social determinants of health (SDH) nature. The changes to universal health care provision impacting on paediatric ED use have occurred gradually over time. This is termed here as 'incremental structural inertia' and has led in recent times to a decrease in the provision of GP services that may have increased the use of ED for primary health care. The most distinctive contribution this research makes to the body of knowledge regarding health access is that despite the usefulness of the GP Plus and GP Super Clinics in addressing some of the intermediary SDH such as social support, parenting support and preventative health interventions, the GP Plus and GP Super Clinics will not change the numbers of category 4 and 5 presentations to ED unless there is an increase in the numbers of: GPs, paediatrically trained community health care providers and after hours services.

Declaration

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

Signed .....

Dated ....

Publications from this thesis

Peer reviewed chapters

Parry Y & Willis E, 2009, "The Social Context of Psychological Behaviour", chapter 5 in Barkway P, *Psychology for Health Professionals*. Elsevier: Sydney.

Parry Y & Willis E, 2011, "The social determinants of health and the health care system", chapter 19 in Liamputtong P, Fanany R & Verrinder G, *Health, Illness and Wellbeing: Perspectives and the Social Determinants of Health.* Oxford University Press: Melbourne.

Willis E & Parry Y, 2011, "Understanding the Australian Health system", chapter 1 in Willis E, Keleher H & Reynolds L, *Understanding the Australian Health Care System: An Introduction for Health Professionals*. Elsevier: Sydney.

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Completing a PhD is a large objective and the following quotation by Alfred Wainwright has helped to inspire me:

> One should always have a definite objective, in a walk, as in life it is so much more satisfying to reach a target by personal effort than to wander aimlessly. An objective is an ambition and life without ambition is ... well aimless wandering. (1972)

Preface

Health access is one of the first steps in the process of maintaining optimum health. Using health services for health access also needs to be sustainable. The use of Emergency Departments (ED) for primary care is not only a costly and inefficient use of health resources, but also may fail to provide the appropriate longer term care often required by children. There is a need to investigate the nexus between the provision of primary care and the use of ED. Why do parents choose ED over community based primary care for non-urgent health conditions? Further, does attendance at ED influence decisions on future health access? Does the use of ED for primary care represent a familial pattern of health access? These questions are important in understanding the influences on health access. This thesis explores the complex relationships involved in the use of paediatric ED for primary care.

The research question: How do the Social Determinants of Health (SDH) and the provision of primary care impact on the use of Paediatric ED for primary care. The aim of this study was to use Hospital Admission Status data, Social Health Atlas data, measures of deprivation, levels of primary care provision data and interviews with parents, staff and community service providers to explore factors relating to high attendance at a South Australian Paediatric ED.

This thesis is divided into eight chapters. Chapter 1 provides a discussion on the models of health. This outlines a framework for understanding how health is structured and the influence of these models on health delivery. Further, Chapter 1 traces the development of the SDH and its impact on health access. In addition, Chapter 1 explores aspects of health access from an ethical perspective. Chapter 2 further develops the concepts of SDH in conjunction with Young's theory of the relations of power. These constructs are applied to health. Chapter 3 advances the discussion on the socio-political context of health systems, services and access. The impact of use of ED by families and the significance of this research is also investigated in Chapter 3. Chapter 4 provides the questions and methods statements and the rationale for the use of mixed methods; the qualitative method of interviews

and narrative analysis, the collection and analysis of quantitative data; epidemiological, demographic, and chi square ($\chi 2$) and multiple regression. The use of mixed methods for triangulation and validity are elucidated. Chapter 5 is divided into three sections. The first reviews the literature on ED use and deprivation. The second provides the results from the quantitative analysis, while the third section discusses these findings within a SDH framework. Chapter 6 furnishes a narrative analysis of the parent in-depth interviews and an analysis of the reoccurring concepts into themes. Chapter 7 has two sections. Section one analyses the results of a Culturally and Linguistically Diverse focus group. Section two provides the results of the staff interviews. A comparison on the main themes from all of the interviews provides a triangulation and summary of the interview data. The final chapter (8) reviews the results of all the data using a SDH and Young's theories on power to develop a concept of incremental structural inertia. Using these findings, this chapter then explores the impact of the development of new services such as, GP Plus, GP Super Clinics and Medicare Locals on health access.

Topic choice

The use of mixed methods for this type of research seemed appropriate for three reasons. Firstly, investigating health access and the use of ED requires a technique that utilises both quantitative and qualitative procedures in order to capture the amount and the reasons for use. Secondly, the World Health Organisation (WHO) recommends the use of mixed methods for researching health access (Solar & Irwin 2010). Finally, a mixed method potentially increases the robustness of the research process by triangulating the results through multiple methods and sources of information.

Qualitative researchers have a close engagement with the research process, participant selection and research outcomes. As a consequence, it is important that their personal characteristics and training be explained (Tong, Sainsbury & Craig 2007). My interest in this topic stems from my experiences as a single parent, and a former resident, having completed my schooling in one of the lowest SEIFA IRSD areas in South Australia. Further, as a Registered Nurse, the health of others and the influence of deprivation, and socio-cultural aspects of disadvantage became evident

to me during the course of a 30 year career[1]. A Bachelor degree in Psychology and Public Policy also highlighted the demographic distribution of mental health issues and the need for a political will to intervene in order to change population differences in health outcomes. This insight directed the choice of topic.

[1] I am a migrant and the first in my family both here and internationally to complete a University degree