The Health & Wellbeing Connection
Supporting Frequent Visitors at the Christchurch Hospital Emergency Department
to Develop the Skills to Successfully Navigate Their Health Journey

by

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ABSTRACT

A Health and Wellbeing Connection pilot study was undertaken by Richmond Services in partnership with Pegasus Health, Partnership Health, and the Canterbury District Health Board (CDHB). The purpose of the study was to offer an intervention programme that reduced the number of frequent attenders to the Emergency Department at Christchurch Hospital.

The success of the programme was measured through the utilisation of the Kessler (K10) Depression and Anxiety scale, the World Health Organization Quality of Life measure (WHOQOL), and rates of attendance at the Emergency Department (ED) and general practice. By the end of the project a total of 53 participants had completed the programme. On average these participants reduced their attendance at the ED significantly whilst demonstrating no change in their attendance rates at general practice. Additionally they reported a decrease in psychological distress and an increase in their quality of life.

The study presented here builds on the Health and Wellbeing Connection (HWC) by undertaking a secondary analysis of some of the quantitative data collected for the HWC pilot study. Qualitative responses gained during a follow-up survey after completion of the HWC are reviewed here and, following thematic analysis, have been used to illustrate how attendance at the HWC programme assisted participants to find other services to meet their health needs and thereby reduce inappropriate attendances at the ED.

While the number of participants in this study does not allow for robust analysis of efficacy it does indicate that there is merit in continuing to develop brief intervention case management models to support behaviour change programmes in EDs.
PREFACE

Following eight years working in various health and social care settings in the United Kingdom (UK), I returned home to Christchurch, New Zealand in June of 2011 and began working at Richmond Services Limited (referred to as Richmond) managing a small number of community-based services for young people and families living within the context of mental health or intellectual disability. At the time of my appointment Martin Cole (Divisional Manager of Richmond’s South Island services) was exploring the possibility of partnering with local primary health provider Pegasus Health Limited (referred to as Pegasus) to tackle the challenge of people utilising accident and emergency services to seek help for mild to moderate, unsupported mental health distress. I was asked to take part in a multi-agency working party with the aim of ultimately leading the service delivery of a pilot programme to test Richmond’s Intentional Practice framework in a brief intervention model supporting frequent non-acute ED users.

My understanding of the New Zealand emergency medicine context (by now more than 10 years) was predominantly gained from working both as a St John Ambulance officer and in the 111 call/control centre prior to commencing my social work career. Having worked in several EDs in London and leading statutory community services facilitating service provision to people utilising emergency care for non-acute reasons, I have a particular interest in psychosocial health-seeking behaviour.

Following discussions with the University of Otago and the divisional management team at Richmond, it was agreed that I would undertake a secondary analysis of the data collected in the above pilot study as the basis for my master’s thesis. This included the development and management of the Health & Wellbeing Connection. Key features included liaising with each partner organisation in the study to ensure fidelity to the collective goals, recruiting and training the Health & Wellbeing Coordinators, solidifying networks, and developing the service delivery framework.
ACKNOWLEDGEMENTS

First and foremost my heartfelt appreciation and acknowledgement to Margaret-Anne Cole & Rebecca Muir without whom the Health & Wellbeing Connection Service would not have been so successful.

To Martin, Sarah, and the wider Richmond team who created, encouraged, funded and believed in the work we wanted to trial, I hope I have done this project justice.

For those at Christchurch Hospital’s ED, the team at Pegasus and Partnership Health, your patience and ongoing championship made a fundamental difference to turning our efforts a tangible service.

Lynne Briggs and Rosemary Smart: you are inspiring and dedicated social workers who have supervised my journey, keeping me on track and enabling me to get this document across the finish line. Thank you both.

And finally to my family: thank you for believing in me, supporting me, and telling me to “just get on with it already,” in equal measure.
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GLOSSARY OF TERMS

A&E  Accident and Emergency
ADMS  Acute Demand Management Service
AUT  Auckland University of Technology
BIC  Brief Intervention Counselling
CADS  Community Alcohol and Drug Services
CBT  Cognitive Behavioural Therapy
CDHB  Canterbury District Health Board
CETAS  Canterbury Earthquake Temporary Accommodation Service
CNS  Clinical Nurse Specialist
COPD  Chronic Obstructive Pulmonary Disease
CREST  Community Rehabilitation Enablement and Support Team
DBT  Dialectical Behaviour Therapy
DHB  District Health Board
ED  Emergency Department
EQ  Earthquake
EQC  Earthquake Commission
ER  Emergency Room
EU  European Union
GAM  Goal Attainment Measure
GMS  General Medical Service
GP  General Practice/Practitioner
HWC  Health & Wellbeing Co-ordination
IP  Intentional Practice
IT  Information Technology
K10  Kessler 10 Depression and Anxiety Scale
MHLT  Mental Health Liaison Team
MoH  Ministry of Health
NHS  National Health Service (UK)
NZ  New Zealand
OECD  Organisation for Economic Co-operation and Development
QOL  Quality of Life
PES  Psychiatric Emergency Service
SDM  Service Delivery Manager
SMO  Senior Medical Officer
SPOE  Single Point of Entry
UK  United Kingdom
US  United States (of America)
WHOQOL  World Health Organization Quality of Life Measure Brev
CHAPTER 1: INTRODUCTION

Christchurch Hospital is the largest tertiary hospital in the South Island of Aotearoa New Zealand. The hospital shares its campus with the Christchurch Women’s Hospital, with which it has recently merged, and the Canterbury School of Medicine, University of Otago. The ED has reported an average of 250 adult patients through its doors each day over the last four years; specifically, they reported 88,031 in 2013, which rose to 92,440 in 2014. These patients can come from the local Christchurch community as well as the wider region that extends as far north as Kaikoura, across to the Southern Alps and south to Rakaia, a total geographical area of 26,881 square kilometres (CDHB, 2014).

Christchurch Hospital has a large group of patients who are considered to be frequent attenders at the ED. Frequent attendance is commonly defined as upwards of four visits in any given year. This trend is repeated in many hospitals in other parts of the world such as in the United States of America (US), the UK, and Australia (Adams, 2013; S. E. Kirby, Dennis, Jayasinghe, & Harris, 2011; McHale, 2013; Michelen, 2006; Peddie, 2011; G. A. B. Phillips, Weiland, Chenhall, & Dent, 2006; Prior, Bahret, Allen, & Pasupuleti, 2012; Richardson, 2011; Skinner, Carter, & Haxton, 2009; Wooden, Air, Schrader, Wieland, & Goldney, 2009). The requirements of these people are believed to impact on the ability of EDs to function effectively. Furthermore, presenting to ED rather than community health care providers where they can receive regular and ongoing care seems to contribute to their poor long-term health outcomes. Within this group of people sit a cluster whose underlying needs could be defined as primarily psychosocial rather than acutely medical. These people easily fall through the cracks of community-based networks of support because of their low health-seeking literacy, reluctance or inability to engage with community providers for any length of time or because they do not appear to meet the threshold for support.
One common belief is that people who frequently attend the Christchurch ED for psychosocial reasons do so to avoid paying for medical support elsewhere (Jones & Thornton, 2013). This belief is shared by many health service providers about frequent attenders in many countries who charge individuals at point of service for primary health services. Another common belief, particularly in countries that do not charge individuals at point of service, is that EDs support those with chaotic lifestyles, or who are unwilling or unable to maintain relationships with primary health providers (Morriss et al., 2012; Richardson, 2011).

A variety of methods have been employed in attempts to address the health-seeking behaviours of this cluster of ED attendees in many hospitals throughout the member countries of the Organisation for Economic Co-operation and Development (OECD). Each of these countries has varying models of health care delivery: private or state-mandated insurance, national health provision, or a combination of these. Therefore, researchers have considered whether the financial implications of primary health care could be a driver of frequent ED attendance (Fuda & Immekus, 2006; Hunt, Weber, Showstack, Colby, & Callaham, 2006; Jones & Thornton, 2013; LaCalle & Rabin, 2010; Mandelberg, Kuhn, & Kohn, 2000; Morriss et al., 2012; Nelson et al., 2011; Shippee, Shippee, Hess, & Beebe, 2014; Shumway, Boccellari, Brien, & Okin, 2008; Thornton, Fogarty, Jones, Ragaban, & Simpson, 2014; Weber, Showstack, Hunt, Colby, & Callaham, 2005).

Christchurch Hospital’s ED experience of frequent attenders aligns with this global trend, that is of a population of people who believe they are unwell and in need of urgent medical attention (Bieler et al., 2012; McHale, 2013; Morriss et al., 2012; Rea, 2010; Wooden et al., 2009). They are often seen by front-line staff as inappropriate attenders of ED services who could be better served by attending community agencies and primary health services (Richardson, 2011).

The New Zealand Government’s Ministry of Health (MoH) targets regularly feature a strong focus on community (also called primary based health care), with incentives
to reduce ED waiting times and inpatient admissions (Ministry of Health, 2015). There is a range of quality improvement projects to track these targets in New Zealand. A key feature of these projects is the ability for individual District Health Boards (DHBs) and their hospital wards and departments to identify those patients with a higher than average use of EDs or inpatient beds and develop strategies to redirect their health care service provision away from the tertiary hospital setting.

Christchurch is currently in a transitional phase of post-disaster recovery following the earthquakes of 2010/2011. The impact on primary, emergency and mental health services directly post-disaster has been well documented (Aigner et al., 2006). The re-organisation and rationalisation of primary, emergency and mental health services is an ongoing process that is required to be responsive to not only growing pressure to a rising number of service users, but also to the shifting population geographically and culturally.

A significant component of this geographical shift has been the loss of general practice health centres in the eastern areas which suffered more ground damage, overloading general practice in the newly densely populated areas in the north, west, and surrounding districts (Gluckman, 2011). Another component is the trend for displaced residents to seek new housing outside the Christchurch metropolitan area in what were previously rural areas such as North Canterbury, Selwyn District, and beyond.

Mental health services, both statutory and their not for profit (NGO) partners, are experiencing increasing rolls coupled with pressures to do “more for less,” tighten criteria, and cope with the implications of the earthquakes where most of the impact is on marginalised communities (CDHB Board, 2015). For example, access to housing is decreased with severe financial implications caused by rental increases for low earners and beneficiaries. The ED, which regularly predicts through-put of patients, is now reporting that the number of patients presenting is surpassing projected figures for 2016 (CDHB Decision Support, 2014). With ongoing earthquake
repairs within the hospital and the new Acute Services Building that will house the ED still being five years away, there is a growing concern about how to better meet the needs of their patients.

For those who do present as having psychosocial, or non-acute health needs, there is also a greater pressure on social services to find solutions. For example, as one ED social worker reported,

Whenever there’s people who frequently present, the first person they call is the social worker, and so, I don’t know what the hell we’re meant to do about this – that’s what we’ve thought.

With the awareness that they were not well placed to address this challenge in isolation, the ED developed a partnership with Pegasus (then two organisations: Pegasus Charitable Trust and Partnership Health) and Richmond New Zealand Ltd (also referred to as Richmond). This offered an opportunity to work across the existing silos of service delivery in the community which is in line with the CDHB’s “One Health System, One Budget” approach (CDHB, 2013a).

Pegasus was formed in the early 1990s by a group of general practitioners (GPs) based in Christchurch. They were interested in exploring the capacity within the health reforms being rolled out by the central government of the time to maximise the benefit for the local community (Pegasus Health, 2015). Bringing together a large percentage of the GPs in the city, they were able to form an independent practitioner association that focused on strong clinical education and reducing cost-producing waste. These savings enabled Pegasus to provide a range of primary health services that have enhanced the overall health and wellbeing of the local population.

Richmond was established in the late 1970s to provide community support services for people with diagnosed serious mental illness. At that time, the organisation was known as Richmond Fellowship NZ. Richmond was one of the first organisations to
set up community services and “therapeutic communities.” This occurred at a time when the deinstitutionalisation of psychiatric hospital services in New Zealand was underway (Richmond Services, 2010). Known as Richmond New Zealand Ltd at the commencement of the partnership with Pegasus Health and the ED, they rebranded in 2014 to become Richmond Services Ltd. Richmond are contracted by various government agencies to provide community-based and residential services and programmes that support clients to achieve the goals that really matter to them. Services and programmes are delivered within the context of each person’s disability, illness, or court orders (Richmond Services, 2010).

The desire of the ED to undertake this joint response coincided with a project that Richmond had been developing with Pegasus to improve early access to mental health support services in the local area. The project aimed to strengthen primary care’s reach and enabled Richmond to work with those with mild to moderate mental health needs while trialling a potential service, “The Health and Wellbeing Connection” (Andrews, 2014). This service was offered to adults who were identified by the ED as frequent users and who the staff believed had unmet psychosocial needs. The HWC was set up as an outreach service aiming to understand and support recovery for people with psychosocial needs. This twelve-week programme taught each participant how to gather information, access resources, and navigate systems and services. Attendance of this pilot service was expected to result in a reduction of inappropriate ED presentations and improve wellbeing overall.

**Drivers of Research**

The Christchurch Hospital ED identifies as their high user cohort those patients who have attended six or more visits to the department in the previous year, which yields a sample of around six hundred patients each year with annual attendance rates ranging from six through to over 100 attendances (CDHB Decision Support, 2014). Measures such as health management plans for use in the ED, specialised response
by St John Ambulance service to avoid admissions, and onward referral to community-based support agencies have all been utilised for those who frequently attend, both through targeted programmes and as an ad hoc response.

**Aim of Study**

The aim of this study is to identify whether implementation of an intervention programme can assist in reducing the frequency of attendance among this cohort of patients. This study includes and builds on the research undertaken for the business purposes of Richmond (Andrews, 2014). In closing, this study examines whether such an intervention programme can also assist people to develop relationships that support their health outside of the ED, for example with a GP. The study also investigates whether such a programme improves the health literacy and navigation skills of this cohort of people.

The study design uses a mixed methods methodology. Quantitative data is drawn from the client information systems of Richmond, Pegasus and Christchurch Hospital’s ED, and the surveys undertaken with clients and stakeholders following the completion of the pilot programme. All data and feedback had identifiable markers removed at the point of origin. The direct quotes used throughout this study have been left in their original form, with consent for use having been gained by the independent evaluator who carried out the interviews.

**Overview of Chapters**

This chapter has introduced the study topic and provided a definition for a group of patients who frequently attend EDs in New Zealand and other countries around the world. It has identified the key member organisations who committed to undertake a pilot intervention programme to support those who appeared unwilling, or unable, to successfully navigate their local health system in the community.

Chapter 2 examines the local and international literature that considers the concept of frequent attenders of EDs. It aims to make sense of the strategies employed to
reduce inappropriate attendance and the efficacy of the strategies that have been implemented. The structure of DHBs in New Zealand alongside how national health targets are set and delivered is also explored. Additionally, as the programme was delivered in the time directly following the Christchurch Earthquakes of 2010 and 2011, the emerging literature regarding the impact of the earthquakes on health systems within Canterbury is also briefly examined.

Chapters 3 and 4 explain the methodology and design of the study, highlighting how the original concept evolved throughout the project. Ethical considerations and legal implications for each organisation and the author are also debated here.

Chapter 5 presents the findings of the study and considers them within the context of the wider research (undertaken by the author) that was previously evaluated.

The findings in this study and those of the wider evaluation will be discussed in Chapter 6 with conclusions drawn that consider these findings when compared to previous local and international studies. Also offered are some possible next steps and barriers to implementation in the local, national, or international arenas.

Chapter 7 concludes the study noting the pertinent findings, the limitations and makes recommendations for future research.
CHAPTER 2: LITERATURE REVIEW

Introduction

The literature reviewed and discussed in this chapter provides a sample of the comprehensive range of research, articles, findings, and resources dedicated to the subject of frequent users of EDs. It was identified through a range of sources including the University of Otago online database, Google Scholar, the Kings Fund, key government documents, and health and disability websites. The search terms that were used include frequent attenders/users/presenters, emergency department, overuse, case management, multidisciplinary, and worried well.

Economics of the Health Burden

It is a commonly held view that frequent inappropriate use of EDs has a significant impact on the health dollar in most Western countries (Adams, 2013). The emergence of a population who frequently utilise emergency medical service provision is not recent. As evidenced in the literature, the evolution of health provision in New Zealand, similar to that of other first world countries, has created a number of features that support the ongoing health-seeking behaviour of this population. However, this does not provide, as some might suggest, a ready supply of solutions to the burden on front-line health services attributed to this population.

Indeed with such strength of anecdotal “evidence” pointing towards frequent attenders of EDs being a burden on health care, it would be natural to assume that much thought and research had been applied to analysing emergency health care provision and building a profile of the frequent attender population which could assist in reducing their inappropriate health-seeking behaviour. However, it would seem that those who have embarked upon research and service development have had limited success (Richardson, 2011). The published studies that have aimed to redirect people to more appropriate health care services have reported issues with recruitment leading to a lack of breadth or depth in their research. Additionally,
many of the available studies focus on thematically analysing or reviewing the international literature.

This chapter aims to identify the spectrum of health-seeking behaviours and the external drivers of ED utilisation and critique the evidence-based programmes of support that could be offered in response. It does so by undertaking an analysis of the development of local and international health care systems and how these systems deliver emergency care, and considering the existence of, and reaction to, those labelled frequent attenders.

**Historical Overview of Health Systems**

**What are emergency departments?**

Prior to World War II, emergency medicine was a general practitioner making a house call (American College of Osteopathic Emergency Physicians, 2014). Medical training had until this point been generalist training, which is training without internship or residency. Thus doctors in the community had a breadth of, but often not in-depth medical knowledge (Suter, 2012). However, the demands of treating the armed forces during World War II ensured the medical fraternity were more equipped in specialist areas, and more able and willing to bring their field medicine skills into the urban hospital setting. This period formed the beginnings of “Emergency Medicine” as a discipline and of the modern EDs who specialise in triage and trauma care, as well as being the admitting point for inpatient hospital care (American College of Osteopathic Emergency Physicians, 2014; Suter, 2012).

In New Zealand in the 1940s and 1950s, community hospitals had outpatient centres staffed primarily by nurses and GPs, who also provided the staffing for ambulance services. The use of a predominantly nursing staff, who were skilled to perform a wide range of significant medical procedures, mirrors what came to be seen around the world prior to the development of emergency medicine as a speciality in the late 1960s (Gauld, 2009). Under the nurse-led model of accident and emergency care,
doctors would be called in from other areas of hospitals or the community when a specific skill or knowledge set was required, otherwise the bulk of patient care and treatment was left to a highly skilled nursing force.

These outpatient or pre-admission centres were also seen as a place to seek medical care, especially for those who had neither the means nor the skills to seek medical care within the pay-for-service clinic or general practice setting. As will be shown in the next section, it was not until the advent of government aided systems such as the British National Health Service (NHS) or American Medicaid that there was an avenue for those whose income previously precluded them from planned medical care to access this.

**International context**

Nowadays, there is a wide range of health systems operating in the countries that commonly identify frequent attending populations within their hospitals and general practices. In some countries, the health system is delivered nationally, funded by central government, while in others a dual system of public and private provision is in operation.

The UK, whose NHS came into being following World War II, aims to provide a universal health care system for the British population. It was founded on the principles that everyone should be eligible for health care and that care would be financed from central taxation, making it entirely free at the point of use (Rivett, n.d.). Since that time, it has undergone a series of reviews in response to shifts in political leadership, global financial climates, and advancements in treatment and prevention. However, its fundamental aim to provide free health care at point of use continues to be a key feature of primary and emergency health care provision in the UK.

European health systems are as varied as the countries and languages spoken. These systems range from being fully funded through taxation, dual funded with taxation
providing a minimum level of service and private or insurance funding available for other services, to systems reliant on voluntary or mandated insurance coverage.

Even following the creation of the European Union’s (EU) monetary union in the late 1990s, there were a wide range of differing systems run in the various nations. To ensure a level of fundamental rights for EU citizens, a free European Health Insurance Card system was developed to offer reciprocal insurance for the treatment of emergency medical care (European Parliament, 2001). This card system ensures that citizens requiring emergency health care within the union, but outside of their own state, receive the same treatment as the citizens ordinarily resident in that state.

Health care facilities across the United States of America (Gockel et al., 2013) are predominantly owned and operated by private sector businesses and health care services accessed via health insurance programmes such as federal and state subsidised Medicaid. Those without health insurance are unlikely to access regular health care or preventative services and much more likely to utilise emergency medical services, often after significantly delaying their care seeking. The recently upheld Patient Protection and Affordable Care Act (2012), commonly known as ObamaCare, aims to make health insurance more affordable, available and effective for the millions of Americans who have been unwilling or unable to purchase insurance in the past.

In Canada, there is also an insurance-based health care access programme, but this is a dual provincial and private health care process. The provincial system, which is funded by federal and provincial government, provides individuals with medical care in primary care and hospital settings. Private health care provides services not covered under the provincial system such as dental, optometry, and prescriptions (Health Canada, 2014) for those who are willing and able to purchase it.

Australian government health funding is delivered through the Medicare insurance programme. This programme either reimburses the patient after their treatment or will directly pay the service provider. While it does not routinely cover services such
as dental, therapy, optometry or audiology, it does subsidise prescription pharmaceuticals (AIHW, 2015). As in many countries, Australia’s emergency care is delivered through ED attached to public hospitals. These departments receive regular scrutiny from the public and policy makers, due to their high throughput and the impact it has on waiting times and perceived quality of care (AIHW, 2015). For this reason, two key performance indicators have been developed to support quality emergency care and reduce ED attendance for GP-type presentations (AIHW, 2013).

Table 1  Health System Features by Country

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* Fully taxation funded or universal health care

The development of New Zealand’s health system

Delivering a free health system to benefit all New Zealanders was the driving force of legislation in the late 1930s. A dual system of public and private provision was created to achieve this, in which the medical profession were subsidised, initially through General Medical Service (GMS) benefits (New Zealand Government, 2009). The State, as main contributor to provision of health care services, appointed a Minister of Health and a Department of Health to oversee funding, purchasing and providing health services, and develop policy and undertake research into prevention and promotion activities related to illness and disease.
As health care became less interested in prevention of illness and more focused on searching for cures, hospital functions and services grew exponentially. Governing health boards oversaw the delivery of services in each district and also put emphasis on supporting the growth of private hospitals. By the early 1980s, growing costs related to specialist technology and training, and GMS subsidies falling behind inflation meant that inequalities were starting to emerge, most notably in terms of individuals’ ability to fund their health care (New Zealand Government, 2009).

Inequity of access to health care became a leading topic of concern publicly and politically. This led to four significant reforms of the public health sector, with twenty-one DHBs being established in 2001, all of which are funded by the MoH through the application of a population-based formula. Each DHB is responsible for planning, funding, and ensuring provision of services throughout their district, with particular focus on preventative and reducing inequality (MoH, 2014). To provide a focus for each health board, the MoH set a series of performance measures. These “health targets” support health boards to target funding and service development and to measure their success in comparison to other DHBs.

The health targets were designed to be a combination of prevention and patient access focused targets as well as aligning with government health priorities. The health targets, as shown on the MoH website for 2014–2015, are presented in Figure 1.
These health targets are equally weighted with a prevention focus and towards quality service provision for the entire population. As for all the DHBs, the Canterbury DHB (CDHB) translated these targets into meaningful strategic goals. In doing so, the CDHB has created a health system that reflects the unique profile of the community.
One system, one budget

In 2006, the CDHB undertook an analysis of the region’s future needs (Timmins & Ham, 2013). This analysis highlighted a worrying projection for the health system in 2020 as it suggested that Canterbury would require twice as many acute hospital beds, at least 20% more health staff and at least another 2000 aged care residential beds (ibid). Logistically and financially, this was a dire prediction and started the CDHB’s journey to create the “Canterbury Health System.”

Figure 2  Canterbury Health System


A patient-centric model, the Canterbury Health System aims to integrate primary, secondary and tertiary health services and social care budgets to ensure that people get the right service, in the right place, at the right time (CDHB, 2013a, 2015; Timmins & Ham, 2013). While the transformation is a slow process, it is through the partnerships between the CDHB as funder and services providers within the CDHB’s
stable of services, in the private sector, and in the not for profit or non-government sector that are making a real difference (CDHB, 2013a). Initiatives that directly engage with the community include the Acute Demand Management Service (ADMS), which delivers urgent care services in the community to reduce the need for hospitalisation, and the Community Rehabilitation Enablement and Support Team (CREST) who, as their name suggests, provide rehabilitation and support to older people either at the point of hospital discharge or in order to avoid discharge, and enhance their ongoing independence at home (CDHB, 2013b). Other initiatives such as Health Pathways support a best practice approach to diagnosis and treatment that reduces congestion within the system as well as ensuring that GPs are providing consistent, appropriately resourced responses to the medical and health needs of the wider population (Timmins & Ham, 2013).

Applying an “it has to be simpler” philosophy, which is another of the CDHB mantras (Timmins & Ham, 2013), has been key to the success of the initiatives implemented as part of the Canterbury Health System transformation. Carolyn Gullery, General Manager of CDHB’s Planning & Funding division, has been quoted as saying “it has got to be easier on Monday. You can’t implement something that makes the clinicians’ jobs harder.” The evidence to date would suggest that it is precisely this “lean” thinking that is supporting the success of innovation within the CDHB (Timmins & Ham, 2013).

**Emerging Themes from the Christchurch Earthquakes**

The new Canterbury Health System model was tested rigorously in September 2011 when the city of Christchurch was hit by a 7.1 magnitude earthquake, and again in February 2012, when a second earthquake resulted in loss of life, infrastructure, and countless homes (McSaveney, 2014). Since then Canterbury’s residents have suffered a series of significant earthquakes almost too numerous to count, which have comprehensively changed their lives and the physical landscape. Christchurch continues to transition from the disaster of the ongoing earthquakes in 2010 and 2011.
to a post-disaster recovery phase. Despite a significant reduction in ground movement activity, this transition has not fully played out due to the complexities of the government structure (central, local, and environmental) and insurance policies and processes.

While this elongated transition phase looks very different to other natural disasters such as the various Australian bushfires and floods or earthquakes in Central and South America or Japan, the response and needs of the community has worn a familiar path (Forbes et al., 2015; Gibbs et al., 2013; Zahran, 2011; The Queensland Nurse, 2011). Following the community’s initial collective response to the disaster, characterised by people supporting and connecting with each other across their neighbourhoods and the city, the population has moved into a phase often referred to in disaster recovery literature as one of disillusionment. For some of the population, their ability to manage the feelings and emotions of this phase (which may still continue for several years) has eroded due to a lack of control over their material recovery or the cumulative effects of everyday life post-disaster.

International evidence suggests around 25% of the affected population will experience significant mental health challenges and at least 10% will require specialist care. In addition, many will experience a reduced quality of life and have ongoing stress with mild to moderate mental health problems. This is clearly evident within the Christchurch context with mental health services seeing a significant increase in demand (CDHB, 2013c). Also facing unprecedented demand are the city’s social service agencies and a far reduced housing stock.

With increased pressures across the health and social care sector, continuing to develop lean thinking skills and processes is a key issue. Thus it is important to link this with what is happening within the ED setting.
Within the Emergency Department

Analysis of emergency health care structures

As demonstrated in the previous section, the development of emergency medicine has been influenced by factors determined by history and politics, including war and science. Just as these and other factors—for example migration, global economics, and shifting borders—determine the structure of health care globally, different countries with their various funding models structure their emergency health care in a variety of ways (WHO, 2015b). Ensuring acute pre-hospital, non-GP, and trauma-related services are delivered in a timely way whilst maintaining quality of care is a costly business even when we exclude the costs attributed to those who are seen as inappropriate visitors to the ED.

The most prevalent way that emergency health care is structured across the Organisation for Economic Co-operation and Development (OECD) countries is through targeted or tagged funding. By assigning funding to patient volume, to diagnosis or to the department’s triage response, and matching this to the projected workload, hospital funders are able to budget as well as identify and target potential financial risks. Funding tagged to diagnoses is one way to provide a more structured response to front-line health care, to reduce admissions to hospital wards, and, in some countries such as the UK, to return to the burden of cost to the primary health care funding pool (The King’s Fund, 2015). The philosophy of this type of funding attribution is that by ensuring that the general practice budget is paying for those patients who utilise EDs when their needs could be met at their GP, general practices will invest in the relationship they have with their patients. This should create a view of the GP as the patient’s health home, thereby reducing the number of people utilising ED for their GP-type needs.

Where funding is tagged to a department’s triage response, such as how long an individual is required to wait to be seen by a medical professional or where penalties are incurred when individuals remain “patients” in the department longer than the
defined time period, it is more challenging to target other parts of the health care system to redirect the health-seeking behaviour of those using the ED for GP-type issues (Richardson, 2011). So despite the departments being focused on reducing waiting times, or improving the response times of specialist medics or inpatient beds, this focus manifests in looking for efficiencies within an ED environment rather than building relationships with health partners or creating system change. Therefore, EDs become more efficient at reinforcing the behaviours of those who use their services, thus increasing the sheer volume of their clientele.

**Overcrowding**

Overcrowding is defined by the Cambridge English Dictionary as being “a state of containing too many people or things” (Cambridge English Dictionary, 2015). As EDs increasingly become seen as the first line of response to health needs, it certainly appears that they contain too many people on an increasing basis. The overcrowding of EDs that is occurring in a number of countries (Richardson, 2011) has significant implications for patients and staff. Quality service delivery, staff pride in their work, the work environment, and the reputation of the ED are all at risk. As discussed earlier in this chapter, the issue of such significant concern in New Zealand is that speed and efficacy of service in ED has consistently featured in MoH targets over the last six years (MOH, 2015).

While there are various views on the causes for overcrowding (Adams, 2013; S. E. Kirby et al., 2011; McHale et al., 2013; Peddie et al., 2011; Richardson, 2011), including those already discussed in this chapter, there does not appear to be one single, clearly identifiable reason. Despite this, it is felt that reduction in the number of patients who frequently attend for non-acute reasons would go some way to easing the pressure on front-line staff.
The concept of frequent, non-acute attenders at emergency departments

There appears to be a great deal of variability in the defining characteristics of a frequent attender. One feature that is agreed upon across the literature is that such patients overuse health care services (Gili et al., 2011). Measurement of that “overuse” within the ED context varies from as little as four visits per year (S. E. Kirby et al., 2011; Michelen, 2006) to more than a dozen (Gili et al., 2011).

A descriptive retrospective cohort study commenced in 1997 formed the basis for examining the population of frequent attenders at Christchurch Hospital (Kennedy & Ardagh, 2004). They aimed to further explore the idea that frequency of attendance was increasing in that hospital’s Accident and Emergency Department (Helliwell, Hider, & Ardagh, 2001). What they discovered, however, was that the population of patients who frequently attend is constantly changing rather than increasing in volume over time (Kennedy & Ardagh, 2004).

According to Morriss et al. (2012), across primary care as a whole the top 3% of frequent attenders utilise 15% of all appointments. Similar findings have been reported in Switzerland by Bieler et al. (2012), and the Mt Sinai Medical Center, New York in the US suggests figures as high as 28% of all attendances to their ED being attributed to their frequent attenders, who make up less than 8% of the presenting population (LaCalle & Rabin, 2010). Kennedy & Ardagh (2004), in their study of frequent attenders at Christchurch Hospital’s ED, suggest that locally frequent attenders made up only 2% of the presenting population.

The profile of the “frequent attender” has been debated across the literature. McHale et al. (2013) present an older, disadvantaged male from a non-white ethnic background, while Michelen et al (2006) describe disproportionate use of EDs for non-acute reasons by low income, marginalised cultural groups within the urban environment of New York City. However, other researchers (S. E. Kirby et al., 2011)
found no significant difference in terms of gender, culture, or socio-economic status (Aigner et al., 2006).

A significant proportion of the research undertaken has retrospectively analysed the frequently attending cohort to examine their characteristics and identify indicators for frequent attending behaviour. G. A. Phillips et al (2006) undertook such research at St Vincent’s Hospital in Melbourne, Australia where multidisciplinary case management is the default service delivery model. They found that their cohort was made up of 60% males and that more than 90% of the cohort were not indigenous, with 70% born in Australia. The average age was forty-eight years. And while they did not demonstrate disadvantage in the way that McHale et al. (2013) described, they noted that 73% of the cohort experienced psychosocial issues or substance misuse (G. A. Phillips et al., 2006, p. 605).

Other studies have identified a cohort that share many demographic identifiers: equal numbers of men to women, similar volumes in each age bracket, and possibly most notably equal group sizes for those presenting with psychosocial/psychological and medical issues (A. Backman et al., 2008; Bieler et al., 2012; Byrne et al., 2003; Dent et al., 2003; Hunt et al., 2006).

The majority of other studies undertaken to date have shown that frequent attenders are more commonly male, single, and with multiple medical problems, substance misuse, and/or mental health complexities (Gili et al., 2011; Kennedy & Ardagh, 2004; McHale et al., 2013; Morriss et al., 2012; Thiel et al., 2013). The studies also found that overall the frequent attender population is an ever changing group with a small subset who demonstrate long-term habitual frequent attending (Helliwell et al., 2001).

An analysis of qualitative studies in the UK has suggested several features that drive frequent attendance at primary health or emergency care facilities (Morriss et al., 2012). These features include the relationship patients have with their GP, health
anxieties; specifically the perception they hold of their symptoms combined with how those symptoms have been acknowledged or treated in the past, and their perception of the role of the primary health or ED service they are frequenting. There is also a set of features based on their natural supports, the advice they receive from others, or general isolation or a lack of support within their community. A US study also considered insight or lack thereof as a considerable component of health-seeking behaviour (Dwamena et al., 2009).

On discharge from New Zealand EDs, patients are provided with a discharge summary that is also sent to their GP. Where health follow-up is required, advice is provided to these patients on their responsibilities around making appointments, renewing medicine prescriptions or undertaking outpatient tests. In New Zealand, it is reported that some of the repeat or frequent attenders at ED are there because the follow-up advice given on their previous admission(s) has not been taken up. While there is very little research on the prevalence of this in New Zealand, similar research has been carried out in the US, the UK, and some other European countries. Backman et al. (2010), who carried out a multivariate analysis of patients attending both the ED and their GP or primary care provider, found that a lack of health literacy was often present in patients who were either unwilling or unable to engage with primary care following a visit to the ED.

To explore this further, Skinner et al (2009) applied a case management model in the ED of a urban Scottish hospital. The team, initially made up of ED doctors and psychiatric nurses, implemented care plans for the identified cohort through referrals to community agencies as well as well documented management plans being held electronically for easy reference at future presentations. This provided additional support to those patients who had previously appeared unwilling or unable to manage the recommended post-discharge activities required to reduce future medical or psychosocial crises (Skinner et al., 2009).
In South Australia, social work and nursing staff undertook an 18-month programme that utilised an holistic psychosocial model of management. This involved client-centred strategies such as working with the client in their own environment and supporting clients to set goals to improve their health, with a view to reducing ED attendances (Grimmer-Somers et al., 2010). They found that they were able to achieve success, being a reduction in ED presentations through their client-chosen goal setting and by utilising family, community and other formal sectors as well as health services.

Many of the studies undertaken into the impact of case management intervention described a multi-disciplinary team approach. Yet, these teams were often made up of doctors and nurse specialists rather than a wider scope of disciplines such as social work, support work, occupational therapy, or mental health practitioners. The next section examines these studies that identify the provision of medical models of attendance reduction and psychosocial models. It then explores the development of the Intentional Practice Framework employed by Richmond.

**Attendance Reduction**

**Medical models of attendance reduction**

As has already been highlighted, a large body of research exists that allows for building a profile of frequent attenders to EDs (Althaus et al., 2013; A. Backman et al., 2008; A. S. Backman et al., 2010; Berry et al., 2014; Bieler et al., 2012; Byrne et al., 2003; Doupe et al., 2012; Fuda & Immekus, 2006; Fulbrook & Lawrence, 2015; Helliwell et al., 2001; Hider, Helliwell, Ardagh, & Kirk, 2001; Hunt et al., 2006; Jelinek, Jiwa, Gibson, & Lynch, 2008; Kennedy & Ardagh, 2004; LaCalle & Rabin, 2010; Locker, Baston, Mason, & Nicholl, 2007; Mandelberg et al., 2000; Markham & Graudins, 2010, 2011; Moore, Gerdtz, Manias, Hepworth, & Dent, 2007; Sandoval et al., 2010; Shippee et al., 2014). In addition to the demographic markers, profiles are commonly assigned to groups that include chronic medical conditions, psychological or mental health difficulties and substance abuse (Kennedy & Ardagh, 2004; G. Phillips, 2006).
People who fit within the chronic medical condition grouping will be considered first.

Kennedy and Ardagh (2004) concluded that the majority of patients who frequently attend have medical problems and therefore, with early identification and maximised medical care, the level of attendance at EDs can be significantly reduced. They also found that a proportion of the frequently attending cohort were likely to be short-term frequent attenders, as in most cases their medical problems were ultimately resolved.

Utilising a medical management plan, devised in partnership with EDs, general practice and other primary health providers is one way to support this group. At the time of Kennedy and Ardagh’s work in Christchurch, there was limited research into utilising management plans (Andren & Rosenqvist, 1985; Pope, 2000). The Christchurch ED rolled out a programme of management plans based on the available evidence in 2000 and reviewed it in 2011. This research contributed to the increased examination of the efficacy of management plans in New Zealand and internationally (Bodenmann et al., 2014; Kumar & Klein, 2013; Peddie, 2011; G. A. Phillips et al., 2006; Shumway et al., 2008; Skinner et al., 2009). In the Christchurch research, Kennedy and Ardagh (2004) found the management plans they created for the frequently presenting patients did not reduce the patterns of attendance. The research undertaken at St Vincent’s Hospital in Melbourne, Australia found that management plans that were directed by the patients actually increased their attendance at the ED (G. A. Phillips et al., 2006). Examining these findings and other literature from the US, the UK and Australasia it appears that the most effective models of case management are assertive, client-directed, and intensive short-term programmes.

In New Zealand, Middlemore Hospital in Auckland has been trialling a programme of intervention led by clinical nurse specialists (CNS) and pharmacists under the supervision of senior medical officers (SMOs). Through a programme of accelerated
outpatient medical reviews and investigations, review of medications, review of notes to ensure knowledge sharing between medical services, and advocacy with a wide range of community-based health and social services, frequently attending patients were able to be transitioned back into primary care in a matter of weeks (Jones & Thornton, 2013; Thornton et al., 2014). Ensuring that health information was joined up across the span of health and social care providers appears to enhance the quality of the service patients receive at primary care (Hansagi, Olsson, Hussain, & Ohlen, 2008). This raises the question of whether information sharing across providers as a routine function of health care should be normal practice, or should individuals have a level of health literacy that allows them to communicate their needs and navigate the systems appropriate to those needs?

**Intervention Models**

**Behavioural models of attendance reduction**

Cognitive behavioural therapy (CBT) was developed in the 1960s by an American psychiatrist, Dr Aaron Beck. CBT has developed into a well established intervention for health anxiety, and several researchers have tested its benefit for those who frequently attend (Morriss et al., 2012). Its success is reported to lie in the therapy’s ability to solve current problems and focus on changing unhelpful thinking and behaviour. By developing strategies to overcome these issues, which Beck defined as “automatic” thoughts, patients are able to undertake everyday activities, including decision making, in more cognizant and positive ways (Beck & Dozois, 2011).

Dialectical behavioural therapy (DBT) is a therapeutic model which grew out of CBT as a response to therapeutic burnout experienced by practitioners working with borderline personality disordered (BPD) people. Created by Marsha Linehan, DBT combines CBT techniques and practices such as mindfulness to support development of the skills required to moderate emotions, manage distress and enhance interpersonal relationships (Koerner, 2012). Utilising DBT techniques with the frequent attending population has not been tested due to the limited sample sizes of
those with BPD who frequently attend EDs, however the growing success of DBT with substance misuse, eating disorders and traumatic brain injuries suggests that wider application of DBT strategies is worth testing.

Motivational interviewing developed through practice experience of the treatment of “problem drinkers” and a client-centred therapeutic approach which aims to facilitate intrinsically motivated enduring change (Miller, 2013). Working in partnership with the client, practitioners use open-ended questions, affirmations, and reflective listening and provide regular summary statements to engage and interact with the client’s motivation to change. Recognising and developing “change talk” is key to supporting the growth of intrinsic motivation that creates sustained change.

**Psychosocial models of attendance reduction**

Kennedy and Ardagh (2004) felt that for those frequent attenders with substance abuse or mental health complexities, a more intensive model of intervention would be required. They proposed a multidisciplinary approach that aimed to improve the quality of care delivered as well as reducing the frequency of attendances. Later researchers used Kennedy and Ardagh’s study for their control group (Peddie, 2011) and set out to explore whether it was natural attrition as suggested by Kennedy and Ardagh or the intervention of management planning in the ED that reduced the attendance rates. While they found that management plans added value, the authors emphasised the need for an awareness of the natural attrition they found that occurs over time for the frequently attending population.

For Phillips et al. (G. Phillips et al., 2006), the use of an ED-based multi-disciplinary team to provide case management to their frequently attending population appears to have increased ED utilisation, and overnight stays in particular. However, there is change to psychological wellbeing attributable to improved factors such as housing and community connectedness.
Measuring efficacy in attendance reduction intervention

Quality of life
Measuring quality of life as a treatment efficacy tool is a common feature of medical service delivery. In psychiatric treatment, where recovery may never be completely achieved, regularly measuring quality of life to provide comparisons at different stages of wellness is also seen as an important tool (New Zealand WHOQOL Group, 2015). Using a tool such as this can support a programme of attendance reduction or provide baseline and ongoing progress measures when implementing health-seeking behaviour change programmes.

The WHOQOL Assessment tools offer a range of cross-cultural assessments for groups including those living with mental illness and HIV, as well as to assess aspects of spirituality, religiousness and personal beliefs (World Health Organization, 2015). Their tools were developed with over fifteen cultural groups, utilising more than 4500 people, in order to develop an assessment which provides a comprehensive, multi-dimensional profile of individual and community perspectives of life, across six domains and twenty-four subdomains of life quality (WHOQOL Group, 1995).

The WHOQOL tools have proven validity across cultural groups and in numerous languages (Aigner et al., 2006) which makes their applicability across a variety of settings popular. The WHOQOL-BREF has been tested for suitability within the general New Zealand population by a team at Auckland University of Technology (AUT) to ensure that reliability and validity were present for the tool when applied to this population (Krägeloh et al., 2012).

A study carried out by a team in Austria examined the use of the WHOQOL-BREF with a population who experienced chronic pain and significant features of depression (Aigner et al., 2006). They found that utilising the WHOQOL-BREF in partnership with a validated depression and anxiety screen was important for those...
with significant depression, as the depression and anxiety screening provided a lens with which to further interpret WHOQOL outcomes.

**Depression and anxiety scales**

Tools which measure psychological distress are key to monitoring the psychological health of individuals and groups. There is a wide range of tools available which can measure specific factors of distress, as well as tools which can be applied more generally. Kessler and colleagues developed one of the most widely used generic tools in the early 1990s to meet the needs of the annual US National Health Interview Survey (Kessler, 2002). Starting with a collection of more than 500 questions, they set about reviewing and eliminating questions. Ultimately settling upon two sets of six and ten items respectively, they produced a Likert type scaling model which has validity across age ranges, cultural groups, and socio-economic groups (Andrews & Slade, 2001).

The K10 for general New Zealand and Australian populations was tested with good effect (Oakley et al., 2010; Slade et al., 2011). However, research conducted in a South Australian health region found that utilising the K10 measure with their participants had limited success due to their literacy levels and social anxiety (Grimmer-Somers et al., 2010). Understanding the impact that biases such as education or gender have on the efficacy of tools such as the K10 is key to their implementation (Baillie, 2005).

**Goal attainment measures**

Goal attainment measurements were developed as a means to compare treatment modes in a mental health setting and are a simple and effective way of collecting data on the progress towards goal attainment (Emmerson & Neely, 1988). Goal attainment scales use a Likert type short scale, such as 0 = no progress, 1 = some progress, 2 = goal completed. Use of these scales throughout a programme of recovery or behaviour change provides a reliable set of evidence which is statistically sound and therapeutically valuable.
Utilising behaviour change therapies such as CBT and motivational interviewing along with the WHOQOL-BREF and goal attainment measures are features which were chosen to underpin a practice framework developed for use in community support work for people living with an experience of mental illness or intellectual disability in New Zealand. Intentional Practice was the title given to this client support framework developed for use by Richmond. Using Rapp and Goscha’s Strengths Model (Rapp & Goscha, 2011) as its foundation, Intentional Practice guides practitioners and clients through a structured programme of assessment, goal setting and supported action, framed by the key practice pillars of engagement and regular evaluation. This model, along with a commitment to providing client-centred, evidence-informed, outcomes-focused practice is currently used by Richmond across the majority of their community support work services.

Figure 3  Intentional Practice Framework

*Figure 3. Intentional Practice Framework Diagram from https://intranet.richmond.org.nz/intentional_practice/ Copyright Richmond New Zealand, 2012 n.p*
Should ED Attendance be Discouraged?

As Ardagh and colleagues have already suggested, there is evidence to support a natural ebb and flow to the frequently presenting population’s rates of attendance (Kennedy & Ardagh, 2004). This is true when considering the literature of other case management trials in EDs across the globe. Skinner, Carter and Haxton (2009) identified that the people who frequently attend their ED do so sporadically, in response to crises, be they medical or psychosocial. They proposed that developing systems which would support this population in “real time,” by utilising multi-disciplinary case management is more likely to support sustained change than ED management plans written retrospectively.

Adams (2013) suggests that rather than focusing on ways to redirect those who frequently present at EDs when their needs could be met in primary care, it is more cost effective to focus on better integration of services for those with long-term conditions.

The question then needs to be considered: does that mean that ED is the wrong place? Phillips et al. (2006) argue that EDs are in fact well placed for delivering appropriate care to a vulnerable population. They ask us to consider whether in fact primary care has the skills and resources to adequately cater for the broad and complex range of needs that accompany the presenting medical concerns which ED are asked to treat.

A wide range of pre-hospital alternatives has been implemented as a means to catch suitable patients before they become unsuitable ED presenters. These services include enhanced GP services, Minor Injuries Centres, Rapid Response Ambulance Units, community-based chronic care management, and 24-hour GP services. However, some would suggest that where primary care services incur a fee at point of service rather than catching the “suitable” patients, the presence of charging reinforces the ED as first choice for health care. Jones and Thornton (2013) have
explored this idea within the New Zealand context and found that cost is not the primary reason for people to choose EDs as their treatment centre. Therefore, if people genuinely choose ED as the most appropriate treatment centre for them at their time of need and the ED staff feel their attendance is inappropriate, have we been asking the wrong question?

**The Research Question(s)**

Applying these literature and theoretical influences to the Christchurch ED setting, with consideration to the collected knowledge and experience of the recent earthquakes, raises some important questions around the global themes of frequent attendance behaviours or drivers of attendance. Is the model of care provided in an ED setting one that reinforces health-seeking behavioural needs being met there? What motivates decision making for clients with non-acute health concerns in choosing their treatment centre? Or, as has been successful in other ED settings, can intensive, client-directed case management contribute to long-term change to health-seeking behaviours?

Both Richmond and Pegasus speculated at the beginning of the journey towards the HWC, does providing people with the skills and ability to navigate the services within their own community enable them to manage their own health needs and contribute to their ability to live well?
CHAPTER 3: THE HEALTH AND WELLBEING CONNECTION

Introduction

In 2011, discussions between senior staff at Richmond, a non-government organisation (NGO) delivering support services to people with mental health or intellectual disabilities, and Pegasus, the largest independent practitioner association (IPA) and primary health organisation (PHO), began to explore the possibility of providing collaborative early intervention programmes. These discussions grew to include the ED at Christchurch Hospital, and in May 2012 the HWC was launched. This pilot programme aimed to reduce the frequency of ED presentations by people whose health needs were believed, by the three organisations, to be better met in the community.

This chapter will present the design of the HWC pilot programme, the goals of the three organisations who partnered to undertake this pilot, and the key findings. It does so to set the scene for the secondary analysis conducted for the purpose of this higher degree research, the methodology of which will be presented in the following chapter.

Methodology

For the HWC, a mixed methods approach drawing on data generated by the pilot initiative and data collected from stakeholders was ultimately designed. This was to enable a range of perspectives to be represented and to ensure that the client’s voice was heard. The HWC mixed methods study designed to address the following questions:

- To what extent have each organisation’s objectives been met?
- What factors have helped or hindered the success of the programme?
- What has the project team learnt that would support the replication or sustainability of the programme?
• What has the impact been on key stakeholder groups; clients, the Christchurch Hospital ED, Richmond, Pegasus, including any unintended consequences such as new business?

Objectives

The first objective of the programme was to reach the target audience. The indicators of success for this objective were set as 1) psychological distress and 2) income inequality. The second objective of the programme was to reduce ED attendances in a way that was attributable to the programme. The third objective was to leave people better off; by meeting their immediate needs, assisting them to better navigate health systems and assisting them to meet their goals to improve their quality of life (Andrews, 2014). The indicators of success for this objective were 1) a reduction in psychological distress, 2) improved wellbeing, and 3) increased self-management.

Instruments Used

Research design

The research design, which presented the theory of change visually in a Programme Logic design, aimed to describe the programme from the perspective of the people using the services. This design was developed in consultation with the stakeholder organisations and provides the blueprint for monitoring and evaluation. The diagram is read from left to right and the tape measure symbols represent measures or indicators used for specific elements.
The programme design outlines the overall programme and the measures and indicators that are applied at various stages of the programme journey. Many of these measures and indicators are simple volumes or descriptors. Two of the more significant are income inequality and the K10 scale. Both were employed in this study along with other measures. Each is discussed below.

### Income inequality

Participant primary source of income was chosen as a measure of how successful the programme had been at reaching its target audience. A simple measure was used: was the participant employed in paid employment, or in receipt of a welfare benefit?

### Kessler 10 (K10)

The Kessler 10 (K10) is a tool that was developed to measure the experience of psychological distress. It is commonly used as a screening and outcome...
measurement tool and was selected because it was the tool used by Pegasus clinicians and was therefore recognisable to general practice (GPs). In application, participants are asked to rate their frequency of psychological experiences, of which ten are listed, using a five-point Likert scale (Andrews & Slade, 2001). The questions are:

**In the past four weeks, how often did you feel?**

- Worn out for no real reason
- Nervous
- So nervous that nothing could calm you down
- Hopeless
- Restless or fidgety
- So restless you could not sit still
- Depressed
- That everything was an effort
- So sad that nothing could cheer you up
- Worthless

Scores can range between 10 and 50 and ratings are categorised using the framework developed for the Victorian Population Survey by Slade and Andrews (2001). While there are a number of available methods of categorising K10 scores, this was again chosen to align with Pegasus’ use of the tool.

**Table 2  Kessler 10 Scoring**

<table>
<thead>
<tr>
<th>K10 score</th>
<th>Indicator – person is likely to be</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>Well</td>
</tr>
<tr>
<td>20-24</td>
<td>Experiencing mild distress</td>
</tr>
<tr>
<td>25-29</td>
<td>Experiencing moderate distress</td>
</tr>
<tr>
<td>30-50</td>
<td>Experiencing severe distress</td>
</tr>
</tbody>
</table>
Goal Attainment Measure (GAM)

Aligning with Richmond’s Intentional Practice Framework, client-led goals will direct the work that is completed during the 12-week intervention. On exit clients will be asked to rate the achievement of their stated goals using a four-level scale. The GAM Scale measures progress towards the achievement of their goal.

Table 3  GAM Scale

<table>
<thead>
<tr>
<th>4</th>
<th>Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Partially achieved</td>
</tr>
<tr>
<td>2</td>
<td>Not started yet</td>
</tr>
<tr>
<td>1</td>
<td>No longer relevant.</td>
</tr>
</tbody>
</table>

Quality of Life ratings (WHOQOL)

The Quality of Life rating tool used by Richmond is the WHOQOL-BREF tool, used under licence from Auckland University of Technology. Participants are asked a series of 26 questions that consider satisfaction across various facets of quality of life. Facets rated are:

Physical health
- Pain and discomfort
- Energy and fatigue
- Sleep and rest
- Activities of daily living
- Dependence on medicinal substances and medical aids
- Mobility
- Work capacity

Psychological wellbeing
- Bodily image and appearance
- Negative feelings
• Positive feelings
• Self-esteem
• Spirituality / Religion / Personal beliefs
• Thinking, learning, memory and concentration

Social relationships
• Personal relationships
• Social support
• Sexual activity

Environment
• Financial resources
• Freedom, physical safety and security
• Health and social care: accessibility and quality
• Home environment
• Opportunities for acquiring new information and skills
• Participation in and opportunities for recreation / leisure activities
• Physical environment (pollution / noise / traffic / climate)
• Transport

The quality of life facets are rated in reference to the last two weeks using a five point Likert scale, and then calculated into percentage ratings within each domain.

ED & GP presentations
The number of presentations made by participants in the six months pre- and post-programme was compared to determine any changes. Consideration was also given to the percentage of those registered with primary health services before and after the programme, and the relationship with their practice was identified as an area to be explored during the evaluative interview.
Recruiting of Participants

It was envisaged that the cohort would be identified via the hospital patient records system and screened by Pegasus Clinicians. However, due to disparate IT systems secure transfer of data was not possible, nor were the patients who met criteria easily filtered.

Following discussions between Richmond, Pegasus, and the ED senior clinicians, a series of information sessions were delivered to medical and nursing staff at daily scheduled handovers. At these sessions, clinicians were invited to directly refer patients who met the criteria to the pilot programme via a consent and referral form (Appendix 7) that would be faxed to the co-ordinators with the patient’s local events. It was the view of the ED senior clinicians that this would be a barrier to referral, as it is commonly recognised that ED staff are often unable or unwilling to engage with systems outside of their departmental processes.

A suggested alternative was for hospital patient labels to be placed on a chart at each nursing station for co-ordinators to collect. However it was recognised that this process would not evidence the patient’s consent to refer to the programme, which sits outside the current contracted relationship between Christchurch Hospital ED, Pegasus, and Richmond.

Following further discussion and research, a brochure (Appendix 5) was designed that allowed the ED clinicians to provide written information to potential participants and capture their consent for referral via a tear-off strip that co-ordinators would collect from the nursing station. This tear-off strip, with hospital patient label and patient signature, could then be used to access patient local events and contact details.

Additionally, it was recognised that times of high patient volume within the department could be a barrier to referrals. Co-ordinators trialled being present in the department at times ED identified as peak patient attendance, such as evenings,
weekends and prior to nursing and medical handovers. While this did not have a positive impact on referral rates, it did raise the profile of the pilot programme service.

Oversight of a referred patient’s local events prior to initial contact was essential, to ensure that they met the pilot criteria; for example, multiple presentations for cardiac chest pain, chronic obstructive pulmonary disease or psychiatric assessment would be unlikely to be suitable.

A key success in driving referral rates was the opportunity to build a relationship between the co-ordinators and the ED social work team. Regular attendance at social work meetings along with presentations of service achievements to social work and nursing teams provided positive opportunities for relationship building.

In addition to receiving referrals from the department following a patient’s presentation and subsequent consent, it was mooted that a report be generated identifying the department’s highest frequency attendees. However, this raised concerns around confidentiality of patient information.

A previous programme relating to Winter Heating Assistance delivered by the CDHB and Partnership Health had also faced this challenge. On the basis of the marketing strategies learnt from that programme, a letter was designed for all eligible patients drawn from the frequent attendees report. This letter was sent by the ED Nurse Co-ordinator of Clinical Projects and outlined the programme offered to the patient and the opportunity to make direct contact with the pilot service co-ordinators (Appendix 7).

**Initial contact**

Initial referrals to the service were either gained by the co-ordinators approaching potentially eligible clients in the department or via tear-off referral slip. Clients referred by clinicians using the tear-off slips were contacted by telephone within 48
hours of receiving the slip. Once the patient had confirmed that they had consented to the referral, an initial face-to-face appointment was made.

Initially no pre-visit screening was undertaken. However, as the pilot progressed, a screening tool was developed to identify the following:

- Existing community-based services
- GP relationship (last time they visited, ease of gaining appointment)
- Patient’s perspective of reason for last ED visit
- Mode of transport to ED on last visit
- Safety questions (other residents, pets, EQ)

The screening tool was helpful as it provided a level of safety for co-ordinators prior to their first face-to-face meeting with the client, as well as preparing them regarding some of the themes that may have influenced the client’s presenting behaviour. Finally, it also explored the possibility of there being another community-based support service involved. This became necessary because clients would often deny the involvement of other professionals, perhaps not understanding the question, the role of the other person, or the implications of working with multiple agencies.

**First face-to-face appointment(s)**

After initial introductions and an explanation of the service, the reasons for referral were discussed with the potential participant. This meeting was used as an opportunity to ascertain further whether the participant was involved with other community-based services and what their current supports and resources were. All required consent documents were completed during the first face-to-face appointment. Co-ordinators discussed with the potential participant the documents that participants would be asked to complete throughout the 12 weeks including the administration of the WHOQOL (Appendix 1), K10 (Appendix 2) and the Richmond client assessment template (Appendix 3).
Implementation

It was recognised that a key component of a successful service was to secure dedicated staff with comprehensive community support and mental health knowledge. These staff would become members of the existing Brief Intervention Counselling (BIC) service (Pegasus, n.d.) as well as having a dedicated service within Richmond.

Richmond Services funded all direct costs of the pilot intervention programme as it recognised the potential of saving DHBs valuable ED time and costs. Richmond also saw this pilot programme as an important opportunity to connect the identified participants with the right services to manage their health away from the ED. The investment of $150,000–$200,000 dollars over the 18-month period is significant and supported two full-time co-ordinators, transport, the tools and technology, and marketing and information (Andrews, 2014).

Following a recruitment process, two existing Richmond staff members were appointed as HWC Co-ordinators. Both staff had a background in community support work. One staff member was a qualified mental health nurse, and the other held both psychology and primary health qualifications. These staff were recruited prior to commencement of the pilot and played a key role in the development of referral and assessment processes, risk tools, and relationship building across the various ED functional groups (George et al., 2013).

In addition, the co-ordinators were connected to Pegasus’ BIC service for weekly training and group supervision. The education and development of the co-ordinators was also enhanced through a consultative function provided by the BIC Clinical Manager to the Richmond supervision process. Senior managers from Pegasus, CDHB’s ED, Richmond and Partnership Health also provided ongoing support management and development to the growth and efficiency of the service.
Data Collection

Data were drawn from a number of client information systems. Richmond provided WHOQOL, K10 and GAM data along with income source information. Pegasus provided GP registration and attendance information, and the CDHB provided ED attendance information including costings.

Clients were asked to complete a survey towards the end of the pilot. This survey asked them to rate aspects of the service and also to provide qualitative feedback about what they valued most about the service, the impact it has had on them, and any suggestions for improvement.

At the completion of the pilot representatives from stakeholder organisations were asked to provide feedback on their experience of the pilot. In particular, they were asked if their expectations of the pilot were met, key barriers and enablers experienced, what they have valued, and any impact on their service.

While the ultimate success of the pilot will be determined by the reduction in ED presentations, this has not been quantified. A stakeholder review of the collated evidence will be conducted to determine the overall value of the pilot. The review will be guided by questions such as:

- Is the programme worth continuing or replicating?
- What factors have supported the pilot, or presented barriers?
- Are clients better off?
- Have clients presented any common needs?
- Who has valued what about the pilot?

Ethical Considerations

While both Pegasus and Richmond receive a large part of their funding via the CDHB, the scope of each organisation’s relationship with the ED differed. In order to be able to work together, including sharing information about the people who
participated in the programme or were referred but did not participate, Pegasus tasked their legal counsel to explore the existing protections and provisions for protecting client information. Throughout the development of the referral system, each suggested referral process was examined in terms of its rigour relating to the Privacy Act (1993), the Health Information Privacy Code (1994) and the Code of Health and Disability Services Consumers’ Rights (1994). Richmond and Pegasus also gave this oversight to the proposed processes around supervision of staff and case summaries provided to the ED.

While the Richmond evaluator initially began by applying for expedited ethics approval, she was advised by her own supervisor and the regional ethics administration that this approval would not be required for Richmond’s purpose. It was also felt that the evaluation would meet the National Ethics Advisory Committee standard for minimal risk research (Andrews, 2014).

Thus, as the practice framework of the project was already in place with Richmond providing funded services to the CDHB and the clients had consented to information sharing, the Collaborative Group did not consider that a formal application for health ethics approval was required to undertake the HWC evaluation as it was a service audit / evaluation rather than a research project. Later, further enquiries to the regional ethics administration confirmed that ethics approval would not be required for the purpose of this evaluation.

**Data Analysis**

Two separate phases of data analysis were undertaken. The Richmond evaluator and I carried out the first phase, which involved thematic coding and analysis of the data collected in the telephone survey that was carried out with seventeen HWC participants and nine interviews with individuals from the stakeholder organisation. Client and service documentation was also included in this analysis. Pegasus and the Christchurch Hospital ED analysed their financial data to provide visit counts
and attributed cost data for ED and GPs visits made by each participant in the three month period before, during, and after completion of the HWC. The Richmond evaluator completed a manual analysis of this data along with Richmond’s financial data for the purpose of completing an evaluation document for the three organisations (Aigner et al., 2006).

**Key Findings**

The key findings of the HWC are displayed within the programme logic diagram, which was presented earlier in this chapter. As before, this diagram should be read left to right, and represents the process of change achieved by the programme.

**Figure 5  Programme Logic**

As this diagram highlights, the programme achieved success in each of the three objective areas. They received their target group; 84% were experiencing psychological distress (n = 37) and eight out of ten participants were receiving a benefit (n = 57). Additionally, they reduced ED attendance by 50%, and this was attributed to the programme by thirteen of the seventeen participants interviewed. And in terms of the third objective, they were able to demonstrate that people were
better off in terms of wellbeing; there was a measurable decrease in psychological distress and increase in quality of life, and a reported increase by participants in their ability to self-manage their health journey (Andrews, 2014).

**Strengths and Limitations**

A strength of the HWC study was the recruitment of two staff who were long-standing and highly successful members of Richmond’s front-line staff group into the co-ordinator positions. These two staff members were motivated individuals with a solid grasp of the practice framework delivered by Richmond and a desire to work alongside a group of often marginalised and discriminated against people to empower and support them to achieve the goals that really mattered to them (Andrews, 2014).

A limitation of the study was the low number of participants that were sourced via direct referral to the programme. As the programme struggled to recruit sufficient numbers to meet the workload requirements of the business model, the ED undertook secondary recruitment via letter. This increased recruitment but also limited the study’s primary focus of testing the efficacy of a referral system driven by the front-line staff in the ED (Andrews, 2014).

Another limitation of the study was that the CDHB computer system did not allow for an interface with the programme data in a way that would be immediately accessible to the ED staff on the floor. This impacted on the ED’s ability to easily flag suitable participants and to check if people had already been referred or had an active plan regarding ED admissions (George et al., 2013).

**Conclusion**

This chapter has looked at the design and the methods used to create the HWC pilot, and the tools and human factors that were chosen to measure its success. It also aimed to demonstrate how the pilot was developed to meet the goals of the HWC as a service for the Richmond / Pegasus / CDHB partnership. The second phase of data
analysis provides the fieldwork for this study and will be examined in the methodology chapter.
CHAPTER 4: METHODOLOGY

Introduction

This chapter considers the main methodological approaches to research and describes the methodology used to undertake a second analysis of some of the data collected for the evaluation of the HWC pilot intervention programme discussed in the previous chapter. The ethical considerations of my dual role as Service Delivery Manager (SDM) for the Richmond pilot programme and as student undertaking research for a higher degree are also a focus of this chapter.

Consideration of Research Methods

Quantitative research methods

The Cambridge English Dictionary defines quantitative as “relating to numbers or amounts” (Cambridge English Dictionary, 2015). This is certainly the case when applied to research settings; experiments that score outcomes, surveys that attribute numeric values to answers and other forms of data analysis that measure and quantify variables.

Alston and Bowles suggest that “quantitative research is the oldest form of social research” (Alston & Bowles, 1998, p. 7). It was developed to provide an objective research option, where measurable or comparable items were collected and analysed. In other words, it is used to test theory (Alston & Bowles, 1998) by examining the relationships between and among variables. The use of measurable variables also supports the researcher to limit their own impact on findings, as they are simply observers to the topic of study.

Undertaking quantitative research within the social sciences has its roots in the field of psychology, where applied behavioural experiments were originally undertaken with single or small groups of individuals (Creswell, 2014). True experiments were considered those in which the participants were randomly assigned to either the
study or control groups, whereas quasi-experiments attributed participants to either study or control group based on availability or convenience and were therefore considered to be less rigorous. An example of this is using two naturally formed groups such as classes or families (Creswell, 2014) for study and control groups.

The analysis of quantitative research findings relies in large part upon statistical analysis. This analysis can involve simple calculations of the mean, or middle, number of a list of numeric findings, the range within which those numbers fall, or how far from the mean a particular score or finding is, which is referred to as the standard deviation. It also utilises more complex calculations such as analysis of variance (ANOVA) or \( t \) tests, and graphs and tables to illustrate relationships within the data. Nowadays, this analysis is commonly performed on computers, utilising programmes such as IBM’s predictive analytics software programme SPSS (IBM).

**Qualitative research methods**

Whereas the word quantitative relates to numbers or amounts, qualitative is defined as meaning “relating to how good or bad something is” or in characteristic terms “to what someone or something is like” (Cambridge English Dictionary, 2015). Therefore qualitative research focuses strongly on the ability to draw descriptions out of the study, in a way that can be organised and analysed.

Another point of difference is centred on the hypothesis. For quantitative research, the hypothesis and research questions are the starting point for the study, with the experiment or survey aiming to break down or reduce the factors under review into isolated factors that may or may not support the initial hypothesis (Tolich & Davidson, 1999). Tolich and Davidson (1999) suggest that for qualitative research, it is by observing the natural setting that we are able to gain a descriptive understanding of the setting. And through this understanding, the research develops to provide the researcher with underlying principles, themes and ultimately a hypothesis.
Qualitative research most commonly involves observation of participants in their natural setting with the researcher immersing themselves in that setting and collecting documents relating to that setting, taking field notes and interviewing participants (Creswell, 2014, pp. 184–191). The recording of narrative is done in an unstructured way, as is the development of questions the researcher asks of participants. This allows the researcher to follow the narrative of the participant, asking repeatedly “why is that so” or “how did that feel” (Tolich, 1999) in order to explore each theme.

One approach to qualitative analysis is Strauss and Glaser’s grounded theory approach (Bell, 2010). Their approach is often used to highlight the concepts of qualitative research as it outlines each stage of the analysis, articulating “what qualitative researchers actually do with their data” (Alston & Bowles, 1998). In grounded theory, the researcher aims to capture the main concern of the participants and question what the participant themselves are doing to solve this (Creswell, 2014).

The strategic analysis of ideas explored in their natural context and developed into theories became the basis for fieldwork as a legitimate research methodology. Strauss and Glaser challenged assumptions about qualitative research being impressionistic and unsystematic, with an inability to generate theory. They challenged the view that qualitative research was merely a preparatory process for quantitative research (Charmaz, 2006). They did this by illuminating the analytic strategies of previous qualitative researchers in a way that made them explicit. Through this process of comparative analysis, Strauss and Glaser invite qualitative researchers to take advantage of opportunities for logical deduction. These analytic tools and strategies allow researchers to utilise methodology that remains flexible and open ended (Charmaz, 2006).

**Reliability and credibility**

Evidencing reliability and validity of data is a straightforward process with
quantitative research. This is because the instruments used to collect evidence have been proven to measure what they were supposed to measure, the results gained correlate with results gained by others using the same methods, and the scores can be reproduced if the experiment is repeated (Creswell, 2014). For qualitative research, however, there are several factors that need to be considered in order to demonstrate that the research findings are reliable and that the processes undertaken to obtain them are credible.

In regards to reliability, some argue that it is not the goal of qualitative research to provide reliable or re-creatable outcomes (Tolich & Davidson, 1999). Due to the way in which the researcher steps between methods of data collection—from observation to interview, for example, or through having an unstructured interview schedule that allows the dialogue to focus on the key messages the participant has to share—many qualitative researchers feel that credibility is of more value than reliability (Alston & Bowles, 1998). Therefore, in order to establish credibility, researchers need to be prepared to share their thorough field notes to allow the scrutiny that this requires. Another way to establish credibility is to use an approach that is consistent with that of other researchers or in other areas of research (Creswell, 2014). This demonstrates credibility in a similar way that using proven instruments in quantitative research does, that is it can produce the same effect when applied in a variety of settings.

**Mixed methods approach**

Quantitative and qualitative research methods each come with strengths and limitations. Mixed methods research has grown out of a desire by researchers to take the strengths available in each research style while reducing the risk created by the limitations. As qualitative research is an open-ended form of data collection and quantitative research is closed, analysis using a mixed methods approach requires a design that is rigorous enough to be credible, yet flexible enough to integrate the data sets in ways that give it more meaning than each would have had on their own (Creswell, 2014).
Within the context of Social Work research, the use of mixed methodologies creates opportunities to attend to the social contexts of the research environment, including for the participants and stakeholders of the research. This is commonly described as participatory or “social action” research (D’Cruz & Jones, 2009) as the research takes place within a practical context and aims to bring about change for those within that context.

**Research Methods**

The design of the HWC pilot intervention programme has been described in the previous chapter and Richmond’s evaluation (Andrews, 2014). This was a mixed methods study, drawing on data generated by the HWC pilot programme and data collected from stakeholders. The secondary analysis of the data collected for the HWC programme forms the fieldwork for my higher degree and will now be considered.

While the HWC mixed methods study was designed to address each organisation’s questions as previously discussed in Chapter three, the aim of this further research is to consider the models of care provided in ED settings, how they contribute to health-seeking behaviours, and the ways that people make decisions relating to where they seek health treatment. Additionally, this research sets out to explore whether intensive, client-directed case management such as has been tested in other EDs can contribute to long-term change to health-seeking behaviours.

**Instruments Used**

*Research design*

The design for the fieldwork for this study was to build on the evaluation undertaken of the HWC programme. In order to adhere to the ethical and organisational requirements, all data utilised in this secondary analysis was anonymised by way of a numeric identifier then entered into SPSS (SPSS Version 22.0.0.0). For the purpose of this secondary analysis the following measures were
used:
- Income inequality
- Kessler 10 (K10)
- Goal Attainment Measure
- Quality of Life ratings (WHOQOL-BREF)
- ED & GP presentations
- GP registration
- Free text questions from the telephone interviews (Appendix 9)

**Ethical Considerations**

For the course of this research, I was employed as SDM responsible for the design and delivery of the HWC. Richmond also funded two full-time staff to be employed as HWC co-ordinators. As SDM, I oversaw these two staff in addition to the other services and staff I already had responsibility for.

With the agreement of Richmond’s senior management, I sought approval to extend the scope of the pilot to meet the requirements of my master’s thesis. Due to my dual role, Richmond felt that any qualitative analysis of the programme should be conducted solely for business purposes and, therefore, Richmond’s evaluator was brought onto the project team and tasked with undertaking interviews with participants and writing up the final evaluation.

Ethics approval had not been sought for the evaluation of the HWC programme (see chapter 3, pages 42-43). For the purposes of this study, a retrospective application was submitted to the University of Otago Ethics Committee. In March 2014, it deemed that the study was exempt from needing further ethical approval as only unidentified data would be used, thereby meeting the Health Information Privacy Code Rule 11 (2) (c) (ii) (*Health Information Privacy Code, 1994*). (Appendices 10 and 11)

The ruling of the University of Otago Ethics Committee, and the National Ethics
Advisory Committee considers the environment in which the data was gathered and the form it took when it was subject to analysis. Neither were asked to consider the duality of role that I held, being privy to the individual stories of pilot participants in my role as SDM and supervisor of the two co-ordinators, and also being the researcher who would analyse and reflect upon the secondary data produced over the course of the pilot programme. This consideration was actively examined with my academic supervisor and it was for this reason that the Richmond evaluator undertook the telephone surveys and anonymised that data before we both undertook the thematic analysis of the qualitative data collected.

Despite these attempts to keep identified data separate from the data used in this study, some of the anonymised qualitative data had features that were familiar due to supervisory discussions with other staff at Richmond and were subsequently excluded from use as illustrative quotes in this secondary analysis.

**Analysis of Anonymised Data**

For this analysis of the HWC, quantitative data was drawn from Richmond, Pegasus, and the CDHB client systems, collated, and assigned a numeric identifier thus removing all identifiable data. The findings from the HWC evaluation were then reviewed, and relevant quantitative data were extracted for secondary analysis. The telephone interviews undertaken by Richmond with clients at the end of the HWC pilot included asking them to rate various aspects of the programme thus providing important qualitative feedback about what they valued most about the service. Other stakeholder organisations that were part of the evaluation also provided statements relating to their expectations of the pilot, the key barriers and enablers experienced, and the ways they considered the HWC programme has impacted on their services. While the Richmond evaluator and I undertook a thematic analysis of the qualitative data, the findings were only used by Richmond for marketing purposes and were not included in the HWC report. In this secondary analysis, these findings were reviewed and used to illustrate how attendance at the
HWC programme-assisted participants find other services to meet their health needs and thereby reduce inappropriate attendances to ED.

**Strengths and Limitations**

For the researcher, being the project leader for the HWC provided opportunities to continue to identify characteristics of the sample to be analysed. This meant that while the HWC evaluation concentrated on the Richmond, Pegasus and ED’s three objectives, further analysis could be carried out in terms of goal setting, impact on the participants’ networks, further thematic analysis of the qualitative data, and deeper analysis of the WHOQOL domains.

As Richmond and Pegasus had already begun to explore their desire to undertake a collaborative effort with the frequently attending population at Christchurch Hospital’s ED, the usual process of exploring literature to develop a hypothesis was not available. While a comprehensive literature review was undertaken, this was conducted during the same period as the development of the proposed pilot service delivery model. The lost potential for designing a programme that considered some of the international findings will be explored further in the discussion chapter, as this was therefore a limitation of the research.

My dual role was also a limitation in that there were times when the needs of the researcher competed with the responsibilities of the supervisory relationship between manager and co-ordinator. An example of this was when the co-ordinators wished to extend the length of the programme being delivered to an individual, for therapeutic purposes. Supervising and supporting the co-ordinator to shape up their reasoning for this was at odds with the desire to deliver a maximum twelve-week programme for research rigour.

Consideration also needs to be given to the impact that using a qualified social worker as the project leader, staff supervisor, and service delivery manager had on the characteristics of the HWC pilot intervention programme and the subsequent
research for the purpose of this higher degree project. Exploring whether this enhanced the programme design or created a tension for the nursing and psychology staff who worked as co-ordinators and as the Pegasus and CDHB lead professionals will be undertaken in the discussion section.

Conclusion

This chapter has discussed the methodology employed to undertake a secondary analysis of the data collected for the evaluation of the HWC programme. In doing so the ethical issues around the dual role of researcher and the ethical approval for this were discussed. The results are presented in the following chapter.
CHAPTER 5: FINDINGS AND ANALYSIS

This chapter presents the results of the secondary data analysis which formed the fieldwork for this study. Qualitative data collected at the end of the pilot intervention study and analysed by both the Richmond evaluator and myself is also presented here to further illustrate some of the key findings from the study. The results are presented in groupings: participant and control group profile, rating measures, participant views, and their ED attendance profiles.

Participant Profile

Participants were referred from the “floor” of the Christchurch Hospital ED or via outreach (letters and phone calls) over the course of the programme. By June 2014, a total of 105 people had been referred to the programme. A population of 600 who had attended more than four times in the last year were identified as frequent attenders with the result that the programme surpassed its target of reaching 10% of that population. The demographic characteristics of the sample are shown in Table 4.

Table 4  Cross-tabulation of Demographic Characteristics of the Sample (n = 105)

<table>
<thead>
<tr>
<th></th>
<th>Control (n = 52)</th>
<th>Participants (n= 53)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>18-30</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>31-64</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>65+</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>20</td>
</tr>
</tbody>
</table>

The sample was more heavily weighted with females in both the control group (n = 32) and the participant sample (n = 34), where it was also noted that 50% of the participants also identified themselves as caregivers for others. In total 70% (n = 37) were in receipt of benefits at the time of entering the programme, and three were in
employment. A fourth participant had secured employment by the end of the programme.

Ethnicity was taken from the Christchurch Hospital ED data on ethnic groups and as shown in Table 5 below. Ethnicity is relatively consistent with the overall composition of the Canterbury region (Statistics New Zealand, 2013).

Table 5  Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Canterbury Population Percentage</th>
<th>Study Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ Pakeha</td>
<td>48</td>
<td>77.4%</td>
<td>90.6%</td>
</tr>
<tr>
<td>NZ Maori</td>
<td>4</td>
<td>7.2%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Samoan</td>
<td>1</td>
<td>2.1%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>86.7%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Another feature of the participant profile was the number of participants (n = 28) who were caring for a family member, either a child or a spouse or another relative.

The Health & Wellbeing Connection Programme Recruitment Strategy

In order to ensure that the programme was reaching the target audience, two measures were identified as indicators of success. The first indicator was that the participant’s Christchurch Hospital ED attendances were greater than four within the last calendar year and the second was that the participants were experiencing some psychological distress. Regarding the first indicator, it is important to note here that while initially six attendances were used to identify “frequent attenders,” the number was reduced to four to be consistent with the ED definition of a frequent attender.

The mean number of attendances at the Christchurch Hospital ED prior to referral to the programme for the 53 people in the participant group was 6.98 (sd = 5.39) whereas for the 52 people in the control group prior to referral to the programme the mean number of attendances at the ED was 7.98 (sd = 6.92).
For the second indicator, the Kessler (K10) questionnaire of depression and anxiety was used to measure the level of psychological distress amongst the sample. It was anticipated that appropriate recruitment would be demonstrated if 80% or more of the participant group scored a measure of psychological distress on the K10 at the time of entry into the programme. As shown in Table 6 below, of the 53 participants 84.6% scored a measure of psychological distress, as defined by the Kessler 10, prior to entering the programme.

The programme was delivered as a 12-week programme of intervention and education. This aligned with Richmond’s Intentional Practice Framework, as the programme was delivered on a 12-week cycle of assessment, goal setting, partnered goal attainment, review, and evaluation. For the 53 participants who received a full programme of support, there was flexibility in service frequency and length of service that was established between the HWC co-ordinator and participant. This meant that intervention could be tailored to the needs of the individual, and sessions could be delivered at more or less frequent intervals as the participant became more confident and skilled in navigating their health journey.

One co-ordinator worked with 32 participants over the course of the programme, while the other co-ordinator worked with 23 participants. For the co-ordinator who worked with more participants, the average length of the partnership was 100 days (14 weeks) whereas for the other co-ordinator, the average length of the partnership was 124 days (18 weeks). Across the 53 participants in the programme, the average length of partnership was 113 days (16 weeks).

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Days in Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Min</td>
</tr>
<tr>
<td>Days in Service</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other areas that demonstrated to the programme partners whether recruitment was successful included:
- Main source of income was a benefit (69.8%)
- Lack of primary health relationship

In order to establish what level of relationship each participant had with a GP or primary care centre, Pegasus recorded how many participants were registered with a practice and how frequently they had been attending in the six months prior to referral to the programme. Further secondary data from Pegasus were used to measure any change in their attendance to GP practice during and following attendance at the programme. As noted in Table 7 below, the average number of attendances at GP practices changed very little following attendance in the programme.

Table 7  Average Attendance at GP

<table>
<thead>
<tr>
<th></th>
<th>Prior to programme</th>
<th>During programme</th>
<th>Following programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>2.46</td>
<td>2.69</td>
<td>2.42</td>
</tr>
</tbody>
</table>

The possible reasons for limited change in attendance were explored during the HWC evaluation. One participant reported:

[I have] an absolutely fantastic GP and get regular medical checks but they’re expensive at $42.

Measuring Change

Two measures were chosen to evaluate the programme efficacy: the K10 that is used across Pegasus primary health services and the WHOQOL-BREF that was tailored specifically for Richmond by Auckland University of Technology to be used across their suite of services and interventions.

**Kessler 10 Anxiety & Depression Scale**

Using the Kessler 10 (K10) cut-off points 45 participants would have met the clinical cut-off for experiencing distress (a score of 20-24 reflect mild distress, 25-29 equals
moderate distress, and scores over 30 indicate severely distressed). Of particular note is that 28 participants were in the severe category on entry, but on exit this dropped to seven participants.

While 52 completed the initial K10 questionnaire and 36 completed the questionnaire on completion of the programme, only 28 participants were available to complete the 3-month follow-up questionnaire.

As noted in Table 8 below, K10 scores calculated at each stage of the programme demonstrated a mean improvement in participants’ mental distress (e.g., a reduction in mean score).

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Comparing K10 Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>K10 pre</td>
<td>52</td>
</tr>
<tr>
<td>K10 post</td>
<td>36</td>
</tr>
<tr>
<td>K10 f/up</td>
<td>28</td>
</tr>
</tbody>
</table>

While this was a non-significant (p = 0.156) drop, there was a 34.4% reduction in participants scoring within the severe distress range following attendance in the programme. For those who entered the programme in severe psychological distress, there was an 11.56% positive change to the mean scores at the three-month follow-up.

**World Health Organization Quality of Life BREF 26 Questionnaire**

The WHOQOL measure was used to evaluate participant-reported changes to their quality of life before, directly after, and at three months following the programme. This measure was analysed as its full score as well as in each of the four domains; physical, psychological, environment and social.
While in total 53 participants actively engaged in the programme, a number did not feel able, or were not willing, to participate in the repeated K10 and WHOQOL questionnaires at the end of the programme, and/or at the three-month follow up. As outlined in Table 9 below, while all of the mean scores on the WHOQOL increased, the only one trending towards significance was the psychological domain.

Table 9  Quality of Life

<table>
<thead>
<tr>
<th></th>
<th>Pre Mean (sd)</th>
<th>Post Mean (sd)</th>
<th>Significance p value</th>
<th>Followup Mean (sd)</th>
<th>Significance p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>193.53 (65.675)</td>
<td>240.08 (67.311)</td>
<td></td>
<td>230.54 (61.505)</td>
<td></td>
</tr>
<tr>
<td>Physical Domain</td>
<td>43.11 (18.989)</td>
<td>57.31 (18.374)</td>
<td>p = .153</td>
<td>51.75 (16.805)</td>
<td>p = .228</td>
</tr>
<tr>
<td>Psychological Domain</td>
<td>44.04 (19.735)</td>
<td>58.22 (20.55)</td>
<td>p = 0.001</td>
<td>58.68 (19.967)</td>
<td>p = .059*</td>
</tr>
<tr>
<td>Environmental Domain</td>
<td>50.34 (18.331)</td>
<td>62.94 (17.858)</td>
<td>p = 0.002</td>
<td>61.68 (18.241)</td>
<td>p = .289</td>
</tr>
<tr>
<td>Social Domain</td>
<td>57.18 (24.853)</td>
<td>63.37 (25.362)</td>
<td>p = 0.075</td>
<td>60.59 (19.504)</td>
<td>p = 0.517</td>
</tr>
</tbody>
</table>

* trending towards p<0.05

Goal Attainment Measures

Goal Attainment Measures (GAM) are another way Richmond’s services supports clients to articulate their success. These were also used with the participants who were willing and able to engage with the process. On exit from the programme 22 participants (who had collectively set 48 individual goals) showed the following outcomes:

- 33% of goals were rated by clients as achieved on discharge
- 40% were rated as good progress made
- 27% were rated as little/no progress made

This information was drawn from Richmond’s Client Information System (Microsoft
General Practice

Overall, it appeared that there was no significant change to the level of engagement participants had with their GP, although there were some key features that participants reported on during the qualitative follow up interview. While one participant saw the benefit of attending a GP service as illustrated in the following quote, cost prevented them from doing so.

The service helped me see the benefit ... and I see the GP as much as I can afford to.

The expectation had been that participants would become better connected with primary care through a more robust relationship with their GP. While this was not the case, participants did report a better understanding of the situations that were more appropriate to take to their GP. However, as their overall understanding of their health needs and responsibilities increased, the need to seek any health support, whether at the ED or in their local medical practice, diminished.

A number of other primary care services were accessed that were new to the participants, or had not previously been perceived as accessible or available. These included the services identified in Table 10.

Table 10  Primary Health Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thorpe House</td>
<td>Diabetes Centre</td>
</tr>
<tr>
<td>298 Youth Service</td>
<td>Brief Intervention Counselling (BIC)</td>
</tr>
<tr>
<td>Pacific Trust</td>
<td>Smoking Cessation</td>
</tr>
<tr>
<td>Alan Bean Centre</td>
<td>Canbreathe Canterbury (Asthma clinic)</td>
</tr>
<tr>
<td>Anxiety Support Network</td>
<td>Counselling services</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Appetite for Life</td>
<td>Christchurch Hospital dental service</td>
</tr>
<tr>
<td>Pegasus PCW</td>
<td>Friends of St John</td>
</tr>
</tbody>
</table>

The most commonly resourced primary care services were either a Partnership Community Worker (PCW) or Brief Intervention Counselling (BIC). The most common statutory services accessed were Housing New Zealand and Christchurch City Council (Housing Department), Work and Income New Zealand (WINZ), while Richmond’s Creative Works (employment support), the Salvation Army, and the Women’s Centre were top for non-government, non-health services.

Developing skills to navigate through health and support systems was seen as key to the success of the participant journeying through the programme. As well as introducing participants to primary care services (as listed above), the co-ordinators shared their resourcing skills with participants so that participants would be able to find appropriate supports should new needs arise in the future. For example, one participant said

She really had her finger on the pulse and could point us in the right direction.
If she couldn't answer a question, she'd go out of her way to find out and ring us back straight away.

Analysis of the questionnaire carried out as part of the HWC evaluation identified that participants highly valued the co-ordinators’ wide-ranging knowledge and willingness to find information or services that would benefit the participants.

Of the 17 participants that were surveyed after the pilot was completed, 100% said they felt more confident seeking support in the future, by navigating the systems they had learnt about or by contacting the co-ordinators directly. This was also valuable to the professionals they connected with, as the knowledge of services in the community could be shared.
Emergency Department Attendance

Attendance rates prior to referral to the programme had a mean score of 7.48 across the two groups. That is participants averaged just under 7 visits (6.98, sd = 5.390) while the control group were averaging one more visit each (7.98, sd = 6.918). By the conclusion of the programme and at the point of Richmond’s evaluation, which took place up to six months after intervention ceased for some participants, there was a considerable reduction in the mean number of presentations. As demonstrated in Table 11 below, the difference between the two groups had also widened, with participants presenting an average of 4.47 times compared to the control group with 6.67 times.

Table 11  Mean Number of ED Presentations (n = 105)

<table>
<thead>
<tr>
<th></th>
<th>Mean 6mths pre</th>
<th>Mean Post progr</th>
<th>Mean 6mths following</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (n = 53)</td>
<td>6.98 (5.390)</td>
<td>3.36 (4.468)</td>
<td>4.47 (6.250)</td>
</tr>
<tr>
<td>Control Group (n = 52)</td>
<td>7.98 (6.918)</td>
<td>n/a</td>
<td>6.47 (9.512)</td>
</tr>
<tr>
<td>Total = 105</td>
<td>7.48 (6.185)</td>
<td>n/a</td>
<td>5.47 (8.073)</td>
</tr>
</tbody>
</table>

p = 0.41

Given the two-point difference in the mean number of presentations of participants to Christchurch Hospital’s ED, a comparison of means was computed. No significant associations were found between the attenders and the non-attenders to the programme (p>0.05).

Frequency of Attendance: Whole Group

However when considering the number of presentations for the participant group, an ANOVA yielded significant differences between the pre- and post-programme ED attendance rates (p<0.001). These results are provided in Table 12.
Table 12  Frequency of Attenders

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDpre * EDpost</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>19</td>
<td>94.670</td>
<td>3.692</td>
<td>.000*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>85</td>
<td>25.641</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.001

Qualitative Analysis

As previously noted, the Richmond evaluator collected qualitative data using a series of questions developed by the Richmond project team (Appendix 9). These questions were designed to gain a better understanding of how the participants and stakeholders perceived that attendance at the programme would contribute to the study’s success. While the responses to these questions were not reported in the HWC evaluation report, they have been reviewed and included in this secondary analysis as they add support to the belief that the intervention offered has a positive effect on reducing attendances in ED.

Design Features That Contributed to Perceived Success

There were several key features to programme design that stakeholders thought contributed to its success, particularly those in the ED.

Internal champion

The most highly attributed feature of success during the survey was having a key professional within the ED who could identify suitable participants and remind colleagues of the resource. Stakeholders and co-ordinators all reported that having an internal person was essential because of the volume of clients and staff through the department every day. Instead, the ED Social Worker (who was knowledgeable
about the programme and was able to provide feedback to the wider department on the progress of those receiving support) was the key professional. This role emerged over time rather than being initially identified as a programme feature, and stakeholders agreed that having a key professional earlier on in the programme would have been beneficial to earlier success for the programme. As one ED clinician reported,

It doesn’t matter what advertising, posters, presentation emails…it wouldn’t make a difference. Having a champion to identify the patients makes the biggest difference.

**Referral process**

Having a simple and effective referral process that required minimal clinician time was a highlight for stakeholders. Collecting the tear-off strips from the department also gave the co-ordinators legitimate opportunities to network within the department. For clinicians, being able to give the client a brochure to take away was useful, and this created a point of reference for the co-ordinators when they made their initial phone call.

Being open to flexibility around the referral process was also a key factor as co-ordinators were able to respond to email referrals from the ED social workers and on two occasions responded immediately to a phone call from ED staff. This meant they could meet the potential participant face-to-face in the ED. The participants also reported that this helped them to make an informed choice about joining the programme. As noted by one participant

I didn't know they did such things. I needed help. I was sick of how my life was going. The hospital saved my backside.
For ED clinicians, there were the added benefits of improved morale in terms of making effective referrals, as well as freeing staff up for the critical work within the department. This was illustrated by one ED clinician who said

You’ve referred them on; you think “Yes—I’ve actually done something productive for my patient!… This time they might not come back, they might be sorted.”

And furthermore, as an ED social worker reported,

for my role, it means I’m free to go to the trauma or the drowning, or someone who is dying…. I know these people are going to pick it up and I feel safe with that.

And again, by another ED clinician:

Anyone you think doesn’t have to be here, the worried well, they are not health literate, they just don’t know how to cope. Then we’ll start referring. Get in early and prevent it becoming an issue.

**Mobility of service**

Providing a service that reached out into the community was reported to make a difference for the participants. Travel accounted for 28% of co-ordinators’ working week. The barriers that so often exist for the cohort—logistical, financial, emotional—could be circumvented to create a safe space to build the working relationship. As one client said

I liked that she was friendly and that she would come to me. It can be hard to get around when you’re sick and in pain. We’d talk in my house, I felt comfortable. We did a plan…she taught me a few life skills.
**Calibre of staff**

The Richmond evaluator reported that the high calibre of staff was repeatedly commended throughout the qualitative interviews (Andrews, 2014). As noted by one ED clinician, the co-ordinators were identified as key to the success of the programme, both for their skills and practice wisdom when working with the programme participants and their ability to engage with ED and Pegasus staff.

The ability to be able to place your trust in them…it’s not just the nursing background but the whole psychology and sociology social work [perspective] that bigger picture...having that combination, you have all your bases covered.

In particular, all three organisations reported that the face-to-face relationships that were built up with the social work team at the ED were critical to the success of the programme. This was seen as a point of difference from other pilot programmes that had been implemented in the ED and it secured the presence of the service by demonstrating professional credibility and building relationships that could be trusted. The ED social worker commented,

> It’s been better than I expected. Because I see [HWC staff] regularly, we talk about the cases we refer…. They feed back, we invite them to our team meeting in ED once a month, they give us an update, it’s really important - then you know it’s working.

A key finding was that for the participants, the connections they made with their co-ordinator was the most valued component of the service. Participants consistently reported that the co-ordinators really listened, genuinely cared, and could be trusted to do what they committed to doing (Andrews, 2014). The participants also enjoyed the friendly yet professional nature of the relationship with their co-ordinator. They
reported that this created a space where participants could feel comfortable to work towards the goals that really mattered to them. For example, one client stated

[She] was amazing, such a lovely person, completely relaxed and just fitted in, we couldn't have wished for anyone better.

Another reported

She gave me my voice back. I felt there was no purpose in my life. She always went the extra mile….it made me feel important enough to care about…. I’m still alive so something must have worked.

A time in motion analysis showed that 70% of the co-ordinators time spent with clients was logged as face-to-face contact. The co-ordinators had been recruited from Richmond because of their range of skills, qualities, and reputation for building strong therapeutic relationships. Their conscious application of techniques such as Motivational Interviewing and Cognitive Behavioural Therapy (CBT) assisted them to focus on why participants felt they needed to utilise ED, the life factors that participants really wanted to change, and supporting them to bring that change in a sustainable way. The HWC co-ordinators also reported

With the young people I work with I use the change talk to make them see going into ED isn’t appropriate.

Co-ordinator initiated follow-up visit

While not all of the participants were available for follow-up, those that were embraced the opportunity to report proudly on the changes they had sustained and receive acknowledgement from the co-ordinators of these successes. As one client remarked,
I'm not as wheezy, not waking up three or four times a night gasping for breath. When I get ’flu, I get chest infections that put me in hospital. I used to go in three to four times a year but I haven't actually gone to the hospital since.

For four participants, this follow-up was an opportunity to request a one-off intervention, and another participant required repeated intervention for a short period that ultimately linked them into an ongoing community support relationship.

Due to these experiences at the follow-up visit, the co-ordinators reported that both they and the participants considered this an important part of the therapeutic process rather than a final collection of study data. This visit gave the participants an opportunity to update the co-ordinator on their ongoing progress and seek advice or reassurance. Together they were able to reflect on their achievements over the course of the programme. As one client said

I went from not coping, to coping. [She] made me feel like a strong person.

This chapter has explored the results of the secondary data analysis and the findings of the stakeholder interviews. In Chapter Six, these findings will be compared to similar research, in order to generate ideas for future research and service provision.
CHAPTER 6: DISCUSSION

Introduction

EDs have functioned as the fulcrum of community medical care since their inception in the mid-19th century. Despite the fast-paced advancement of self-directed medical care within people’s homes and places of work, the ED continues to be the first treatment destination for many within our society. The discussion that follows will provide an analysis of why people continue to choose the ED, consider the factors of therapeutic and community support interventions that could contribute to a change in the way these people view their health options, and identify the health-seeking behaviour, attitudes and experiences likely to require ongoing and/or additional support. This chapter will also consider the results of the HWC pilot and secondary analysis as they relate to the research question and provide a view of why people utilise the ED for non-acute reasons. Throughout the chapter, these results will be compared with other academic research, and the similarities and differences that occur within the literature will be noted and discussed.

Frequent Attenders

The profile of those identified as frequent attenders for the purpose of this study was analysed in comparison to other studies of this nature. With a mean age of 45 years, how did Christchurch Hospital ED’s frequently attending population compare to that of other studies? In simple terms, most of the literature reviewed showed a mean age higher than that of the study reported here (Bodenmann et al., 2014; Byrne et al., 2003; Gili et al., 2011; Jelinek et al., 2008; Locker et al., 2007; Markham & Graudins, 2011). Having a higher number of females than males in the study population was consistent with international research, particularly noted in literature from the US (Fuda & Immekus, 2006; Hunt et al., 2006).
As highlighted in the literature review, there was a range of views relating to the number of ED attendances that could be deemed “frequent.” This study selected six presentations as this was the mean number when considering other literature (Althaus et al., 2011; Andren & Rosenqvist, 1985; Bieler et al., 2012; Bodenmann et al., 2014; Byrne et al., 2003; Doupe et al., 2012; Fuda & Immekus, 2006; Gili et al., 2011; Grimmer-Somers et al., 2010; Hunt et al., 2006; Jelinek et al., 2008; Kennedy & Ardagh, 2004; S. Kirby, Dennis, Jayasinghe, & Harris, 2010; LaCalle & Rabin, 2010; Mandelberg et al., 2000; Markham & Graudins, 2011; Michelen, 2006; Morriss et al., 2012; Okin, 2000; Olsson & Hansagi, 2001; Peddie, 2011; G. A. Phillips et al., 2006; Sandoval et al., 2010; Shumway et al., 2008; Skinner et al., 2009; Williams et al., 2001; Wooden et al., 2009).

Of the total number of patients who were referred to, or contacted by letter regarding this study, 49% consented to participate in the programme. However, not all of the participants in the study could be considered frequent attenders with non-acute medical needs. This was because some people were referred when the ED staff felt that the person was starting to make a habit of coming to the ED; one person had been two times in the fortnight leading up to referral, while another had been to the department with concerns relating to each of her children over a short period of time. Others met the criteria of more than six visits, but some of these visits resulted in a hospital admission. Identifying potential participants was valuable to the ED clinicians, as one reported

 Anyone you think doesn’t have to be here, the worried well, they are not health literate, they just don’t know how to cope. Then we’ll start referring. Get in early and prevent it becoming an issue.

The profiles of these participants include specific details which are removed during the anonymisation of data. As a general rule this anonymising occurs prior to the publication of research, and it is therefore unclear whether other studies also worked with participants with similar features.
While a number of people consented to the programme after receiving the letter from the ED Nurse Co-ordinator of Clinical Projects, some reported feeling unfairly labelled as problematic. This was because they had either not been to the department recently—the list generated for the purpose of the letters counted frequency of attendance over the last twelve months without considering the most recent presentation date—or because they felt that their ED presentations were appropriate, seeing as each had resulted in an admission to a hospital inpatient ward.

**Did participants consider themselves frequent attenders?**

The participants in this study clearly displayed the features of being frequent attenders, as defined in the literature (Althaus et al., 2013; Bieler et al., 2012; Byrne et al., 2003; Hunt et al., 2006; Locker et al., 2007; Markham & Graudins, 2011; Richardson, 2011). Yet the participants themselves, did not consider that they visited the ED too frequently or had not considered that others might believe them to do so. However, as they progressed through the programme, they were able to recognise that they could make different choices to meet their health needs in the future.

For the people who entered the pilot programme, talking about the reasons why they had visited the ED several times was quite easy. Some had been taught as children that the ED was the place to go when they felt a certain way, such as sick or in pain, others felt that the service they received at ED previously was what they required again, and others reported totally different and potentially inappropriate reasons. For example, one participant reported the following:

**ED...I [used to] go in for a rest.**

Exploring the attitudes and experiences that had shaped the way they perceived the ED’s role was more challenging. This was because many participants found it hard to articulate how they saw the ED being separate from the hospital. Additionally, as
many participants used the ED outside of the hours they perceived their GPs to be available, they were initially unable to separate their thinking around hours of availability and the roles of GP and Emergency Medics. This finding aligns with those of a literature review in 2011 (Nelson et al.) which, having studied 45 pieces of research conducted across 11 countries, found that availability, geography, finances, and even time of day were factors noted across the literature. However, this possibly presents too simplistic a view of how people reach the decisions they do about utilising the ED rather than other available resources.

Many of the participants found that they were unable to identify their feelings leading up to their visit to the ED, as separate from the medical conditions they had learnt to attribute these feelings to. Anxiety around what the physical sensations could mean in terms of their health or mortality was a significant component of their decision to present at the ED. As Backman (2008) discovered, those presenting at EDs were found to have a higher level of anxiety relating to their medical condition than those who had their health care needs met at their primary care provider or GP. Once participants were able to recognise the impact their anxiety had on the physical sensations they associated with their medical condition, they were able to start to change their health-seeking behaviour and contribute to an improvement in their health. As one participant discovered,

They relieve the stress; stress was my trigger for drinking and they helped alleviate that stress. Your emotional mental health is so important.

**How professionals defined frequent attenders**

How professionals define frequent attenders varies throughout the literature. For some it is related to demographics: age, gender, and socio-economic status, i.e., employed, homeless, etc. For others, frequent attenders are clustered into medical high-users, those with mental health diagnoses, and those who abuse substances. An issue highlighted in other studies is about the lack of consensus around definitions of
a frequent attender (Richardson, 2011). This was also true for the triaging of people suitable for this study, which does not appear to have been consistent. In part, this was due to the fast pace of the ED at times of high throughput. Additionally, where the referring clinician felt that they wanted to do more to help their client or “had a soft spot” for them, a referral was seen as a valid option regardless of eligibility. This risk, as identified early on in the study, will be further explored later in this chapter.

As well as the variability in definition and suitability, it appears that potential participants were identified based on individual professionals viewing them to be deserving or not deserving of the intervention. Those seen as deserving were often already receiving a welcoming service in the department. As the ED social worker reported,

> They come here and they know they are going to be treated nicely by the nurse and the doctor...they know from previous visits they are going to be looked after and nurtured. That’s good—it’s safe for them to be here...the trouble is we do it so well they want to come back and see us all the time.

It is significant to note that none of the participants talked about how they were treated by staff in the ED, either positively or negatively.

**Recruitment**

**The success of the programme’s recruitment using referrals directly from the floor**

Early in the development of the programme, it was identified that it would be very difficult to undertake a “study recruitment” discussion with potential participants at times of high throughput in the department. As the expectation was that the frontline nursing or medical staff would identify and refer potential participants to the study, the department was concerned that it would not be able to deliver on this role. In part this was due to the high turnover of medical staff through the department; junior and mid-level doctors routinely rotate through the various departments of a
teaching hospital as often as every 3–6 months. On average there were 500 either part- or full-time nurses employed in the department at any time during the study. Thus educating a lot of professionals to the purpose, criteria for inclusion, and consent processes of the study was a daunting task, as was keeping the study in their consciousness during their busy shifts, especially when competing with other services and programmes that existed within the ED environment. This difficulty was highlighted by an ED clinician who reported

"We know...that a new service (or research project) cannot rely on another service, us in this case, to recruit their patient group. In order for a new service to be successful, they have to have a dedicated resource...not just be “visitors” to the department."

However, despite these challenges, once the co-ordinators developed relationships with individuals on the ED floor and regular attenders presented at the department, nursing and medical staff began to refer.

Developing a relationship with the social work service in the department was much more successful in terms of the amount of effort required to engage that team in referring to the programme. The social workers described their frustration at only being able to walk with the frequent attenders to the doors of the hospital and then being unable to ensure that the services and recommendations made would be implemented, thus enabling a difference to be made. For the social work team, having a service that could pick up this population meant that they could focus on the next piece of work, as well as having a little more hope that the person they were discharging would be less likely to return. As the programme became established and participants’ presentations to the ED decreased, the social work service felt increasingly confident to continue to make referrals to the programme. As one social worker reported,

"It’s been better than I expected. Because I see [HWC staff] regularly, we talk
about the cases we refer.... They feed back, we invite them to our team meeting in ED once a month, they give us an update, it’s really important—then you know its working.

One risk of this growing confidence was the desire by the social workers to refer people who they anticipated would fit the criteria should their health-seeking behaviour continue. It is for this reason that some participants in the programme had a pre-entry level of ED attendances below the six prescribed.

**The success of the programme’s recruitment using the ED’s computer generated frequent attenders list**

As has already been mentioned in chapter 3, the initially slow referral rates required a secondary recruitment tool to be sought. This was found in the form of a report from the CDHB Homer Patient Management System that ranked patients by the number of ED attendances in the last year (CDHB Decision Support, 2014). The tool selected was based on the success evidenced by the Partnership Health Winter Heating Programme. While this tool had not been considered during the development phase, it was agreed that this would be the best way to increase the number of appropriate referrals to the programme.

**Delivering the Programme**

Case management has been widely used throughout the reviewed research into those who frequently attend at EDs. The interventions under the umbrella of case management include care co-ordination, community outreach, supportive therapies, and crisis intervention (Althaus et al., 2011). These interventions were all features of the programme undertaken in this study, delivered by way of Richmond’s Intentional Practice Framework.

**Intentional practice**

Richmond’s practice framework, Intentional Practice, was used as the guiding framework for intervention with each participant of the programme. For the co-
ordinators, the 12-week length was valuable as it focused the client and allowed the co-ordinator to achieve as much as possible in that timeframe. As one of the co-ordinators found,

Twelve weeks: You know you have to squish in as much as possible so the person gets as much as they can out of it. It’s not so long they get fed up with it.

However, the co-ordinators made their own judgments about extending the programme and used their advocacy skills in supervision to seek approval for this. As has already been discussed, the co-ordinators were recruited in part due to their experience and reputation within community support work. As they continued to prove their skills in this area throughout the study, their professional reputation and values ensured that those participants that would benefit from an extension of service to achieve specific tasks were enabled to access this additional resource.

For many other Richmond services using Intentional Practice, the length of service delivery was not a defining feature of the contract. This was a point of difference between the HWC and other community service offerings. It was also a more limited length of service delivery than that of the case management models reviewed in the literature (Althaus et al., 2011). When reviewing the efficacy of case management in their 2011 study, Althaus and colleagues highlighted the costliness of providing long-term case management, despite its overall effectiveness. With a limited amount of research available where short-term case management intervention has been offered, it is possibly too early to establish whether the length of programme chosen for this programme provides a less costly, yet still effective service offering.

**Staffing**

As featured in the reviewed literature, recruiting staff who have experience working with a marginalised population, preferably including those who live with an experience of mental illness, was identified as key to programme success. Staff
would also need to have a depth of knowledge about their community, formal services, and local resources and neighbourhood groups. At the same time, these professionals would need to have the skills to relate to other professionals within the ED and general practice, as well as with the stakeholders and funders. Achieving this, in the form of two well-regarded community support staff already employed by Richmond, was one of the main features of the programme’s success. These staff, as it has already been discussed, had the skills to engage with a wide range of people, understood the evidence base of the Richmond 12-week Intentional Practice framework, and used their initiative and therapeutic expertise to achieve quality relationships with programme participants, participants who had been seen by other support services as too difficult to engage or too much of a risk for community-based service delivery.

The front-line management of the service was delivered by a qualified social worker, and the two co-ordinators had a variety of health qualifications but were not social workers themselves. This was not a topic explored by the Richmond evaluator during the stakeholder interviews, although it was of interest to Pegasus when developing a framework to monitor clinical risk. Pegasus felt that clinical risk was best overseen by a registered nurse rather than a registered social worker. Ultimately, the model of supervision provided to staff met that need.

**Supervision**

The model of supervision that was offered to the programme had two main components. Clinical supervision, also called clinician development, occurred once per month on a one-to-one basis between each co-ordinator and the service delivery manager. Supervision was a feature that Richmond required the co-ordinators to actively participate in and had its foundations in social work supervision.

Weekly case supervision was delivered in a group format. Pegasus required the HWC Co-ordinators to participate in regular case-related supervision, which they
facilitated, as well as attending the team meetings held for the BIC Counsellors. The reason Pegasus identified this requirement was to provide a way to oversee and manage any clinical risk. Therefore the Pegasus project lead joined the case supervision sessions, which were modelled on peer supervision principles. Over time, this became problematic for Pegasus due to their competing time constraints, and the organisation felt confident that clinical risk was being well managed with the supervision framework in place. Pegasus continued to involve the co-ordinators in the training and development sessions held for the Pegasus BIC Counsellors with whom the co-ordinators had developed a strong working relationship.

**Management plans**

The use of management plans as a means to more effectively manage people who frequently present at EDs have been recommended by some authors. However, the research also indicates that management plans developed in isolation for the benefit of EDs do not support behaviour change. This is because management plans are most effective when developed as a part of the case management journey. Of those who participated in the HWC, very few had active management plans in place. Over the course of the programme, the ED also set up a programme to develop management plans for sufferers of Chronic Obstructive Pulmonary Disease (COPD). The programme involved a one-off meeting with an ED nurse to gain an understanding of what the patient’s vital signs were when they were well, so that this could be used as a comparison should the person present at the ED. For some participants, being invited into the ED for a conversation about their health was empowering. They also saw this as proof that the ED was the right place for them to go when they were unwell.

For those who attend EDs frequently due to exacerbation of their mental health, Wooden et al. (2009) noted that management plans made available to EDs articulated interventions which provided good support to those with psychiatric disorders such as schizophrenia. However, those who attended due to their anxiety or depression,
and particularly those with moderate symptoms, were not given access to these interventions. They found this was also an issue for those with substance-related frequent attendance. As people already known to other providers such as mental health services and those with substance abuse issues were initially excluded from the programme, the HWC was not able to explore the effectiveness of management plans as Wooden (2009) had done. However, as most of the people involved in the HWC experienced a level of psychological distress and the management plans they developed with their co-ordinator were made available to ED during the programme, it could be inferred that this cohort’s needs were better met than those of Wooden et al.’s (2009) research.

Environment

The relationship between the partners

For each organisation that entered the HWC partnership, there already existed a number of previous pairings; the CDHB funded aspects of Partnership Health/Pegasus and Richmond just as all partners were funding recipients, Partnership Health had recently delivered a Winter Heating Programme in conjunction with the CDHB, and Pegasus GPs routinely communicated with ED regarding their patients. Additionally, since the earthquakes, where the organisations would have previously worked within neighbouring silos, they were now participating in a number of initiatives to support the recovery of the city, such as the Canterbury Earthquake Temporary Accommodation Service (CETAS).

For this group, the climate developed under the Our Health System model ensured that working collaboratively rather than as competitors had already been tested. Through initiatives such as mental health’s Single Point of Entry (SPOE) organisations including Richmond and Pegasus were sitting around the table, accepting work that they were best suited for, and offering support to ensure that the organisations better suited had the resources they needed.
Being able to work together in an even more joined up way was an opportunity not only for the organisations but also for the system as a whole. The management team at Richmond reported that

There’s a whole heap of agencies that do bits of work, but we’re creating a pathway for those people to discuss what’s happening.

Having a valid presence in the ED was important. This was noted from the outset as in discussion with the ED, it was pointed out that in order for ED staff to be able to actively engage in the implementation of the pilot, they would need to be able to incorporate the pilot processes, namely the identifying and referring of appropriate patients to the programme, without any additional duties. There was also an acknowledgement that with hundreds of staff working within the ED environment, and with regular rotation of medical staff moving through their internship throughout the wider, teaching hospital, it would be difficult to keep the pilot in the centre of people’s minds when they are working a busy shift. As the programme came to discover, as already been discussed in this chapter, the relationship with the ED social work service proved to be the bridge the ED and the programme required.

**Understanding our community**

The co-ordinators reported that as they worked with more people, their own knowledge of the services and resources within the community grew. These co-ordinators had been recruited in part because of the breadth of their service knowledge and depth of their experience as community support workers. However, they reported that it was through working with each study participant, on the goals that mattered to that participant, that the co-ordinators were able to uncover services that were available in the community that they may have not otherwise been aware of. This learning aligns with the Scottish researchers who found their own growing awareness of the network of services in their region and how to access them was a significant advantage undertaking the study (Skinner et al., 2009).
Knowing the resources available and having the skills to build relationships with the people providing them was a fundamental driver of success. This was because the participants were far more likely to achieve lasting engagement with community-based services when they could see that the relationship between their co-ordinator and the service was real. While unintentional, the ways the co-ordinators engaged with other professionals modelled to the participants the value of working at these relationships and also the skills to do so.

**Burden across the system**

Canterbury’s health system is for the most part funded from a single pool of money, which is distributed via CDHB contracts to PHOs and NGOs and utilised internally through departmental budgets for inpatient and outpatient services. Under the CDHB One System philosophy every dollar, which can only be spent once, as the mantra goes, is required to be used as efficiently as possible to ensure that minimal waste happens and as much of the money available as possible makes it to the direct benefit of patients. Working in partnership with other funding streams, as Richmond, Pegasus, and ED did for HWC, was one opportunity to identify efficiencies in the system, although it also used triple the resourcing in the project development stage. And when other programmes are also running in the ED such as the COPD management plans, Acute Demand and the Collaborative Care programme, all trying to achieve similar outcomes for people whose health needs could be better met in the community, consideration needs to be given to the fiscal benefits of running a small study such as the HWC as well.

On the other hand, the HWC’s goal to teach participants the skills to navigate the health systems, linking them with community health organisations such as Canbreathe, the Diabetes Centre or the Friends of St John, increased the likelihood that these organisations, which are funded by the DHB for preventative care, have the opportunity to provide just that. In so doing, they reduce the need for ED attendances in the future.
Reducing Attendance

Creating lasting connections with community health providers and other social care networks was one of the benefits the co-ordinators could offer participants as part of the education component of the programme. Learning navigation skills, initially related to the goals participants set for themselves, then transferring to other areas of their lives, offered participants the opportunity to gain a skill that would be useful long after the programme or the input of another community agency was no longer needed.

For the participants who had the least health literacy, helping them gain insight into their health needs and learning to navigate the system was particularly challenging. It was also very rewarding, as the participants came to understand that they had the skills to keep well and rely less on others. For one client, the impact on their daily life was particularly significant:

ED? I've not been back once since the programme.

Being able to let the co-ordinator know that they had not needed to visit the ED since the programme was a moment of celebration for this client, and for other participants there were also successes to be shared when the follow up interviews were conducted. The effective partnerships that had developed between co-ordinators and participants was a strong theme of the interviews, and many participants attributed their success to these partnerships. While effective partnerships between staff and participants were discussed in the literature, there were no other studies available for review that measured this relationship and its impact.

Grimmer-Somers and colleagues found in their study of those who frequently attended EDs due to chronic disease that taking the programme to the client or actively bringing the client to the programme were key to the success of initial engagement (Grimmer-Somers et al., 2010). This was a feature of success in the HWC programme also, where access into the community had been further
complicated by the effects of the Canterbury Earthquakes; reduced public transport, increased social anxiety, and poor roading all overlaid the pre-existing challenges of the study population.

Those who continue to attend frequently

For a small number of participants, the programme was unable to identify or influence the factors that drove their frequent health-seeking behaviour at the ED. While it would be easy to draw a link across the international research or to draw on statistical or behaviour change theory, which both rely on a percentage of the data that moves away from the majority, this resigned thinking does not sit comfortably with the strengths-based perspectives on which this study is based. However, it is likely that the type of intervention required for those “hardest of the hard to reach” population of frequent attenders is yet to be discovered.

Currently insufficient research exists that explores programmes which may meet the needs of those who continue to attend frequently at or near to EDs. G. A. Phillips et al. (2006) suggest that effective case management can actually increase attendance, and their study may provide the starting point for providing psychosocial care to that very small group of people who are unwilling or unable to engage with health systems elsewhere.

Measures

The WHOQOL-BREF, GAM, and K10 have often been used in research into the drivers of frequently presenting non-acute ED attenders. These were also the routine screening and review tools used by Richmond and Pegasus. When the study was developed it was envisaged that this would allow the outcomes of the study to be considered within the Richmond and Pegasus populations respectively.

The high number of participants reporting psychological distress was a similar finding to that of Byrne et al. (2003), although it is important to note this was determined using an alternative measure, The General Health Questionnaire. In
contrast, the findings from Grimmer-Somers et al. (2010) were that the K10 was not useful, because of literacy, social anxiety and/or lack of understanding. For those who participated in the K10 scaling prior to entering this study, there was an opportunity to start a conversation, which would inform the partnership throughout the programme. The conversation, which in part explored why they had answered how they had, also explored whether the result of the K10 scoring reflected how they felt. This conversation became an active part of interactions between the co-ordinators and participants, to the point that the participants were keen to update their co-ordinators on their perceived progress at the beginning of each session.

One limitation of this study was the inability to compare the study participants’ K10 scores to those of the Pegasus GP population as a whole. Due to the gradual withdrawal of Pegasus from delivery of the programme and the departure of the Pegasus Project Manager (who left the organisation for another career opportunity), it was not possible to secure comparative data from Pegasus relating to their patient population K10 patterns. Understanding how the HWC cohort compares to the wider Christchurch community is a research opportunity for the future. It would be worth undertaking this research in light of the view held by some researchers that those who frequently attend will self-correct their attendance patterns without need for intervention (Hider et al., 2001).

Next Time

Some features of this study were developed over the course of the programme in response to the business needs of the pilot rather than for the purpose of this master’s programme of study. One of these was the flexibility in recruitment. The need for flexibility of recruitment was due to the initially slow pace of referrals from the front-line staff in the ED. The volume of marketing the co-ordinators were undertaking in attending the morning medical handover meeting each day, delivering presentations to staff groups, and being available in the ED at different times of the day was a far greater output than the corresponding intake of referrals.
By utilising a list of those who met the six visits in the last twelve months threshold, the pilot was able to guarantee the number of people approached to participate during any given timeframe. Utilising a recruitment strategy such as this list is recommended for future studies. However, it is important for future research to ensure that the people chosen from the list have, in fact, presented at least once in the last month. Some of the participants approached in this study had not attended for some time, despite meeting the inclusion threshold, and they were unhappy to be considered eligible.

One feature that was not concrete was the 12-week programme of intervention. As has already been noted, the co-ordinators were strong advocates for those participants who would benefit from extended service, which created a conflict between the researcher role and SDM role. This issue would require further consideration should a similar study be undertaken.

Another programme design feature that would be useful to consider is whether the success attributed to the engagement between participants and co-ordinators can be replicated with different skill sets and levels of practice experience. Does the contribution of social work, psychology, or nursing, and the tools and skills that each discipline brings, significantly impact on the way the service is delivered? Or does the quality of engagement rely more on the practice values, commitment and unconditional positive regard that are required features of any successful support worker?

Some researchers have proposed the inclusion of ED-based mental health professionals to enhance the scope of case management with this population (G. A. Phillips et al., 2006; Skinner et al., 2009). As the Psychiatric Emergency Service (PES) were undergoing a service restructure during the course of the programme, the suggestion of including their staff, or those of the Mental Health Liaison Team (MHLT) who were based in the ED to provide mental health triage services, was not
able to be progressed. There would be value in considering this for future studies, as well as participation from Community Alcohol and Drug Services (CADS).

In their four-year study of attendance patterns, Kennedy and Ardagh (2004) presented their theory of natural attrition: that there is a natural cycle for people who frequently attend EDs. Because of the timeframe of this study, it was not possible to review whether the participants’ and the control group’s attendances have continued to decrease.

Although outside the scope of this study, one view worthy of consideration when designing future research is that of Phillips (2007). Phillips found that providing quality case management at an urban hospital in Melbourne, Australia, actually resulted in an increase of presentations at their ED. Phillips suggests that this occurred because the ED is where that cohort of patients needed to be to have their psychosocial needs met. If we were to consider this research alongside that already undertaken in the Christchurch ED setting (Kennedy & Ardagh, 2004) that frequently presenting patients naturally reduce their attendances over time, the scope for a targeted service focused on providing practical supports seems worthy of further investigation.
CHAPTER 7: SUMMARY

This study set out to respond to the notion that the presence of frequent attenders in Christchurch Hospital’s ED is an inappropriate use of that health resource. Creating an effective strategy to work with the frequently attending population was initially raised by Richmond and Pegasus, who wanted to explore a collaborative approach involving the ED. While the initial aim for those organisations was to develop a business offering, it was recognised that wider analysis of the literature and an academic research framework would add value to the process. Therefore, the latter aspect of the HWC pilot programme became the basis for this master’s thesis.

This research sits within a growing concentration of studies which aim to identify the definitions and features of the frequently attending population in order to develop specific, effective programmes to assist them to better manage their health-seeking behaviour. Undertaking this research holds relevance for ED funders and clinicians, and for those delivering primary health and community support services to people who are deemed to have limited health literacy or insight into their responsibilities for their own health and their relationship to health services. Despite a small sample size, the key findings offer the basis for further study of the Christchurch Hospital’s ED frequently attending population and for exploration in other locations.

Key Findings

The first key finding of this research is that the 12-week case management programme contributed to a reduction in ED attendances. It also contributed to a decrease in psychological distress, as measured by the Kessler 10 Depression and Anxiety Scale (K10), and an increase in quality of life, measured by the World Health Organization Quality of Life Measure (WHOQOL-BREF).

Despite a 50% reduction in ED attendance, some participants did not demonstrate any change in their attendance rates. This was another key finding, which aligned with the literature around the subset of participants for whom circumstances such as
chronic pain, lack of access to specific services such as detox or rehab, or persistent homelessness makes case management less effective (Skinner et al., 2009).

Using a client-centred goal setting approach appeared to support health-seeking behaviour change in relation to inappropriate or non-acute ED presentations. While participants may not have recognised it as such, they were eager to work towards goals that mattered to them and were able to reflect on how achieving those goals had offered widespread benefits, such as being too busy with new activities to worry about their health.

Participants responded positively to learning the skills required to navigate health systems and demonstrated an ongoing ability to use these skills both within the health system and in more generalised ways. They identified extrinsic reward as well as intrinsic. Simple activities like meeting their co-ordinator at the local library for a session led to new knowledge about how to access free services and resources they previously had not known about. This also had an unforeseen benefit in that it connected them with services and supports specifically available to the Christchurch population as a direct response to the earthquakes.

The last, and very important finding, was that utilising highly skilled and resourced staff contributed to the success in engagement with the participants. Participants attributed their success to the work that they had achieved in partnership with their co-ordinators.

**Limitations**

A number of limitations have been identified throughout this study in relation to the Richmond, Pegasus and ED collaboration, the secondary analysis of this study, and the duality of roles for the researcher. One of the most significant of these was the low numbers of participants who were willing to participate in the programme, which was coupled with the reluctance of ED staff to undertake additional processes to link potential participants with the programme. Developing a more robust and
comprehensive recruitment strategy prior to launching future programmes would allow for the potential of a larger sample size and more people benefitting from participation in the programme.

Alongside this was the lack of IT connectivity or infrastructure to allow real-time identification of participants, electronic referral to the programme from ED or sharing of case records between the HWC and the ED clinicians. This limitation was also a contributing factor in recruitment.

The other significant limitation of this study was the inability to access some data towards the end of the study due to the change of personnel in each of the organisations. Being able to ensure that organisational commitment to the sharing of data is more robust may be challenging for researchers, but it is worthy of consideration in terms of the drawing up of a Memorandum of Understanding should a dual research/business analysis process be run in the future.

**Recommendations**

Further analysis of the specific participants and the control group of this study relating to their ongoing relationship with the ED would offer further insight into whether the learnings gained through a case management approach such as this, which teaches independence in health system navigation, can be sustained, or whether a reduction in attendance is actually just a natural ebb and flow (Skinner et al., 2009) as some literature suggests.

Consideration should also be given to other programmes being developed, trialled, or delivered within the ED environment for similar populations when developing a programme such as this. Where competing programmes exist, there is a risk of limiting the potential participant population or tainting the results should participants inadvertently participate in more than one programme.
Additionally it may be useful to explore whether an existing primary health support service such as the Pegasus PCW service could utilise the findings of the study to extend their own service offerings to include those who frequently attend the ED.

Understanding how people shape their view of who is responsible for their health is key to any process of health-related behaviour change. For some people, their view of health is concrete: their GP is responsible for keeping them well and healthy. For others, the entire responsibility for their health depends on the situation, be it work, sport, home, or in public spaces. For others, it depends on the context of age or life stage. Therefore future studies need to consider a component of analysis for each participant before any co-ordination or intervention could be proposed, as participants need to be able to acknowledge and understand their own view of health and their responsibility in order to set goals to improve their own health and wellbeing.

In conclusion, while the number of participants in this study does not allow for robust analysis of efficacy it does indicate that there is merit in continuing to develop brief intervention case management models to support behaviour change programmes in EDs.
REFERENCES


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APPENDICES

Appendix 1: WHOQOL

World Health Organisation Quality Of Life Questionnaire

NEW ZEALAND VERSION

OF THE NZ-WHOQOL BREF

NAME:

Copyright for the “WHOQOL” is held by the World Health Organisation on behalf of the New Zealand WHOQOL Group. Authorization for use to be obtained from NZ WHOQOL group- AUT University.
Instructions:

This questionnaire asks how you feel about your quality of life, health, and other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can be your first response.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last two weeks.

For example, thinking about the last two weeks, a question might be:

<table>
<thead>
<tr>
<th>How much do you worry about your health?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

You should circle the number that best fits how much you have worried about your health over the last two weeks. So you would circle the number 4 if you worried about your health "very much".

<table>
<thead>
<tr>
<th>How much do you worry about your health?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

If you have worried “Not at all” about your health you would circle number 1. Please read each of the following questions, assess your feelings, and circle the number on the scale for each question that fits best for you.

The questionnaire:

Please read the question, assess your feelings OVER THE LAST TWO WEEKS and circle the number on the scale for each question that gives the best answer for you.

<table>
<thead>
<tr>
<th>1 How would you rate your quality of life?</th>
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<tbody>
<tr>
<td>Very poor</td>
</tr>
<tr>
<td>1</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>2 How satisfied are you with your health?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
The following questions ask about how much you have experienced certain things in the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>A moderate amount</th>
<th>Very much</th>
<th>An extreme amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
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<td>3</td>
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<td>5</td>
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<td></td>
<td>To what extent do you feel that physical pain prevents you from doing what you need to do?</td>
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<td>4</td>
<td>1</td>
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<td>3</td>
<td>4</td>
<td>5</td>
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<td></td>
<td>How much do you need any medical treatment to function in your daily life?</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td></td>
<td>How much do you enjoy life?</td>
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<td>3</td>
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<td></td>
<td>To what extent do you feel your life to be meaningful?</td>
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<td>7</td>
<td>1</td>
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<td>4</td>
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<td></td>
<td>How well are you able to concentrate?</td>
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<td>8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td></td>
<td>How safe do you feel in your daily life?</td>
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<tr>
<td>9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>How healthy is your physical environment?</td>
<td></td>
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</tr>
</tbody>
</table>

The following questions ask about how completely you have experienced or were able to do certain things in the last two weeks. Circle your best answer number.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>A moderate amount</th>
<th>Very much</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Do you have enough energy for everyday life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Are you able to accept your body appearance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Have you enough money to meet your needs?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>How available to you is the information you need in your day-to-day life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>To what extent do you have the opportunity for leisure activities?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>How well are you able to get around physically?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following questions ask about how good or satisfied you have felt about aspects of your life over the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>How satisfied are you with your sleep?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>How satisfied are you with your ability to perform your daily living activities?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>How satisfied are you with your capacity for work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19</td>
<td>How satisfied are you with yourself?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>How satisfied are you with your personal relationship?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>How satisfied are you with your sex life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>How satisfied are you with the support you get from your friends?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The following question refers to how often you have felt or experienced certain things in the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Quite often</th>
<th>Very often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>How often do you have negative feelings such as blue mood, despair, anxiety or depression?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
The following question asks how much you have experienced certain things in the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>A moderate amount</th>
<th>Very much</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>To what extent do you have feelings of belonging?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Please answer two additional questions by ticking the appropriate boxes

(i) Was staff assistance required to complete this questionnaire?
YES – Some staff assistance was required [ ]
NO – No staff assistance was required [ ]

(ii) If you ticked YES, please put ticks in the appropriate boxes to indicate the amount and type of assistance given.

<table>
<thead>
<tr>
<th>Was staff assistance required to</th>
<th>For most or all of the questions</th>
<th>For around half the questions</th>
<th>For few or none of the questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Read out the main question</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b Read out the rephrased question</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c Read out the prompt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d Mark the responses down</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2: KESSLER 10

Kessler K10
Website: http://www.epdgp.org.au/

<table>
<thead>
<tr>
<th>Patient</th>
<th>Mental Health Clinician</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

K10
This questionnaire is designed to measure the intensity of your feelings. By repeating it at intervals we can find out if our treatment plan is working or not. For each question, tick the box that best matches your response.

In the past 4 weeks about how often did you feel...

<table>
<thead>
<tr>
<th></th>
<th>None of the time</th>
<th>A little of the time</th>
<th>Some of the time</th>
<th>Most of the time</th>
<th>All of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tired out for no good reason?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>2.</td>
<td>Nervous?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>3.</td>
<td>So nervous that nothing could calm you down?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>4.</td>
<td>Hopeless?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>5.</td>
<td>Restless or fidgety?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>6.</td>
<td>So restless you could not sit still?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>7.</td>
<td>Depressed?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>8.</td>
<td>That everything was an effort?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>9.</td>
<td>So sad that nothing could cheer you up?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>10.</td>
<td>Worthless?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

TOTAL SCORE

The Kessler Psychological Distress Scale was used in the 1997 Australian National Survey of Health and Well-Being.
Appendix 3: Richmond Client Assessment Form

Name: insert name

Date of Entry: insert date

<table>
<thead>
<tr>
<th></th>
<th>Present Moment</th>
<th>Future</th>
<th>Past Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What's going on today? What's available now?</td>
<td>Desires, aspirations, goals: what do I want?</td>
<td>Resources, personal, social: what have I used in the past?</td>
</tr>
</tbody>
</table>

Daily Living Situation

Finances

Work

Education

Family and Whanau/ Social Supports
### Present Moment

What's going on today?  
What's available now?

### Future

Desires, aspirations, goals: what do I want?

### Past Experience

Resources, personal, social: what have I used in the past?

<table>
<thead>
<tr>
<th></th>
<th>Present Moment</th>
<th>Future</th>
<th>Past Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Health**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Leisure / Recreation**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Spirituality / Culture**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Personal Qualities**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

### Which goals do I want to achieve first and why are these important?

1. insert text

2. insert text

3. insert text

**Name:** insert name  
_____________________  
**Signature**  
__________ Date

**RSL Staff Name:** insert name  
_____________________  
**Signature**  
__________ Date

**Review Date:** insert date
Appendix 4: Consent to Refer Form

HEALTH AND WELLBEING CONNECTION PROJECT

CONSENT TO REFER

I have been given a Health and Wellbeing Connection Project brochure and had the project explained to me. I understand that:

1. The project’s intention is to assist me to connect with the most relevant health and wellbeing services directed by my life goals; and

2. The project will work for me as an extension of my general practice team.

I consent to:

- My health information from the Emergency Department being shared with my GP, Richmond NZ and Pegasus Health.
- A Health and Wellbeing Coordinator making contact with me.

_________________________  __________________________
First name             Surname

Signature: ___________________________       Date: __/__/____

Admin use only -
Please attach a patient information sticker :

Patient phone number: ____________________

Fax completed Consent Form to Pegasus Health – (03) 365-5977
Appendix 5: Health and Wellbeing Connection Brochure

How to access our service

- Talk to a nurse or doctor while you are in the Emergency Department.
- Speak with your GP or your Partnership Community Worker
- Call our Health and Wellbeing Coordinators

Contact us

Health and Wellbeing Coordinators
Rebecca Muir
027 704 8552
rmuir@richmond.org.nz

Margaret-Anne Cole
027 704 5584
macole@richmond.org.nz

Phone: 03 371 5599

A collaborative initiative between
Richmond NZ Trust Ltd
Pegasus Healthcare
& Partnership Health Canterbury

“Helping to connect you to the right services”

Published May 2012

I agree to my details being provided to the Health & Wellbeing Connection Service

Patient Signature
Who are the Health & Wellbeing Connection Team

The Health & Wellbeing Connection Team is a group of experienced Community Support Workers who have access to health and wellbeing services in your community.

Our team will offer you support and they'll connect you to services within your community that can help you enhance your health and wellbeing:

- Your health
- Your home and work life
- Learning new things
- Connecting with people around you (family, friends and community)

How we can support you

Do you need support?

- Does coming to the Emergency Department feel like your only option?
- Do you need the right tools to help you deal with life's challenges when your GP is unavailable?
- Do you sometimes feel alone and worried?
- Do you find it hard to keep up with your health appointments?
- Would you like to be more active, better at getting out and about?
- Is the way you eat, your smoking or other lifestyle choices bothering you?

If you have answered "yes" to any of the questions above then our Health & Wellbeing Connection Team can assist you.

What you can expect if you agree to being connected:

- Your consent will be recorded.
- You will be contacted by one of our team who will make a time to visit you.
- Our team will provide you with support and connect you to the right services within your community that can help you enhance your health and wellbeing.
- All personal information that you provide to Richmond NZ Trust and Pegasus Health will be stored securely.
- We may provide your personal information to your GP or the Emergency Department.
- You have the right to change your mind at any time.
Appendix 6: HWC Consent Form

HEALTH CONNECTION PROJECT

CONSENT FORM

I have been informed about the Health Connection Project and have been given an explanation brochure.

I ___________________________ ___________________________ give consent

for __________________________ who is employed by Richmond NZ to assess my health
& wellbeing needs and to assist me connect with the most relevant health and wellness
service providers.

I understand that:

• This service is an extension of my general practice team and the person that sees me
may access my medical file held at my GP’s surgery. They will write a consultation note
in my medical file. This note is also stored on the Pegasus Health Patient Management
database, the Richmond NZ Customer Relationship Management file and my
Emergency Department patient record.

• That at all times the clinical responsibility for my health remains with myself and my
genral practice team.

Signature: ___________________________ Date: _____/_____/____

Richmond New Zealand are the providers of this service, assisted by Pegasus Health. Your
health information will be summarised to analyse, plan and design future health services.
Information collected will include, gender, ethnicity, date of birth and other important health
information. It may include your individual identity NHL (National Health Index) number

Do you consent to your information being released, with your NHL, for that purpose?

Please circle your answer below

Yes    No

For more information please refer to the Health Connection Project brochure provided to you and for further detail
as to your privacy rights refer to the privacy policies of Richmond NZ held on www.richmondnz.org or Pegasus
Appendix 7: CDHB Frequent Attenders Letter

[insert date]

[insert first name and surname]
[insert Address 1]
[insert Address 2]
[insert CITY]

Dear [insert name]

You have recently been into Christchurch Hospital Emergency Department and we are aware that you have been in a number of times over the past 12 months.

We are currently running a pilot service in partnership with Richmond Services Ltd and Pegasus Health.

Our aim is to assist people to link into services within the community. Please find enclosed the brochure which further explains this service.

One of the Health and Wellbeing Coordinators will make contact you in the next two weeks to discuss if this service would be of benefit to you.

If you would like further information about this service please do not hesitate to contact the team on (03) 371 5500.

We look forward to hearing from you.

Kind regards

Polly Grainger
Nurse Coordinator Clinical Projects
## Appendix 8: Success Criteria

<table>
<thead>
<tr>
<th>The service will be successful if:</th>
<th>variable &amp; measure</th>
<th>expect to see</th>
<th>like to see</th>
<th>love to see</th>
</tr>
</thead>
<tbody>
<tr>
<td>It reaches the target audience.</td>
<td>anxiety/depression (K10)</td>
<td>50% of participants have a K10 score of ≥16 on admission</td>
<td>65% of participants have a K10 score of ≥16 on admission</td>
<td>80% of participants have a K10 score of ≥16 on admission</td>
</tr>
<tr>
<td></td>
<td>inequality (beneficiary/non-beneficiary)</td>
<td>50% of participants are on a benefit</td>
<td>65% of participants are on a benefit</td>
<td>80% of participants are on a benefit</td>
</tr>
<tr>
<td>ED presentations are reduced</td>
<td>3 months pre/post presentation (count)</td>
<td>no mean increase in comparative periods</td>
<td>up to 50% mean decrease</td>
<td>50% or greater mean decrease</td>
</tr>
<tr>
<td></td>
<td>attribution of change to service (survey rating)</td>
<td>more than 33% participants attribute change to service</td>
<td>at least 50% participants attribute change to service</td>
<td>more than 80% of participants attribute change to service</td>
</tr>
<tr>
<td>Participants are better off</td>
<td>identified needs have been met (survey rating)</td>
<td>≥50% report their needs have been met</td>
<td>≥75% report their needs have been met</td>
<td>≥80% report their needs have been met</td>
</tr>
<tr>
<td></td>
<td>increase in navigation skills as a result of using the service (survey rating)</td>
<td>≥50% report their navigation skills have increased</td>
<td>≥75% report their navigation skills have increased</td>
<td>≥80% report their navigation skills have increased</td>
</tr>
<tr>
<td></td>
<td>reduction in anxiety depression (pre/post K10)</td>
<td>no increase in mean level of distress</td>
<td>a mean reduction of &lt; 5 for those with moderate or higher levels of distress.</td>
<td>a mean reduction of ≥ 5 for those with moderate or higher levels of distress.</td>
</tr>
<tr>
<td></td>
<td>increased mean quality of life pre/post WHOQOL</td>
<td>no decrease in QOL</td>
<td>up to 5% increase in 3 of 4 domains</td>
<td>≥5% increase in 3 of 4 domains</td>
</tr>
</tbody>
</table>

Pilot is to: Develop, operationalise and evaluate a service that effectively addresses the psychosocial needs of people who present frequently to the Christchurch emergency department, and build a business case for such a service based on the success and learning from this pilot.
### Appendix 9: Client Survey Tool

<table>
<thead>
<tr>
<th>Some questions about the service</th>
<th>Response option</th>
</tr>
</thead>
<tbody>
<tr>
<td>What made you decide to use the HWC?</td>
<td>open response</td>
</tr>
<tr>
<td>Before HWC, did you go to the emergency department for any other reason than a serious acute health issue?</td>
<td>open response</td>
</tr>
<tr>
<td>How much do you agree with the following statements</td>
<td></td>
</tr>
<tr>
<td>The HWC helped me work out the support I really needed</td>
<td>(strongly disagree, disagree, neutral, agree, strongly agree)</td>
</tr>
<tr>
<td>By the end of the service, the support I needed was in place</td>
<td>(strongly disagree, disagree, neutral, agree, strongly agree)</td>
</tr>
<tr>
<td>How would you rate your overall satisfaction of the HWC</td>
<td>(very dissatisfied, dissatisfied, neutral, satisfied, very satisfied)</td>
</tr>
<tr>
<td>Some questions about what has changed since using the HWC and why</td>
<td>Response option</td>
</tr>
<tr>
<td>Has how often you visit the emergency department changed/how much</td>
<td>(a lot more often/ little more often/about the same/little less/a little less frequently)</td>
</tr>
<tr>
<td>If so, how much of this change do you believe is because of the HWC</td>
<td>(a lot/a little/none/ not applicable)</td>
</tr>
<tr>
<td>Has how often you visit your GP or medical centre changed/how much</td>
<td>(a lot more often/ little more often/about the same/little less/a little less frequently)</td>
</tr>
<tr>
<td>If so, how much of this change do you believe is because of the HWC</td>
<td>(a lot/a little/none/ not applicable)</td>
</tr>
<tr>
<td>Question</td>
<td>Response Options</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Has the amount of information, help or support you have from other services changed for you or your family</td>
<td>(a lot more often/ little more often/about the same/ little less/a little less frequently)</td>
</tr>
<tr>
<td>If so, how much of this change do you believe is because of the HWC</td>
<td>(a lot/a little/none/ not applicable)</td>
</tr>
<tr>
<td><strong>How much do you agree with the following statements</strong></td>
<td>Response option</td>
</tr>
<tr>
<td>Using the HWC has taught me how to find out about resources and services</td>
<td>(strongly disagree, disagree, neutral, agree, strongly agree)</td>
</tr>
<tr>
<td>I feel confident I could find out about other resources and services if I need to in the future</td>
<td>(strongly disagree, disagree, neutral, agree, strongly agree)</td>
</tr>
<tr>
<td>I feel better off as a result of using the HWC</td>
<td>(strongly disagree, disagree, neutral, agree, strongly agree)</td>
</tr>
<tr>
<td><strong>Some questions about what you thought</strong></td>
<td>Response option</td>
</tr>
<tr>
<td>What was the biggest difference using the HWC made for you/your family?</td>
<td>open response</td>
</tr>
<tr>
<td>What did you value most about the HWC?</td>
<td>open response</td>
</tr>
<tr>
<td><strong>Closing</strong></td>
<td>Response option</td>
</tr>
<tr>
<td>Do you have any other feedback about the HWC?</td>
<td>open response</td>
</tr>
<tr>
<td>Do you have any suggestions for improvement?</td>
<td>open response</td>
</tr>
</tbody>
</table>
14 March 2014

Gary Witte
Manager, Academic Committees
Academic Committees Office
Te Tari kā Komiti Mātauraka
Academic Services
University of Otago
PO Box 56
DUNEDIN 9054

Dear Mr. Witte

The Health & Wellbeing Connection project was developed collaboratively between Richmond Services, Pegasus Health and the Canterbury District Health Board in 2012.

The aim of the project was to identify adults who frequently present to the Emergency Department (ED) at Christchurch Hospital with underlying psychosocial needs and who would not fit the profile for attendance at other services. It was anticipated that by supporting these people through a 12-week programme to connect with the resources they need that their ED presentations would reduce and overall wellbeing would improve.

Agreement was reached within the Collaborative Group to collect and share data gathered by each organisation relating to the project. Written consent was sought from every client involved in the project. This step was taken to ensure that all were aware of the nature of the project and the sharing of patient information between the three agencies involved.

As the practice framework of the project was already in place with Richmond providing funded services to the Canterbury District Health Board, and the clients had consented to information sharing the Collaborative Group did not consider that a formal application for health ethics approval was required. That is the project was seen as more of a service audit/evaluation rather than a research project.

The project team were very supportive of Jane’s further analysis and use of the unidentified data for the purpose of her Masters thesis. Indeed, as Jane was requested to lead the service delivery of the project it was felt that given the workload involved, undertaking yet another piece of research for the purposes of completing her Master in Social Work at the same time would be too great an expectation of her. It is for this reason that she was encouraged and supported by Richmond to change her original topic to the Health & Wellbeing Connection project. Jane’s clinical supervisor, who has a MSW degree, supervised her work throughout the project.

Jane prepared an interim report for the project (The Health & Wellbeing Connection; an Integrated Assessment, Co-ordination and Navigation Pilot Service within a Primary Health Setting, 2013).

An evaluator, external to the project and employed by Richmond Services, undertook the follow-up qualitative interviews of participants, staff and stakeholders and completed the final data analysis. This report is due to be published shortly.

Following collection of the quantitative data and very near completion of the whole project, Jane began to work with her University supervisor (Associate Professor Lynne Briggs) in order to begin the write up of the
project into a thesis. In 2014 Jane re-enrolled in the MSW programme and it was at this point that her university supervisor became aware that formal application for ethics approval had not been sought—hence the approach to the University about this matter. However, as stated, the project being carried was a collaborative agreement between three main health agencies in Christchurch with consent being given by the Collaborative Group for Jane to use the unidentified data collected for the project to undertake secondary analysis of the data for her thesis.

I trust this answers your concerns about our project and Jane’s use of the data. Please do not hesitate to contact me if you have any further questions relating to the project.

Yours sincerely,

[Signature]

Martin Cole
Transition Director
Appendix 11: University of Otago Thesis and Ethical Approval

18th March 2014

Professor Hugh Campbell
Head of Department and Professor of Sociology
University of Otago

Dear Professor Campbell,

Re: Jane George Thesis and ethical approval

Thank you for your query and for providing information regarding the ethical issues around the use of previously collected data for use in a thesis in fulfilment of University of Otago qualification.

While the Human Ethics Committee does not grant retrospective ethical approval, based on the information provided by Dr Lynne Briggs as well as that from Martin Cole of Richmond Services Limited, the Committee is of the view that the data collection used in this study is exempt from needing ethical approval. The use of unidentified data, as described in this study, meets the Health Information Privacy Code Rule 11 (2) (c) (ii).

Yours sincerely,

Gary Witte
Manager, Academic Committee, University of Otago
Appendix 12: Final Data Collection Letters

September 9th, 2014

Polly Grainger
Emergency Department
Christchurch Hospital

Dear Polly,

Thank you for your ongoing support as I finalise the evaluation of data relating to my Masters Thesis and the Health & Wellbeing Connection Pilot Service.

As you are aware the final data collection occurred prior to Christmas 2013, and the pilot concluded earlier this year.

For those people who received a pilot service in the time since the last data collection, and those whose attendance data in the 6 months following the programme could not previously be collected, I am proposing a manual collection via the hospital IT system (Health Connect South / Concerto).

If you would find it useful to sight this raw, unidentified data please do let me know. Otherwise, I will prepare the updated evaluation for your information in a summarised format.

I look forward to sharing the completed Thesis with you, which I aim to submit prior to Christmas this year.

Kind regards,

Jane George
September 9th, 2014

Martin Cole
Richmond Services Limited
Christchurch

Dear Martin,

Thank you for your ongoing support as I finalise the evaluation of data relating to my Masters Thesis and the Health & Wellbeing Connection Pilot Service.

As you are aware the final data collection occurred prior to Christmas 2013, and the pilot concluded earlier this year.

For those people who received a pilot service in the time since the last data collection, and those whose attendance data in the 6 months following the programme could not previously be collected, I am proposing a manual collection via the hospital IT system (Health Connect South / Concerto).

If you would find it useful to sight this raw, unidentified data please do let me know. Otherwise, I will prepare the updated evaluation for your information in a summarised format.

I look forward to sharing the completed Thesis with you, which I aim to submit prior to Christmas this year.

Kind regards,

Jane George