

# What factors affect attendance at musculoskeletal physiotherapy outpatient services for patients from a high deprivation area in New Zealand?

**Meredith Perry** *BPhy, MManipTh, PhD*

*Centre for Health, Activity and Rehabilitation Research, University of Otago  
School of Physiotherapy, University of Otago*

**Sheena Hudson** *PhD*

*Centre for Health, Activity and Rehabilitation Research, University of Otago  
School of Physiotherapy, University of Otago*

**Nick Clode** *BSc, MSc*

*Physiotherapy Team Leader, Department of Physiotherapy, Hutt Valley District Health Board*

**Karen Wright** *BSc (Hons) Physiotherapy*

*Senior Physiotherapist, Department of Physiotherapy, Hutt Valley District Health Board*

**Professor David Baxter** *PhD*

*Centre for Health, Activity and Rehabilitation Research, University of Otago  
School of Physiotherapy, University of Otago*

## ABSTRACT

Barriers to accessing health services in New Zealand may manifest in inequalities. This study explored barriers and facilitators to accessing a District Health Board funded musculoskeletal physiotherapy outpatient service situated in two different geographical locations. Participants were purposely and then systematically selected from attendance records, were aged 18 years and older, had failed to attend one or more physiotherapy musculoskeletal outpatient sessions at either location, and lived in a geographical area considered high deprivation. Semi-structured interviews were audio-recorded, transcribed, and analysed using the General Inductive Approach. Seventeen participants with diverse ethnic backgrounds aged between 22 and 67 years were recruited. Four barriers ('*Placing value on the unknown*', '*Divergent health beliefs*', '*Appropriateness of physiotherapy*', '*Waiting times*') and three facilitators ('*Convenience*', '*Privacy*', '*Physiotherapy works*') were identified. No barrier was identified as being more problematic at either clinic site. Participants believed physiotherapy was beneficial. However, uncertainty regarding the aims of physiotherapy affected participants' ability to value its worth and affected attendance. Convenience of location influenced attendance of people living in a high deprivation area.

**Perry MAC, Hudson S, Clode N, Wright K, Baxter D (2015) What factors affect attendance at musculoskeletal physiotherapy outpatient services for patients from a high deprivation area in New Zealand? *New Zealand Journal of Physiotherapy* 43(1): 47-53 Julie Mulder <juliem@scolour.co.nz>. DOI: 10.15619/NZJP/43.2.04**

Keywords: Health inequalities, Physiotherapy, Barriers to access

## INTRODUCTION

Health inequalities exist within all countries irrespective of the country's development, economic and social status (Adler et al 1993, Blakely et al 2011, Bleich et al 2012, Marmot 2003, Ruger and Kim 2006). New Zealand, which ranks towards the top of the United Nation's human development index, also has marginalised populations with poor health (Ajwani et al 2003, Alcorn 2011, Baker et al 2012, Blakely et al 2011, King et al 2009, Ratima et al 2006). This population of people consists of less privileged groups, such as older adults, women, minority ethnic and religious groups, people with disability, people who live rurally and people who live in areas of high deprivation (Braveman and Gruskin 2003).

Many factors contribute to health status. In fact, health care provision contributes only about 15% towards health status (Lurie and Dubowitz 2007). To be explicit, inequalities in health status are typically the result of societal inequalities (Marmot 2005). Determinants of socioeconomic status are multi factorial: ethnicity, sexual orientation, disability, geographical location, poor nutrition, relatively lower income, poorer economic and education opportunities, poorer housing conditions, access to social support, and greater exposure to environmental risks have

all been cited (Adler and Rehkopf 2008, Fiscella et al 2000, King et al 2009). Nevertheless, limitations in accessing health care services do contribute to health inequality (Lurie and Dubowitz 2007) and in New Zealand there are access discrepancies between groups at primary and secondary levels of care (Baxter 2002, Westbrooke et al 2001).

Access refers to the actual receiving of health care as well as the navigation through the health care system (Lis Ellison-Loschmann and Pearce 2006) and describes the relationship between the patient and the healthcare system. Barriers to access are likely to arise from one of three sources: financial (including cost of care and/or insurance); structural (relating to institutional and organisational barriers); and cognitive (lack of knowledge, and communication barriers) (Carrillo et al 2011). The latter two barriers are central to health literacy.

The Ministry of Health has adopted this definition of health literacy: "the degree to which individuals have the 'capacity' to obtain, process and understand basic health information and services in order to make informed and appropriate health decisions" (Kickbusch et al 2005 p 8). While it includes how an individual navigates and interacts with New Zealand's complex health system, it also involves other skills such as: understanding of health

messages, expectations about one's own health and of the health system, and ability to communicate with health professionals. In fact, an individual's subjective sense of their own social worth affects health and health care access (Scambler 2012).

In 2008, a District Health Board (DHB) in the lower North Island developed an initiative to integrate an experienced physiotherapist into a Community Health Centre (the Health Centre). Until this time, a disproportionately low number of people identifying as Māori or Pacific Island for the geographical area, had been attending musculoskeletal physiotherapy outpatient services. Furthermore, up to 18% of scheduled appointments were not being attended (Perry et al 2015). The initiative was deemed successful as there was an increase in people from lower socioeconomic and minority groups accessing DHB funded physiotherapy services (Perry et al 2015). However, the percentage of attended appointments remained unchanged (Perry et al 2015). Therefore, it was not clear why the service had made a difference. Furthermore it was unclear what the perceived barriers and facilitators were for people who were referred to and attended the outpatient physiotherapy services at either the Hospital or the Health Centre. The aim of this research was to explore barriers and facilitators for attendance at musculoskeletal outpatient physiotherapy services by patients who had not attended one or more appointments at either the Hospital or the Health Centre and to explore if any of the barriers or facilitators were more pertinent at either site.

## METHODS

The study received ethical approval from the University of Otago Ethics Committee (12/311) and from the Hutt Valley District Health Board (HVDHB) and Hutt Union and Community Health Services.

### Participant recruitment

Participants were selected from a data set of 315 patients obtained from the DHB attendance records. People on this data list were purposefully selected as they were aged 18 years and older, had failed to attend one or more physiotherapy musculoskeletal outpatient sessions at either physiotherapy clinic between December 2009 and January 2013 (inclusive), and were living within a quintile 5 geographical area. Quintile 5 is considered to house the most socioeconomically deprived New Zealanders as defined by the NZDep2013 (Atkinson et al 2014).

Every tenth person on the attendance record was telephoned to ask if they would be willing to participate. If there was no reply, the next person on the list was telephoned and so on until the data were saturated. Face to face interviews were conducted at a time and in a place of convenience for each individual participant. All participants received written and verbal information about the study and gave informed written consent.

### Data collection

Thirty patients were telephoned, eighteen contacted and seventeen were interviewed. The contacted participant who declined was unable to fit into the time scheduled for interviews as he was going on an extended holiday. All participants were given the opportunity to have family/whanāu and/or support person(s) present. The interviewer (SH) was competent in Tikanga Māori. Interpreter services were available but were declined when offered. Interviews were semi-structured and did not follow a specific order of questioning. However, four main lines of questioning were followed via open questions. These were: 1) the referral process including who referred them, why they were referred, and how long it took to get an appointment; 2) which site they had treatment at, and what influenced this

decision; 3) challenges in attending appointments; and 4) what influenced the decisions to attend or not attend the first appointment and any subsequent appointments. The time spent on each question depended on its relevance to that participant. At the start of the interview, during introductions, SH advised participants she was not a physiotherapist. All interviews were recorded with an Olympus DS-55 digital voice recorder and transcribed anonymously by a contracted transcriber.

### Data Analysis

The analysis used the framework of the General Inductive Analysis (Thomas 2006). This approach is appropriate when the research question is predominantly evaluative (Thomas 2006). The General Inductive Approach is interpretive as multiple viewpoints are considered with respect to the objectives of the research. These objectives frame the research questions and analysis but theories are allowed to emerge from the data so that unanticipated important events or concepts can be incorporated into the results (Thomas 2006).

Analysis began after the completion of the first interview. SH and MP read all transcribed interviews and independently developed a framework to encapsulate the data. The framework was developed with line by line analysis (where all categories and contradictions were noted). The framework was constantly cross referenced back to original data and modified by the analysis of each subsequent interview. NVivo 9 (QSR 2011) was used to assist thematic organisation of data. A full discussion and interrogation of the categories was completed by SH and MP together to reduce overlap and categories superfluous to the framework (redundancy). A summary of findings was discussed informally with the Professional Leader of Physiotherapy at the DHB. Feedback from this consultation resulted in further interrogation and refinement of the categories and a model consisting of six themes was proposed.

Quotations were carefully selected to illustrate the theme being presented and either embedded within the main body of text or presented as short stand-alone paragraphs. In the quotations, the use of an ellipsis (...) indicates the removal of some text which does not alter the meaning of the quote, and brackets [ ] indicate the addition of some text to clarify meaning. The number in brackets after each quotation refers to the participant who provided this piece of data.

## RESULTS

The age of the 17 recruited participants ranged between 22 and 67 years; mean (SD) of 45.8 (13.0) years. Their ethnic backgrounds were diverse and some participants identified with more than one ethnicity: Cook Islands (1); Iraqi (2); Māori (7); New Zealand European (2); Niuean (1); Samoan (2); South African (1); Sudanese (1); and Tongan (2). Of the 17 participants, seven participants had never attended physiotherapy before and a further five had received physiotherapy previously but not in New Zealand. Eight participants did not attend their first consultation and four of these participants did not subsequently re-schedule. Interviews lasted between 3 minutes and 12 seconds and 14 minutes and 10 seconds. All interviews were conducted in the participant's home.

The interview process broadly asked participants about their experiences of attending musculoskeletal outpatient physiotherapy at either the Hospital or Health Centre. This open style provided the opportunity for a natural descriptive story which, when analysed, resulted in three barriers and three facilitators being identified. Except for the use of curtailed

cubicles at the Hospital compared to private rooms at the Health Centre, none were identified as being more pertinent for either the Health Centre or the Hospital. All facilitators identified were reported for both sites equally. Furthermore, no participants (initially) recalled missing any appointment or not attending a session, "I went to every single one" (P5).

### Barriers to attendance at physiotherapy

#### Placing value on the unknown

The first visit for some participants was intimidating as they did not have a clear picture of what to expect from physiotherapy, what they might be expected to do, and how they would feel afterwards. They were facing the unknown,

*"A little bit apprehensive. I was more apprehensive at, um, how the leg [would be sore afterwards], and what kind of exercises we were going to do" (P4).*

For others, while they were not apprehensive, their previous lack of experience of physiotherapy meant they could not evaluate the worth of physiotherapy and therefore "can't be bothered" (P12),

*"People just, you know, seem to go 'oh, physio, oh, it's, that's boring,' you know. And when I first went...I was listening to everyone else...But when I went there, I said 'oh, nah, it's good', cause they're, you know, you're using bike...you're doing different things all the time. And I, I, I enjoyed the first one. And it felt, I felt good after it. I felt very good" (P6).*

Participants acknowledged that they had thought "it'll get fixed by itself" (P6), but suggested that "getting educated" (P17) allowed them to make more informed judgements as to the perceived benefits and costs of attending treatment especially following an injury,

*"We [Māori] would normally leave it for the last minute... we wouldn't necessarily know that we had to go and get it ACC'd, and all that sort of stuff, and may need physio, you know...I suppose since working in the hospital, and getting educated... and being educated by my coaches and that, I think the minute now I injure myself, I will go straight away and get it looked at, I won't let it linger" (P17).*

Perceived value continued to influence attendance on subsequent visits as well. When other aspects of life such as work were considered more of a priority than attendance at a follow up session, it was easy to 'forget' an appointment,

*"Ah, why? Cause I'm busy working, and forgot about it" (P10).*

For others, better explanations leading to better understanding of 'best evidence' practice would have been helpful to make value judgements,

*"I think they need to give us more information on what's available...I benefitted from the hydro pool sessions but they didn't come forward with that soon enough" (P4).*

#### Divergent health beliefs

Several patients had not realised they would contribute towards their own rehabilitation goals or need to actively participate in their treatment. When treatment choices did not align with patient expectations, including who was responsible for undertaking the treatment, disappointment and dissatisfaction ensued,

*"I had to ah, rehabilitate myself, you know, do exercises and all" (P12).*

Other participants had such severe symptoms they chose not to attend because they believed physiotherapy would make it worse. They thought their specialist or general practitioner had mistakenly referred them to physiotherapy. In their opinion, they believed their referrer had misunderstood the complexity or severity of their condition and not realised that physiotherapy was inappropriate for their particular condition,

*"Cause you're already in pain, and they're [specialist] giving you physiotherapy. It's just not worth the pain and the aggravation, to go and get something that may or may not help you" (P1).*

This was compounded when participants believed that their problem was serious, too serious for physiotherapy,

*"I mean the exercises, maybe it help others, but not help me. Because it is very serious problem. I think I need a serious, a serious treatment" (P9).*

#### Appropriateness of physiotherapy

For some participants, physiotherapy was deemed inappropriate by their referrer and without informing their physiotherapist, the participants stopped attending. This typically arose because of an inaccurate initial diagnosis by the referrer. For example, one participant had been receiving treatment following a motor vehicle accident and discontinued when further investigations revealed,

*"Fracture in my hip. Yeah. And still I'm suffering" (P9).*

For others, the presence of other more serious health issues meant that physiotherapy was no longer a priority and attendance at other health clinics to address the more pressing health issue was considered appropriate,

*"I think it would have been, might have been the transition time where I had some health issues. Where I was, I think, well that's my excuse" (P17).*

#### Waiting times

The most straightforward and consistent barrier about attendance was the waiting time which was problematic at both sites,

*"Ten, ten minutes, fifteen minutes. I don't mind waiting...I think I used to wait for half an hour, but they don't do your appointments on time, it's never happened. It's never happened on time. Every other appointment was never on time" (P15).*

However, participants were cognisant of potential reasons for their physiotherapist being late. They provided excuses such as,

*"It was like at the end of the day, it isn't their fault" (P3).*

They were even more understanding if they thought the wait was due to another patient having a serious condition which required more time than anticipated,

*"It's just some people need longer than others" (P11).*

Ultimately though, participants believed that they had no choice but to wait because,

*"You want them to help you for what, the problem you are having, yes. You need to be present" (P2).*

#### Facilitators to attending physiotherapy

##### Convenience

While many of the participants felt that the service received was "no different" (P5) at either clinic site, a considerable number of participants mentioned that they chose services at the location of "convenience" (P17) to themselves. Those living closest to the Hospital cited good transport, likewise those living closest to the Health Centre (Pomare) cited the same. It was quicker and easier to go somewhere closer to home,

*"Well, just hopping on a bus, going as far as Pomare [the Health Centre] was quicker than going all the way to the hospital" (P3).*

Similarly, with parking most participants suggested that at both locations the parking was “fantas[ti]c. It was just outside” (P4). When facilities were close it was easier for physiotherapy to “fit in with [participants’] lifestyle” (P17).

### Privacy

Several participants discussed privacy, particularly related to the use of curtained cubicles at the Hospital and the perception that others might listen in or inadvertently look in. However, for one participant this was especially important because of her religious beliefs. Respect of her privacy made attending the Health Centre more appealing and determined where she chose to attend,

*“Because when you’re at the hospital, you’re in a room with other people, and the only thing that separates you is curtains. But in, at Pomare [the Health Centre], you’re in a room, on your own, with a therapist. So, yeah. It was just more private” (P3).*

### Physiotherapy works

In spite of not necessarily understanding what physiotherapy entailed prior to attending, many participants found physiotherapy helpful, “It was good. It worked” (P6) and enthusiastically endorsed it for others,

*“I totally recommend it, if you need the physio, um, if you don’t want to go and think you don’t need it, and it isn’t going to help you, it’s going to help you. It does help” (P3).*

A good rapport developed between the physiotherapists and most of the participants. Most trusted their physiotherapist and felt that a good result was achieved,

*“The physiotherapist, she was really, she was very good” (P2).*

They felt comfortable repeatedly asking questions and would do so until they comprehended what was going on despite potential language barriers,

*“Even if I don’t understand anything, I will keep nagging, nagging, nagging, until I understand” (P9).*

They appreciated their treatment being individualised and being listened to. For example, one participant with a very heavy manual occupation appreciated being taught strategies to manage the working environment,

*“Sort of teaching me, like in relation to work, how I should be doing different things- lifting things, yeah...he asks, and I show him exactly what I have to do, you know, even right down to scrubbing the floor. He shows me, you know, how to do that properly without getting sore” (P13).*

## DISCUSSION

This qualitative research explored the reasons patients living within a high deprivation area had not attended Hutt Valley DHB funded musculoskeletal outpatient physiotherapy services at one of two geographical locations (the Health Centre and the Hospital) and facilitators for attendance. Regardless of which clinic/site patients chose to attend (or not attend) there was limited understanding of what physiotherapy might entail and its aims or intended purpose with respect to their condition. Physiotherapy was not prioritised over other activities or commitments. However, participants typically developed a good relationship with their physiotherapists and found physiotherapy helpful. Convenience facilitated attendance and which physiotherapy outpatient service patients attended.

Some participants failed to attend the first session due to apprehension or uncertainty. They did not know what to expect and they lacked confidence regarding what would happen

in the session. They were not sure what physiotherapy was. Researchers have found similar feelings in those wait listed to attend pulmonary rehabilitation classes (Lewis et al 2014). Similarly, a lack of awareness and limited understanding of the service remit or aims affected attendance rates in a free cardiovascular drop in clinic in the United Kingdom (Burgess et al 2014) and in migrants attending a health care centre in the United States (Harari et al 2008). However, uncertainty regarding individual musculoskeletal appointments has rarely been reported in physiotherapy literature.

It is perhaps unsurprising that the lay person might be uncertain as to the role or aims of physiotherapy. The World Confederation for Physical Therapy (2015) defines physiotherapy as “services to people and populations to develop, maintain and restore maximum movement and functional ability throughout the lifespan”. While this definition is expansive it is possibly not enlightening to the lay person. There is also uncertainty regarding identity from within the physiotherapy profession (Jull and Moore 2013, Nicholls and Gibson 2010). A predominantly biomechanical view of the body and its management is now changing to more inclusive concepts of the individual’s (psychological, spiritual, social, physical) ability to move, or interact, or participate in activities (and environments) of importance to the individual (Nicholls and Gibson 2010). A unified approach to determining our physiotherapy identity, in language easily understood by the public, is essential but is perhaps still a long way off when the use of alternative titles exists internationally, weakening our “global identity” (Lowe 2004 p 1055) and enhancing public confusion (Lowe 2014).

While the profession itself is still in debate as to its identity, a cohesive marketing strategy will be difficult to implement. Nevertheless, if we are going to compete within the health workforce, providing and monitoring the effectiveness of information (marketing) regarding the scope of physiotherapy is essential. Our research explored the barriers and facilitators to attendance in people living in an area classified as high deprivation and which has a larger number of minority ethnic groups with the proportions of these ethnic groups higher than national proportions. We found the participants were uncertain as to the role of physiotherapy. Therefore, developing partnerships with ‘local’ Iwi and other ethnic groups, appropriate promotion within a high deprivation area and at large relevant cultural events, and the initiation or enhancement of collaborative practice particularly within primary health care may be required. Moreover, unless general practitioners and nurses working in primary healthcare in particular, endorse physiotherapy when referring patients, uncertainty of its purpose is likely to prevail (Doesburg 2012, Sheppard 1994). However, this would likely require the development of trust and respect, via interprofessional education at under and post-graduate level, with these professions “learning from, with and about each other to improve collaboration and the quality of care” (Centre for the Advancement of Interprofessional Education 2002).

The Health Centre was successful as the proportion of people in minority ethnic groups attending physiotherapy significantly improved (Perry et al 2015). The Health Centre operated within a strong collaborative practice ethos whereby patient pathways would be determined collaboratively and health professionals would not hesitate to seek advice outside their expertise for patients from others in the health team. Doesburg et al (2012) hypothesised that when the General Practitioners at the Health Centre personally introduced patients they intended to refer to the physiotherapist, they inherently endorsed physiotherapy, helping to make the initiative successful. While our data did

not find evidence to support the particular hypothesis that collaborative practice was a facilitator for attendance at the Health Centre, it likewise did not negate it.

It was evident from our research that physiotherapy was valued but could easily be replaced by other competing factors. Negative feedback primarily centred on: passive versus active treatment, what would happen in the session and what the treatment options were, and knowledge about the effectiveness of physiotherapy. These types of issues can arise due to a mismatch between expectations due to previous experiences (in New Zealand and overseas), culture, and health paradigms. Research in various health settings and in interactions with different health professionals has found, for example, that Māori men might prefer to “tough it out” (Williams et al 2003 p 75) rather than seek medical care (Williams et al 2003), and that Somalian people traditionally have cultural health beliefs related to authority and hierarchy of power where the health profession treats and cures (Gurnah et al 2011). In other cultures, a distrust of authority can affect attendance (Akter et al 2014) while in others, the need for treatment at all can cause shame and affect attendance (Winkley et al 2014). Furthermore, research by Akter et al (2014) and Listl et al (2014) has indicated people with a lower socioeconomic status tend to lead a more chaotic life, one where health is not valued or is deemed of little importance so that health care is not considered necessary.

Being aware of different health beliefs makes it easier to understand why some patients might not value physiotherapy or might be disappointed with the prescription of a home exercise programme. But these are not the only factors to consider. We know that over 1.5 million New Zealanders have poor health literacy (Ministry of Health 2010). A concerted effort to improve health literacy around the role of physiotherapy, especially in minority or migrant populations in New Zealand, might alter expectations, enable the worth or value of physiotherapy to be evaluated more critically, or allow for individuals to adopt co-existing health paradigms.

Convenience was found to be a factor for attendance (not non-attendance). Participants chose their preferred location by ease of parking, number of buses required and consequently cost, and duration of trip. These factors have previously been reported to strongly influence attendance within the health sector (Listl et al 2014, Mbada et al 2013, Winkley et al 2014) but not with respect to physiotherapy attendance in New Zealand.

This study did not find any strong feelings of discrimination or stigmatisation by the participants. Previous research has shown that individuals from different cultural or ethnic backgrounds, in addition to those living in lower socioeconomic areas, perceive that they are subjected to overt, intentional discrimination but also to subtle, perhaps unintentional or subconscious, discrimination (Bhatia and Wallace 2007, Chauhan et al 2010, Gurnah et al 2011, Terraza-Núñez et al 2010, Terry et al 2011, Williams and Jackson 2005). Language barriers have also been cited in the literature as a reason for health inequities, (Abdullahi et al 2009, Terraza-Núñez et al 2010), however this was not discussed as a reason for non-attendance in the current study. Indeed, once people attended physiotherapy, the relationship usually developed to an extent that participants felt they could repeatedly ask questions.

The patient provider relationship is dependent on the ability of patients and health providers to develop rapport. Positive relationships occur when health providers are culturally aware, make few preconceived assumptions about the patient they are treating, actively listen, and have an open attitude (Bhatia and Wallace 2007).

The ability to communicate effectively is Competency Four of the New Zealand Physiotherapy Registration Board's nine competencies (Physiotherapy Board of New Zealand 2009). Skills considered prerequisites to practice under this competency include elements such as “Identifying appropriate methods of communication”, “Identify[ing] the main/preferred language” and “Demonstrate[ing] empathy and respect” (Physiotherapy Board of New Zealand 2009). The participants' experiences provide positive evidence of this competency being widely demonstrated.

However, the right to dignity and respect, and being aware of others' health beliefs and incorporating these into management (Competencies Eight and Nine) may be inadvertently and subconsciously neglected. For example, privacy was identified as an important consideration by a female Iraqi participant. She preferred the clinic site because of the private room (versus curtained cubicles). International research has indicated that for some cultures or religious groups, exposure of the skin during assessment and treatment can make patients uncomfortable and affect attendance (Reitmanova and Gustafson 2008, Terry et al 2011). The use of a private room removed the perceived threat of other people listening in, lessened the threat of inadvertent exposure and made the patient feel safe.

#### **Methodological considerations**

Many factors contribute to inequalities of access to physiotherapy in New Zealand. Those from minority populations, from a lower socioeconomic group, and with low health literacy are usually at risk. This study deliberately recruited participants from a quintile 5 (high deprivation) area in New Zealand, known for its larger number of minority ethnic groups and with ethnic proportions of these groups higher than national proportions. The ethnicities of the participants recruited reflect this population and this is a strength of our research.

A number of methodological strategies were used to enhance the robustness of the results. An on-going iterative process was undertaken. Data analysis was initiated after the first interview to ensure that the nature and the phrasing of the questions elicited data which answered the research question. The experience gained from earlier interviews was used to improve the phrasing of questions to enhance participant understanding for subsequent interviews. The four primary questions remained the same. On-going analysis also meant that it was possible to determine that no new findings had emerged after the fifteenth, sixteenth and seventeenth interviews, and therefore no further interviews were conducted. Independent parallel coding of the results followed by discussion with reference back to the original transcripts to enhance interpretation occurred. Furthermore, discussion around the interpretation of the results occurred with physiotherapists involved in treating patients at both treatment locations. All participants were offered a summary of the results and asked to provide feedback. Finally, individual participants' data was used to support key findings.

We also used two sampling strategies to recruit the participants involved in this study. We initially employed purposeful sampling at two levels (Creswell 2007): site (geographical area of high deprivation) and at the participant level (those who had failed to attend one or more appointments). From within this pool, we then employed a systematic sampling approach. When no recurring pattern or order exists, as was the case in the data file used in our research, systematic sampling can be considered equivalent to random sampling (Portney and Watkins 2000). However, this method is susceptible to error or bias as natural periodicities can exist within the sampling frame and result in people with certain

characteristics being excluded or only certain people included (Hulley et al 2001). This is therefore a limitation of our research.

This study does not presume to be representative of any particular group of people's views. Furthermore, the interpretations presented here reflect the researchers' interpretations of the participants' reasons for (non-) attendance. All the researchers involved in this project have intimate experience of (non-) attending hospital appointments. Their experiences were either as a consumer of public health services and/or as a health professional in the public health system.

It can be difficult to illicit reasons for the non-attendance of any health service. People can be reluctant to confide as they fear the ramifications of information being disclosed (Milne et al 2014). The participants in this study did not initially recall missing any appointments. It was important that we maintained the participants' goodwill and co-operation and therefore we did not directly challenge participants' attendance beliefs. During recruitment participants were carefully briefed on the research aims with a phrase such as, "The physiotherapy team at Hutt Valley District Health Board are interested as to why people may not attend appointments. We would value your opinions on reasons why people might or might not choose to attend". Participants suggested that this was an important topic but did not directly relate the non-attendance specifically to themselves.

The interviews were not long in duration and this may be due to participants being reluctant to confide or to a language barrier. While none of the participants requested the translator service, English was a second language for nine of the participants. Despite the brevity of the interviews, reasons for missing appointments, in particular, became apparent.

### Implications

Some of the barriers found in our research are relatively 'easy' to change. The addition of supported satellite physiotherapy clinics into areas of high socioeconomic deprivation removes the inconvenience and cost of travel. The use of an appointment reminder text message service may help to negate forgetfulness.

Other barriers to attendance are more complex. Ratima et al (2008) suggest that cultural competency is demonstrated by continual reflection of the influence of individual belief systems and values on clinical practice. Likewise, developing an awareness of other people's health paradigms and beliefs is an on-going process. Many hospitals have private rooms available for patients who are likely to require a more sensitive approach to the gathering of the history and/or a more intimate physical examination, for example people seeking help with incontinence. While therapist safety must also be a consideration, physiotherapists might wish to reflect further upon which patients are 'invited' to use a private room as others, for example those with particular religious beliefs, might value the privacy of these rooms for other equally valid reasons. Physiotherapists could also aim to minimise an individual's anxiety, due to a limited knowledge of the role of physiotherapy or mismatched expectations, by further developing their awareness of different health beliefs. However, enabling balanced value judgements about the value of physiotherapy by informing people, particularly individuals from minority groups, of the aims and benefits of physiotherapy and how these are achieved requires a cohesive marketing effort involving the physiotherapy profession supported by the wider healthcare system. A professional identity which is easily explained would facilitate this process.

### CONCLUSIONS

In conclusion, participants believed that physiotherapy was beneficial. However, uncertainty regarding the aims of physiotherapy affected participants' ability to value its worth and

consequently affected attendance. A strong professional identity in conjunction with strategic marketing might improve health literacy and facilitate physiotherapy outpatient attendance.

### KEY POINTS

- The addition of DHB funded musculoskeletal physiotherapy satellite clinics into areas of high socioeconomic deprivation removes the inconvenience and cost of travel and facilitates attendance.
- The development of a good rapport between the physiotherapist and the patient facilitated the confidence to ask questions.
- Patients with limited experience or knowledge of physiotherapy were nervous about attending physiotherapy.
- A mismatch between physiotherapist and patient expectations led to other activities being valued more than physiotherapy.
- A strong professional identity strategically marketed to minority ethnic groups and those living in areas classified as high deprivation may facilitate attendance.

### PERMISSIONS

Ethics - Ethical approval was granted by the The University of Otago Ethics Committee (12/311) and from Hutt Valley District Health Board (HVDHB).

### DISCLOSURES

The research was funded by a University of Otago Research grant (UORG).

I declare on behalf of myself and the other authors that we know of no competing interests (financial, professional or personal) which may be perceived to interfere with or bias any stage of the writing or publication process. This includes, but is not restricted to, any factors that may influence full and objective presentation of the article, peer review and editorial decisions.

### ACKNOWLEDGMENTS

This study received funding from a University of Otago Research Grant (UORG) for which we are very appreciative. This study would not have been possible without the cooperation of Hutt Valley District Health Board, the Therapies team at Hutt Hospital, the staff at Pomare Hutt Union and Community Health Service, and the University of Otago, School of Physiotherapy. The authors would like to acknowledge in particular Sally Nichol at Hutt Union Community Health Service and Sue Doesburg, Professional Leader – Physiotherapy, Hutt Valley and Wairarapa DHB for their support.

### ADDRESS FOR CORRESPONDENCE

Meredith Perry, School of Physiotherapy, University of Otago – Wellington, PO Box 7343, Wellington 6242, New Zealand.  
Email: meredith.perry@otago.ac.nz

### REFERENCES

- Abdullahi A, Copping J, Kessel A, Luck M, Bonell C (2009) Cervical screening: Perceptions and barriers to uptake among Somali women in Camden. *Public Health* 123: 680-685. DOI: 10.1016/j.puhe.2009.09.011.
- Adler NE, Boyce WT, Chesney MA, Folkman S, Syme SL (1993) Socioeconomic inequalities in health. No easy solution. *Journal American Medical Association* 269: 3140-3145. DOI: 10.1001/jama.1993.03500240084031.
- Adler NE, Rehkopf DH (2008) US disparities in health: Descriptions, causes, and mechanisms. *Annual Review of Public Health* 29: 235-252. DOI: 10.1146/annurev.publhealth.29.020907.090852.
- Ajwani S, Blakely T, Robson B, Bonne M, Tobias M (2003) Decades of disparity: Ethnic mortality trends in New Zealand 1980–1999. Wellington, New Zealand: Ministry of Health.

- Akter S, Doran D, Avila C, Nancarrow S (2014) A qualitative study of staff perspectives of patient non-attendance in a regional primary healthcare setting. *Australasian Medical Journal* 7: 218-226. DOI: 10.4066/AMJ.2014.2056.
- Alcorn T (2011) New Zealand's bold strategy for reducing health disparities. *Lancet* 378: 1689-1690. DOI: 10.1016/S0140-6736(11)61726-1.
- Atkinson J, Salmond C, Crampton P (2014) NZDep2013 Index of Deprivation. Wellington, New Zealand: University of Otago. <http://www.otago.ac.nz/wellington/otago069936.pdf> [Accessed June 25, 2012].
- Baker MG, Barnard LT, Kvalsvig A, Verrall A, Zhang J, Keall M, Wilson N, Wall T, Howden-Chapman P (2012) Increasing incidence of serious infectious diseases and inequalities in New Zealand: a national epidemiological study. *Lancet* 379: 1112-1119. DOI: 10.1016/S0140-6736(11)61780-7.
- Baxter J (2002) Barriers to health care for Maori with known diabetes: A literature review and summary of the issues (1st edn). Te Roopu Rangahau Hauora a Ngai Tahu.
- Bhatia R, Wallace P (2007) Experiences of refugees and asylum seekers in general practice: a qualitative study. *BMC Family Practice* 8: 48. DOI: 10.1186/1471-2296-8-48.
- Blakely T, Simmers D, Sharpe N (2011) Inequities in health and the Marmot Symposia: Time for a stocktake. *New Zealand Medical Journal* 124: 1338.
- Bleich SN, Jarlenski MP, Bell CN, LaVeist TA (2012) Health inequalities: Trends, progress, and policy. *Annual Review Public Health* 33: 7-40. DOI: 10.1146/annurev-publhealth-031811-124658.
- Braveman P, Gruskin S (2003) Defining equity in health. *Journal of Epidemiology and Community Health* 57: 254-258. DOI: 10.1136/jech.57.4.254.
- Burgess C, Wright AJ, Forster AS, Dodhia H, Miller J, Fuller F, Cajeat E, Gulliford MC (2014) Influences on individuals' decisions to take up the offer of a health check: A qualitative study. *Health Expectations*. DOI: 10.1111/hex.12212.
- Centre for the Advancement of Interprofessional Education (2002) Defining IPE. Centre For The Advancement Of Interprofessional Education. <http://caipe.org.uk/about-us/defining-ipe/> [Accessed June 25, 2012].
- Carrillo JE, Carrillo VA, Perez HR, Salas-Lopez D, Natale-Pereira A, Byron AT (2011) Defining and targeting health care access barriers. *Journal of Health Care for the Poor and Underserved* 22: 562-575. DOI: 10.1353/hpu.2011.0037.
- Chauhan U, Baker D, Lester H, Edwards R (2010) Exploring uptake of cardiac rehabilitation in a minority ethnic population in England: a qualitative study. *European Journal of Cardiovascular Nursing* 9: 68-74. DOI: 10.1016/j.ejcnurse.2009.10.003.
- Creswell JW (2007) Qualitative inquiry and research design. Choosing among five approaches (2nd edn). Thousand Oaks, California: Sage Publications.
- Doesburg S (2012) Physiotherapy - an integral part of the interdisciplinary team in a 'high needs' primary health centre. Proceedings of the Expanding Horizons: Physiotherapy New Zealand Conference 2012, Wellington, New Zealand, p 84.
- Fiscella K, Franks P, Gold MR, Clancy CM (2000) Inequality in quality. *Journal of the American Medical Association* 283: 2579-2584. DOI: 10.1001/jama.283.19.2579.
- Gurnah K, Khoshnood K, Bradley E, Yuan C (2011) Lost in translation: reproductive health care experiences of Somali Bantu women in Hartford, Connecticut. *Journal of Midwifery and Women's Health* 56: 340-346. DOI: 10.1111/j.1542-2011.2011.00028.x.
- Harari N, Davis M, Heisler M (2008) Strangers in a strange land: health care experiences for recent Latino immigrants in Midwest communities. *Journal of Health Care for the Poor and Underserved* 19: 1350-1367. DOI: 10.1353/hpu.0.0086.
- Hulley SB, Cummings SR, Browner WS, Grady DG, Newman TB (2001) Designing clinical research (2nd edn). Philadelphia: Lippincott Williams & Wilkins.
- Jull G, Moore A (2013) Physiotherapy's identity. *Manual Therapy* 18: 447-448. DOI: 10.1016/j.math.2013.09.006.
- King M, Smith A, Gracey M (2009) Indigenous health part 2: The underlying causes of the health gap. *Lancet* 374: 76-85. DOI: 10.1016/S0140-6736(09)60827-8.
- Kickbusch I, Wait S, Maag D, Banks I (2006) Navigating health: the role of health literacy. Alliance for Health and the Future, International Longevity Centre, UK. [http://www.ilcuk.org.uk/images/uploads/publication-pdfs/pdf\\_pdf\\_3.pdf](http://www.ilcuk.org.uk/images/uploads/publication-pdfs/pdf_pdf_3.pdf) [Accessed April 19, 2015].
- Lewis A, Bruton A, Donovan-Hall M (2014) Uncertainty prior to pulmonary rehabilitation in primary care: A phenomenological qualitative study in patients with chronic obstructive pulmonary disease. *Chronic Respiratory Disease* 11:173-180. DOI: 10.1177/1479972314539981.
- Ellison-Loschmann L, Pearce N (2006) Improving access to health care among New Zealand's Maori population. *American Journal of Public Health* 96: 612-617. DOI: 10.2105/AJPH.2005.070680.
- Listl S, Moeller J, Manski R (2014) A multi-country comparison of reasons for dental non-attendance. *European Journal of Oral Sciences* 122: 62-69. DOI: 10.1111/eos.12096.
- Lowe R (2014) Global identity. *Physical Therapy* 94: 1055. DOI: 10.2522/ptj.2014.94.7.1055.
- Lurie N, Dubowitz T (2007) Health disparities and access to health. *Journal of the American Medical Association* 297: 1118-1121. DOI: 10.1001/jama.297.10.1118.
- Marmot M (2005) Social determinants of health inequalities. *Lancet* 365: 1099-1104. DOI: 10.1016/S0140-6736(05)71146-6.
- Marmot M (2003) Understanding social inequalities in health. *Perspectives in Biology and Medicine* 46: S9-S23. DOI: 10.1353/pbm.2003.0056.
- Mbada CH, Ajayi O, Agbeja OB, Mbada KA, Awotibebe TO, Oghumu SN (2013) Non-Attendance for out-patient physiotherapy: Evaluation, prediction and physiotherapists' perceptions - a cross-sectional study. *Journal of Physical Therapy* 7: 12-22.
- Milne V, Kearns R, Harrison A (2014) Patient age, ethnicity and waiting times determine the likelihood of non-attendance at a first specialist rheumatology assessment. *International Journal of Rheumatic Diseases* 17: 19-25. DOI: 10.1111/1756-185x.12126.
- Ministry of Health (2010) Kōrero Mārama: Health Literacy and Māori. Results from the 2006 Adult Literacy and Life Skills Survey. Wellington: Ministry of Health. <http://www.moh.govt.nz> [Accessed October 13, 2014]
- Nicholls DA, Gibson BE (2010) The body and physiotherapy. *Physiotherapy Theory and Practice* 26: 497-509. DOI: 10.3109/09593981003710316.
- Perry M, Featherston S, McSherry T, Milne G, Ruhen T, Wright K (2015) Musculoskeletal physiotherapy provided within a community health centre improves access. *New Zealand Journal of Physiotherapy* 43 (2): 40-47. DOI: 10.15619/NZJP/43.2.03
- Physiotherapy Board of New Zealand (2009) Physiotherapy Competencies for Physiotherapy Practice in New Zealand. Wellington, New Zealand: Physiotherapy Board of New Zealand. <http://nlncat.natlib.govt.nz/vwebw/holdingsinfo?bibid=1336725> [Accessed October 2, 2014]
- Portney L, Watkins MP (2000) Foundations of clinical research: *Applications to practice* (2nd edn). Upper Saddle River, New Jersey: Prentice-Hall Health.
- Ratima M, Waetford C, Wikaire E (2006) Cultural competence for physiotherapists: Reducing inequalities in health between Māori and non-Māori. *New Zealand Journal of Physiotherapy* 34: 153-159.
- Reitmanova S, Gustafson DL (2008) "They can't understand it": Maternity health and care needs of immigrant Muslim women in St. John's, Newfoundland. *Maternal and Child Health Journal* 12: 101-111. DOI: 10.1007/s10995-007-0213-4.
- Ruger JP, Kim H-J (2006) Global health inequalities: An international comparison. *Journal of Epidemiology and Community Health* 60: 928-936. DOI: 10.1136/jech.2005.041954.
- Scambler G (2012) Health inequalities. *Sociology of Health and Illness* 34: 130-146. DOI: 10.1111/j.1467-9566.2011.01387.x.
- Sheppard L (1994) Public perception of physiotherapy: implications for marketing. *Australian Journal of Physiotherapy* 40: 265-271. DOI: 10.1016/S0004-9514(14)60463-3.
- Terraza-Núñez R, Toledo D, Vargas I, Vázquez ML (2010) Perception of the Ecuadorian population living in Barcelona regarding access to health services. *International Journal of Public Health* 55: 381-390. DOI: 10.1007/s00038-010-0180-1.
- Terry D, Ali M, Lê Q (2011) Asian migrants' lived experience and acculturation to Western health care in rural Tasmania. *Australian Journal of Rural Health* 19: 318-323. DOI: 10.1111/j.1440-1584.2011.01229.x.
- Thomas DR (2006) A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation* 27: 237-246. DOI: 10.1177/1098214005283748.
- World Confederation for Physical Therapy (2015) What is Physical Therapy? <http://www.wcpt.org/what-is-physical-therapy> [Accessed October 4, 2014].
- Westbrooke I, Baxter J, Hogan J (2001) Are Māori under-served for cardiac interventions? *New Zealand Medical Journal* 114: 484-487.
- Williams DR, Jackson PB (2005) Social sources of racial disparities in health. *Health Affairs* 24: 325-334. DOI: 10.1377/hlthaff.24.2.325.
- Willams PN, Gray MA, Ka'ai TM, Moorfield JC, Mcpherson KM, Weinstein P, Nacey JN (2003) Māori men's perceptions and experiences of health seeking for prostate health problems in New Zealand. *Pacific Health Dialog* 10: 71-78.
- Winkley K, Ewvierhoma C, Amiel SA, Lempp HK, Ismail K, Forbes A (2014) Patient explanations for non-attendance at structured diabetes education sessions for newly diagnosed Type 2 diabetes: a qualitative study. *Diabetic Medicine* 32:120-128. DOI: 10.1111/dme.12556.