

'She Taught Me': Factors Consumers Find Important in Nurse Practitioner and Pharmacist Prescriber Services

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Abstract

Background: Advanced practitioner services, such as those nurse practitioners and pharmacist prescribers provide, are an opportunity to improve health care delivery. In New Zealand, these practitioners remain underutilised, despite research suggesting they offer safe and effective care, and considerable international literature recording patient satisfaction with these roles. This study aimed to explore factors underlying consumer satisfaction with primary health care nurse practitioner and pharmacist prescriber services.

Methods: As part of a larger realist evaluation, 21 consumers of advanced practitioner services participated in semi-structured interviews. These interviews were transcribed and coded against context-mechanism-outcome configurations tested and refined throughout the research.

Results: Study findings emphasise the importance of consumer confidence in the provider as a mechanism for establishing advanced practitioner roles. Underlying this confidence is a recognition that these practitioners are more accessible, engage at the consumer's 'level', and operate with passion.

Conclusions: This research offers learnings to re-engineer service delivery within primary health care to make best use of the entire health care team by including consumers in the design and introduction of new roles.

Background

Recent health workforce planning and policy initiatives aim to meet expected increases in health service demand through increasing workforce numbers and skills. A challenge in the current primary health care (PHC) climate of general practitioner (GP) shortages [1, 2] and constrained spending is how best to introduce new workforce roles to enable patient-centred care [3] and continuity of service provision. This is particularly important in New Zealand's culturally diverse population, where the indigenous Māori population have generally poorer health access and outcomes across their life course [4]. The creation of nurse practitioner (NP) and pharmacist prescriber (PP) roles intended to improve patient health service access and make better use of workforce skills [5, 6]. Curiously, this workforce has remained largely underutilised. Also, many nurses have completed prerequisite Masters level training, but have not registered as NPs [7]. Similarly, since being gazetted in 2013, there are only twenty currently registered and practising PP [8]. Growth in numbers for these professions has fallen below early projections [9, 10].

Globally, there is increasing acceptance and interest in advanced practitioner roles and their contribution to improved health outcomes. Studies have suggested that NP/PP services provide improved health service accessibility [11–15], patient satisfaction, good patient experience, and equivalent quality of care when compared to traditional health care providers [16–23]. Several randomised control trials of NP care, compared to GP care, reinforce arguments for enhanced or comparable patient satisfaction, with improved consumer knowledge following NP consultation [18, 24, 25]. More recently, a systematic review of stakeholder experiences with pharmacist prescribing suggests that consumers with experience of PP

roles are satisfied with their services, but that often satisfaction is limited to treatment within clearly defined limited treatment parameters [26]. Arguably, findings are often compromised by an inability to attribute satisfaction definitively to activities advanced practitioners perform.

Few studies have explored factors underlying consumer satisfaction with advanced practitioner services. No studies have examined these views on PP-provided services in New Zealand. As part of understanding the development of NP/PP roles in New Zealand PHC, this article lays out consumer perspectives and identifies what works for them and why it does.

Methods

Pawson and Tilley's (1997) [27] realist evaluation methodology, a theory-based approach, is well placed to evaluate programmes sharing a family resemblance [28], such as the development of NP/PP roles. A central tenet of this approach is that context influences whether mechanisms (changes in resources and reasoning) are triggered and lead to outcomes [27]. Hence, in a realist-informed study, the focus of evaluation shifts from whether outcomes occur to testing and refining theories about how they occur, or fail to occur [27].

Advanced practitioners operate in a complex health system environment, where there are many in and outflows, and multiple parties working in differing contexts, influencing the successful operation of these roles. As part of the wider research project [29], we gathered information from parties across the spectrum of opinion to form a picture of advanced practitioner role development. These individuals were able to contribute to answering the principal question of a realist evaluation, which is 'what works, for whom, in what circumstances, to what extent, and why?' [30]. For this research, the emphasis on mechanisms (what works and why) was vital given the different worldviews of parties involved in developing these roles during policy creation and practice implementation. Consumer views, articulated in this article, offer one perspective on advanced practitioner roles and the contexts that facilitate their implementation.

Data collection

Advanced practitioners involved in a wider study on NP/PP role development assisted in recruiting consumers for this research based on set criteria (Table 1). Where patients were under 18 years, or otherwise unable to consent, then a parent/other individual hiring advanced practitioner services was invited to participate in this research. NPs/PPs generated a blinded list of consumers meeting these criteria from their daily appointment register. Each day, a consumer was randomly selected from this list for four consecutive working-days and provided with information on this study.

Table 1
Criteria for consumer selection.

Inclusion criteria
Received services from their NP/PP at least once in the preceding year
Currently receiving services from their NP/PP
Not acutely ill or facing extenuating family circumstances
Over 18 years old
Able to provide informed consent

Participating NPs/PPs supplied sampled consumers with a letter inviting them to contact the primary investigator and an information sheet and consent form. When consumers made initial contact, the primary investigator arranged an interview with them. Interview numbers were not fixed in advance but were set by the number of consumers each practitioner recruited.

The primary investigator (a registered pharmacist) conducted audio-recorded interviews in mutually agreed locations; these interviews concluded when participants felt they had nothing more to add and lasted between 10 and 45 minutes.

An interview schedule (Table 2) was created to facilitate open-ended questioning; interviews adhered to the principles of realist teacher-learner cycles [31]. This cycle involves teaching interviewees about hypothesised theories so that they could then respond in relevant ways to the proposed theories and discuss their appropriateness and relevance [31, 32]. Consumer interviews were conducted following interviews with key informants (and their analysis), and concurrently with health professional interviews; theories hypothesised during earlier interviews were able to be posed to interviewees and then refined.

Table 2
Consumer interview schedule.

Key questions	Prompts
What is the role of NPs/PPs in your primary health care practice?	• Can you please provide some examples of their role in your care?
	• What reasons do you have for using NP/PP services over other available care providers?
How does their role differ from what you expected?	• Positive factors affecting the consultation process
	• Negative factors affecting the consultation process
	• How do these factors affect consultations?
What impact does your NP/PP have on your treatment?	• What do you most value about NP/PP consultations?
	• How does this differ from other consultations you have had?
	• How does the NP/PP change your access to care?
Is there anything else that you would like to add?	

Data analysis

Interviews were transcribed by a third-party, checked by the primary investigator, and where requested, participants were able to review their transcripts and interview summaries. An initial synthesis of literature on NP/PP role development acted as a base on which to formulate a priori theories to test. Transcripts were coded using NVivo 11 Pro (QSR International) to refine these theories. Analysis continued concurrent with data collection and followed realist evaluation analysis processes [27, 31, 33], as laid out in Fig. 1.

Results

Twenty-eight consumers returned consent forms and twenty-one participated (nine PP and 12 NP consumers); two did not supply contact details and five returned their forms after data collection ceased. Consumers were either patients of advanced practitioners (n = 18), or were parents/guardians, or other individual hiring advanced practitioner services (n = 3). Participants resided across New Zealand.

Consumers had confidence in their advanced practitioner and in their personal ability to manage their health because of their NP/PP's care (Table 3). Three main contexts triggered this mechanism: (1) feeling known as individuals, (2) that advanced practitioners discussed treatment options, and (3) that advanced practitioner have passion for their roles.

Table 3
Mechanism and contexts generated from consumer interviews.

Mechanism	Consumer confidence		
Contexts	Being known	Doctors tell, advanced practitioners discuss	Provider passion

Consumer confidence

Several consumers commented on the difference between the care they received from their NP/PP, and the services of traditional health care providers. As part of these discussions, in all interviews, participants discussed the underlying mechanism of confidence. In one case, this confidence came from knowledge that NPs/PPs were health professionals and were “very much the same” (P5) as doctors. More commonly, participants advised that they felt their conditions improved because of their advanced practitioner’s intervention. One consumer described how this confidence changed how they sought health services:

I wouldn’t send my kids to the doctor with my husband. But I have sent my kids to her with my husband... I trust the care that she will discuss with him...He doesn’t always get the kind of results I get out of a health consult, but I think she’s very aware of that... She does consult with him, she does give him information in a way that he can consider it. (P20)

Many consumers had long-term relationships with providers. Others had been referred to their advanced practitioner by members of their care team or had first visited their NP/PP as an alternate to their medical doctor. Consumers described their confidence in providers as occurring irrespective of their knowledge of their advanced practitioner’s skills:

I haven't really noticed any change because to me she has always been the same, although her knowledge... changed because of her schooling up... It's not something you see as a patient... You've got that confidence that she knows. (P3)

In several cases, consumers compared the confidence they had in their advanced practitioner to confidence in other providers. Answers varied from an absolute refusal to seek other support if their advanced practitioner was absent, to a feeling that medical practitioners, particularly locum doctors, did not build relationships:

When you go to the doctor, it's not the same. You're just in there and they want to hurry up and get rid of you... See, they don't really care about me...I'm just a bloody number... We're just dollar signs when we go to the doctors. (P6)

Participants described differences they perceived between their NP/PP and registered nurse or pharmacist, respectively. One consumer attributed this difference in confidence to a feeling that their NP operated with greater autonomy than a registered nurse:

I probably wouldn't have... [taken my son for education] with either just a registered nurse or a doctor... whereas... he [my son] had that relationship with her [NP],... that was a role she would pick up and lead really well. I don't know that I would have had necessarily the confidence in some of the registered nurses because... they're not working autonomously in the same way. (P20)

Where consumers had unmanaged long-term conditions or needed close monitoring, they often then received PP services. These consumers explained changes in their usual feelings of exasperation because of their PP's intervention:

It's given me confidence in myself that if... things aren't going right, I can turn to somebody who I think cares and knows what to do. Whereas I'll just plug in more insulin and get nowhere. (P1)

In turn, this feeling of confidence, both in self and in the provider, was framed around discussions that NPs/PPs operate in a more personalised manner than other practitioners.

Being known

Consumers spoke of the availability of NPs/PPs to deliver services in locations separate from general practice, for example, on marae (a Māori meeting/gathering place) or rural hubs. They considered advanced practitioners to have more time to spend managing health care needs and often noted shorter appointment wait times. Consumers described their advanced practitioner as part of their journey to good health, a return to personalised care, and openness to the whole person and their family, rather than a sick patient:

She's been part of my journey as well. She is so proactive, and you get that old-fashioned personal care again. She doesn't start typing the script as you walk in. She doesn't assume that because you're big you need a lecture on weight and then just toss whatever else is wrong with you... You get to have that faith and trust in her... I suppose she gets to know you. (P16)

The same phenomenon described the PP role:

Just because you have type 2 diabetes doesn't mean that we all should be on two tablets... because everybody's body is different, and that's what she focuses on, that we're all different... That's what she's taught me. (P4)

Consumers advised that their advanced practitioners understood their needs holistically. They saw this approach to care as patient-centred, accessible, and reflecting individual needs. This led them to feel confident that they, the consumer, owned the process and were actively involved in their own care.

Doctors tell, advanced practitioners discuss

Consumers commented that advanced practitioners worked to facilitate consumer understanding of the care they received. This understanding occurred because of (1) increased consultation time with NPs/PPs, (2) the language advanced practitioners used, and (3) delivering services in a way that consumers understood their treatment. Consumers recognised and trusted their advanced practitioner's clinical skills, and felt their practitioner listened to them. The following narrative offers a comparison between GP and NP services:

He [the GP] knows his stuff... and that's what I like about him... He's just doing his job and that's it. Whereas that's what makes me comfortable with her [the NP], because she kind of is like well "how's your day going"... So it's a lot more personal. Yes, and that's what I like. It's explained in the language that we understand... She makes sure that you understand everything before you leave. (P11)

Consumers further emphasised the role of advanced practitioners in improving health literacy. They described a 'holistic' model of care that brought underlying health problems to the surface and facilitated use of other forms of health service delivery, such as rongoā (traditional Māori medicine):

If she goes to the marae, [Māori people] will come. They won't come in here, into the doctor... and we don't go to him... They [PP] allow the Māori medicine side to also work... If they went to the doctor, he might say no, this is what you have to do... Where she will listen and work both sides. (P18)

Participants discussed being able to communicate with their advanced practitioners. PPs were often available via text message, phone call, or email. Consumers emphasised the stability or 'constant' that these providers and NPs offered their patients and how this influenced continuity of care:

So many GPs now you've gone to a practice and you can never get that constant ongoing care, whereas having... my nurse practitioner, it's like having that constant person that knows you every visit. It's that continuity of care. (P16)

Similarly, consumers broadly commented that doctors "tell", and advanced practitioners "discuss":

Doctors, they tell you things... But she [PP] can sit there just talking for 10 minutes, see how you are, how you're feeling... I find her more important to me. I know more of what's going on talking with her than with the doctor... He's got an appointment every 10 minutes, so he's got to shove you in, shove you through. (P1)

Provider passion

Participants described their NP/PP as passionate in their roles as health professionals. It was common for consumers to see their advanced practitioner as "magic" (P1) and fulfilling their roles as health providers because of a commitment and desire to help others. Many consumers saw their providers as "on a mission to do great things" (P21) for them. This led consumers to feel that services were financially worthwhile.

In many cases, consumers of NP/PP services emphasised that by having advanced practitioners working in practices and locations where the NP/PP and their whānau (family), had been based for years, they then fit the practice and grew alongside their patients:

This is her whānau, so she's more than happy to be here... She's got roots here, whānau... She fits perfectly into this place. (P6)

Recognition of NP/PP commitment improved consumer confidence in themselves and the provider.

Discussion

Consumers describe receiving NP/PP services as improving their confidence (a mechanism) in their own ability to manage health conditions and in their health professional. Contexts triggering this included a recognition that advanced practitioners spend more time with consumers and discuss health conditions on the consumer's 'level'. Consumers explained that NPs/PPs deliver care in a way that incorporates the consumer in the care team. They noted that services delivered by these providers were individualised and empowered consumers to understand their conditions. Such findings are supported by earlier literature [17–22, 34], and are key aspects of patient-centred care [3].

Correct management of population health needs in PHC reduces requirements for specialist care. However, in New Zealand and globally, PHC workforce recruitment is challenging, these challenges combined with increasing patient requirements are likely to affect access to timely care [1]. Similarly, known inequities in Māori health outcomes [4] mean there is a need to change how services are developing. While simply increasing the range of health providers may not improve coordination of care [35], there remains scope to improve how we employ health professionals. One step is ensuring that general practice roles are well-demarcated, clearly defined, and integrated, so that interplay between various disciplines is strengthened [36]. To this end, consumers should be educated around the distinct roles health professionals perform.

There is growing recognition of the value of consumer involvement in the implementation, delivery, and evaluation of health service initiatives [37, 38]. New Zealand's Ministry of Health has emphasised co-design as integral to ensuring that health service delivery centres around the needs of consumers, rather than health professionals [2]. Despite research suggesting consumers are satisfied with advanced practitioner services, often, introduction of these roles has not included consumers in their design. Ineffective role demarcations may result from limited consumer input during role introduction, thereby inhibiting consumer ability to make informed choices about NP/PP services.

Where advanced practitioners are fully utilised, they too often cease operating in patient-centred ways and instead take on roles as GP substitutes, findings supported by New Zealand nursing research [39, 40]. Consumers should be involved in designing and implementing advanced practitioner roles so that these roles align with consumer expectations of patient-centred care and continue to operate to their full value [36, 41]. In recommending consumer involvement, we recognise that consumer preference will change

and therefore, suggest that co-design involve health professionals and consumers in continuous, open dialogue.

The present study speaks to consumer awareness of the passion advanced practitioners have in their expanded positions. This passion is important to cultivate in advanced practitioner candidates living in rural areas of workforce shortage [2] and in minority communities to mitigate future shortages, as supported by NP research [39, 40]. While there is some postgraduate funding at the national level to support introduction of NP roles, there is no dedicated support for introducing PP roles. Furthermore, postgraduate funding for both these pathways lags behind medicine, which received 63% of all funding in 2016/17 [42]. Targeted training funding tied to specific roles remains a viable way to support the continued introduction of these health professionals. It is paramount to capture this opportunity as nursing and pharmacy have workforce capacity; in New Zealand pharmacy is one of the youngest health professions and nursing is the single biggest health profession.

The purpose of conducting a realist evaluation is to form theories transferable to other situations, not necessarily to have generalisability [30]. The present study included perspectives from consumers receiving services from providers across New Zealand; these views are often underrepresented. In raising them separately from other stakeholders, this article provides the opportunity to consider the value of effectively engaging with consumers. Using a teacher-learner cycle, theories were able to be posed to consumers and an interchangeable learning process was able to ensue with information-rich participants [31]. Unlike Manzano's (2016) [31] suggestion that service users remain sensitised to the outcomes of a programme, this work recognises that in addition to a recognition of programme outcomes, consumers remain knowledgeable of mechanisms underlying advanced practitioner practice.

Further research is required to determine whether patient-centred care as delivered by NPs/PPs occurs because of their position, the underlying training of nursing and pharmacy, or whether GPs can provide this type of service when working in multidisciplinary teams. Additionally, there is room to examine more closely what patient-centred advanced practitioner care looks like for minority populations and when delivered by nurses and pharmacists who are already established in their communities before they enter advanced practice.

Conclusions

This article contributes to a growing field of theory-driven research. The contexts and mechanism highlighted in this article emphasise a new way of delivering health care that has potential not only to inform how NP/PP roles are introduced and managed, but also how other health service providers operate in PHC. Consumer involvement in discussions around health care service delivery is required; this is particularly important given the wider New Zealand and global context of ageing populations, increasing long-term comorbidities, and deficits in health workforce supply.

Abbreviations

GP
general practitioner
NP
nurse practitioner
PHC
primary health care
PP
pharmacist prescriber

Declarations

Ethics approval and consent to participate:

The Victoria University of Wellington Human Ethics Committee approved this project (#22388). All research participants provided written and oral consent to participate in this research.

Consent for publication:

Not applicable.

Availability of data and materials:

Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

Competing interests:

The authors declare that they have no competing interests.

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Authors' contributions:

TNO collected and analysed consumer interviews and was responsible for writing, reviewing and editing this manuscript. JC was responsible for project supervision and reviewing the manuscript. KMH was

responsible for project supervision and contributed to writing, reviewing and editing this manuscript. All authors read and approved the final manuscript.

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Figures

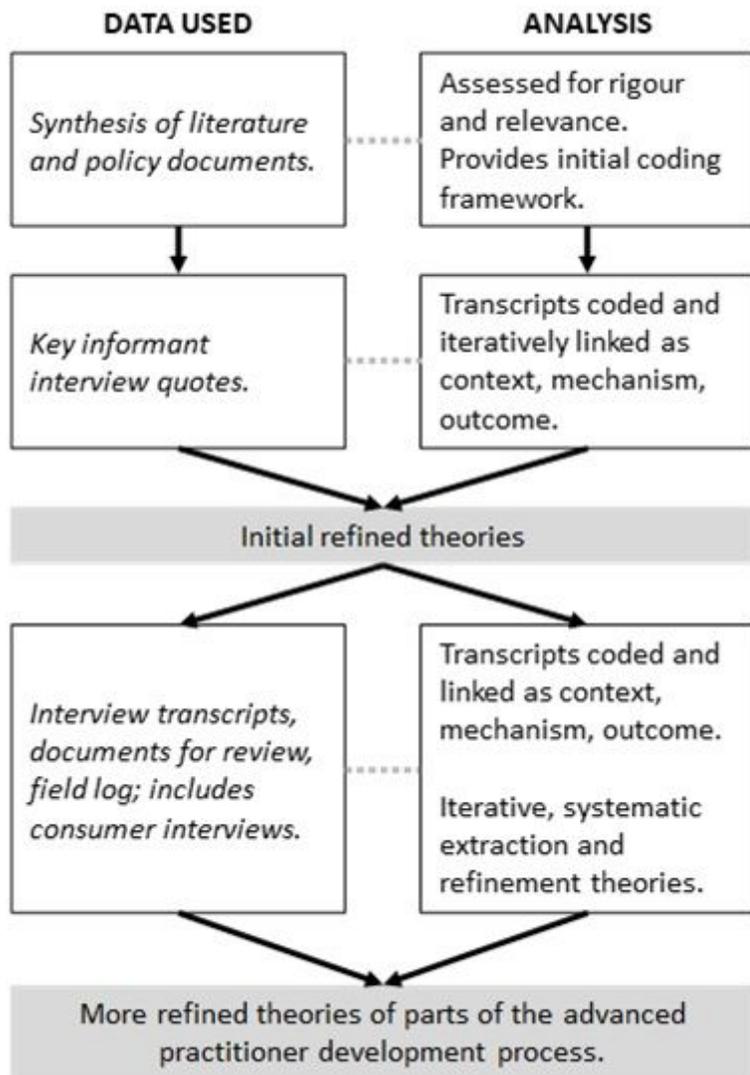


Figure 1

Data analysis.