




The Barriers to Interprofessional Collaborative Practice: Perspectives from Australian Physiotherapy Private Practitioners

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Article abstract

Background: Despite the growing presence of physiotherapy private practitioners within Australia's healthcare workforce, little is known about their perspectives of interprofessional collaborative practice (IPCP). This study aims to explore the barriers to IPCP from the perspective of Australian physiotherapy private practitioners.

Methods: Semi-structured interviews were conducted with 28 physiotherapists and 64 hours of observation was completed in 10 private practice sites in Queensland, Australia. Interview and observation data were pooled and analyzed using reflexive thematic analysis.

Findings: Data analysis produced five themes that characterized physiotherapists' perspectives of IPCP: a) competition for clientele, b) personal attitudes and beliefs, c) time constraints and work schedules, d) geographic location, and e) rules of funding schemes.

Conclusion: The findings from this study suggest that implementing IPCP in the Australian physiotherapy private practice setting presents several challenges. Financial concerns, such as physiotherapy private practitioners' perceived need to compete for clientele, were significant barriers to IPCP. The introduction of financial incentives and adoption of alternative payment models may be necessary to provide physiotherapy private practitioners with a clear motivation to engage in IPCP. The need for more formal opportunities to bring health practitioners from diverse professional backgrounds together to gain new insights and knowledge of other professions' expertise and challenge their own assumptions was also highlighted.



The Barriers to Interprofessional Collaborative Practice: Perspectives from Australian Physiotherapy Private Practitioners

Jack Seaton, BPhysio (Hons)^a, Anne Jones, PhD^a,
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Abstract

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Keywords: collaboration, interdisciplinary, physical therapy, primary care, qualitative

Introduction

Interprofessional collaborative practice (IPCP) refers to the interactions and relationships between and among health practitioners from differing professional backgrounds [1]. Utilising IPCP enables health practitioners to fully apply their knowledge, skills, and abilities, increasing the likelihood of safe, timely, efficient,

effective, and equitable patient care provision [2,3]. Effective IPCP contributes to superior patient outcomes, facilitates cost-efficient health care, and increases patient and practitioner satisfaction [3]. Additionally, IPCP may address the difficulties associated with recruitment and retention of rural health practitioners by alleviating professional isolation [4,5]. There are numerous challenges, however, to achieving effective IPCP in clinical practice. Communication problems, power imbalances, and a lack of awareness of other health professions' expertise have the potential to hinder IPCP [6,7].

Physiotherapy represents one of the largest allied health professions in Australia, accounting for more than 40,000 qualified practitioners [8]. In Australia, physiotherapists are employed in both the public and private sectors and in metropolitan, regional, rural, and remote locations [9]. Most physiotherapists work primarily as clinicians and practice in a range of settings including hospitals, private practice, community and rehabilitation centers, residential aged care, and sporting organizations [9]. The remainder of Australian physiotherapists assume principal roles in areas such as academia and management [9].

In recent decades, there has been a significant rise in the proportion of Australian physiotherapists working in private practices, which are professional businesses or for-profit organizations that are not directly funded through government departments [10]. Estimated to be less than one-third of all physiotherapists in 1975 [11], those working in private practice are now reported to account for 70 percent of the total physiotherapy workforce in Australia [9]. Since 2013, the physiotherapy private practice industry has grown from being a AUD\$1.5 billion industry made up of approximately 4,200 businesses [12] to a nearly AUD\$2.2 billion industry made up of more than 7,000 businesses [13]. Physiotherapy services in private practice are predominately administered to consumers via private health insurance packages in a fee-for-service environment and supplemented by the Australian Government's Medicare Benefits Schedule (MBS) and out-of-pocket payments [13]. The strong growth of the physiotherapy private practice industry in Australia may reflect financial constraints on the public health care system, as well as increasing demand for access to physiotherapy in the community [14].

The predominant service delivery model in the Australian physiotherapy private practice setting is the small-scale monoprofessional clinic [9,15]. These clinics typically employ only one professional group or rely on a sole practitioner model of care. Collaborative practice, which is crucial for optimal care, is most effectively achieved through formal team structures and frequent informal communication [16,17]. However, physiotherapists working in monoprofessional clinics may have limited opportunities for unplanned informal contact and spontaneous interaction with health practitioners from different professions [18]. Although physiotherapy private practitioners consider IPCP to be necessary to provide adequate patient care, their interprofessional interactions have been reported as infrequent and mainly limited to tasks such as receiving referrals from, and sending client correspondence to, a small number of other health professionals [15]. Physiotherapy private practitioners' understanding of what constitutes IPCP may therefore not align with models of best

practice that, for example, advocate for regular multiprofessional team meetings to discuss specific patients [6]. This lack of formal participation in IPCP may lead to fragmented care and poor patient outcomes [2,3].

Physiotherapists have been recognized as crucial members of collaborative models of care due to their skills in addressing issues associated with an increased chronic disease burden, an ageing population, rapidly rising health care costs, and human resource shortages [19–21]. However, research investigating IPCP from the perspective of physiotherapists, particularly those working in private practice, is scarce [7]. Given that health practitioners, including physiotherapists employed in monoprofessional private practices, may work in isolation from other clinicians or in workplaces that do not conform to formal team-based processes, engaging in IPCP may not be feasible [22,23]. Failure to acknowledge the complexity and specificity of the physiotherapy private practice context may lead to poor practices and misunderstandings regarding IPCP. To inform the development of effective and sustainable strategies for promoting successful IPCP in the physiotherapy private practice setting, it is essential to gain a comprehensive understanding of the perspectives of physiotherapists working in this sector, including information regarding the barriers to implementing collaborative practice models. This knowledge will ensure that strategies developed are tailored to the needs of this growing cohort within the Australian physiotherapy workforce. The aim of this study was to explore the barriers to IPCP from the perspective of physiotherapy private practitioners.

Methods

Study design

This study was part of a larger sequential explanatory mixed methods project that sought to lay the theoretical foundation for education, practice, research, and policy regarding IPCP in the physiotherapy private sector [7,15]. Interpretive description (ID) was chosen as the methodological framework for this study due to its unique ability to facilitate the exploration and interpretation of complex social phenomena, particularly in healthcare settings [24]. As an inductive analytical approach explicitly built on constructivist epistemological assumptions, ID minimizes the distance between the researcher and participant and allows for the participants closest to the phenomena to share their voices, experiences, and interpretations of their lived reality [25]. Ethics approval was obtained from the James Cook University Human Research Ethics Committee (H7951).

Theoretical framework and researcher positionality

The study was conducted from a social constructivist perspective, recognizing that knowledge pertaining to IPCP emerges through the interaction and shared experiences of physiotherapy private practitioners [26]. Complexity science provided the structural lens to facilitate understanding of the intricate, non-linear interactions and emergent outcomes within the multifaceted environment of physiotherapy private practice in Australia [27]. This scientific approach offers a framework to examine how diverse stakeholders, adaptive processes, and fluctuating conditions

collectively influence the dynamics of IPCP [28]. The first author's professional background as a registered physiotherapist brought to the study an emic perspective, enabling an enriched analysis through firsthand knowledge of the inherent challenges in private practice and the complex forces shaping the provision of physiotherapy services in this setting [29]. This dual role as a researcher and practitioner cultivated an empathetic understanding and personal motivation to see improvements in interprofessional collaborative processes in physiotherapy private practice.

Participants

Participants were physiotherapists registered with the Australian Health Practitioner Regulation Agency (AHPRA) working at private practice facilities in the region covered by the Northern Queensland Primary Health Network (NQPHN). Spanning an area of 510,000 square kilometers, this region is home to an estimated 730,000 people [30]. Most of the population are located within the major regional centers of Cairns, Mackay, and Townsville, while approximately 8 percent of inhabitants live in remote and very remote areas [30]. Study participants were required to be: a) employed in a physiotherapy private practice facility within the NQPHN region for no less than one month; b) over the age of 18 years and willing to consent to the study; and c) proficient in spoken and written English.

Participant recruitment was informed by the findings of an online survey conducted in the first phase of the larger mixed methods project [15]. Physiotherapy private practitioners ($n = 31$) who expressed interest in participating in further research by providing their contact information on their submitted online survey were emailed and provided with a participant information sheet detailing the study purpose. Participants were selected on a first-come-first-served basis [31]. This approach was used to efficiently recruit participants who were readily available and willing to participate in the study. A semi-purposive stratified element was also used to ensure physiotherapists worked at a range of private practice sites, varying with respect to organizational model, service provision, team composition, and geographic location [31]. Participant recruitment ceased once these purposive criteria were met.

Physiotherapists ($n = 10$) from a total of ten different private practice sites within the NQPHN region agreed to participate in the study. The physiotherapy private practitioners who agreed to participate in the study were then asked to identify other physiotherapists employed at their facility to take part in an interview through a process of snowball sampling. Invitations to participate in an interview were sent to all identified individuals ($n = 29$), of which 18 physiotherapists agreed.

Data collection

Participant demographics

Demographic information was collected from the participants via a paper-based questionnaire. The demographic data was collected to provide context for participants' responses and included details on their age, gender, entry-level physiotherapy qualification, and years of clinical experience as physiotherapists.

Interviews

Semi-structured interviews were conducted face-to-face individually in private consultation rooms at each private practice facility and ranged from 16 to 117 minutes (mean = 39 minutes). Individual semi-structured interviews allowed for the exploration of each participant's experiences and perspectives on IPCP, while ensuring that the data collected were relevant to the research aim. The interview guide (see Appendix) utilized in the study was developed by the multiprofessional research team and its contents were informed by the insights gained from an online survey conducted earlier [15]. To ensure that the interview guide effectively focused on the perceived barriers to IPCP in the physiotherapy private sector, the interview questions and exploratory probes were pilot tested with two physiotherapy private practitioners with over 10 years of clinical experience. Memos were immediately recorded after each interview to ensure that a reflexive stance was maintained in relation to the research and participants [32].

All participants provided written informed consent and agreed to the interview being audio-recorded and transcribed. Audio-recorded interviews were transcribed verbatim with the assistance of secure online transcription software (<https://otter.ai>). Prior to analysis, participants were given the opportunity to review and make corrections or omissions to the transcripts to ensure the accuracy and authenticity of the data [33].

Observation

Non-participant, observational data was collected to better understand and capture the context within which IPCP occurs in physiotherapy private practice. This involved the researcher (JS) attending study sites and observing the activities, events, and interactions taking place, without participating in them [34]. Upon the initial visit to each physiotherapy private practice site, an informal meeting was held to describe the study to all staff members. Physiotherapists and other private practice staff (for example, health practitioners from other professions, administrative assistants) were informed that participation was voluntary and at any point during the fieldwork, they could decline to participate or ask the researcher to leave the site. All staff at each site verbally consented to the observations. Consultations between practitioners and clients were not observed to ensure client privacy. The research team strictly adhered to ethical guidelines and did not record individual client information or have access to client charts.

In total, 64 hours of observational data were collected, with JS spending one to four days at participating sites. Observation occurred at different times of the day and encompassed a range of structured and unstructured events. Activity was observed in public and staff-only shared spaces throughout the facility, including conference rooms, offices, and hallway corridors. Observations were made at an unobtrusive distance, but close enough to clearly hear conversations between physiotherapists and other practice staff. Direct observation of IPCP at one study site was not possible because the physiotherapist was operating as a mobile sole practitioner with no fixed workplace address. The primary purpose of these observations was not to obtain direct

data, but rather to inform subsequent participant interviews. The observations were important for capturing the workplace environment, understanding the context of physiotherapy private practice, and identifying evidence of IPCP in routine practices.

Preliminary fieldnotes were handwritten in the form of jottings [35] during the observations at each site, which were typed into a Microsoft® Word document in more detail as soon as possible after each fieldwork session. Observed interactions, including the interaction type, who was involved, where the interaction occurred, and how long the interaction lasted, were noted. During periods of observations, JS also held brief, informal conversations with physiotherapists to explore emerging questions and ideas. For example, physiotherapists were sometimes asked to clarify what had just happened or to explain their actions as they were carrying out a task. Informal conversations were not audio-recorded. Instead, JS wrote down the main messages from these conversations. Fieldnotes incorporated reflections by the first author that included personal feelings, actions, and responses to the situations observed [36,37] and were peer-reviewed by the research team.

Data analysis

Reflexive thematic analysis (RTA) was employed to facilitate the identification of patterns or themes in the pooled interview and observation data [38]. Reflexive thematic analysis is an inductive, iterative approach that allows for flexible interpretation of the data, enabling investigation into both surface-level meanings and underlying assumptions.

The first analytic step was familiarization with the data through careful and repeated reading of interview transcripts, memos, and fieldnotes (including observational and informal conversation notes), recording casual observations of initial trends. Next, the data were analyzed line-by-line to identify initial codes during an open coding process. For the first five interview transcripts, coding was completed independently by two authors (JS and AJ) to sense-check ideas and explore multiple assumptions of the data in a reflexive manner. Crucial to this process was the authors' shared understanding of terminology and concepts relevant to IPCP [38]. After this, codes were consolidated and grouped into themes relating to the barriers to IPCP. Themes were refined and named collectively by the research team. Endorsed themes were incorporated into a comprehensive description and populated with relevant quotes to ensure grounding in the data and representation across participants. This approach provided an integrated account of IPCP from the participants' perspective. Data were managed using NVivo software (QSR International; <https://www.qsrinternational.com>).

Results

Participants

Individual interviews were conducted with 28 physiotherapists (Table 1) between March 2020 and February 2021. The mean age of interview participants was 33 years (range 21–61 years) and they had approximately nine years of clinical experience (range 1–38 years).

Table 1: Demographic and workplace information of participants

Participant number	Gender	Highest tertiary qualification	Location of entry-level training	Physiotherapy experience (years)	Classification of work-place location (MMM)	Principal physiotherapist	Organizational model	Co-located
1	Female	Bachelor degree	Australia	1	MMM 2	No	Multiprofessional	No
2	Female	Bachelor degree	New Zealand	3	MMM 2	No	Multiprofessional	No
3	Male	Bachelor degree	Australia	9	MMM 2	No	Multiprofessional	No
4	Female	Bachelor degree	Australia	2	MMM 2	No	Monoprofessional	Yes
5	Female	Masters degree	Australia	10	MMM 2	No	Multiprofessional	No
6	Female	Bachelor degree	Argentina	3	MMM 2	No	Multiprofessional	No
7	Male	Bachelor degree	Australia	5	MMM 2	No	Monoprofessional	Yes
8	Male	Bachelor degree	Australia	7	MMM 2	No	Multiprofessional	No
9	Female	Bachelor degree	Australia	11	MMM 2	Yes	Monoprofessional	No
10	Female	Masters degree	Australia	13	MMM 2	Yes	Monoprofessional	Yes
11	Male	Bachelor degree	Australia	5	MMM 2	No	Monoprofessional	Yes
12	Male	Bachelor degree	Australia	1	MMM 2	No	Multiprofessional	Yes
13	Female	Bachelor degree	Australia	25	MMM 2	No	Monoprofessional	Yes
14	Male	Bachelor degree	Australia	2	MMM 4	No	Multiprofessional	Yes
15	Male	Graduate certificate	Australia	10	MMM 4	No	Multiprofessional	Yes
16	Male	Masters degree	Australia	12	MMM 2	Yes	Monoprofessional	Yes
17	Male	Bachelor degree	Australia	6	MMM 2	No	Multiprofessional	Yes
18	Male	Bachelor degree	Australia	5	MMM 2	No	Multiprofessional	Yes

Table 1 (continued)

Participant number	Gender	Highest tertiary qualification	Location of entry-level training	Physiotherapy experience (years)	Classification of work-place location (MMM)	Principal physiotherapist	Organizational model	Co-located
19	Female	Masters degree	Estonia	5	MMM 2	No	Multiprofessional	No
20	Female	Bachelor degree	New Zealand	19	MMM 2	No	Multiprofessional	No
21	Male	Bachelor degree	Australia	5	MMM 2	No	Monoprofessional	Yes
22	Male	Graduate diploma	Australia	38	MMM 5	No	Multiprofessional	No
23	Male	Masters degree	Australia	15	MMM 4	Yes	Multiprofessional	Yes
24	Male	Masters degree	Australia	21	MMM 5	Yes	Monoprofessional	Yes
25	Female	Masters degree	Ireland	14	MMM 2	Yes	Multiprofessional	No
26	Female	Bachelor degree	Australia	1	MMM 2	No	Monoprofessional	Yes
27	Male	Masters degree	Australia	1	MMM 2	No	Monoprofessional	Yes
28	Male	Masters degree	Australia	15	MMM 2	Yes	Multiprofessional	Yes

Notes: MMM, Modified Monash Model

Participants worked across 10 private practice facilities (Table 2) within the NQPHN region. Six of these facilities were co-located with at least one other health service. Co-location refers to health services that are situated in the same physical space (for example, a building or campus) but not necessarily fully integrated with one another. Seven participants identified as the principal physiotherapist at their private practice facility. In the Australian physiotherapy private practice setting, a principal physiotherapist is typically owner or director of the clinic. Principal physiotherapists are responsible for the overall management and administration of their practice, which includes overseeing the financial aspects of the business, as well as hiring and managing other physiotherapists and support staff.

Table 2. Characteristics of participating physiotherapy private practice sites

Site no.	Organizational model	Primary physiotherapy clinical area	Physiotherapy services provided ^a	Health professions employed	Co-located health services	Classification of facility location (MMM) ^b
1	Multiprofessional	Neurological	DVA Medicare CDM Motor accident compensation NDIS Telehealth Work injury compensation	Exercise physiology (<i>n</i> = 2) Nursing (<i>n</i> = 1) Nutrition and dietetics (<i>n</i> = 4) Occupational therapy (<i>n</i> = 8) Physiotherapy (<i>n</i> = 6) Psychology (<i>n</i> = 4) Social work (<i>n</i> = 1) Therapy assistant (<i>n</i> = 5)	Nil	MMM 2
2	Monoprofessional	Paediatrics	NDIS Telehealth	Physiotherapy (<i>n</i> = 1)	Nil	MMM 2
3	Monoprofessional	Musculoskeletal	DVA Medicare CDM Motor accident compensation Telehealth Work injury compensation	Physiotherapy (<i>n</i> = 3)	Dental clinic General practice clinic Pathology Pharmacy Podiatry	MMM 2
4	Multiprofessional	Musculoskeletal	DVA Medicare CDM NDIS Work injury compensation	Exercise physiology (<i>n</i> = 1) Physiotherapy (<i>n</i> = 4)	Occupational therapy Speech pathology	MMM 4
5	Monoprofessional	Musculoskeletal	DVA Medicare CDM Work injury compensation	Physiotherapy (<i>n</i> = 1)	Massage therapy Podiatry	MMM 5
6	Multiprofessional	Pain	DVA Medicare CDM Motor accident compensation Telehealth Work injury compensation	Exercise physiology (<i>n</i> = 1) Medicine (<i>n</i> = 1) Occupational therapy (<i>n</i> = 1) Physiotherapy (<i>n</i> = 2) Psychology (<i>n</i> = 1)	Ear, nose and throat surgery clinic Obstetrics and gynaecology clinic Ophthalmology clinic Optometry Private hospital Psychology Speech pathology	MMM 2

Table 2. (continued)

Site no.	Organizational model	Primary physiotherapy clinical area	Physiotherapy services provided ^a	Health professions employed	Co-located health services	Classification of facility location (MMM) ^b
7	Monoprofessional	Musculoskeletal	DVA Medicare CDM Motor accident compensation NDIS Telehealth Work injury compensation	Physiotherapy (<i>n</i> = 9)	Exercise physiology General practice clinic Massage therapy Orthopaedic surgery clinic Pathology Pharmacy Podiatry Psychology	MMM 2
8	Multiprofessional	Musculoskeletal	DVA Medicare CDM Motor accident compensation Work injury compensation	Nursing (<i>n</i> = 3) Medicine (<i>n</i> = 9) Physiotherapy (<i>n</i> = 1) Psychology (<i>n</i> = 1) Social work (<i>n</i> = 1)	Nil	MMM 5
9	Multiprofessional	Musculoskeletal	DVA Medicare CDM Motor accident compensation NDIS Telehealth Work injury compensation	Exercise physiology (<i>n</i> = 3) Occupational therapy (<i>n</i> = 1) Physiotherapy (<i>n</i> = 6)	Audiology Cardiology clinic General practice clinic Paediatric clinic Pharmacy Private hospital Psychology	MMM 2
10	Multiprofessional	Musculoskeletal	DVA Medicare CDM Motor accident compensation NDIS Telehealth Work injury compensation	Massage therapy (<i>n</i> = 1) Physiotherapy (<i>n</i> = 6)	Nil	MMM 2

Notes: 1. CDM, Chronic Disease Management; DVA, Department of Veterans' Affairs; GP, general practice; MMM, Modified Monash Model; NDIS, National Disability Insurance Scheme; ^a As denoted on Australian Physiotherapy Association 'Find a Physio' search tool (<https://choose.physio/findaphysio>). ^b The MMM classification system categorizes different geographical areas in Australia based on population size and relative remoteness. It consists of seven categories, with Modified Monash category 1 representing metropolitan areas and Modified Monash category 7 representing very remote communities.

Themes

Reflexive thematic analysis of the data produced five overarching themes pertaining to physiotherapy private practitioners' perspectives on the barriers to IPCP: a) competition for clientele, b) personal attitudes and beliefs, c) time constraints and work schedules, d) geographic location, and e) rules of funding schemes.

Competition for clientele

This theme describes how physiotherapy private practitioners' perceived need to protect their income can present barriers to IPCP. Many participants admitted that protecting and preserving their income was often a higher priority than IPCP. Referring clients to health professionals working at external organizations was perceived to result in lost clientele:

It's private practice, it's a competition. If you don't see people ... and if they want to go to someone else instead of you, then you're not making money and you don't have a job and you can't employ other people. So, do we really want to involve ... other professions? (P9, Site 2, Interview)

Very few people willingly hand over their patient ... and refer them to another clinic because we're regarded as competition for each other sometimes unfortunately, so then nothing collaborative happens. (P5, Site 10, Interview)

General practitioners' referral practices were perceived to have significant bearing on physiotherapy private practitioners' ability to generate income. Hence, there was a perceived need for physiotherapists to be mindful of how they conveyed information to general practitioners (GPs):

Because we get that steady stream of patients being referred from doctors, you don't want to annoy them or call them out for things that they shouldn't be doing. If I email or send a letter to a doctor telling them all the things that I think they've done wrong, do ... they then refer patients to another physio clinic? If I call them out for giving a patient poor advice, I might lose the next patient ... so it's a tough balance. (P14, Site 4, Interview)

Various participants postulated that IPCP may be strengthened between physiotherapists and GPs if the two professions worked in the same clinic. However, some participants believed this would have significant financial implications. These participants argued that other GPs in the community would not refer to a physiotherapist working at a general practice clinic due to their own perceived fears that referred clients would begin seeing a general practitioner (GP) who worked with the physiotherapist:

I had a doctor surgery approach me and say, "we would love you to come and work for us in our practice as our ... physio," but I knew

I would immediately eliminate people who didn't like that doctors' surgery ... or didn't agree with it. They wanted their doctors to be able to refer directly to me in the clinic, but that would mean any other clinic would not refer to me. Guaranteed. They would not. They won't refer to an allied health professional in another doctor practice. No way. They'd rather farm it out to ... a physio group ... rather than risk losing the patient to a doctor in that practice. (P5, Site 10, Interview)

Several physiotherapists working in multiprofessional centers believed that their site employed enough health practitioners from different professions to demonstrate effective IPCP without the need for collaboration with external agencies. Some participants who worked in multiprofessional private practices considered referrals to health professionals outside of their clinic to constitute unnecessary and avoidable financial risk:

In private practice it's all about keeping the business afloat. You need to earn your way here, so you can't be sending people willy-nilly [haphazardly] to other practices because they may not come back to you. I think having so many professions under the one roof here ... helps prevent that from happening too much. (P20, Site 1, Interview)

Despite working alongside an exercise physiologist in a multiprofessional clinic, one physiotherapist indicated they occasionally withheld referrals from the in-house exercise physiology service to personally reap the financial benefits:

It's probably a little bit of a control freak point of view, but I'd rather take someone to the pool or to the gym myself rather than refer them to exercise physiology. The financial benefits are obviously there if I take someone myself. (P18, Site 6, Interview)

Other participants outlined personal reasons that may influence low levels of collaboration with health practitioners from other professions in the private health sector:

I think we don't use other professions in private practice as much as we could because you're trying to keep that client base in your own clinic and not refer away from yourself. Most physios in private practice will be paid on a percentage of ... billings basis, so as much as that doesn't sound ethically ... or morally correct, people have bills to pay, and they're inclined to empty a spot in their diary to divert that income out of your practice to someone somewhere else. It's definitely the elephant in the room. You're not taught to think like that, but ... people have mortgages, people have kids. In the end, if you're worried that you're not going to make a good enough income ... you're going to do everything you can to try and keep that income. (P15, Site 4, Interview)

I think there's financial reasons that people work in silos ... for physios [physiotherapists], especially. Sure, you can work for somebody in a big multidisciplinary clinic and have better collaboration, but you might not get paid very much because your boss takes a percentage of your billings. Whereas working for yourself and running your own business, you can run it exactly how you want ... and make more money. (P5, Site 10, Interview)

Personal attitudes and beliefs

This theme explores how personal attitudes and beliefs towards health practitioners from different professions can create barriers to effective IPCP. Several physiotherapists were critical of the way medical practitioners carried out their duties. Participants reported that this contributed to a lack of respect for, and trust in, their colleagues from the medical profession:

I've worked with doctors who don't seem to take musculoskeletal conditions seriously and ... they don't order the right tests and they don't listen to patients' concerns and they're ... quick to dismiss any advice from ... physios [physiotherapists]. It's frustrating because we're all working towards the same goal of helping the patient, but it feels like we're not on the same page. (P18, Site 6, Interview)

During an in-service at Site 10, whereby a senior physiotherapist was presenting information on men's health, the urologist who had performed surgery on the physiotherapist's client was heavily criticized for their perceived lack of communication with the client. This physiotherapist expressed frustration that the urologist had not informed the individual undergoing surgery of the potential complications and risks: "That information needs to be disclosed from the outset ... before the patient even consents to the procedure. It's part of a surgeon's job to outline all the risks" (P5, Site 10, Fieldnote). The physiotherapist appeared to place sole responsibility on the treating medical specialist in delivering the client this information, rather than suggest the need for IPCP, and did not indicate whether other health practitioners may have been able to perform this task.

The perceived lack of competence of some health practitioners from other professions contributed to a reluctance to engage in IPCP for many participants. At several study sites, medical mismanagement of clinical cases strongly featured in practice meetings or educational in-services. Medical officers working in the emergency department at the local public hospital near Site 4 were condemned at a weekly in-service for discharging a person who presented with posterior neck pain following a sporting trauma, in which an unstable cervical spine fracture was confirmed on imaging the next day: "It's totally unacceptable to send a patient home with that mechanism of injury and those signs and symptoms, without a proper work-up. I was shocked when I heard about it" (P23, Site 4, Fieldnote). Consequently, participants perceived some medical practitioners to lack proficiency in the diagnosis and management of musculoskeletal conditions. Many participants regarded physiotherapists

to be better placed than medical practitioners to arrange appropriate investigations for musculoskeletal concerns: “I think we’re definitely in a much better position than ... GPs in knowing when a patient does need a scan and when they don’t need a scan. I think a lot of GPs ... over scan” (P7, Site 7, Interview).

Implicit biases held by participants about other health professions were also considered to present challenges to effective IPCP. According to several study participants, health practitioners from some professions, such as chiropractic and osteopathy, adopted a reactive approach to health care, rather than working within a client-centered care paradigm that prioritizes health promotion and prevention. Participants were reluctant to collaborate with health practitioners from these professions due to these ideologically opposed differences regarding treatment orientation: “I’m less inclined to communicate with chiros [chiropractors] and osteos [osteopaths] ... because they’re ... more focused on passive treatment and less about patient-driven outcomes” (P23, Site 4, Interview). A minority of study participants therefore asserted that services delivered by physiotherapy private practitioners were superior to those provided by other professional groups. For example, the principal physiotherapist of a monoprofessional private practice believed that chiropractic and osteopathy were not evidence-based professions:

We need to get to a point where 99.9% of the population have an injury and they think about a physio [physiotherapist]. That’s what I want. I don’t want them to even entertain chiros [chiropractors] and osteos [osteopaths] ... because they’re not evidence-based professions. (P16, Site 7, Interview)

Time constraints and work schedules

This theme describes how time constraints and workload schedules can present challenges to effective IPCP. A perceived lack of time was reported as a significant barrier to IPCP by most study participants: “To me, interprofessional collaboration fluctuates depending primarily on how busy people are. The biggest barrier to interprofessional collaboration is definitely the lack of time needed to perform it” (P17, Site 6, Interview). Several study participants stated that there was not sufficient time during work hours to engage meaningfully in IPCP. These physiotherapists insisted that treating clients during this time was their highest priority, rather than participating in interprofessional work:

I think the most important thing about clinic time is treating people. Taking however many hours to ... write an email ... a letter, you’re taking that time away from treating patients and if you’ve got 50, 60, plus patients a week, there’s very little time for anything else. (P14, Site 4, Interview)

A number of participants subsequently contended that interprofessional communication, such as writing referrals and reports to other health practitioners, must be performed in physiotherapy private practitioners’ own time outside of clinical

hours: “Your best bet is do ... that collaboration ... work in your unpaid time. That’s when you have to write something up and send it off. I do a ton of unpaid work doing exactly that” (P5, Site 10, Interview).

Conflicting work schedules were identified as an additional barrier to IPCP. Participants highlighted the challenges of coordinating collaborative efforts among health practitioners working across multiple locations. Although participants perceived medical practitioners as particularly difficult to reach, they acknowledged the time constraints under which they operated:

I do understand that GPs are busy. My brother’s a GP and I know how busy he is and how difficult it can be to find the time to write a detailed handover to a physio or anyone else. GPs are people who are time poor and have not just physios who want a piece of their attention. They have inputs coming from everywhere. (P15, Site 4, Interview)

The principal physiotherapist of a monoprofessional private practice explained how a GP clinic conducted regular professional development workshops with local health professionals before the COVID-19 pandemic. Although the workshops were well attended, they were discontinued without notice and this participant questioned whether the intensive time requirements to host the event may have precipitated their conclusion:

A GP clinic ... was hosting interprofessional PD [professional development] days and we had our physios attend those, but they just die out. You can drive something that’s motivating and amazing and has great buy in, but nothing is sustainable because people are too busy. (P16, Site 7, Interview)

Geographic location

This theme considers how physiotherapy private practitioners’ geographic location impacts IPCP by influencing the ease and frequency of communication and access to resources. Participants who were physically separated from other health professions due to their workplace location reported barriers to IPCP. For example, many participants emphasized how workforce shortages in regional and rural areas made it challenging to collaborate effectively: “Working regionally, it’s very difficult not to be siloed ... because Australia ... has a very small number of health professionals in regional areas. So, it’s difficult to find somebody ... to collaborate with in regional Australia” (P5, Site 10, Interview). In the absence of health practitioners with specialized skills in regional and rural areas, many physiotherapists assumed expanded scope of practice roles:

What ends up happening in regional and rural areas, is that you treat what comes through the door because the patient might be ... post-surgery and have been brought back from [an urban area], and

so, you're it. You're now looking after that patient completely. They're not going to anyone else because you're in a ... tiny community with limited referral options. (P5, Site 10, Interview)

When health practitioners with advanced skill sets resided in regional and rural areas, participants explained how it was often difficult to retain them because demand for their services may not have been as high compared to in urban locations:

We had an OT [occupational therapist] in town for a while ... and they went and did a whole pile of training on lymphoedema, but then weren't getting any referrals ... and so eventually picked up another job in the city and moved ... which was a bit of a shame. So, that was an opportunity to collaborate with someone with a unique skill set that didn't last long ... and isn't overly uncommon in rural communities. (P22, Site 8, Interview)

Several participants, however, were critical of physiotherapy private practitioners who considered geography to constitute a barrier to IPCP. During a practice meeting at Site 10, the principal physiotherapist stated that they had recently contacted a multiprofessional pediatric incontinence service in a major city over 1,500 kilometers away. This physiotherapist declared that the two organizations had exchanged resources with each other, and the service in the urban area had offered to provide telehealth consultations for any clients that health practitioners at Site 10 were currently treating, who would benefit from further input: "We try and network with other services all across Queensland wherever our interests align. I don't think our geography is necessarily a barrier to interprofessional collaboration. It's a bit of a cop out in my view" (P25, Site 10, Interview).

Rules of funding schemes

This theme describes how funding agency rules can present barriers to IPCP. The rules of some funding schemes were perceived to restrict physiotherapy private practitioners' access to clinicians from other professions: "Funding can impact our ability to collaborate with other professions for sure. Once I recommended someone to see a dietitian and they didn't have enough NDIS [National Disability Insurance Scheme] funds to allow that to happen" (P2, Site 1, Interview). Australia's National Disability Insurance Scheme was designed to provide people with disability the support they need to live a fulfilling and independent life and contribute to their communities.

Several participants explained how rules pertaining to the Federal Governments' Medicare Enhanced Primary Care (EPC) scheme meant that physiotherapists employed in private practice often needed to send clients back to their regular GP who, in turn, would refer them to other allied health professionals. Physiotherapists are entitled to provide services under the Medicare EPC scheme; however, the rules prevent them from referring clients to other allied health professionals. Although physiotherapists may refer directly to other primary care practitioners working in

the private sector, as gatekeepers of the Medicare EPC scheme, only GPs can provide people with access to subsidized allied health treatment:

Say someone has type 2 diabetes, I know that there's a Medicare referral for that. So, if I think that person will benefit from exercise physiology, I'm more likely to send them back to their GP for onwards referral for the patient to gain the benefits of the Medicare referral system and subsidized exercise physiology. So, I guess you could say I'm still technically collaborating with the GP, but because of restrictions placed on me ... by the system, I may not get to collaborate with the EP [exercise physiologist]. (P18, Site 6, Interview)

I have never actually referred anyone to a dietitian because if I send them, they pay full fee. Whereas if I communicate with their GP and get the GP to send them, they can get a care plan and receive discounted sessions. (P12, Site 9, Interview)

Negative perceptions towards the medical profession were considered to have emerged due to differences in financial reimbursement for the provision of health services. For example, participants who had knowledge of the remuneration that GPs received for performing tasks designed to improve IPCP, such as initiating EPC plans, suggested that inequalities in health system financing can produce feelings of resentment or distrust among members of the interprofessional team:

GPs are so well compensated for doing the [Medicare] plans even though they just send it off without any further follow up. You're meant to send a letter back to the GP after the initial and at discharge, but it usually just goes to a general fax or email address. We don't know if they have been received or whether they have read it. (P20, Site 1, Interview)

If you look at what GPs get for doing ... paperwork, it's easy to go, "well, I get nothing." (P22, Site 8, Interview)

In Australia, insurance companies are generally required to pay for health services related to motor vehicle accidents under the Compulsory Third Party (CTP) insurance scheme. While it can be appreciated that many insurance providers are profitable organizations, in an observed interaction between two physiotherapists at site one, the companies were depicted as showing no regard for IPCP and dismissive of the exercise physiology profession. During the conversation, one physiotherapist (P3) was informing the other (P8) of the issues that had arisen when interacting with an insurance company in relation to a CTP claim. The physiotherapist managing the claim suggested that the claimant receive fortnightly physiotherapy and twice-weekly exercise physiology to support their recovery. The insurance provider, however, rejected the physiotherapist's recommendation for exercise physiology and instead demanded all the claimant's care be provided by physiotherapy. Visibly frustrated recalling events, P3 remarked: "I wish I knew what they're basing their

decision off. I guess it just shows that it's profits over people for ... [insurance companies] at the end of the day, doesn't it?" (P3, Site 1, Fieldnote).

Discussion

The aim of this study was to explore the barriers to IPCP from the perspective of Australian physiotherapy private practitioners. This study builds on, and explores, preliminary findings from an online survey [15], with a sample of physiotherapists employed in private practice sites within the NQPHN region. Five main themes characterized physiotherapy private practitioners' views and experiences regarding IPCP: a) competition for clientele, b) personal attitudes and beliefs, c) time constraints and work schedules, d) geographic location, and e) rules of funding schemes. Given the global expectation for IPCP as a standard of care, the insights derived from this study may hold relevance beyond the current research context [1]. Although this study reports the barriers to IPCP from the perspective of Australian physiotherapy private practitioners, the findings from this research may be of interest to private sector physiotherapists internationally, as well as health practitioners from other professions who work in similar clinical settings with similar clientele.

This study highlights the need to address the financial concerns of physiotherapy private practitioners regarding IPCP. Study participants expressed concerns about referring clients to health professionals working at other primary care facilities, as this could result in lost clientele. Financial competition can negatively impact IPCP, as health practitioners from one profession may be less likely to collaborate with clinicians from another profession if they are perceived as a threat to their income-generating potential [39,40]. In a recent survey [15], physiotherapists employed in private practice were less likely to participate in interprofessional activities such as shared decision-making and team meetings, which may be due to a focus on productivity and individual key performance indicators over collective team or organizational performance. Research also indicates that competition for clientele may undermine IPCP when it is incentivized and encouraged by fee-for-service payment models [41]. In a fee-for-service model of remuneration, healthcare providers are paid for each individual service or treatment they provide to a client. Therefore, the more services a provider delivers, the more they may be financially compensated. This payment model may create a financial incentive for providers to focus on delivering their own services, rather than collaborating with other health professionals. Alternative payment models, such as capitation or bundled payments, have been suggested to promote IPCP [41]. These alternative payment models may offer greater incentive for IPCP by rewarding healthcare providers for working together to achieve better client outcomes and control costs [42]. Financial incentives may help mitigate some of the challenges associated with IPCP by providing physiotherapy private practitioners with a clear motivation to communicate and coordinate care with other health professionals. Physiotherapy private practitioners who are financially rewarded for collaborating effectively may be more likely to share information and resources with members of the interprofessional team and develop comprehensive management plans for clients.

The findings of this study provide support for the need for effective communication and collaboration between physiotherapists and medical practitioners, particularly in the management of musculoskeletal conditions. Several participants were critical of how medical practitioners carried out their duties, citing poor communication and medical mismanagement of clinical cases as barriers to IPCP. However, promising signs of a cultural shift within the medical profession towards interprofessional teamwork, client-centered care, and improved communication have been reported in the literature [43]. This cultural shift is being driven by a variety of factors, including advances in medical technology, changes in health policy, and the increasing diversity of the medical workforce [44–46]. As the culture of the medical profession continues to evolve, it is anticipated that IPCP between physiotherapists and medical practitioners will also improve, ultimately leading to better outcomes for clients. It must be noted, however, that the pace and nature of cultural change within the medical profession may differ significantly across various countries, regions, and healthcare systems.

Study participants stressed that they had to be mindful of how they conveyed client information to GPs. This was based on the premise that GP referrals significantly influence physiotherapy private practitioners' ability to generate income. Physiotherapists in private practice often rely on referrals from GPs to maintain their client base and ensure the financial viability of their organization [47]. This relationship may prove challenging for physiotherapists to be critical of medical practitioners. Physiotherapists in this study reported exercising caution when approaching some medical practitioners, for instance, by not being too affirmative in making their observations regarding client management to prevent unpleasant reactions. The extent to which physiotherapy private practitioners withhold information from GPs and medical specialists due to possible financial ramifications the interaction could have, such as discussing clinical cases where client harm or distress is suspected, is currently unclear. However, all health practitioners, including physiotherapists, have a professional obligation to prioritize the best interests of their clients, regardless of the impact on referral relationships [48]. Physiotherapy private practitioners have a responsibility to provide high-quality, evidence-based care to their clients, and to advocate for the best possible outcomes [48]. Implementing an interprofessional collaborative practice approach to client care is critical to ensuring physiotherapy private practitioners fulfill these responsibilities.

The attitudes of physiotherapy private practitioners towards other health professionals were identified as a significant influence on their willingness to engage in IPCP. For example, some study participants were reluctant to interact with chiropractors or osteopaths because they felt that they did not share a common language or vision of treatment. These philosophical differences may perpetuate uncertainty about each other's roles and lead to disagreements or tensions, particularly regarding issues related to scope of practice, appropriate treatment modalities, and patient safety [49]. Negative opinions towards the chiropractic and osteopathy professions may also be based on past interactions with only a small number of individual practitioners. To overcome these barriers, more opportunities are required to bring

health practitioners from diverse professional backgrounds together. This may be achieved through arranging training and promotional and social activities between and within healthcare organizations. Time constraints, however, may present challenges in implementing such initiatives [22,40].

The current study also highlights the need to address the challenges associated with time constraints and workload schedules to effectively promote IPCP. Physiotherapy private practitioners reported that they did not have enough time to meaningfully engage in interprofessional activities. The significant amount of perceived time required to implement interprofessional work was considered an additional barrier. In the absence of dedicated systems to support IPCP, participation in interprofessional tasks may be at the discretion of individual health practitioners, with many physiotherapists describing these tasks as voluntary and unpaid work that is performed in addition to routine clinical duties. It is therefore possible that existing remuneration methods for healthcare providers do not adequately account for the time required for effective IPCP. In Australia, there have been growing calls to incentivize IPCP in primary care through the Medicare Benefits Schedule (MBS) [50]. Medicare is Australia's universal health insurance scheme that is funded by the Australian Government through general taxation. The feasibility of introducing consultation items to increase the uptake and quality of collaborative work, such as case conferences, was recently examined [50]. However, the MBS Review Taskforce [50] concluded that mandating such practices would exacerbate health system inequities due to workforce shortages in rural and remote areas. To improve client outcomes and enhance the quality of health service provision, it is crucial to manage time pressures and encourage more efficient IPCP. In physiotherapy private practice, this may be achieved through various strategies such as allocating specific time for interprofessional communication and collaboration, offering adequate resources and support for interprofessional tasks, and acknowledging the significance and value of IPCP on service delivery at an organizational level.

The study findings emphasize the need for strategies to support sustainable models of IPCP in the physiotherapy private practice setting in regional and rural areas. Physiotherapists located in regional and rural areas face challenges in collaborating with other health practitioners due to workforce shortages and limited access to specialized healthcare services [51]. Physiotherapy private practitioners working in these areas may therefore need to modify their professional boundaries and assume expanded scope of practice roles, which can lead to increased responsibility and workload [52]. Furthermore, people living in regional and rural areas often experience higher levels of socioeconomic disadvantage and higher rates of chronic diseases compared with those living in urban areas [53]. Such factors may impact health outcomes in regional and rural communities and increase the need for IPCP to address complex health issues. Strategies that may overcome geographical barriers to IPCP include improving access to specialized healthcare services, increasing workforce capacity, promoting networking and collaboration with other health professionals, and facilitating use of telehealth technologies [5].

The main limitation of this study was a potential volunteer bias because participants eligible for study inclusion were chosen from a list of survey respondents who expressed interest in further research [15]. However, physiotherapy private practice sites were carefully selected to ensure that recruited participants were “information-rich” [33]. In addition, this study deepens our understanding of IPCP from the perspective of an understudied population: physiotherapists working in private practice in regional and rural Australia. Although competition for clientele was a significant barrier to IPCP in the current study, participants were not specifically asked about their employment type or payment structure, such as whether they received a fixed salary or operated on a commission-based system. Collecting this demographic information may have helped to achieve a more comprehensive understanding of how different compensation models influence physiotherapy private practitioners’ attitudes and behaviours related to IPCP. The collection of observational data during the COVID-19 pandemic may be considered an additional study limitation. Physical distancing requirements and restrictions may have created challenges for physiotherapy private practice sites to facilitate opportunities for multiple health practitioners to safely interact in the same physical environment, possibly impacting the dynamics and behaviours observed during the study. However, the unique context of the COVID-19 pandemic has offered valuable novel insights by showcasing the adaptability and resilience of health services and health practitioners in response to unforeseen circumstances [54]. Furthermore, observational data collected in the study only captured activities, events, and interactions that occurred outside of physiotherapy private practitioners’ consultations with clients. Consequently, it is possible that instances of interprofessional communication during client consultations, such as phone calls to other health professionals, were not directly observed. Future research should address this limitation by exploring interprofessional dynamics within client consultations to provide a more comprehensive understanding of IPCP in physiotherapy private practice settings.

Conclusion

This study provides the physiotherapy profession with new and relevant information pertaining to the barriers to IPCP from the perspective of the private practitioner. The findings from this study suggest that implementing IPCP in the Australian physiotherapy private practice setting presents several challenges. Financial concerns, such as physiotherapy private practitioners’ perceived need to compete for clientele, were significant barriers to IPCP. Introducing financial incentives and adopting alternative payment models to fee-for-service schemes may be necessary to provide physiotherapy private practitioners with a clear motivation to engage in IPCP. This study also highlights the need for more formal opportunities to bring health practitioners from diverse professional backgrounds together to gain new insights and knowledge of other professions’ expertise and challenge their own assumptions. The findings from this research may be used to inform the development of innovative strategies that will support sustainable models of IPCP in the physiotherapy private practice setting.

Supporting information

Supplementary material 1. Semi-structured interview guide (see appendix).

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Appendix

Supplementary material 1. Semi-structured interview guide

1. Thank you for agreeing to chat with me. Could you introduce yourself and your position/role at this private practice? (*Follow-up: How would you describe your workplace?*)
2. Can you tell me what interprofessional collaborative practice looks like for a physiotherapy private practitioner at this clinic? (*Probe for: interactions with different professional groups; frequency of interactions; modes of communication; level of satisfaction; organisational culture/vision; perceived value of interprofessional collaborative practice*)
3. What do you think are the main barriers to effective interprofessional collaborative practice for physiotherapists working in private practice? (*Probe for: power/hierarchy; tensions/conflicts; financial considerations; geographic location; organisational model; scope of professional practice; time constraints*)
4. Can you explain why a recent survey found that physiotherapy private practitioners are more likely to interact with health care professionals such as general practitioners, medical specialists (for example, orthopaedic surgeons), exercise physiologists and occupational therapists, but less likely to interact with chiropractors, dietitians, osteopaths, pharmacists, psychologists and speech pathologists?
5. In a recent survey, a physiotherapy private practitioner made the comment that "... collaboration within allied health is fine; however, the main limitations are dealing with the medical profession due to their incredibly poor awareness of what our treatment actually is". Do you agree or disagree with that statement? (*Follow-up: What have your experiences been with medical practitioners?*)
6. Ninety-eight per cent of respondents in a recent survey indicated that interprofessional collaborative practice was necessary to provide adequate client care, but only one-third of these respondents reported that they interacted with a health practitioner from a different profession once a week or less. Can you explain this finding? (*Probe for: organisational model; orientation to treatment; time constraints*)
7. Do you think it is harder to achieve effective and sustainable interprofessional collaborative practice in regional and rural areas compared to major cities? (*Follow-up: Why/why not?*)
8. Has participation in this research project changed your interest in interprofessional collaborative practice?
9. Is there anything else you would like to discuss regarding interprofessional collaborative practice in private practice that we have not covered in the interview?