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Implementation of the "clinical framework for the delivery of health services" by treating healthcare professionals: perspectives of regulators and insurers

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ABSTRACT

Purpose: To understand the current utilisation of the clinical framework for delivery of health services to manage compensable musculoskeletal injuries from the perspectives of insurer case managers and clinical panel members.

Materials and methods: Using a qualitative descriptive approach, 15 semi-structured interviews were conducted with members of key organisations including WorkSafe Victoria and Transport Accident Commission Victoria. All interviews were recorded and transcribed verbatim and analysed using thematic analysis.

Results: Four over-arching themes were identified: (i) current use of the framework and principles is sub-optimal leading to several problems including lack of evidence-based treatment by clinicians; (ii) barriers to optimal use of the framework include lack of adequate training of healthcare professionals on the framework principles and financial aspects of the compensation system; (iii) utilisation of the framework could be improved with training from peak associations, insurers, and regulating bodies; and (iv) optimal use of the framework will result in better health and work outcomes.

Conclusions: The current use of the framework and its principles is suboptimal but can be improved by addressing the identified barriers.

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KEYWORDS
Musculoskeletal injuries; evidence-based practice; implementation; compensable injuries; insurers and regulators

➤ IMPLICATIONS FOR REHABILITATION

- Rehabilitation of compensable musculoskeletal injuries is often complex.
- Implementing the "Clinical Framework for Delivery of Health Services" can lead to provision of time and cost effective, evidence-based rehabilitation for compensable injuries, ultimately improving patient outcomes.
- Clinicians can enhance the implementation of the framework principles by integrating evidence-based practice and recommendations from clinical practice guidelines in treatment of compensable musculoskeletal injuries.
- Implementation of the framework principles may be enhanced by reviewing the compensation funding model to allow the healthcare practitioners adequate time and remuneration to adopt the framework principles when treating persons with compensable injuries.

Introduction

Musculoskeletal conditions (MSK conditions) are recognised as the leading cause of disability internationally and in Australia, with around one-third of Australians experiencing these conditions at any one time [1]. More importantly, these conditions have global impact, including loss of participation in work and lower quality of life [2–4]. A subset of musculoskeletal injuries is those sustained at work or in a road traffic crash (RTC). Such injuries are compensable in Australia, under the workers' compensation and/or compulsory third party (CTP) insurance schemes.

Recovery from a compensable injury is complex, with a range of factors influencing recovery. This includes the involvement of a range of stakeholders and their varying expectations regarding management and outcomes [5]. These stakeholders include the client and their family members, insurance case managers, treating healthcare professionals, employers, rehabilitation team members, and union and legal representatives. Other key influencing factors to recovery include the stress associated with the often-adversarial claims processes and communication with insurers, which may result in delays in recovery for the injured person [6,7]. The presence of legal representation has also been reported to add to the stress and complexity of the process [8]. One important aspect that can improve recovery outcomes, however, is access to timely, evidence-based healthcare.

To work towards greater access to best-practice care, in 2002, a group of allied health professionals and researchers in Victoria, Australia developed a set of principles to assist healthcare

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professionals in the delivery of best practice for compensable clients. This "Clinical Framework for Delivery of Health Services" [9] (referred to as the framework from hereon) was adopted in 2012 by all jurisdictions in Australia and is currently endorsed by seven health care professional (HCP) associations [9]. The framework aims to ensure that the provision of healthcare services is goal orientated, evidence based and clinically justified. The framework consists of five principles: (1) measure and demonstrate the effectiveness of treatment, (2) adopt a biopsychosocial approach, (3) empower the injured person to manage their injury, (4) implement goals focused on optimising function, participation, and return to work, and (5) base treatment on the best available research evidence.

These principles are consistent with recommendations from a recent systematic review of high-quality clinical practice guidelines (CPGs) for the management of musculoskeletal pain conditions [10]. Providing care consistent with the CPGs has shown to result in better patient outcomes and lower healthcare costs [11]. Thus, it could be argued that implementation of the framework principles for people with a compensable injury will not only facilitate the provision of quality healthcare, but also result in better outcomes and a reduction in healthcare costs.

Research on the implementation of the framework is limited. One study in Western Australia [12], found that 41% of the 161 surveyed workers' compensation stakeholders were "not familiar" with the framework, and 32% were "somewhat familiar." Interestingly, there was no difference between the different stakeholders which included HCPs (56%), insurance workers (11%), employers (13%), and vocational rehabilitation providers (16%) [12]. In the compensable environment, the funding decision makers, predominantly the insurance case managers and clinical panel members of the compensation regulatory bodies play a key role in the rehabilitation and return to work process, being responsible for evaluating and approving funding for health services [13]. They are uniquely placed to determine if and how well the framework principles are utilised through their interactions with HCPs [14,15]. Thus, the objectives of this study were to gain an in-depth understanding of:

- the current implementation of the framework from the perspective of the funding decisions makers for health services;
- funding decision maker's perspectives on the barriers for implementation of the framework and how these barriers could be addressed.

Methods

Study design

Qualitative description was utilised in this study. Qualitative description seeks to understand a phenomenon or the perspectives of those involved in the phenomenon in detail [16]. In this study, the phenomenon of interest is the implementation of the framework and we sought to understand the perspectives of insurer case managers and the clinical panel members who are directly involved in decision making regarding treatment provision.

Study setting

In Australia, there are 11 main workers' compensation and eight CTP insurance schemes (Table 1). Each compensation scheme is governed by state and/or national legislation and differs in the services covered, but usually provide a combination of medical and rehabilitation services, lost wages, travel, death benefits, lump sum compensation for permanent impairment, social support, and disability support.

This study was conducted in Victoria, Australia where WorkSafe Victoria regulates the workers' compensation scheme through insurance companies, known as WorkSafe agents. The Transport Accident Commission (TAC) regulates the CTP insurance scheme. Additionally, there are self-insured organisations which manage and cover the costs of their own workers' compensation claims. The people who make funding decisions for health services are the case managers employed by the WorkSafe agents and the TAC. They are also responsible for assessing and managing the accepted claims and supporting all stakeholders involved in the rehabilitation and return to work of the injured claimant. Unique to Victoria, both WorkSafe and the TAC have a clinical panel of qualified medical and allied health professionals who collaborate with case managers on individual claims to support HCPs to apply the principles of the framework in treatment. These professionals also review the performance of HCPs to ensure treatment is consistent with the framework [17]. Depending on the scheme, allied health professionals are required to complete a request form to justify the treatment provided. Insurers expect that any request for ongoing treatment beyond the initial or pre-approved number, must be consistent with the framework [18].

Participants

The participants in this study were people involved in the case management and funding decisions of compensable injuries in Victoria, including insurer case managers and clinical panel members. A purposeful sampling technique was utilised to recruit participants. Participants were recruited through the known networks of the project team and contacts at WorkSafe and TAC, who distributed an email invitation. Interested persons expressed their interest by contacting the research team by email or telephone. The invitation contained information about the study and a consent form. Participants were required to return the signed consent forms prior to their participation in the interview.

Data collection

Phone interviews were conducted between July and November 2019. The first two interviews were conducted by BA and VJ and the remainder by BA. Fieldnotes were taken during the interviews. Prior to the commencement, each participant was asked to provide demographic information (age, gender), their professional background and the number of years' experience in managing compensable injuries. A semi-structured interview guide (Online Resource 1) was created to address the research aims. The open-ended interview questions were divided into five main topics

Table 1. Overview of compensation schemes in Australia.

Workers' compensation	Compulsory third party insurance
Total – 11 One for each of the 6 states and 2 Territories 3 Commonwealth schemes (Comcare for Australian government employees, Seafarers and Australian Defence Force)	Total – 8 One for each of the 6 states and 2 Territories

about the framework: knowledge, training, current use of the framework, expected outcomes when using the framework optimally and the knowledge to action gap.

To establish rigour in data collection, member checking was undertaken [19], where a summary of interview findings was sent to the participants for their feedback. Any comments received were considered for data analysis. Additionally, an audit trail was maintained to capture the data collection and analysis procedure and processes [16].

Data analysis

The data were analysed using Braun and Clarke's six phase framework for thematic analysis [20]: familiarisation, generating initial codes, searching for themes, reviewing themes, defining themes, and writing up. The interviews were audio-recorded and transcribed verbatim by a professional transcription service. Once transcribed, the interview transcripts were read several times to become familiar with the data and generate initial ideas for coding. Two authors, BA and TA then individually coded three transcripts to generate the initial list of codes. Thereafter, the individual codes were discussed and refined between the two authors and a working list of codes and code descriptions was generated. This helped establish rigour in data analysis by using the method of triangulating analysis [19]. The remaining transcripts were then coded by BA using the NVivo software program (Version 12.0, QSR International Pty Ltd., Burlington, MA). The coding and codes list was discussed, reviewed, and refined during this coding by the two authors. This was followed by identification of initial themes and sub-themes by BA. The research team discussed and refined the themes and sub-themes over several meetings which led to the development of a thematic map for analysis and write-up.

Table 2. Characteristics of participants ($n = 15$).

Characteristic	*n* (%)
Gender	
Male	7 (46.7)
Female	8 (53.3)
Employing agency	
WorkSafe	3 (20)
TAC	8 (53.3)
WorkSafe agents	3 (20)
Self-insured company	1 (6.7)
Professional qualification	
Physiotherapist	5 (33.3)
Occupational therapist	2 (13.3)
Chiropractor	2 (13.3)
Exercise physiologist	1 (6.7)
Others	5 (33.3)
Role	
Case manager	7 (46.7)
Clinical panel	8 (53.3)
Years of experience in compensation industry (mean, SD)	
Panel members	18.57 (5.68)
Case managers	6.13 (3.52)

Results

A total of 15 participants from WorkSafe ($n = 6$), TAC ($n = 8$), and one self-insured company ($n = 1$) participated in the interviews (Table 2). Participants' age ranged from 22 to 57 years and the majority had a health profession background. Four main themes were identified (Figure 1). The first describes the current utilisation of framework in practice. The second describes participants' perspectives on barriers to using the framework, and the third describes participants potential solutions to enhance utilisation of the framework. The fourth theme relates to participants' perspectives on expected outcomes with optimal adoption of the framework.

Theme 1 – Current adoption of the framework

Overall, the participants reported that there is incomplete adoption of the framework in the treatment and management of compensable injuries. Four main sub-themes were identified from the discussion. First, that knowledge and understanding of the framework among HCPs is highly variable. Second, there is limited adoption of the framework principles in treatment of compensable injuries, which is associated with provision of treatment that is not evidence based. Third, while principles are being adopted by some HCPs, some principles are adopted better than the others, and finally, that "over-servicing" is reflective of the suboptimal use of the framework by HCPs.

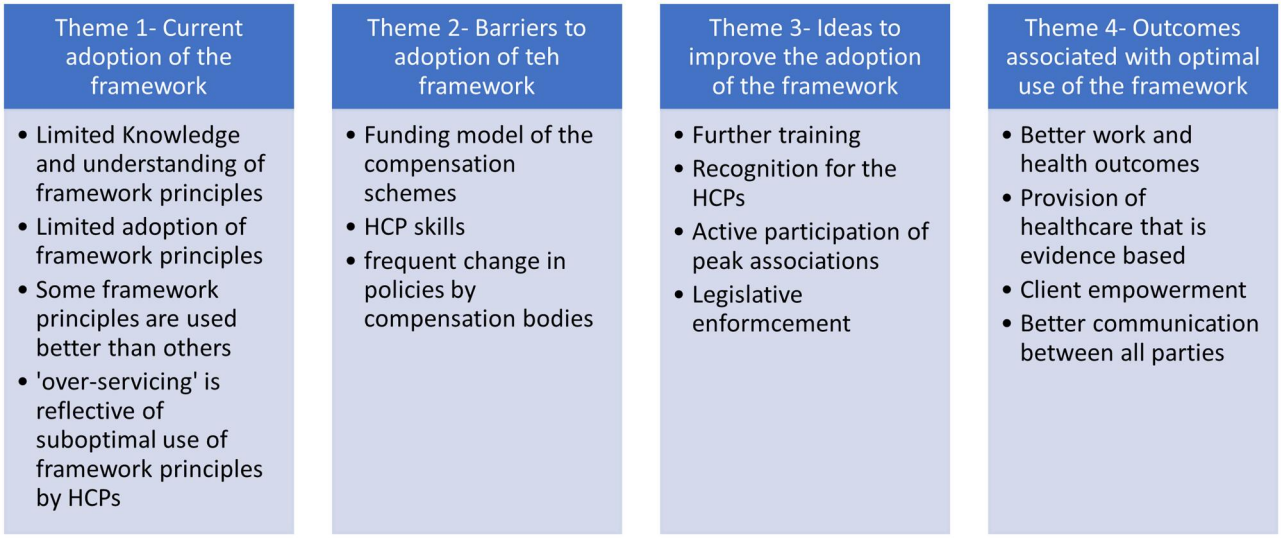

Figure 1. A summary of themes and subthemes that emerged.

Limited knowledge and understanding of the framework principles

Participants discussed that from their perspective, HCPs' understanding, and knowledge of the framework is highly variable. They discussed that some HCPs are unfamiliar with the framework, while others have limited knowledge or "*chose*" not to use it. However, they also reported that some HCPs had "*excellent*" knowledge of framework principles. As one participant stated,

> … some clinicians are not familiar with the principles at all, some healthcare providers might say, "Oh, yes, I know about the clinical framework," however, their clinical practice doesn't reflect that they're actually working in line with the principles of the clinical framework. Yet there are other healthcare providers whose clinical practice does reflect an understanding of the principles of the clinical framework. (P1, clinical panel member)

Limited adoption of the framework principles

The participants discussed various aspects of current treatment for compensable injuries which they considered to be inconsistent with the framework principles. For example, "*prescribing the passive therapies at significant lengths of time after an accident …* " (P12, case manager) was considered to be inconsistent with Principle 3 which stipulates that the injured person should be empowered to manage their injury.

Participants discussed that some HCPs did not provide treatment consistent with evidence-based practice, thus inconsistent with Principle 5 of the framework. For example, *"there's guidelines out there for things such as whiplash etc. that many providers aren't working towards"* (P12, case manager).

Another aspect of treatment provision that was discussed by participants in relation to the framework concerned the inadequate use of educational strategies to empower clients towards self-management as stipulated in Principle 3. As one participant stated,

> … even though physios do transition people to independent management so their clinical practice may reflect that they're empowering people to self-manage, when you have a group of clients that are difficult to transition to self-manage, I find that physio's skill-set falls down …. (P1, clinical panel member)

A few participants reported that the HCPs often failed to involve the injured client in the planning of their rehabilitation, as well as educating them regarding their injury and rehabilitation, common strategies to promote self-management. As one clinical panel member reported,

> I'm not sure how involved they [injured client] are in the planning of those treatment plans. And then sometimes if you request their medical records alongside that, you can see that there may have been quite a lot of hands-on therapy going on, and not necessarily those education. (P2, clinical panel member)

Some framework principles are used better than the others

Incomplete adoption of the framework principles was also described by participants, with regards to some principles being used in practice more than others. Most of the participants believed that Principle 2 (Adopt a biopsychosocial approach), Principle 3 (Empower the injured person to manage their injury), and Principle 5 (Base treatment on the best available research evidence) are the least used in practice, while Principle 1 (Measure and demonstrate the effectiveness of treatment) and Principle 4 (Implement goals focused on optimising function, participation, and return to work) are mostly adhered to in some way. This view is captured in the following comment by a case manager:

> The principles two, three and five are not being met. Most physios will measure change … it's very common for physios, particularly to be measuring change through standard outcome measures, which is part of principle one. Most physios have goals. (P8, clinical panel member)

Furthermore, some participants believed that although Principles 1 and 4 were mostly implemented in practice, adherence was often incomplete or incorrect as a clinical panel member commented, "*In treatment plans there's not always regular outcome measures taken until we've asked for them. So they may be aware of these things but not necessarily implementing them in their practise*" (P12, case manager).

Most participants believed that the framework is a helpful tool for communication to drive peer-to-peer conversations with HCP regarding treatment provision and funding decisions. However, these decisions are made difficult when the quality of documentation was often "poor" and "incomplete." Participants offered reasons for incomplete treatment plans such as "*… treaters they're very busy and they try and—they don't have the time to complete administration work*" (P2, clinical panel member). Another reason offered was that completing the form is a "means to an end":

> The vast majority of them (HCP) use it as a means to end; in other words, in order to get further treatment, I need to complete this and if they're keen, I'll get a super detailed one. (P10, clinical panel member)

'Over-servicing' is reflective of suboptimal use of the framework by HCPs

Participants often described that over-servicing was a problem in the industry and was reflective of limited adherence to the framework principles. The participants offered reasons for "over-servicing" with the main being the financial model under which HCPs operate, as explained by a clinical panel member:

> … in the reality of the real world, where your profession is also your ways of making an income, then you have to factor in those influences that are going to direct treatment. Unfortunately, we are rewarded for poor outcomes, which is a fundamental, I guess, flaw in any type of system that pays for bad outcomes. The more we see somebody the more money we get. It's as simple as that …. (P10, clinical panel member)

Some participants believed that the HCPs are insufficiently remunerated for the time required to appropriately manage a compensable injury and are therefore forced to operate under a "financial model" as discussed above, which is geared towards ongoing services. Some participants also discussed how injured persons unknowingly contribute to "over-servicing" as they do not bear any costs for treatment under the compensation funding model. The lack of financial liability by the person receiving the treatment was mentioned as a disincentive to self-management and hence contributing to over-servicing.

The most common non-financial factor related to over-servicing was, "dependency on treatment." Participants discussed the inter-relationship between the suboptimal use of the framework principles leading to creation of dependency on treatment, consequently resulting in perceived over-servicing.

> … it's because the therapists haven't supported that client and empowered them to transition to self-manage. So they have created that dependency through regular therapy sessions, not transitioning to a monitoring role but continuing to maintain that very one on one support …. (P15, clinical panel member)

Theme 2 – Barriers to adoption of the framework

The participants identified several barriers associated with incomplete adoption of the framework. These related to the funding

model of the compensation schemes, HCP skills and the frequent changes in policies by compensation bodies. The participants discussed the inter-relationship between the "funding model" of the compensation system and the "business model" of some HCP practices.

> In the WorkCover system in Victoria, physios are paid poorly compared to what they can bill for a private patient. So within the business model that the physios are working under, there's no incentive for a physio to go the extra mile and take the time to get the patient to fill in a questionnaire within the treatment session. So, I am quite aware of the barriers that certainly physios under the WorkCover system face in Victoria. To do physio practice consistently in line with the principles of the clinical framework, you can't do that in a 15-minute consultation. And that's basically what the physios are funded for in the WorkCover model. (P3, case manager)

In relation to the HCP skills, some participants reported that the HCPs' *"lack"* clinical skills in identifying and managing psychosocial factors associated with compensable injuries. It was believed that HCPs lack communication skills particularly around being *"assertive"* about treatment decisions thus resulting in incomplete adoption of the framework.

> … some Australian physios lacking confidence, and then even if they feel that they are doing a screening questionnaire, they then lack confidence in how to have a clinical discussion with the patient around questions where the patient might be scoring more highly with regards to mood or anxiety …. (P5, case manager)

Another barrier to the adoption of the framework principles was related to the frequent change in the policies of the compensation regulators, such as the timeframes of submitting the treatment management plan or whether the management plans are required to be submitted or not. For example, one participant stated,

> So initially when I first started working with TAC, every physio had to fill in a treatment management plan. And so, we used to get the outcome measures on that. Then TAC went through a phase where they actually stopped the TMPs [treatment management plans], and physios didn't need to fill them in. So, they just needed to start treating the patient … So then when we rang a physio, it was really variable whether they'd actually done outcome measures or not … Because they said, "Oh, I didn't think I had to do them anymore, because I don't have to send in a treatment notification plan." (P1, clinical panel member)

Theme 3 – Ideas to improve the adoption of the framework

The participants offered various suggestions to improve the adoption of the framework principles, such as training HCPs and injured clients regarding the framework, offering recognition to HCPs using the framework principles and greater participation of the professional bodies.

For HCPs, most participants thought that frequent and short interactive training would be most beneficial. As one participant commented,

> Australian physios would benefit from further education in that area (framework principles) … some sort of interactive webinar might work quite well. Where the physios are actually having to go away and practice a skill set, maybe tape their interview with a patient, and then come back and play it to a facilitator, or submit it as a recording …. (P10, clinical panel member)

Several participants discussed that educating the HCPs in how the framework is being used for making funding decisions, would enhance the adherence to the framework. As one clinical panel member reported,

> I think the training has to be around the importance of it [framework] and to adhere to it and the importance TAC places on it. So it's not training, per se. It's more of creating this awareness that if you're treating a TAC client, you've got to adhere to the principles.

Many participants also believed that educating injured clients on the framework principles was important as it would potentially empower them to make treatment decisions. As one participant commented,

> Because I think our patients need to be empowered in the end of the day. So, they also need to understand those principles in detail. (P2, clinical panel member)

Another commonly suggested solution to improve the uptake of the framework was to offer some form of incentive or recognition to the HCPs who demonstrate adherence to the principles in their practice. As one clinical panel member discussed,

> I think that there definitely should be some recognition for them, and for our clients as well to know that these providers are getting the best outcomes. So, if the framework does produce better outcomes—as I feel it does—then I think those providers should be being rewarded. And that would also allow clients to know who a good practitioner is …. (P2, clinical panel member)

Some participants reported that there may be a role for the peak professional associations such as the Australian Physiotherapy Association (APA) or Occupational Therapy Australia and the registration board in promoting the framework. Some participants also suggested that enforcement was required to ensure that the framework principles were implemented. *"… so yeah, that would probably be my only comment—actually making it something that is in the legislation to be enforced. Because I actually think it would provide much better outcomes for everyone involved"* (P3, case manager).

Some participants discussed ideas about creating different versions of the framework document to suit various stakeholders' requirements. Such as a poster version of the document for visual prompting, or a version which includes case-based examples, along with a "how to" guide to explain the operationalisation of each principle for clinical cases.

Theme 4 – Outcomes associated with optimal use of the framework

All the participants agreed that optimal utilisation of the framework principles would result in better work and health outcomes for people with compensable injuries. In other words,

> … clients receive evidence-based therapy working towards measurable goals, the client's progressed towards those and they're setup to effectively self-manage … all those biopsychosocial factors will be taken into consideration and the barriers addressed. (P15, clinical panel member)

Many participants thought that better understanding of the framework by injured clients would empower them to actively participate in their treatment, and collaborate better with the HCPs, in setting treatment goals, self-mange when required aiming for independence. One participant reported,

> I think that the person [injured client] themselves would also understand a lot more about whether they're on track with their recovery and to understand that returning to work and returning to functional activities are part of their rehabilitation. It's not the end point. (P4, case manager)

Most participants also discussed how better utilisation of the framework would potentially lead to better communication between all the stakeholders involved in the management of a

Table 3. Work experience of participants quoted in the results.

Participant number	Work experience (years) Mean work experience Clinical panel members – 18.6 years Case managers – 6.1 years
P1	24
P12	3
P2	9
P8	7
P10	15
P15	17
P3	3
P5	3
P4	9

compensable injuries, potentially leading to improved return to work rates and reduced lost time at work (Table 3).

Discussion

This study investigated the perspectives of insurer case managers and clinical panel members in Victoria, Australia on the current use of the clinical framework for delivery of health services in practice. Participants of this study believed that the current knowledge and awareness of the framework is limited, potentially resulting in treatment provision that is not optimal. The main barrier to optimal use of the framework identified was the compensation system funding model. Several potential solutions were offered by participants, with the most widely discussed being further training and education to stakeholders and incentivising HCPs to adhere to the framework principles. Overall, participants believed that better outcomes for the injured person could be achieved with optimal use of the framework.

The study participants believed that the HCPs had limited knowledge and awareness of the framework principles. This may be surprising, considering the framework principles are embedded in most allied health curriculums. Moreover, the framework principles incorporate elements of evidence-based practice, such as treatment guided by best available research and clinical expertise, collaboration and communication with clients, and offering patient centred care [21]. All these elements are widely promoted in healthcare education and clinical practice, yet there is evidence that patients fail to receive evidence-based care [22,23]. It is possible though that the framework principles are implemented without supporting evidence of implementation. Studies with undergraduate students have concluded that acquiring knowledge and skills for evidence-based practice do not relate to the students' intention to use evidence-based practice [24,25]. Adoption of evidence-based practice requires organisational infrastructure and acceptance to support evidence-based healthcare, as well as an educational system that is efficient in delivering programs that help students develop such competencies [26]. Therefore, it may be argued that receiving education alone does not equate to implementation of evidence-based care and that further research into strategies to support clinicians to translate research into practice is required.

The study participants reported that the incomplete adoption of the framework principles in clinical practice, led to treatment delivery that was time and cost ineffective and often failed to achieve optimal outcomes. This was evident with the prolonged use of passive therapies, inconsistent with Principles 3 and 5 of the framework. Participants discussed that the use of passive therapies led to poor coping strategies and subsequent development of treatment dependency and risk of non-recovery. This is supported by empirical evidence and CPGs, where passive treatment strategies have been found to promote passive coping strategies [27–29] that can lead to non-recovery [30,31]. For example, research into treatment for subacute low back pain [32,33] indicates that when passive modalities are preferred over active modalities subsequent chronicity is more likely [34]. Studies have also found that incomplete adoption of evidence-based clinical guidelines results in ineffective and inefficient treatment, that may prolong patient recovery, increase disability and thereby increase healthcare costs [35].

Further evidence of incomplete adoption of the framework was the problem of *"over-servicing."* The main reason for over-servicing was believed to be the "inherently flawed" compensation funding model. Most participants believed that the compensation schemes encourage over-serving by HCPs due to the inadequate reimbursement for the time required to comprehensively manage clients in accordance with the framework principles. Participants also discussed that the current compensation funding model feeds into the business model of some practices by offering payment based on the rehabilitation services delivered rather than rehabilitation outcomes. Such payment systems referred to as "fee-for-service" payment models [36] have been associated with increasing healthcare costs, reducing clinical autonomy and discouraging clinical innovation [37,38]. Additionally, fee-for-service funding models have been found to negatively influence the quality and rate of service provision for compensable clients [39]. It can therefore be argued that the current compensation funding model is a barrier to complete adoption of framework principles.

Other perceived barriers to incomplete adoption of the framework were HCP-related skills and education, framework related complexity, and frequent changes in policy around documentation requirements. These findings are similar to those reported by other studies on the factors related to non-adherence to clinical guidelines by healthcare professionals [40–43]. In the review by Fischer et al. [40], the barriers to guideline adherence were categorised into personal factors, such as lack of awareness, skills, and motivation, guideline-related factors such as complexity and poor layout of guidelines, and external factors such as lack of resources and organisational constraints. The same study also revealed that the success of implementation of the guidelines is dependent on addressing these barriers.

The most widely discussed strategy to improve adoption of the framework in this study, was further education and training to HCPs. Ongoing or frequent training that is interactive with role-play or case scenario-based discussion was suggested as being important to improve adherence to the framework. This is supported by current Knowledge Translation (KT) literature. A study by Stander et al. [44] found that the uptake of evidence and adherence to CPGs among physiotherapists was greater when multi-faceted KT strategies were used. Strategies such as interactive and didactic sessions, printed material, discussion, and feedback were consistently associated with better outcomes.

Another strategy suggested to improve the adoption of the framework was to provide recognition in the form of financial incentives to the HCPs who adhere to the framework. Such incentives have been found to be beneficial in a range of healthcare settings [45,46]. The study by McDonald et al. [45] on implementation of financial incentives to meet clinical and organisational targets, found these enabled primary care practices to provide "high quality care." In the field of compensable injuries, performance-based payments, where payment is offered upon achieving a particular result, have been identified as producing time-efficient quality services [46]. Therefore, it may be argued, that if

reforms to the funding system, where HCPs are remunerated for the time required to assess and manage a client and complete relevant communication tasks, a deeper adoption of the principles may be possible. Further research is required with policy makers to develop and implement a funding model, that is acceptable and beneficial to all stakeholders involved to ensure HCPs are fairly compensated for their time without negatively impacting on the quality of care offered and the financial viability of the compensation scheme.

A combination of best practice education and change in remuneration model has shown to be promising in the past [47]. For example, the TAC implemented a network provider model, where physiotherapists were integrated into a preferred provider scheme through a tender process. Once integrated in the network, physiotherapists were required to undertake a two-day training program in management of compensable injuries and five continuing education sessions. As further incentive, participating physiotherapists were paid for a "course of management" rather than the traditional "fee-for-service." The efficacy of this programme and change in remuneration model resulted in reduced costs and better outcomes for clients, including improved physical health and clients being 3.3 times more likely to return to work by six months [48]. Similarly, a positive association between the combination of education and financial incentives on cost savings in compensable healthcare was found by Wickizer et al. [49] in the USA.

Overall, the need for the use of the framework in practice was strongly supported by participants, with participants commenting that adherence to the framework would likely lead to better work and health outcomes. These outcomes were posited to occur due to the provision of timely, optimal care that is evidence based. Participants also believed that adherence to the framework would lead to optimal communication between the healthcare practitioners, insurers, and employers, thereby reducing the delays in decision making, and delays in treatment delivery. Communication challenges between healthcare practitioners and insurance case managers have shown to negatively impact patient care and return-to-work outcomes [50]. Hence, the framework offers an ideal structure to enhance the communication between stakeholders involved in the management of compensable injuries thereby improving outcomes for all parties.

Finally, further research into the reasons for non-adherence to the framework principles is warranted, considering that the framework principles are embedded within the curriculum of most allied health university courses.

Strengths and limitations

A strength of this study was the inclusion of those responsible for making funding decisions for the delivery of health care in compensable settings. Their perspective is rarely heard yet important in gaining an in-depth understanding of current use of the framework principles and perceived barriers to its use. The diverse professional backgrounds and extensive experience in compensable injuries provided rich data increasing our confidence in the findings. A limitation of this study is that it included participants from the workers compensation and third-party compensation schemes based in the state of Victoria, Australia and may not be representative of other insurance-based schemes in Australia or internationally. The results of this study also only represent the perspectives of one group stakeholders involved in managing compensable injuries, the other key groups of stakeholders being the HCPs. Therefore, further research is required to understand the barriers and enablers for implementation of the clinical framework principles by HCPs, to tailor strategies to enhance uptake.

Conclusions

The study found evidence of incomplete adoption of the "Clinical framework for the delivery of health services" principles with Principles 1 and 4 adopted more consistently. Barriers to full adoption of the framework discussed were the insurance funding model and HCPs skills to operationalise the framework principles. Potential solutions to improve the adoption of the framework were discussed, including providing additional training to healthcare practitioners and incentives for HCPs to adhere to the principals. However, HCP's perceived barriers and enablers for the uptake of the framework principles need to be investigated to develop a comprehensive implementation strategy to improve the adoption of the framework. A review of the funding model may be warranted given this was identified as a key barrier to support the implementation of evidence-based practice.

Ethical approval

Approval for this study was granted by The University of Queensland Human Research Ethics committee (approval number 2019001171).

Consent form

Written informed consent was obtained from the participants of this study, while receiving expression of interest to participate. Informed verbal consent was obtained before interviewing the participant.

Author contributions

All authors contributed to the study conception and design. Material preparation, data collection, and analysis were performed by Bhavya Adalja. The first draft of the manuscript was written by Bhavya Adalja and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript. Bhavya Adalja: conceptualization, methodology (data collection, curation, analysis); writing – original draft, writing – review and editing; project administration; Tammy Aplin: conceptualization, methodology (data curation, analysis); writing – original draft, writing – review and editing; Michele Sterling: conceptualization, methodology (data analysis); writing – original draft, writing – review and editing; Venerina Johnston: conceptualization, methodology (data collection, curation, analysis); writing – original draft, writing – review and editing.

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Data availability statement

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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