Questions: What factors influence the decision making of cardiorespiratory physiotherapy practitioners in acute care hospital settings? How do cardiorespiratory physiotherapy practitioners manage multiple factors in their decision making?

Design: Qualitative study using observation and semi-structured interviews.

Participants: Fourteen physiotherapists working in acute cardiorespiratory care.

Results: Cardiorespiratory physiotherapy decision making was affected by factors related to the nature of the decision itself (such as the complexity and difficulty of the task); factors related to the context (such as the physical, organisational and socio-professional factors); and factors related to the physiotherapists themselves (such as decision making capabilities, physiotherapy frames of reference and level of clinical experience. 

Conclusion: Optimising the quality of decision making in the context of health care today requires an awareness and consideration of a range of factors influencing decision making.
Title:  Factors influencing cardiorespiratory physiotherapy decision making in acute care settings: a qualitative study.

Authors:

1. Dr Megan Smith PhD, MAppSc(CardiopulmPhysio), GradCertUT&L, BAppSc(Physio), Senior Lecturer, Charles Sturt University.
2. Professor Joy Higgs AM PhD, MPHEd, GradDipPhty, BSc, Director, The Education for Practice Institute, Charles Sturt University.
3. Dr Elizabeth Ellis PhD MHL, Grad Dip Phty Honorary Senior Lecturer, The University of Sydney.

Correspondence:

(for review)

Dr Megan Smith
School of Community Health
Charles Sturt University
PO Box 789 Albury NSW 2640
Tel: 02 6051 6738
Fax 02 6051 6772
Email mesmith@csu.edu.au
Correspondence:
(for publication) Dr Megan Smith
School of Community Health
Charles Sturt University
PO Box 789 Albury NSW 2640
Email mesmith@csu.edu.au

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ABSTRACT

Questions: What factors influence the decision making of cardiorespiratory physiotherapy practitioners in acute care hospital settings? How do cardiorespiratory physiotherapy practitioners manage these factors in their decision making? Design: A qualitative research design was used with a hermeneutic approach. Participants: Fourteen acute care cardiorespiratory physiotherapists took part in the study. Methods: Data were collected through observation of cardiorespiratory physiotherapy practitioners undertaking their usual daily patient care activities, and through semi-structured interviews. Data analysis involved an in-depth, iterative process of reading and interpretation of field-notes and interview transcripts. Results: The findings of this research resulted in the development of a model of factors influencing clinical decision making in cardiorespiratory physiotherapy. Cardiorespiratory physiotherapy decision making was affected by factors related to the nature of the decision task, in particular the complexity and difficulty of the task; contextual factors such as the physical, organisational and socio-professional factors; and practitioner factors that included individual decision making capabilities, practitioner frames of reference and increasing clinical experience. Conclusion: Optimising the quality of decision making in the context of health care today requires an awareness and consideration of a range of factors influencing decision making.
INTRODUCTION

Clinical reasoning and decision making are fundamental aspects of physiotherapy clinical practice. Clinical reasoning is now understood to be a complex and multi-dimensional phenomenon in which physiotherapists develop a deep understanding of patients and their problems as the basis to decision making and action (Edwards et al. 2006, Higgs et al 2006). An increasing body of research has revealed a number of characteristics of physiotherapy clinical reasoning. These include practitioners possessing a dynamic body of practice-based knowledge (Jensen et al 2000, Smart and Doody 2007), and the use of cognitive strategies such as hypothetico-deductive reasoning and pattern recognition (Rivett and Higgs 1997). Edwards et al (2004) identified that physiotherapists use multiple approaches to reasoning or “clinical reasoning strategies”. These authors found that physiotherapists reason to make decisions about diagnosis and intervention but also use the reasoning strategies of narrative and collaborative reasoning to understand patients’ interpretations of their own illness experiences and to negotiate interventions. Edwards et al found that physiotherapists combined multiple reasoning strategies in varying ways according to particular characteristics of patients’ and their problems.

Clinical reasoning research in physiotherapy has tended to focus on practice areas such as musculoskeletal physiotherapy or physiotherapy in rehabilitation settings (Beeston and Simons 1996, Edwards et al 2004, Resnik and Jensen 2003). In comparison there has been comparatively limited investigation in the area of cardiorespiratory physiotherapy. Studies of cardiorespiratory physiotherapy practice have identified expert-novice differences in the organisation of knowledge when using paper-based cases (Case et al. 2000) and have explored practitioner consensus regarding characteristics of cardiorespiratory physiotherapy expertise (Roskell & Cross 2001). These studies suggest similarities to other areas of physiotherapy practice, however, to date there has not been a
study with a focus on cardiorespiratory decision making as it occurs in the realistic contexts of clinical practice.

There is increasing recognition that clinical reasoning and decision making are influenced by factors in the practitioners’ environment (Higgs et al 2004; Jette et al. 2003, Thornquist 2001). Acute care cardiorespiratory physiotherapy settings are rich in factors that have the potential to influence decision making. These settings are complex, busy organisational contexts that involve physiotherapists engaging in multiple interactive roles with patients and different members of acute health care teams, while they provide care that is often urgent, multi-focused and potentially life threatening. Researching physiotherapy clinical reasoning and decision making in acute care settings has the potential to reveal factors that influence physiotherapy decision making and provide an understanding of how these factors impact on decision making processes and outcomes.

The research questions addressed in this study were:

1. What factors influence cardiorespiratory physiotherapy decision making in acute care clinical settings?
2. How do cardiorespiratory physiotherapy practitioners manage these factors in order to make decisions?

**METHOD**

*Design:*

A qualitative research design was chosen to investigate cardiorespiratory physiotherapy practitioners’ decision making in acute care settings. Qualitative methods are well suited to
preserving and understanding the influence of context on a phenomenon of interest (Denzin and Lincoln 2000). Within the collection of methods that are qualitative research, hermeneutics was chosen as the guiding research strategy. Hermeneutics involves the construction of texts representing the phenomenon (e.g. field notes from observation and interview transcripts) that are subsequently interpreted through the rigorous and deeply interpretive use of hermeneutic analysis strategies as discussed below (Crotty 1998, Moss 2005, Packer 1985).

This study was conducted with approval from the Human Research Ethics committee of The University of Sydney and the research ethics committees of all hospitals where the research participants worked. Informed consent was obtained from all participants and throughout the study the anonymity and confidentiality of the participants was ensured.

Participants:

Physiotherapists actively involved in the practice of cardiorespiratory physiotherapy were recruited from three metropolitan hospitals in NSW and Victoria. Potential participants for this study were identified using purposive sampling (see Morse 1991) with the inclusion criteria as shown in Table 1. Physiotherapists meeting the criteria were invited to take part during staff meetings held in each of the hospitals.

Fourteen physiotherapists involved in the practice of cardiorespiratory physiotherapy decision making participated in the study. The participants were classified into three experience categories to allow interpretation of the influence of varying levels of experience on decision making (see Table 2 for categories). This number of participants allowed
saturation to be achieved in data collection and analysis, that is until redundancy occurred in the data and findings being obtained in relation to the research questions.

**Data collection**

The data for this study were collected using a combination of observation and semi-structured interviews. The observational data for this study were obtained by studying cardiorespiratory physiotherapy practitioners as they conducted their usual daily practice within acute care settings, focusing on their communications and actions linked to clinical decision making. Data were collected for each participant on two separate days with between five and eight hours spent observing each participant on each day. When observing the participants detailed field-notes were recorded documenting the words and actions of the participants as they engaged in episodes of patient care and interactions with other health professionals. These field-notes formed part of the texts that were then used as the basis for interpretation and analysis.

Each participant was interviewed on multiple occasions throughout the two days of data collection using semi-structured interviewing techniques. Participants were interviewed briefly following each observation of an episode of patient care about their decision making and factors that were influencing their reasoning processes. A separate longer (approximately 45 minute) interview was used to pursue in-depth questioning of participants about their clinical decision making and the factors affecting it. The longer interviews were conducted on each of the two days, after a number of observations of patient care had occurred. An interview guide was used and the longer interviews began by asking participants to share a story from their experience of cardiorespiratory physiotherapy clinical decision making. The stories, incidents and descriptions that participants provided were discussed, and probing questions were used to develop a deep understanding of participants’ decision making.
During the interviews, issues of interest that had arisen during the observations were also explored in greater depth. From the interviews, texts for data analysis were generated by transcribing verbatim the taped interviews. Between the two data collection days, participants were asked to review diagrammatic summaries of their data (see example in Figure 1). This was done to ensure that the data collection and preliminary interpretation processes were reflective of the participant’s decision making and to stimulate more in-depth discussion in the subsequent interviews.

**Data analysis:**

The texts (all interview transcripts and detailed field-notes) were analysed and interpreted guided by the critically reflexive and systematic principles of hermeneutics. A cyclic interpretive process was used where the texts for each participant were repeatedly read and interpreted. This was followed by a process of interpreting and comparing the data from all participants. The interpretive process resulted in the progressive development of an understanding of cardiorespiratory physiotherapy decision making and the identification of factors influencing decision making. This process of interpretation continued until a point of theoretical saturation was reached, that is no new findings were being identified from the texts.

To enhance the rigour of the research process an analytical log was used. This log was used to critically document the research process and to diarise the reflexive strategies used to identify and limit any partiality by the researcher. Further strategies used to ensure rigour and credibility included participant checking (providing participants with diagrammatic summaries of the collected data for their review), prolonged engagement with the texts and the use of multiple sources and sites. Participants confirmed that the actual nature of their context and work practices had been experienced by the researcher.
RESULTS

Cardiorespiratory physiotherapy decision making in acute care settings was identified as a dynamic, complex and multi-dimensional process influenced by multiple factors. Three types of factors were found to influence decision making by the participants. These were factors related to the context in which the decision occurred but also included factors related to the nature of the decision itself; and factors related to the physiotherapists themselves. From the findings of this study a model was developed to diagrammatically represent the factors influencing cardiorespiratory physiotherapy decision making (Figure 2).

Practitioners were required to manage these factors in multiple combinations in order to reach an optimal decision given the circumstances. This interwoven process is illustrated in this quote from an interview with a more experienced participant, Erica. “There are so many different factors that can influence your clinical decision making. We would all like to think that it is based on a thorough assessment, and evidence and a good research base behind it, etc. and we all like to think that we carry out the most optimal treatment for every patient, but there are so many factors that affect the ultimate thing that you do” (participant quote Erica).

Factors influencing decision making

a) Factors related to the nature of the decision itself.

Decision making was affected by factors such as the focus of the decision, the relationship of the decision to other decisions being made (both a temporal relationship and relationship to the level of decision for example, decisions as components of larger decisions) and composite attributes of the
decision such as complexity and difficulty. There were four foci of cardiorespiratory physiotherapy decisions: making decisions about patients’ problems, deciding about interventions, deciding how to best interact with the patient and making decisions that evaluate the outcome of previous decisions. Different sub-processes (that is, the methods of making decisions within each of the foci) were used according to whether the decision involved determining patient problems or determining an intervention.

The more complex and difficult a decision was to make, the more in-depth were the reasoning processes required and used. Complex or difficult cardiorespiratory physiotherapy decisions were associated with situational factors such as uncertainty, multiple and changing clinical variables, a lack of congruence among factors such as patient history and clinical test data, an important or critical outcome, a high risk of adverse outcomes, and complex emotion or ethical issues. Such decisions required processes of greater deliberation, critical appraisal in repeating previously successful interventions, progressive risk taking through cycles of experimentation, and inclusion of other health-care professionals in the decision making process. Where practitioners were less experienced with a particular scenario they responded to these complex situations by choosing to follow more recipe-type approaches and to replicate previous decision making by others, feeling less certain about taking risks. For example in this quote, “I find them hard to do, you can treat them but I feel when I’m treating burns patients I tend to be reverting to more recipe book rather than developing something that I think would work for that patient, just because you’re doing more recipe book ICU. I go in and I’ll bag as appropriate and I’ll suction, I’ll tip them on the side; just because you don’t know them enough to be able to treat effectively” (participant quote, Ingrid).

b) Factors related to the context in which the decision occurred
The contexts of cardiorespiratory physiotherapy practice are rich and complex, consisting of multiple interacting factors. Acute care can be dynamic, uncertain and unpredictable. Within these settings three types of contextual factors were identified: physical, organisational, and socio-professional factors (Figure 2 and see Table 3 for examples of each type of contextual factor).

The cardiorespiratory physiotherapy practitioners in this study were limited by and could limit the influence of contextual factors. At times they were constrained by contextual factors in their decision making, in that these factors limited, changed, modified, compromised and guided their decision making. On other occasions they were able to limit and manipulate contextual factors (such as the actual timing of pain medication delivery) in order to achieve optimal decision and treatment outcomes. Cardiorespiratory physiotherapy practitioners were variably aware or conscious of the influence of contextual factors on their decision making. Although the cardiorespiratory physiotherapy practitioners were able to list factors that influenced their decision making, these factors could not be consistently ranked according to their prevalence or importance in influencing decision making. Rather, different contextual factors assumed different relevance according to the unique circumstances at a given time. This finding was associated both with the level of experience and deep understanding of cardiorespiratory practice by the practitioner and the extent to which they engaged in reflective practice. Teaching more junior staff and students added such reflection and these practitioners were more able to articulate and explain factors they considered in making clinical decisions.

A typical example of how contextual factors could influence decision making was the influence of the practitioner’s daily workload. Practitioners reported a range of ways in which their decision making was altered when they had high workloads (Table 4). Nicole summarised the influence of
workload on her decision making in the following way: “You sort of change your priorities for what you want to do with each patient. You turn more from best management to management that will be enough for the patient. What can I do so this patient doesn’t get any worse? What is the minimum amount I can do so I can call this a physio session and address some of the issues that I would like to address if I had more time” (participant quote, Nicole)

At the core of decision making in all aspects of cardiorespiratory physiotherapy was the patient and their problem. The characteristics of patients’ problems and their influence have already been described. Practitioners also made decisions and adjusted their interaction to each patient’s unique situation, forming personalised therapeutic relationships. Practitioners made decisions about the capacity of patients to interact and actively engage in interventions (for example based on a patient’s cognitive state). Factors unique to each patient and their context were considered when: involving patients in decision making, choosing interventions, using interaction during interventions and as the basis to forming effective relationships.

c) Factors related to the physiotherapists themselves

Cardiorespiratory physiotherapy decision making was influenced by factors related to practitioners including their decision making capability, their unique frames of reference, and the duration of their cardiorespiratory physiotherapy experience. Decisions made by cardiorespiratory physiotherapy practitioners in the acute care setting reflected the unique combination of attributes of individuals.

Cardiorespiratory physiotherapy practitioners displayed four types of decision making capabilities that enabled them to draw together the multiple factors involved in decision making (these are
shown as radiating ‘spokes’ or factors transcending the other factors in Figure 2). The practitioners’
decision making capability was manifest in their ability to interact effectively with others, make
decisions under difficult emotional circumstances and their ability to recognise and respond to their
own levels of decision making confidence.

The concentric ring third from the centre of the model (Figure 2) represents practitioner frames of
reference identified in this study. Frames of reference are used by individual practitioners as the
framework within which they make decisions. In this study the frames of reference identified were
practitioners’ multi-dimensional knowledge and preferred practice approach, their sense of
professional identity as a cardiorespiratory physiotherapy practitioner and their personal frames of
reference (values and attitudes).

Practitioners derived their unique knowledge bases and preferred practice approach from multiple
sources and this evolved through their reflexive critique of this knowledge. Cardiorespiratory
physiotherapy practice was deeply contextual in nature and included: norms and criteria for decision
making, knowledge used to predict the likely outcomes of decisions, knowledge of the context and
how best to work in that context, available resources (for example equipment, personnel) and
knowledge of how to work with particular individuals. The participants’ approach to practice was
also influenced by the organisational models of practice as recorded in local protocols, the typical
practice approaches performed in that setting, cultures of practice exemplified by more senior
members of staff, dominant models of practice in the workplace such as the biomedical model of
practice, application of cardiorespiratory physiotherapy theoretical concepts and personal
theorisation about practice.
The final, outside ring of the model (Figure 2) represents the characteristics of increasing experience of cardiorespiratory physiotherapy decision making. An increased duration of experience by the participants in this study resulted in increasing confidence and self-efficacy in their decision making. More experienced practitioners showed greater self-efficacy in being able to make decisions. This was in contrast with less experienced physiotherapists who doubted the decisions they made and their ability to enact an intervention that would benefit the patient. Increased self-efficacy by more experienced physiotherapists was reflected in them being much less reliant on other physiotherapists and health professionals to support and influence their decision making. In contrast less experienced physiotherapists would depend on the support of others and be less likely to attempt or risk interventions where there was a chance of adverse events. Cardiorespiratory physiotherapy decision making was associated with practitioners’ pursuit of actions under conditions of uncertainty that would progress their understanding. With more experience the practitioner’s growing practical certainty, building on a deeper and more critical knowledge base, was associated with a greater degree of risk taking. Rather than taking risks that may be considered reckless for the well-being of patients, more experienced physiotherapists had developed their own criteria for practice that embodied a reflexive and critical approach, making them more confident to “push the boundaries”. With experience decision making was perceived as being less ‘the right thing to do’ and more as seeking to make optimal decisions given the circumstances. More experienced practitioners were more flexible, adaptable and exerted greater control over contextual factors while less experienced physiotherapists were more likely to be influenced by the environmental pressures around them and have limited or fixed ways of practice.

**DISCUSSION**

This study revealed that clinical decision making by the cardiorespiratory physiotherapists involved in this study was influenced by multiple decision, contextual and practitioner factors. The findings of
this study support the growing understanding that clinical reasoning is a complex and multidimensional phenomenon that is contextually dependent and task dependent (Higgs et al. 2004; Edwards et al 2004). The nature of factors influencing decision making and how practitioners manage these factors has not been described previously in cardiorespiratory physiotherapy practice. There has also been limited research in other areas of physiotherapy that have directly considered these questions. Although much of decision making as it occurs in daily practice seems automatic and subconscious, this study reveals that practitioners consider and integrate multiple factors into their decision making. Raising awareness of factors that influence decision making together with critical reflection upon the nature of this influence would seem an important aspect of enhancing the quality of clinical decision making for practitioners. The model developed in this study provides a framework for practitioners to use when considering factors influencing their decision making.

This research identified a number of consistencies between clinical reasoning in cardiorespiratory physiotherapy and other areas of physiotherapy practice. For example this study found that cardiorespiratory physiotherapy decision making also involves a range of processes beyond diagnostic decision making that include decision making about intervention, interaction and evaluation and that decision making varies according to the circumstances and patients’ problems. These findings are similar to those described by Edwards et al. (2004). Other similarities include the presence of a critical and reflexively constructed knowledge base underpinning clinical reasoning and definable characteristics of more experienced practice such as found by Jensen et al (2000). These similarities support the relevance of research from other areas of physiotherapy practice to apply to cardiorespiratory physiotherapy practice. Likewise the findings of this study have the potential to add to the present understanding of physiotherapy clinical reasoning more broadly by highlighting the impact of factors relating to the nature of the decision, the context and the practitioners themselves on clinical reasoning.
Factors influencing decision making have the potential to change decisions that practitioners otherwise would have made. An important example of this is the data presented on workload. Published literature has emphasised the effect of high workloads on the time available for decision making and the potential for errors in decision making to occur when time is limited (Kennedy, 2004). Eraut (2004) proposed that under limited periods of time, decision makers have limited time to think analytically, solve problems, monitor their actions or consult others. Instead they adopt modes of cognition that rely on the use of routines learned from past experience. This suggests that for novice practitioners high workloads may have a more critical effect while they are establishing practice models for the future.

The research reported in this paper also suggests that factors influencing decision making are not external impositions rather they are woven into decision making in a reciprocal process of negotiating and managing these factors to achieve optimal decision outcomes for patient care. This finding implies that learning to clinically reason involve beginning practitioners engaging with this reciprocal process at the same time as learning to determine diagnoses and choose interventions. Likewise the contextual and practitioner dependent nature of physiotherapy clinical reasoning implies that future clinical reasoning research not isolate practitioners’ decision making and reasoning from the context in which it occurs.

The data generated in this study represents the words and actions of fourteen practitioners working in three metropolitan hospitals in Australia. Due to the nature of qualitative research data these findings cannot be statistically generalized to a wider population, rather readers of these research findings need to determine the extent to which the findings are transferable to their own setting (Leininger 1994).
In conclusion, the findings and model presented in this research offer a framework for practitioners to critically evaluate their decision making and reflect upon factors that might influence this decision making. Future research is warranted to explore how beginning practitioners are best educated to prepare them for decision making as it occurs in clinical practice and to explore factors that impact on quality decision making. Decision making cannot be assumed to be a subconscious or invisible process rather it needs to be explicitly considered, with practitioners actively seeking to make decisions that are informed and optimal given the circumstances in which they occur.
REFERENCES


Table 1. Participant inclusion criteria.

<table>
<thead>
<tr>
<th>Participants:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● were actively engaged in the practice of cardiorespiratory physiotherapy &gt;24 hours per week</td>
</tr>
<tr>
<td>● had at least 6 weeks experience in cardiorespiratory physiotherapy</td>
</tr>
<tr>
<td>● were practising in an acute care adult cardiorespiratory physiotherapy setting</td>
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<tr>
<td>● were willing and able to discuss their clinical decision making</td>
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</table>
Table 2. Participant experience categories.

<table>
<thead>
<tr>
<th>Experience Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less experienced or novice cardiorespiratory physiotherapy practitioners (five participants)</td>
<td>- &lt;2 years experience in the practice of physiotherapy</td>
</tr>
<tr>
<td></td>
<td>- employment in rotating positions that involved some cardiorespiratory physiotherapy</td>
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<tr>
<td></td>
<td>- minimum of four weeks recently working in cardiorespiratory physiotherapy</td>
</tr>
<tr>
<td>Intermediate level of cardiorespiratory physiotherapy experience (three participants)</td>
<td>- 3.5-5 years physiotherapy experience</td>
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<tr>
<td></td>
<td>- non-rotating senior designated cardiorespiratory physiotherapy positions</td>
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<tr>
<td></td>
<td>- 2.5-4 years recent cardiorespiratory physiotherapy experience.</td>
</tr>
<tr>
<td>More experienced cardiorespiratory physiotherapy practitioners (six participants)</td>
<td>- 8 to 12 years physiotherapy experience</td>
</tr>
<tr>
<td></td>
<td>- non-rotating senior designated cardiorespiratory physiotherapy positions</td>
</tr>
<tr>
<td></td>
<td>- 7 to 10.5 years recent cardiorespiratory physiotherapy experience</td>
</tr>
</tbody>
</table>
Table 3

Table 3. Types and examples of contextual factors influencing cardiorespiratory physiotherapy decision making.

<table>
<thead>
<tr>
<th>Physical factors</th>
<th>Equipment used as adjuncts to cardiorespiratory physiotherapy intervention (e.g. PEP masks)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Furniture and equipment that constitute the physical environment around the patient</td>
</tr>
<tr>
<td></td>
<td>Furniture available for all staff and not physiotherapy designated</td>
</tr>
<tr>
<td></td>
<td>Structure and layout of the context</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organisational factors</th>
<th>Resource allocation and distribution (e.g. practitioner workload)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formal and informal decision guidance systems (e.g. clinical pathways and protocols)</td>
</tr>
<tr>
<td></td>
<td>Communication and information systems</td>
</tr>
<tr>
<td></td>
<td>Funding and organisational priorities</td>
</tr>
<tr>
<td></td>
<td>Prevailing health care models</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socio-professional factors</th>
<th>Actions and decisions of other health professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Designated professional roles, responsibilities and unique skills that different health care disciplines contribute to overall patient care</td>
</tr>
<tr>
<td></td>
<td>Availability and provision of physical assistance by other staff</td>
</tr>
<tr>
<td></td>
<td>Gatekeeper functions controlling physiotherapy access to patients</td>
</tr>
<tr>
<td></td>
<td>Provision of information, knowledge and guidance</td>
</tr>
<tr>
<td></td>
<td>The generation of expectations, provision of directions for</td>
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</table>
physiotherapy intervention, and control of the nature of physiotherapy interventions permissible in particular settings.

Table 4

Table 4: The influence of high workload on cardiorespiratory physiotherapy decision making

<table>
<thead>
<tr>
<th>High workloads resulted in:</th>
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</thead>
<tbody>
<tr>
<td>• An increased need to negotiate and manage workloads by prioritising patients, and individual patient problems,</td>
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<tr>
<td>• A decreased number of physiotherapy sessions provided,</td>
</tr>
<tr>
<td>• Patients being discharged more readily,</td>
</tr>
<tr>
<td>• More time consuming and less critical interventions not being performed (e.g. rehabilitation-focused interventions),</td>
</tr>
<tr>
<td>• Less thinking time</td>
</tr>
<tr>
<td>• Greater potential to miss important aspects of the patient’s condition,</td>
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<tr>
<td>• Using less creative intervention options,</td>
</tr>
<tr>
<td>• Performing less effective (e.g. shorter, incomplete) interventions,</td>
</tr>
<tr>
<td>• Offering less choice to patients and</td>
</tr>
<tr>
<td>• “Doing just enough”.</td>
</tr>
</tbody>
</table>
Figure 1. An example of diagrammatic summary of the data used in participant checking
Figure 2

Decision foci
Types of contextual factors influencing decision making
Practitioner frames of reference influencing decision making
Figure 1. A model of factors influencing cardiorespiratory physiotherapy decision making.