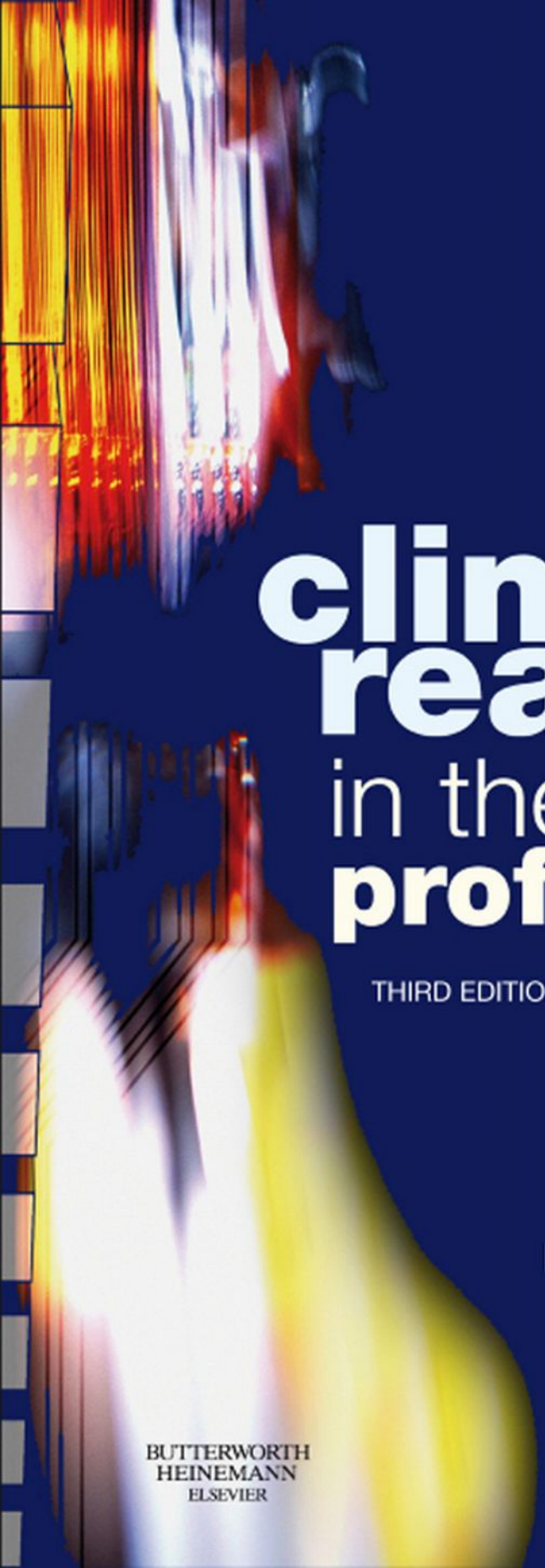

clinical reasoning in the health professions

THIRD EDITION

Edited by

Joy Higgs
Mark Jones
Stephen Loftus
Nicole Christensen

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Preface

The third edition of this book includes a significant quantum of new research, theorization and practice-based knowledge of the nature of clinical reasoning, practice knowledge and the teaching of clinical reasoning. Of the 47 chapters 30 are new. We have added 30 new authors to our writing team. This demonstrates the significant growth that has occurred in clinical reasoning research in recent years.

There are six sections in the book, expanding the scope of the previous edition with a greater emphasis on research trends, the context of clinical decision making, the participants in this complex activity, the place of communication of reasoning and the nature of practice knowledge and the epistemology of practice. The sections are:

1. Clinical reasoning and clinical decision making – nature and context
2. Reasoning, expertise and knowledge
3. Clinical reasoning research trends
4. Clinical reasoning and clinical decision-making approaches
5. Communicating about clinical reasoning
6. Teaching and learning clinical reasoning.

From the perspective of the participants in clinical decision making, we have increased our emphasis in this edition on the place of interests and motivations in shaping the behaviour and decisions of practitioners and patients in relation to collaborative decision making, patient-centred care, multidisciplinary decision making, shared decision making, language, communication, and decision aids that involve clients.

As our understanding of clinical reasoning in the health professions grows, more questions emerge that require further research across a range of both traditional and more innovative research methodologies. From our first edition of this book to this third edition we have recognized that producing a definitive portrayal of clinical reasoning in the health professions is both undesirable and unfeasible. Rather, by drawing on the latest research, practice, teaching and theory we have attempted to provide readers with an evolving update to stimulate further research, sound professional practice and high-quality education grounded in the context and needs of the student group with the core aim of maximizing students' clinical reasoning capabilities.

Australia 2007

Joy Higgs
Mark A. Jones

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SECTION 1

Clinical reasoning and clinical decision making–nature and context

SECTION CONTENTS

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Chapter 1

Clinical decision making and multiple problem spaces

Joy Higgs and Mark A. Jones

CHAPTER CONTENTS

In the second edition of this book we drew on our initial view of clinical reasoning as a process incorporating the elements of cognition, knowledge and metacognition, expanding this to place a greater emphasis on patient-centred care as the context for clinical reasoning. Practitioners were presented as interactional professionals (Higgs & Hunt 1999) whose effectiveness required interaction with their immediate and larger work environment, with the key players in that context, and with the situational elements pertinent to the patient and case under consideration. Health care was presented via a social ecology model as occurring within the wider sphere of social responsibility of professionals which requires practitioners to be proactive as well as responsive to changes in healthcare contexts (Higgs et al 1999).

In this opening chapter of the third edition we extend our previous examination of the nature of clinical reasoning and its context, drawing on our own research and that of colleagues and co-authors. We expand our interpretation of clinical reasoning from a process view, to explore clinical reasoning as a contextualized phenomenon (see also Chapters 2, 8). We extend consideration of the decision-making context from a focus on the immediate task environment of case management acting in the wider healthcare context to explore the multiple levels of the clinical decision-making space, or rather the multiple decision-making spaces, within which interactive reasoning and decision making occur (see Higgs 2006a, b).

In relation to clinical reasoning expertise, we extend the notion of an expert to encompass

capability, professional artistry and patient-centredness; expertise is a journey rather than a point of arrival (see also Chapters 11, 16). In examining and making explicit these aspects of clinical reasoning our goal is to make clinical reasoning more accessible for novices to learn, for experienced practitioners to portray, for educators to teach, for clinicians to practise and for researchers to explore.

UNDERSTANDING CLINICAL REASONING

In the 10 years since we produced the first edition of this book, we have retained our view that clinical reasoning is both simple and complex. Simply, clinical reasoning is the sum of the thinking and decision-making processes associated with clinical practice; it is a critical skill in the health professions, central to the practice of professional autonomy, and it enables practitioners to take 'wise' action, meaning taking the best judged action in a specific context (Cervero 1988, Harris 1993). Despite being straightforward and 'simple' this view is very broad; clinical reasoning is seen as permeating throughout clinical practice and as being the core of practice. The importance of understanding the complex nature of clinical reasoning is emphasized in the goal of developing tolerance of ambiguity and a reflexive understanding of practice artistry during health sciences education, as suggested by Bleakley et al (2003).

The complex view of clinical reasoning is embedded in its simplicity and breadth (Higgs 2006b). By encompassing so much of what it means to be a professional (autonomy, responsibility, accountability and decision making in conditions of uncertainty), clinical reasoning gains an inherent mystique. This complexity lies in the very nature of the task or challenge, faced by novice and expert alike, which is to process multiple variables, contemplate the various priorities of competing healthcare needs, negotiate the interests of different participants in the decision-making process, inform all decisions and actions with advanced practice knowledge, and make all decisions and actions in the context of professional ethics and community expectations. The mystique is most evident in the skill of the expert diagnostician who makes difficult decisions with seeming effortlessness, and in the professional artistry of the experienced practitioner who produces an individually tailored health management plan that addresses complicated health needs with humanity and finesse. To address and achieve these professional attributes clinical reasoning is much more a lived phenomenon, an experience, a way of being and a chosen model of practising than it is simply a process. To this end we adopt the following definition of this complex phenomenon:

> Clinical reasoning (or practice decision making) is a context-dependent way of thinking and decision making in professional practice to guide practice actions. It involves the construction of narratives to make sense of the multiple factors and interests pertaining to the current reasoning task. It occurs within a set of problem spaces informed by the practitioner's unique frames of reference, workplace context and practice models, as well as by the patient's or client's contexts. It utilises core dimensions of practice knowledge, reasoning and metacognition and draws on these capacities in others. Decision making within clinical reasoning occurs at micro, macro and meta levels and may be individually or collaboratively conducted. It involves metaskills of critical conversations, knowledge generation, practice model authenticity and reflexivity. (Higgs 2006b)

Of note in this definition is the term 'clinical'. For some health professionals their workplace is not 'clinical', their clients are not patients, the focus of their role may be on health rather than illness, and the term 'consultant' rather than 'practitioner' may be more appropriate. To avoid clumsy expression of these alternative terms we use the terms clinical reasoning and clinical decision making below.

CLINICAL REASONING AND METASKILLS

Our previous model of clinical reasoning (Higgs & Jones 2000) was presented as an upward and outward spiral, a cyclical and a developing process. Each loop of the spiral incorporated data input, data interpretation (or reinterpretation) and problem formulation (or reformulation) to achieve a progressively broader and deeper understanding of the clinical problem. Based on this deepening

understanding, decisions are made concerning intervention, and actions are taken. The process was described as including:

a) the core dimensions of
   - Knowledge. A strong discipline-specific knowledge base, comprising propositional knowledge (derived from theory and research) and non-propositional knowledge (derived from professional and personal experience), is necessary for sound and responsible clinical reasoning.
   - Cognition or reflective inquiry. Cognitive or thinking skills (such as analysis, synthesis and evaluation of data collected) are utilized to process clinical data against the clinician's existing discipline-specific and personal knowledge base in consideration of the client's needs and the clinical problem.
   - Metacognition. Metacognition or reflective self-awareness serves to bridge knowledge and cognition. It enables clinicians to identify limitations in the quality of information obtained, inconsistencies or unexpected findings; it enables them to monitor their reasoning and practice, seeking errors and credibility; it prompts them to recognize when their knowledge or skills are insufficient and remedial action is needed.

b) the additional dimensions of
   - mutual decision making, or the role of the client or patient in the decision-making process
   - contextual interaction, or the interactivity between the decision makers and the situation or environment of the reasoning process
   - task impact, or the influence of the nature of the clinical problem or task on the reasoning process.

These additional dimensions were included in recognition of the growing expectation by and of consumers that they play an active role in their own health care. The image of compliant, dependent patients is replaced by one of informed healthcare consumers who expect their needs and preferences to be listened to, who increasingly want to participate in decision making about their health, and who expect to take action to enhance their health. Alongside this 'health rather than illness' focus on the part of the consumer, there are increasing expectations of service and of quality and ownership of health programmes, due to economic factors such as an increasing reliance on 'user pays' funding strategies, within which consumers are indeed purchasing health care. Similarly, caregivers need and wish to play a greater role in health management and decision making.

To these dimensions we now add four meta-skills:

- the ability to derive knowledge and practice wisdom from reasoning and practice (see Chapter 14). Reasoning plays a significant role in the acquisition of knowledge (Lawson et al 1991)
- the location of reasoning as behaviours and strategies within chosen practice models, each with an inherent philosophy of practice (see Chapters 3, 11)
- the reflexive ability to promote positive cognitive, affective and experiential growth, not only in the well-being of patients but also in the capabilities of oneself as practitioner (see Chapters 16, 29)
- the use of critical, creative conversations (Higgs 2006a) to make clinical decisions.

It is preferable to view clinical reasoning as a contextualized interactive phenomenon rather than a specific process. The practitioner responsible for making the decisions interacts both with the task and informational elements of decision making and with the human elements and interests of other participants in the decision making. Such interactions can be called critical creative conversations that involve interactions based on critical appraisal of circumstances and, where possible, critical interests in promoting emancipatory practice, and the creation and implementation of particularized, person-centred healthcare programmes (Higgs 2006a).

THE ADEQUACY OF DIFFERENT INTERPRETATIONS

There is no single model of clinical reasoning that adequately represents what clinical reasoning is in the context of different professions and different workplaces. The reason for this lies in several factors: