

What do I think?

Exploring how Massage Practitioners make Clinical Decisions

By Earle Abrahamson



Clinical thinking and reasoning are complex phenomena fraught with difficult cognitive processes and applications of knowledge. For a professional massage practitioner arriving at a treatment outcome may seem effortless, yet there are a number of important processes that need to occur so that correct decisions and judgements can be made and managed. How do practitioners learn these skills and can they be taught to students? This article explores the decision making process used in clinical practices.

To fully appreciate the complexity of defining and understanding clinical reasoning, it is important to consider professional practice with its multitude of skills and applications. Professional practice encompasses a range of challenging ideologies and skills such as autonomy, responsibility, accountability and decision making in conditions of uncertainty. This complexity lies in the very nature of the task or challenge, faced by novice and expert alike, which is to unravel and process multiple variables, contemplate the various priorities of competing healthcare needs, negotiate the interests

of different participants in the decision making and reasoning processes, inform all decisions and actions with advanced practice knowledge, and make all decisions and actions in the context of professional ethics and community expectations. To achieve these professional attributes CR needs to be considered as a lived phenomenon, and evolving experience, a way of being and thinking and a chosen model of practice as opposed to a simple process of processing.

“Clinical reasoning 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 client’s context. It utilises core dimensions of practice knowledge, reasoning and metacognitions and draws on these capacities in others. Decision making within clinical reasoning occurs at micro, macro and meta levels and may be individually or

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collaboratively constructed and conducted. It involves metaskills of critical conversations, knowledge generation, practice model authenticity and reflexivity". (Higgs et al., 2006, Pg 4)

Underpinning this definition are the core dimensions of knowledge involving a strong discipline specific knowledge base informed through propositional and non-propositional sources; cognition and reflective enquiry; and metacognition or reflective self-awareness serving to bridge knowledge and cognition. In addition, the definition emphasises the role of mutual decision making, contextual interaction, and task impact, and the ability of the practitioner to derive knowledge and practice wisdom from reasoning and practice. It further accentuates the importance of the location of reasoning as behaviours and strategies within chosen practice models, the reflexive ability to promote positive cognitive, affective and experiential growth within both client and practitioner, and the use of critical, creative conversations to make clinical decisions. From the definitional attributes, clinical reasoning becomes a contextualised interactive phenomenon as opposed to a specific process.

The literature often co-joins CR with a multitude of ancillary cognitive processes that impact and may impede clinical reasoning development.

Facione and Facione (2008), in their anthology of CR, suggest that clinical reasoning is

composed of two cognitive processes namely: critical thinking and reflective problem solving. In order to fully appreciate clinical reasoning one needs to consider critical thinking as a process of purposeful self-regulatory judgment. This process gives reasoned consideration to evidence, contexts, considerations, methods and criteria. Simply put, critical thinking is a process through which decisions about what to believe and do in a given context become evident.

The literature clearly differentiates the reasoning skills evident in novice as opposed to experienced clinicians and concludes that central to the development of clinical reasoning skill is the presentation of a carefully design, real life problem that engages the therapist with the cognitive process of resolution. Excellence in professional judgment relies on the sound use of clinical reasoning skills (Suliman, 2006).

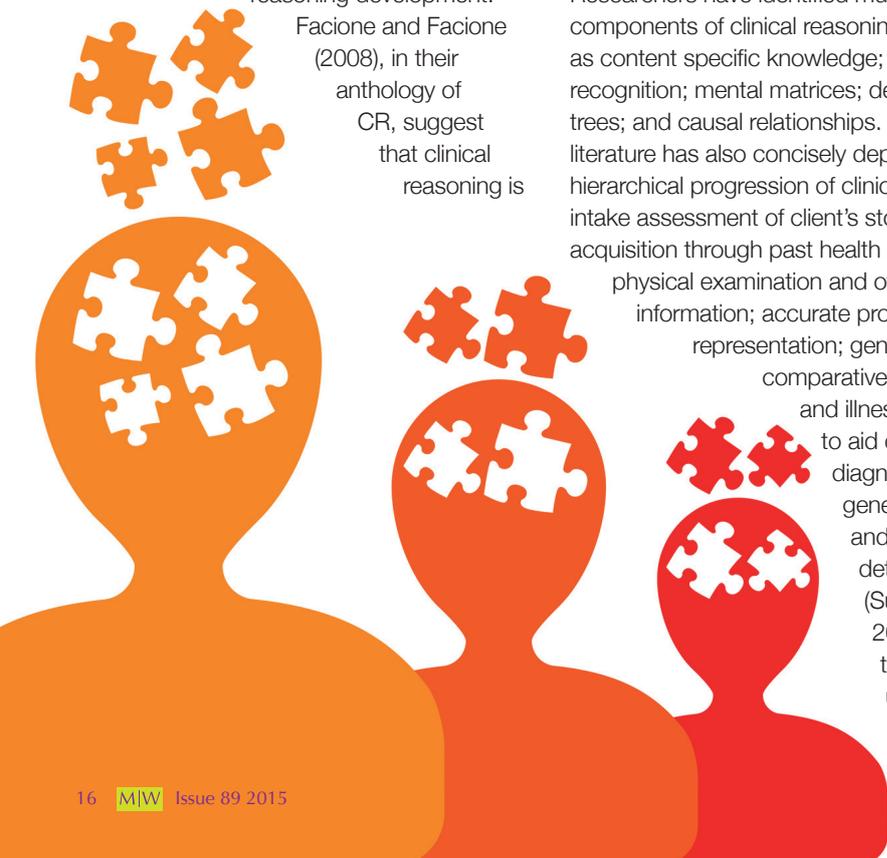
It has been well documented that clinical reasoning pathways are influenced by the therapist's knowledge base, the contextual presentation of the client, and the therapist's experience. Although numerous clinical reasoning frameworks have been proposed, the accumulated evidence suggests that the process includes both analytical and non-analytical approaches. Researchers have identified multiple key components of clinical reasoning, such as content specific knowledge; pattern recognition; mental matrices; decision trees; and causal relationships. The literature has also concisely depicted the hierarchical progression of clinical reasoning: intake assessment of client's story; data acquisition through past health history, physical examination and other clinical information; accurate problem representation; generation of comparative hypotheses, and illness scripts to aid differential diagnosis generation; and diagnosis determination (Suliman, 2006). Novice therapists, usually, but not always

synonymous with students, experience problems or problematic environments as 1) novel, 2) complex, 3) high stakes, 4) time constrained, 5) spontaneous, 6) requiring of more specialised knowledge than these students have at their fingertips. What is evident is that training clinical reasoning across all problem areas requires a systematic and carefully designed pedagogical curriculum, one that allows learners to develop and assume responsibility for their learning, actions, decisions, and judgments. Developing such a curriculum combines two important goals with clinical practice namely: problem identification and optimal problem resolution (Facione and Facione, 2008).

Research into clinical reasoning began with the goal of understanding the processes of reasoning. As this proved difficult to measure and assess, the focus changed to an examination of expert knowledge. Research has yet to consider how expert knowledge is defined and used. The new and emerging research within this field of academic inquiry and practice is now beginning to explore the notion of deliberative practice with multiple examples and feedback, both to facilitate effective transfer of basic concepts and to further ensure a supportive experiential knowledge base. Critical to this development is reflective practice. Reflective practice provides the evaluation of how to navigate a problem and arrive at a solution. The literature has evolved, developed but regressed at critical points with more questions being asked, than solutions sought to account for the development and use of CRS in practice.

The complexity of clinical reasoning education makes it difficult for educators to generate a simple pedagogic solution.

Despite the value of CR within a clinically-oriented training programme, the goal of how best to communicate and help students achieve CR competencies is less explicit. To actively engage staff with the scholarship of CR development requires time and the ability of staff to transfer conceptually the different reasoning ideas across the curriculum. Suliman (2006), alleges that learning activities and opportunities for delivering principles and practices of CR as a transferable skill can be planned systematically. He further argues that whether the training is modularised or



not, the planning of CR learning activities can be mapped horizontally (across the curriculum) or vertically (within one particular mode of study). These activities can then progressively become more complex and integrated throughout the training. Eva (2005), asserts that specific learning activities useful and necessary for CR competency in practice include teaching about models and strategies of CR, teaching different reasoning strategies, reflecting upon reasoning strategies experienced in clinical practices, and classroom hypothetical (simulated) or problem/case/inquiry based learning activities. Implantation of reasoning processes first, followed by model analyses and definitions, may according to (Oh, 2003), help students better grasp the dynamics and complexities of CR. Teaching models of CR to students can be strategically interposed into the training depending on level of learning.

Suliman (2006) contends that once the interconnected roles of learning and experience are considered, thinking drives doing, and doing can only improve and progress by thinking. He suggests that learning activities that are intelligently structured and considered can help students to:

- **Learn the language and theory of CR**
- **Understand the process of reasoning as a prelude to workplace experience**
- **Experience and gain understanding of CR in action through workplace practice and feedback**
- **Reflect upon their reasoning during and after practice to further understand, critique, and develop their reasoning abilities.**

Problem-solving ability appears to be highly dependent on knowledge, not simply the amount of knowledge but more importantly its specificity, its structure, the way it is accessed, stored, and retrieved. One theory of knowledge organisation proposes three different kinds of knowledge relevant to solving clinical problems. The most basic is knowledge of pathology, followed by the development and application of illness scripts which allow students to match symptoms and signs to disease prototypes. At the highest level of functioning

experts, use sophisticated forms of pattern recognition characterised by speed and efficient use of information (Norman 2005). This representation is drawn to a large degree from direct experience with clients. This is not to indicate that all expert reasoning occurs by pattern recognition. More recent studies suggest that experts use a diverse range of scientific and experiential knowledge to formulate their judgement and clinical decisions (Norman 2005).

Norman (2005) argues that for assessment of CR to be useful and reflective, a number of key defining features of the assessment instrument must be present. Assessment must be anchored in case-based material presented in a way that will induce and sample clinical-reasoning activities. It is further argued that laboriously taking a student through the full data gathering and investigational phase of a real or simulated clinical problem is an inefficient approach when the concern is to evaluate and assess CR. This is because of the content-specificity problem and the consequent need to present students with large number of cases before satisfactory levels of test reliability can be achieved.

The impact of examinations and assessments on student learning will often be greater than that of the programme itself

(Norman 2005) and students need to be clear about assessment procedures and programme outcomes.

Central to the ability of student therapists to improve their CR skills is the need for constructive and remedial feedback from academic staff and mentors so that the clinical experience is a truly educative one (Eva 2005). Norman (2005) contends that learners with strong diagnostic reasoning skills often use multiple abstract qualifiers to discuss the discriminating features of a clinical case comparing and contrasting appropriate assessment hypotheses and linking each hypothesis to a relevant finding within the case. In contrast novice learners generate numerous possible diagnoses for any given case. Feedback is seen as the core catalyst in promoting clinical excellence.

Actively engaging novice practitioners in their learning is a key component of professional education and one that needs to be emphasised in professional training programmes. Implementing learning models that encourage and promote peer learning can enhance the potential for increased clinical competence and reasoning. Massage training is not simply about teaching skills, but more importantly about how best to justify the choice of skill in the treatment and management of clients.



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Further information on massage therapy training courses can be found here: www.hands-on-training.co.uk | www.massagetraining.co.uk



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