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## Editorial

### Your paradigm or mine? Navigating the varied landscapes of osteopathic practice, research and education



In this issue of IJOM, Steel and colleagues [13] propose that a broad range of research initiatives and methodologies is required to generate a more comprehensive, robust evidence base for osteopathy. As other authors have pointed out, there are important relationships between varying approaches to clinical practice and the research methods and procedures developed to explore their processes and outcomes [5,11,16]. The papers in this edition are underpinned by a varied set of assumptions and beliefs that form a particular worldview, which drives and directs the research methods [4]. Different assumptions about the nature of truth, knowledge and reality form research paradigms [6], which typically divide research methodologies into being either qualitative or quantitative in nature [9].

For example, Simpson et al.'s [12] systematic review of randomised controlled trials (RCTs) evaluated the effectiveness of psychological pain management interventions based on Acceptance and Commitment Therapy (ACT) for patients with chronic, non-malignant musculoskeletal pain. The researchers' assumptions here are that there is a single truth about whether ACT is effective for chronic pain, or not, and that it can be discovered by objectively observing and measuring the effects obtained from different RCTs. In line with quantitative research, this study was situated in the positivist/post-positivist research paradigm, as is evidenced by Simpson et al.'s [12] use of multiple researchers to verify the analyses and enhance the reliability of the findings. The assumptions exemplified by this and other procedures in the study are that knowledge about participants' 'real' changes in pain and anxiety levels can be obtained and generalised to the wider population of CP sufferers.

In contrast, the qualitative study by Thomson and Collyer [15] explored how patients with acute and chronic low back pain (LBP) interpreted the language used by student osteopaths to explain their diagnoses, and the impact that these interpretations had on patients' attitudes and beliefs about their own LBP. These researchers used interviews to interact with participants in a subjective way, to explore their individual experiences, based on research assumptions about the existence of multiple truths that were analysed using a grounded theory method. Through interacting with participants in interviews and with data during the analysis, the researchers constructed knowledge about the influence of student osteopaths' communication on participants' LBP beliefs and behaviour. The assumptions of Thomson and Collyer [15] are aligned with a constructivist or interpretivist research paradigm [6], in which findings are considered to be potentially transferable to other

healthcare contexts.

Much like a pair of different coloured lenses, the paradigmatic assumptions in these two examples result in researchers and the readers 'seeing' the healthcare world differently, and therefore acting differently within it. Healthcare professionals also have their personal worldview of clinical practice, which influences their beliefs and assumptions about key areas such as the nature of knowledge, skills, and decision making [16]. Osteopaths may choose practice pathways which are primarily technical and rational, and typically result in 'seeing' patients' problems as biomechanical, anatomical and physiological deviations from normal, which can be understood and managed using technical knowledge of examination procedures and treatment interventions. Alternatively, a professional artistry view of practice results in 'seeing' patients' pain and disability as an expression of ambiguous, complex interactions between biological, psychological and social factors, and requires creativity and flexibility in constructing an understanding of the individual's experience [16]. Real life clinical practice, however, often undulates between problems that seem simple and have straightforward answers and those that are more complex and defy a simple solution. Osteopaths can draw upon research from different paradigms that aligns with their personal approach to practice and informs their decision making [11]. However, if osteopathy is considered to be a praxis (i.e. a "messy synthesis of a complex raft of actions that are essential elements in clinical practice" [17]; p.104), adhering to the pathway set out by one paradigm may be problematic, and more practical or pragmatic solutions may be necessary.

In this issue, Carnes et al. [3] reports results from a pragmatic 'mixed methods' cohort study, which integrated both quantitative and qualitative elements to evaluate outcomes from a novel osteopathic pain management programme (OsteoMAP) for patients with chronic pain. Qualitative findings provided insights into individual experiences of the course, while quantitative measures assessed overall improvement in pain, mood and coping in the group. In this way, synthesising two research methods provided a rounded, practical way of capturing the context, complexity and effects of this new intervention.

The articles in this edition of IJOM represent the breadth of research approaches that are currently being used to develop knowledge in varied osteopathic practices based on biomedical and biopsychosocial model of health, pain and disability. All the authors have identified both benefits and challenges in their areas of work, which suggests that single research perspectives rarely offer

the whole solution. Each article illustrates the challenges of working within a particular paradigm, and raises questions about future directions for advancing osteopathic knowledge.

For example, Berkowitz's [1] case study of an unusual presentation of somatic dysfunction identifies the current lack of adequate evidence-based neurophysiological theories to link palpatory findings with treatment outcomes in a single case. From a broader perspective, Jacobs et al.'s cross sectional survey identifies the changing landscape of osteopathic medicine in the USA, and the challenges posed by decreasing numbers of students who are willing to practise in underserved, financially deprived, rural geographical areas. Underserved populations of people with chronic pain and illness have also been identified in the UK and Europe, where aging populations and the rising in the incidence of life-style diseases are likely to affect the characteristics of patients in osteopathic practice [2]. Jacobs et al., [7] suggest that changes in osteopathic education are required to promote the social responsibility, cultural competence and humanistic attitudes needed to expand the current conception and scope of practise, and to promote work with underserved patients who have traditionally had limited access to osteopathic care. Changes in the demographic characteristics of patients presenting to osteopathic clinics also has implications for the content of case history records, an issue which was explored by Moore et al., [8] in this issue.

Some authors have suggested that practitioners' beliefs and communication about pain influences outcomes as much as hands-on interventions, where others believe that we should continue to value biomechanical expertise and palpatory skills [10,14]. The challenges identified in the articles in this edition of IJOM suggest a need to re-conceptualise links between biomechanical and biopsychosocial approaches as complementary, rather than polarised positions of difference or conflict. A way of encouraging collaboration between practitioners and researchers with different personal paradigms to navigate the complex terrain of clinical practice and support Steel et al.'s call for a broader evidence base might be to reflect on the following:

How can osteopaths utilise expertise in physical examinations, observation and palpation to guide research into communication about pain and enhance care that promotes patients' bodily self-awareness and active self-care skills more effectively?

How can osteopaths develop broader psychosocial knowledge and skills to expand their scope of care and optimise outcomes e.g. for patients with complex, long-term conditions and those in hard-to-access populations?

We welcome responses to these questions and suggestions for other approaches which could promote collaboration between clinicians and researchers from varied paradigms.

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