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Poster · September 2016

DOI: 10.13140/RG.2.2.12903.65442

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Imparting the IASP Pain Curriculum to Physiotherapists through Distance Mode: A Study of Impact on Knowledge Attitudes and Beliefs about Pain

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Background: Physiotherapists are often the first level of health care practitioner that deals with persons with pain. Physiotherapists in India work under various institutions and its associated teaching hospitals and are partly autonomous in practice. The curriculum of the undergraduate and postgraduate courses for physiotherapy in India has inadequate representation of the study of pain. The commonly delivered curriculum at the post graduate level does not deal adequately with the multi disciplinary nature of pain or the evidence for the management of pain. Therefore it is an urgent need to provide current knowledge about pain in a structured manner to physiotherapists. Through the funding support (2015-2016) by the International Association of the Study of Pain, IASP proposed curriculum on pain for physical therapy was delivered through distance mode to Physiotherapists and Physiotherapy postgraduate students in India.

Details of the pain course:

Participants: A total of 27 physiotherapists and physiotherapy postgraduate students had participated in the pain course.

Course period: September 2015- June 2016

Mode: Distance-mode (primary)

Course curriculum: The curriculum outline on pain for physical therapists, proposed by the International Association for the Study of Pain (IASP) were adapted. The modules, and the objectives were aligned with the IASP proposed curriculum.

Content/format: Webinars (fortnightly) and Residential blocks (2) and self-directed learning resources through a purpose-built online learning management system.

Teaching methods	Content (IASP curricula on pain for physical therapists)	Terms requirements
Webinar (15)	Multi-dimensional nature of pain including neurobiology, assessment of pain, management of pain (pharmacological and non-pharmacological approaches) and common clinical conditions	Reflective practice statements (monthly)
Residential block-1 (2 locations)	Assessment of pain: history (psychosocial interview), screening questionnaires (e.g. psychological and neuropathic pain) and physical examination procedures	Post-residential block assessment (formative) and reflective practice statements
Residential block-2 (2 locations)	Assessment (outcome measures) and management of pain (non-pharmacological treatment approaches including explain pain and psychosocial strategies)	Clinical portfolio

Aim of Investigation: To evaluate the outcomes of the distance mode pain course, based on the International Association for the Study of Pain curricula, to physiotherapists and physiotherapy postgraduate students in India.

Methods:

Study design: Nonrandomized, pre-post intervention study

Ethical approval: Institutional ethics committee (JSS Medical College, India) approval was obtained.

Research participants:

Experimental group: Out of 27 course participants, 21 participants had provided their consent to participate in the research and completed pre and post online survey.

Control group: 22 physiotherapists had provided their consent to participate in the research and completed the baseline and follow-up online survey. Participants in the control group were recruited through convenience sampling (word of mouth).

Outcome measures: Self-report questionnaires

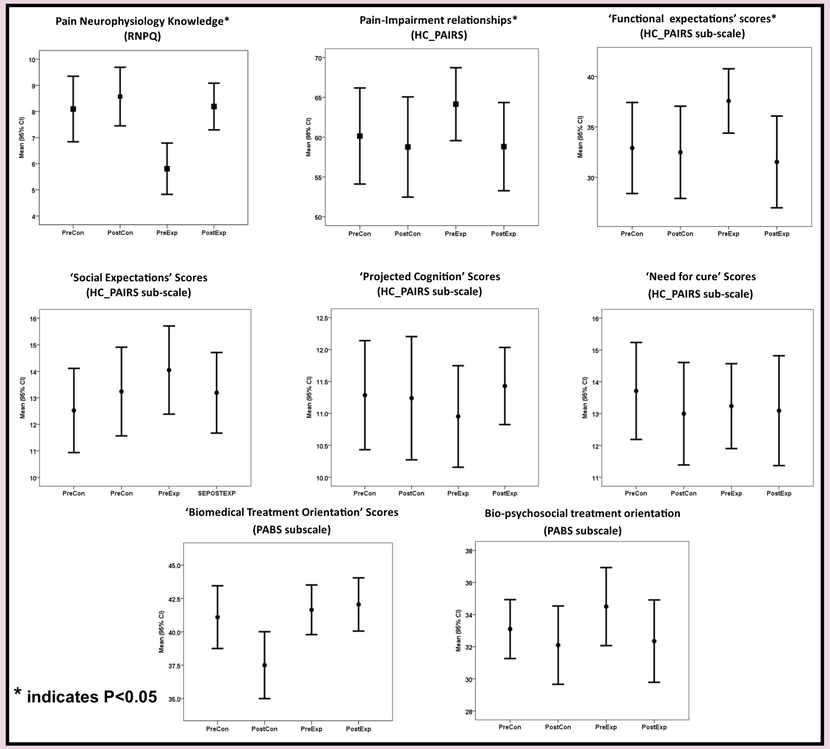
1. The Revised Neurophysiology of Pain Questionnaire (RNPQ),
2. Pain attitude and beliefs scale (PABS),
3. Health Care Providers' Pain and Impairment Relationship Scale HC_PAIRS)

Mode of survey administration: Online survey platform (Qualtrics™), University of Otago. Modified Dillman Technique was used to increase response rate. Reminders (every week for three consecutive weeks) were sent to participate in the survey.

Statistical analysis: Data normality was evaluated. Paired 't' tests within each group were conducted to evaluate the pre-post differences in the chosen outcomes of interest.

Results: Average number of years of clinical experience since graduation: experimental group [6.0(7.1)] and control group [2.8 (3.5)].

In the experimental group, significant differences were demonstrated in RNPQ scores [mean difference= 2.4 (2.9), P=0.001] and HC_PAIRS scores [MD= -5.3 (11.1), P=0.039], particularly in the functional expectations sub-scale [MD= -6.0 (-9.1); P=0.07] of the HC_PAIRS questionnaire. In the control group, except the biomedical scores of the PABS scale [MD= -3.2(-6.1); P=0.025], none of the other measures had reached statistical significance.



* indicates P<0.05

Conclusions: Distance mode pain course based on IASP pain curricula had resulted in increasing the modern neuroscience-based pain neurophysiology knowledge among physiotherapists and positive perceptions on conceptualising of the chronic pain and impairment relationships, particularly an increased functional expectations in chronic pain patients. The baseline scores of the control group were higher than experimental group which might indicate a self-selection bias

Acknowledgements:

Funding support: IASP Developing Countries Project: Initiative for Improving Pain Education (2015-2016); Awarded to Dr Kavitha Raja, Primary Organiser, JSS college of Physiotherapy, Mysore, India

Resource persons: Professor David Baxter and Dr Steve Tumilty (University of Otago); Dr Paul Hendrick (University of Nottingham); Dr Aditi Chathurvedi, Dr Prabhleen Jaggi Singh; Dr Sushrut Varun Sathpathy (Sikkim Manipal University).

Administrative and infrastructural support: JSS College of Physiotherapy, and Sikkim Manipal University.

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