

## Self-confidence in students of physical therapy to perform orthopaedic special tests for hip and knee joint

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### ABSTRACT

The use of orthopedic special tests to diagnose pathologies of lower extremities via clinical assessment is standard in clinical practice. No study has assessed opinion of physical therapy students about their own capability to perform musculoskeletal special tests in Pakistan which can be fruitful to increase awareness about diagnostic skills. A structured questionnaire containing modified five point Likert scale was utilized to collect the data from undergraduate physio students from three different universities within Lahore to determine their perceived level of confidence while performing musculoskeletal special tests to diagnose specific hip and knee joint pathologies. The aim of study was to find out self-reported confidence level of physical therapy students in performing OST's (orthopaedic special tests) in order to enlighten weak clinical diagnostic skills which needs to be improved.

**Keywords:** Self report, Students, Physical therapy, Orthopaedic special tests, Hip joint, Knee joint, Musculoskeletal diseases

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### INTRODUCTION

The use of orthopedic special tests to diagnose pathologies of lower extremities via the clinical assessment is standard in clinical practice. To rule in or rule out different diseases within a joint is to collect and use OST's (Orthopaedic special tests) is a way to improve clinical assessment process<sup>1</sup>. Confidence in performing OST is a part of physical therapy students' clinical training and may affect individual clinical decision-making during examination<sup>2</sup>. When it comes to developing confidence in

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decision making there is minimal distributed research with respect to whether they themselves know about areas in which they may have gotten poor training<sup>3,4</sup>. To make sure that the students can have learning opportunities within the clinical education experience, clinical instructors may need to reframe teaching activities<sup>5</sup>. For optimal evaluation of patients with musculoskeletal injuries orthopedic special tests should be taught and performed in a standardized fashion with a clear understanding of each test maneuver. A correctly performed special test is vital in clinical practice<sup>6,7</sup>. No research has assessed opinion of physical therapy students about their own capability to perform musculoskeletal special tests in Pakistan which can be fruitful to increase awareness about diagnostic skills. A zone that has not gotten satisfactory consideration is simply the degree to which physiotherapy students observe themselves to be set up to enter clinical practice for first time. There is minimal distributed research with respect to whether they themselves know about regions in which they may have gotten deficient training<sup>8</sup>. We conducted this study to find out self-reported confidence level of physical therapy students in performing OST's (orthopaedic special tests) in order to enlighten weak clinical diagnostic skills which needs to be improved.

### METHODOLOGY

A cross sectional survey study was conducted from 1<sup>st</sup> February 2017 to 31<sup>th</sup> July 2017 at three different universities of Lahore. Data was collected from 251 physical therapy students through a structured questionnaire designed using five point Likert scale<sup>2</sup> to document self-reported confidence level in performing OST's (orthopaedic special tests). Sample size was calculated with help of online software 'Epitools' using prevalence of

63.5%<sup>2</sup> from the parent article, a cross sectional survey evaluating expert clinicians' level of confidence while assessment of spinal instability with a confidence interval of 90% with help of Cochrane formula. Non probability convenient sampling technique was utilized to conduct study. Inclusion criteria comprise both male and female physical therapy students who have passed their musculoskeletal physical therapy exam successfully. Students were asked to report their self-confidence level on a scale of five variables (1=really not confident, 2=not confident, 3= not sure, 4=confident, 5=really confident) in performing a variety of hip & knee joint musculoskeletal special tests. Collected data was entered and analyzed on SPSS version 23. Applicable descriptive statistics was analyzed and framed depending upon the variables under the vision of our study. This article was technically reviewed by institutional review board of University of Lahore (Allied Health Science department) and approved on 9<sup>th</sup> august 2017 with issuance of an ethical approval letter.

### RESULTS AND DISCUSSION

Little attention is given to find out if physiotherapy students are ready to enter clinical practice for first time in Pakistan. Expert physiotherapists' are qualified to properly examine patients at entry level with minor musculoskeletal complaints referred to outpatient orthopedic clinic was concluded in the study<sup>9</sup>. A self-reported questionnaire in current study showed low self-confidence level of final year PT students in performing difficult but useful OST's which is a sign of their poor examination skills. Confidence as a part of expert clinical practice in physiotherapy was measured by Cook et al. Likert type questions related to self-confidence in detecting spinal instability were asked to the clinicians<sup>2</sup>. Only clinical cervical spine instability obtained significant findings. The identifier 'observable or palpable abnormalities of motion during movement assessment in clinical practice' was positively associated with reported confidence in diagnosis, as was the influence of manual therapy background models: Cyriax, Maitland, McKenzie, NAIOMPT, Osteopathic, Paris and other. Male gender yielded negative association with reported confidence. No factors were associated with reported lumbar confidence. In current study physical therapy students showed high confidence in performing basic well known special tests such as anterior drawer test and mc murray test. They were least confident in more complex special tests such as lachman and scouring test. Increased clinical skill lab time in more difficult special tests will help students to achieve their goal of assessment in musculoskeletal disorders.

### CONCLUSION

Final year physical therapy students were highly confident in

performing basic fundamental special tests which are Anterior Drawer test and Mc Murray test. They were least confident in more complex special tests such as Lachman and Scouring test.

### CONTRIBUTION OF AUTHORS

Khan SA: Conceived idea, Statistical analysis, Data collection, Manuscript writing

Ahmad A: Literature review, Manuscript writing

Gillani SA: Data collection

Ahmad U: Designed research methodology

Saeed A: Manuscript writing, Literature review

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