

ASSESSMENT OF CLINICAL PERFORMANCE IN PHYSIOTHERAPY

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Abstract: Clinical education is a crucial component of undergraduate physiotherapy studies, conducted through clinical practice courses. World Physiotherapy recommends a minimum of 820 hours of clinical practice, in different settings (acute care, rehabilitation, and community) across core areas such as musculoskeletal, neurological, and cardiorespiratory care. The main aims of this paper are to highlight tools for assessing students' clinical performance, discuss benefits and challenges of clinical education. **Methods:** Evidence was drawn from PubMed, EBSCO databases, Cochrane Library, and Google Scholar, focusing on publications from the last ten years in English. **Results:** This literature review highlights commonly used standardized, validated and reliable tools for assessing students' achievements during clinical education and describe locally developed instrument, Assessment of Clinical Performance in Physiotherapy (ACPP). **Conclusion:** Clinical education is highly important as it enables students to adapt to real-life scenarios, transfer knowledge from the classroom, and adjust to working with patients. It must be structured clearly to allow students' development and competency acquisition.

Key words: Clinical education, clinical practice, physiotherapy, higher education, undergraduate program

1. INTRODUCTION

Clinical practice in undergraduate physiotherapy studies is an integral part of the curriculum. According to the American Physical Therapy Association, clinical education is "a formal supervised experiential learning, focused on development and application of patient/client-centered skills and professional behaviors. It is designed so that students gain substantial, relevant clinical experience and skills, engage in contemporary practice, and demonstrate competence before beginning entry level practice" [1].

There are variations in the duration of clinical education, the year of study in which clinical practice begins, and the mandatory areas of physiotherapy practice depending on the rules and regulations governing physiotherapy practice in different countries. Clinical education is essential to help students transfer their theoretical knowledge and skills into practice. It begins with observing patients in a clinical setting and progresses to students conducting patient assessments, setting goals, and delivering treatments under the supervision of clinical educators. Clinical practice plays a crucial role in preparing students for professional clinical work that's why educational institution needs to provide evidence of structured clinical placements as courses where students can be assessed and graded.

Physiotherapy is a hands-on profession, making clinical practice essential for undergraduate physiotherapy students. World Physiotherapy recommends a minimum of 820 hours of clinical experience during the undergraduate program [2]. The students of physiotherapy attend a minimum of 1000 hours of clinical placement in a range of clinical settings [3]. Many programs offer 1,000 to 1,200 hours of clinical practice, with clinical training often comprising at least one-third of the curriculum. Reilly, Beran-Shepler, & Paschal (2020) found that physiotherapy education typically dedicates approximately 45% of course hours to clinical components [4].

World Physiotherapy accreditation requirements emphasize that students should explore diverse settings, including acute care, rehabilitation, and community environments. Core areas such as musculoskeletal, neurology, and cardio-respiratory care must be covered for all age groups [2].

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The main aims of this paper are to highlight tools for assessing students clinical performance, discuss benefits and challenges of clinical education and to share our experience.

2. METHODOLOGY

The articles referred for development of this presentation are drawn from databases, mainly PubMed, EBSCO, Google Scholar published in the last ten years. We used as a keywords: clinical education, clinical practice, physiotherapy, higher education, undergraduate program. Inclusion criteria were only articles published in English in the last two decades, focusing on physiotherapy clinical education. Exclusion criteria were articles published on other language, and duplicate articles. We identified 14 publications which we include in our literature review.

3. ASSESSMENT OF CLINICAL PERFORMANCE IN PHYSIOTHERAPY

A mechanism for accurately measuring students learning and progress is an important part of evaluating student readiness for entry-level physiotherapy performance for graduation and licensure application [5].

3.1. Tools to assess students performance

There are a very few assessment tools available for evaluating students on clinical performance in physiotherapy. Common Clinical Assessment Form (CAF) by Coote, Alpine, Cassidy, Loughnane, and McMahon et al., (2007), Assessment of Physiotherapy Practice (APP) by Dalton, Davidson, and Keating (2011), Clinical Performance Assessment Scale (CPAS) by Joseph, Hendricks, and Franz (2011), Clinical Competency Scale (CCS) by Yoshino and Usuda (2013), Canadian Physiotherapy Assessment Performance (CPAP) by Mori, Norman, Brooks, Herold, and Beaton (2015), Clinical Competence Evaluation Instrument (CCEI) by Muhamad, Ramli, and Amat (2015), and Physiotherapy Student Clinical Assessment Tool (PSCAT) by Shenoy and Vivian (2019), [6].

The Assessment of Physiotherapy Practice (APP), created by Dalton, Davidson, and Keating (2011), is a validated and reliable tool for assessing student performance in Australia and New Zealand. It evaluates seven domains: professional behavior, communication, assessment, analysis and planning, intervention, evidence-based practice, and risk management [7].

The Canadian Physiotherapy Assessment of Clinical Performance (ACP), developed by Mori, Norman, Brooks, Herold, and Beaton (2015) and updated in 2021, includes five domains: physiotherapy expertise, communication, collaboration, management, leadership and scholarship. Both students and clinical educators participate in the assessment process. This helps both the student and the instructor anticipate expectations in clinical performance. During clinical practice in hospitals or rehabilitation centers, midterm and final assessments provide feedback from clinical educators about areas for student improvement [8].

The Assessment of Clinical Performance in Physiotherapy (ACPP) is used at Fatima College of Health Sciences in Abu Dhabi across seven clinical placements, each lasting 4 to 5 weeks. Placements begin in the first year and continue until the final year. The ACPP tool is progressively structured to assess competencies from novice to advanced levels: ACPP-N (Novice): Developed for first- and second-year students. It is a valid, reliable, and practical tool [6]. ACPP-I (Intermediate): Applied to third-year students. And ACPP-A (Advanced): Used for fourth-year students nearing graduation. These tools ensure a gradual increase in complexity and clinical reasoning skills.

3.1.1. The Assessment of Clinical Performance in Physiotherapy (Advance), (ACPP- A)

ACPP- A assess students in five main domains: professional behaviours, assessment, treatment, documentation, and evidence-based practice. The first domain Professional behavior encompasses four key components: 1. Time Management: This includes attendance, punctuality, and flexibility. 2. Communication: Effective interaction with patients and members of the multidisciplinary team (MDT). 3. Attitude and Responsibility: This involves reflective practice, accepting workload, collaborating with multiple team members, and adhering to ethical considerations. 4. Collegial Discussion: Active participation and proactivity in administrative tasks and patient care.

The second domain Assessment consists of five components: 1. Considering vital signs, red flags, investigations, and medications with respect to precautions and contraindications. 2. Conducting comprehensive patient initial interviews and re-evaluations. 3. Performing physical examinations, including special tests and standardized outcome measures. 4. Interpreting findings, forming a provisional diagnosis, and creating a patient-oriented problem list and SMART goals.

The third domain Treatment includes: 1. Selecting and implementing interventions while considering precautions and contraindications. 2. Modifying patient treatment plans (progressing or regressing as needed). 3. Maintaining the scope of physiotherapy practice while collaborating with other MDT members. 4. Demonstrating the ability to transition across multiple specialties within a placement. 5. Providing patient education to families, caregivers, and patients using brochures, HEP platforms, and other materials. 6. Planning for discharge (handover, referrals, and discharge from services).

The fourth domain Documentation involves: 1. Completing physiotherapy records that are concise, clear, and use appropriate terminologies and abbreviations. 2. Complying with the facility's documentation process (e.g., SOAP, POMR).

The fifth domain Evidence-based practice assesses the ability to: 1. Access a wide range of evidence types (e.g., systematic reviews, clinical trials, clinical practice guidelines). 2. Critically appraise relevant information to enhance patient care. 3. Support clinical reasoning with evidence.

4. BENEFITS AND CHALLENGES OF CLINICAL EDUCATION

Naidoo (2022) identified 3 teaching skills that promote student learning in clinical practice: (1) modifying the level of expectations based on student performance, (2) use of multiple types of instructional strategies, and (3) emphasis on reflection [9].

4.1. Clinical educators

Clinical educators play a vital role in clinical practice. They may also be referred to as clinical mentors, instructors, preceptors, or clinical faculty [2]. Clinical educators must have specialized knowledge and a minimum of a few years of clinical experience. Recker-Hughes et al. highlight that successful clinical educators, in addition to expertise, require strong interpersonal, communication, and evaluation skills [10]. Clinical education enables students to apply their classroom knowledge and skills in real-world contexts under supervision. Clinical educators act as gatekeepers, ensuring the quality of learning and the maintenance of professional standards [11].

Motivation and a positive approach, including allocating time for discussions with students and providing fair and constructive feedback, are highly valued by students. Student performance in the clinical setting as well as clinical educator's feedback provides useful information for updating the course syllabus [12].

4.1.1. Students' challenges in clinical education

Students face several challenges during clinical education. Higher education is student-centered, but in clinical settings, students must transition to patient-centered care. This shift introduces new experiences with real-life scenarios requiring physiotherapy knowledge and skills, effective communication, and teamwork. Establishing relationships with patients, clinical educators, and healthcare team members is often challenging for students.

Reflective practice as an important contributor to successful student-centred teaching clinical education. Reflexion is the 'process or means by which an experience in the form of thought, feeling or action is brought into consideration, while it is happening or subsequently', and as 'the creation of meaning and conceptualisation from experience and the potentiality to look at things as other than they are' [13]. Lack of reflexion lead to less productivity in learning. By making use of reflection, learning is not left to chance; but is intentionally facilitated. Reflection can help connect theory to practice and help students to engage in consistent and intentional self-evaluation and professional growth [14].

4.1.2. Experiences of clinical education at Fatima College of Health Sciences

Our experience with Fatima College of Health Sciences has shown noticeable progress among students from their first to fourth years. By their final year, students demonstrate maturity, having developed competencies in communication and teamwork, independence in physiotherapy assessment and treatment, and a solid understanding of and reliance on evidence-based practice. Seven clinical courses, complete, help students understand basic, intermediate, and advanced competencies. Academic staff, through their corrections of students' seminar papers, presentations, and case studies during clinical practice, further enhance the learning and documentation process. Additionally, the opportunity to conduct clinical practice in seven different governmental hospitals/ rehabilitation centers, and private practices has allowed students to observe the diversity in physiotherapy practice organization and documentation management.

Time and practice are critical factors in enhancing students' hands-on skills, communication, knowledge, and ability to adapt to the dynamics of clinical work. Our experience has shown that students learn significantly from their mistakes, with feedback from educators playing a crucial role. This feedback helps students identify weaknesses, analyze the gap and to reflect their shortcomings. Its emphasize the importance of discussions with students, providing encouragement, and highlighting positive progress. This is especially evident in the improvement noted in final- ACPP assessments after feedback provided in mid-ACPP assessments. Reflexion, self-assessment, clinical educator feedback was identified as important factors in facilitating learning.

5. CONCLUSION

Clinical education is highly important as it enables students to adapt to real-life scenarios, transfer knowledge from the classroom, and adjust to working with patients. It must be structured clearly to allow students to progress and achieve all competencies necessary for clinical practice. Therefore, assessment tools for evaluating students' achievements must be standardized, valid, and reliable. Clinical educators play a vital role during clinical practice by facilitating the learning process and ensuring the application of professional physiotherapy standards in clinical practice. Future research should focus on physiotherapy student's perspective on clinical education.

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