

ORIGINAL ARTICLE**KNOWLEDGE OF PHYSIOTHERAPY STUDENTS ABOUT SUPERVISION SKILLS DURING THE CLINICAL ROTATION OF INTERNSHIP****ABSTRACT****BACKGROUND AND AIMS**

Clinical rotation is perceived as a burden by students due to number of challenges in experimental environment that impedes their learning in clinical areas. This study aimed to determine the perception of physical therapy students regarding prerequisite for integrating skills and knowledge from the classroom to clinical setting.

METHODOLOGY

A cross sectional study was conducted at students of different colleges of Rehabilitation Sciences on 168 candidate of clinical years. The questionnaire was designed on five domains that included patient contacts, theory v/s practice gap, communication with clinical supervision, transition from pre-clinical to clinical and knowledge and skills. The data was measured on 5 points Likert scale and was statistically analyzed on IBM SPSS version 2.0.

RESULTS

Around 45% students indicated that they hesitated in taking guidance or asking question from clinical supervisors however, 76.6% students reported that a structured orientation with the staff and environment should be given to the new assistants for smooth transition from pre-clinical to clinical. Moreover, more than half of the students (58%) reported difficulty in bridging theory and practicing the knowledge. Furthermore 65% students reported hesitancy in taking history and performing physical examination.

CONCLUSION

Multiple challenges perceived by the students during their clinical rotations that mainly include inadequate clinical supervision, difficulty in transition from preclinical to clinical, lack of knowledge and skills, gap between theory and practice which hindered their learning.

KEY WORDS

Internship, Perception, Physical Therapy, Knowledge, Clinical Skills, Physical Examination, Malpractice.

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INTRODUCTION

Clinical rotation is an attainment of professional expertise by using existent classroom knowledge into patient condition-based practice under supervision.¹ The main focus of medical students is to excel in both basic sciences and clinical skills during their undergraduate studies. Therefore; they are directed to develop well-build knowledge of basic sciences in the initial two years and good clinical skills in the later years. During clinical rotations, students have exposure to different domains of clinical sciences that attributes to enhance their communication and hands-on skills. Moreover, the experience of treating diversified patients also contributes in the development of confidence and clinical competencies that finally help them to be a good practitioner.² In addition to this, Clinical rotation is an important part of the medical curriculum as it is focused and aimed to relate basic sciences with clinical knowledge and also contributes in the adjustment of students in the hospital setting. Students are rotated in both outpatient and inpatient area that furnish their clinical and clinical decision making skills.³ Healthcare professionals enable the students and provide opportunities to incorporate the basic knowledge and clinical skills in making differential diagnosis and foster their critical thinking abilities.⁴ Therefore, Clinical rotation is considered to be a key domain of physical therapy curriculum connecting theoretical knowledge with the clinical and contributes in the development of professionalism among the physical therapy students.⁵ The failure to establish a link between theoretical information obtained with the existing and actual application in health care practice is known as theory practice gap, and this gap has been recognized in many studies.⁶ Furthermore, one researcher claimed that the time the student spends on practical and clinical aspects is inadequate as compared to the time spent on the theoretical component of the course.⁷ However, Positive and welcoming environment is another variable as a student's motivator. Along with it productive criticisms in the clinical setting also help in boosting the students to be a skilled practitioner and resist in doing malpractice.⁸ Conversely, identifying and highlighting student's mistake in front of patients, interrogating in an impolite way that demotivate the students, not acknowledging the extra efforts of students, insufficient teaching time, non-professionalism, uncooperative supervisors and Chaotic and disorganized environment have negative impact on the clinical learning.⁹ Furthermore, role shifting from student to member of healthcare team generate substantial challenges that hesitant and increase uncertainty as a novice practitioner. Ultimately this uncertainty impedes the beginners to apply properly their preclinical learning into patient problem.¹⁰ This uncertain nature of clinical course can be the main source of generating difficulties among allied students. To attain the purposeful and

successful learning, clinical placement reflects the priority of knowledge and skills that cannot be implement in the absence of clinical experience.¹¹ Moreover, an intimate challenge in professional education is the transition of students from gaining theoretical knowledge and conceptual apprehension and amplifies this knowledge as a novice practitioner. This transition occurs particularly when students proceed from preclinical phase to clinical phase. Transformation in medical education, with a source of expending competence by gaining new knowledge and skills, is emotionally and socially active process,¹² but also a source of anxiety and stress that decline the capabilities of students¹³ and may impede their training.

METHODOLOGY

Study Setting

The study was conducted at Colleges of Rehabilitation Sciences.

Target Population

The target population was students who have done their clinical rotations during internship.

Study Design

It was an observational cross sectional study.

Duration of Study

Six months after the approval of synopsis.

Sampling Technique

Non-probability, convenience sampling techniques

Sample Size

168 participants

Data Analysis

Data was analysed on SPSS (Statistical Package for Social Sciences) version 20. The demographic characteristics of the participants were represented through frequency, mean and standard deviations whereas the participant responses were evaluated through frequency and percentage.

Inclusion Criteria

- Both male and female
- BPT Students who have cleared their four years of study.

Exclusion Criteria

- Students who have not cleared their examination of all four years of study.

Data Collection Tool

The data was collected from physical therapy students using a researcher developed questionnaire adapted from the article written by Muhamed E.L.hassan Abdallah and Sarra shorbagi".¹⁰ Challenges faced by medical students during their first clerkship training", in 2018. The questionnaire is mod-

ified according to the current research scenario. The questionnaire comprised of close ended questions focusing on five domains that includes patient contacts, theory v/s practice gap, communication with clinical supervision, transition from pre-clinical to clinical and knowledge and skills. The data was measured on 5 points Likert scale where 1 being "strongly disagree" and 5 being "strongly agree" for all the questions.

DATA COLLECTION PROCEDURE

The data was collected from physical therapy students who have done their 8 weeks clinical rotations. Informed consent was taken from the participants and the purpose and the benefit of study was explained. The questionnaire was distributed to students when they came back from their clinical rotation.

RESULT

A total of 168 samples were taken including both male and female students of BPT. As for patient contact, majority number of students (38.6%) expressed that they weren't afraid to start a conversation with patients, and 77.2% (N = 132) students mentioned that contact with patients encouraged them to study as they experienced that the knowledge acquired from practicing theoretical knowledge on patients helped them to retain while only 7.6% (N = 13) students didn't agree. All the numbers and percentages are mentioned in the table no. 1.

Questions	Disagree n (%)	Neutral n (%)	Agree n (%)
Contact with real patient is easy for me	18(10.5)	38(22.2)	115(67.2)
I am afraid to start a conversation with patient	66(38.6)	41(24.0)	64(37.2)
I feel uncomfortable when I examine a patient	72(42.1)	56(32.7)	43(25.1)
Contact with real patients stimulates me to study	12(7)	27(15.2)	132(77.2)
The knowledge that I acquire from contact with real patients is easier to retain	13(7.6)	26(15.2)	132(77.2)

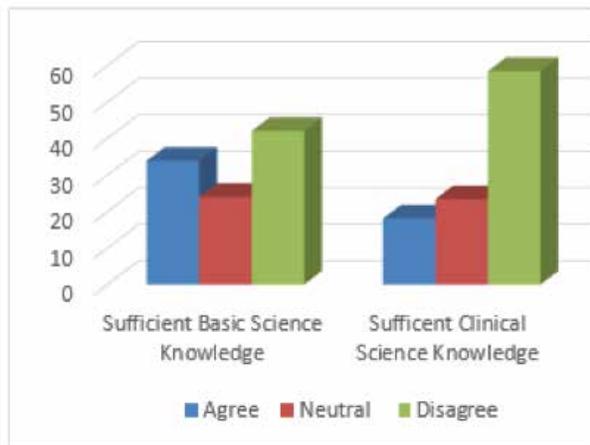
However, as far as the student's response regarding the identification of gap between theoretical and practical knowledge is concerned, the responses were much diversified as according to feedback, 72.5% student perceived that knowledge acquired in clinical practice is different from theoretical knowledge, while 10.5% disagree. On the other hand 57.9% report that they are unable to transfer theoretical knowledge into practice, while 18.5% were not agreed. Moreover, majority of student around 70% had limited exposure to practice theory (table-2).

Questions	Disagree n (%)	Neutral n (%)	Agree n (%)
The knowledge acquired in clinical practice is different from theoretical knowledge	18(10.5)	29(17.0)	154(72.5)
The basic science knowledge were relevant and helpful in clinical practice	29(16.9)	42(24.6)	100(58.5)
There is limited exposure to practice theory	46(7.6)	38(22.2)	120(70.2)

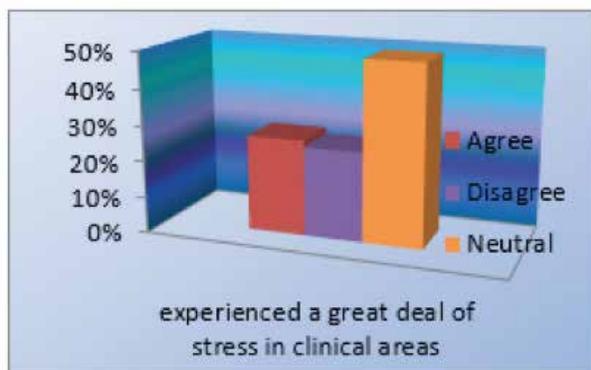
Communication with supervisor is another major challenge 45% (N= 108) students indicated that they hesitate in taking guidance and asking questions from clinical supervisors 31.6%(N=54) students disagree meanwhile 23.4%(N=25) were neutral. For majority of students 63.1% (N=108) clinical supervisors talk about inadequacies in clinical setting with an inappropriate manner meanwhile 22.2% (N=38) disagree and 14.6% (N=25) were neutral. A large number of students 58.5%(N=100) disagree that the competencies been arranged during clinical rotation were explained by supervisor whereas 26.9% (N=46) were neutral and only 14.6% (N=25) students agreed. Moreover 49.7%(N=85) student indicated that they do not receive sufficient supervision and constructive feedback about their performance whereas 25.1% (N=43) were neutral agree with the statement.

When evaluating the knowledge and skills of students, more than half of the participants were unable to apply their knowledge in practice (57.3%, N=98), only 18.7 % (N=32) were capable to apply. However, 24% responded neutral. Upon asking, 58.5 % (N=100) students respond that they were unable to take history while only 23% (N=40) were able to take (table_5).

Questions	Disagree n (%)	Neutral n (%)	Agree n (%)
I was sufficiently prepared for the rotations as regards theoretical knowledge	71(41.6)	43(25.1)	57(33.3)
I am able to take a history.	100(58.5)	31(18.1)	40(23.4)
There are gaps in my knowledge	88(51.4)	42(24.6)	41(24)
I'm able to write SOAP / medical notes	85(49.7)	52(30.4)	34(19.9)
I am able to apply my knowledge in practice	98(57.3)	41(24.0)	32(18.7)
I felt well prepared with respect to communication skills	61(35.6)	34(19.9)	76(44.5)
I am able to do a full physical examination	112(65.5)	33(19.3)	26(15.2)
I feel confident about the findings from history and physical examination	99(39.8)	41(22.2)	31(22.7)



45% (N = 77) students experienced an abrupt transition from pre-clinical to clinical training and most of the students 49% (N = 84) perceived that they had an increase level of stress in clinical area. Moreover, 76.6% (N = 131) students felt that a good introduction should be given to the new clerks to make transition into clinical practice from pre-clinical less challenging whereas, only 7% (N = 12) disagreed.



DISCUSSION

Sufficient knowledge and skills are the backbone for clinical rotation. Taking part in real consultation with a real patient is a strong incentive for students to prepare for the contact. Seeing real patient excites student's curiosity and it is more powerful motivator to study the literature. According to our research most students gave a positive feedback that they were not afraid to start a conversation with patient. Whereas, when asked if they are able to take a history or can do a physical examination a large number of population disagreed.

On the other hand, our studies revealed that majority of students were in the favor that contact with real patient stimulated them to study. On the contrary to this the gap between the theory, knowledge and practice were found to be a major issue among them and also they were unable to write the medical notes¹⁴⁻¹⁶.

Furthermore, in our investigation mostly students were in favors that the knowledge they retain by contact

with patient was easier but they were still incapable to apply their knowledge in practice. The purpose of this study was to explain the gap students face between theory vs practical. The findings obtained from the study demonstrated that many students did not have sufficient knowledge to take care at the bedside patients. Dealing with the clinical learning environment and providing care to the patients was challenging for them. In our investigation majority of undergraduate students were agree about the knowledge acquired in clinical practice is different from theoretical knowledge¹⁴⁻¹⁶.

Consequently, before understudies enter the clinical condition, it ought to be found out that they are hypothetically and basically set up as they step through exams and give care in the ability lab.

One significant statute is that fusing fundamental science preparing into the clinical years may require workforce improvement for instructors so the connection among science and the clinical choices is made explicit, concise, and clear. According to our research results majority of undergraduate students were agree about the basic science information were significant and accommodating in clinical practice the result of Nasir et al¹⁷ shows that students stated, the abundance number of understudies in the research center practices in school and restricted offices adversely influence their learning. Understudies communicated that practices learned in the research center presently before clinical practice are all the more enduring. Besides, understudies brought up that the training they are appeared in school and the one acted in the facility are unique and this circumstance makes suspiciousness during a training Students who participated in the study pointed out that there is limited exposure to practice theory. It was observed that students who participated in this study majority agreed the results of Wijbenga et al¹⁵, which shows that both understudies and clinical instructors expressed patient presentation was key in the advancement of clinical thinking aptitudes. Students need 'practice hours' to gain proficiency with their calling and become flight chief¹⁸.

Understudies learned most when they could test their own clinical thinking approach on singular patients, all things considered, practice. Effective communication among supervisors and students is important as it greatly affects the performance and productivity of students as well as the quality of health care provided. Based on our findings, half of the undergraduate students received sufficient supervision however they did not sustain adequate response about performance. The results of Ghrayeb¹⁶ also shows that the clinical supervisors were not able to collaborate with medical students in wards, and was not able to do objective assessment for students. According to our research, undergraduate students faced negative feedback from the supervisors¹⁹. Majority of the students hesitate in taking guidance or asking ques-

tions from the supervisors. Students highlighted the impartial control of patient, right feedback from supervisor and exams as some of the important elements that enhance their learning. In addition to this, proper response by the teacher to the students in clinical learning is the most vital issue that intensifies the students' ability. In our study majority of students were dissatisfied about the effective supervision that hinders students' learning. Study highlighted inadequate supervision by clinical supervisors, lack of resources, and quality of practical assessment in clinical area, as some of the key factors that hinder efficacy of learning²⁰⁻²².

Our study showed that there is no satisfactory supervision and constructive feedback by the supervisors about the students' performance however another study conclude that sufficient supervision assist the students in learning medical skills in productive manner¹⁷. Transition from pre-clinical to clinical for an orientating students' needs a proper orientation which helps them to clarify their domains of clerkship and importance of their clerkship. In our study majority of the students wants a good introduction and orientation which was regarding clerkship moreover. Lack of preparedness for clinical training and supervision during the clerkship both hamper the transition learning²³⁻²⁴. In addition to this in our study inadequate training of transition from pre-clinical to clinical of a medical student was also the cause of stress among students. Similarly, another study reveals that inadequate clinical training and improper orientation were the main cause of stress and anxiety among medical students.²⁵

CONCLUSION

Predicting the troubles confronting the new interns and executing measures to facilitate their progress ought to be a need for any in clinical teaching.

It is inescapable that understudies ought to need to acclimate to social contrasts between the study hall and the clinical setting. The current investigation affirms the earnestness of the transition, knowledge and skills issue by giving quantitative affirmation.

Clinical educators should invigorate their understudies to effectively take an interest, ideally in a group of various health care experts and assistants and uphold understudy learning by giving individual review and posing inquiries that prompt understudies to consider their activities and learning.

Understudies learning is additionally improved by monotonous practice of their skills, pointed toward coordinating components of the clinical thinking measure into a more regular stream.

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