

Review Article

Clinical Instruction Satisfaction Survey

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Submitted: 01 July 2021

Accepted: 07 July 2021

Published: 23 July 2021

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Abstract

The School of Health Professions (SHP) Clinical Affairs Committee (CAC) conducted survey research to understand students' perception about their clinical learning experience among the four disciplines: Nursing, Physician Assistant (PA), Physical Therapy (PT), and Occupational Therapy (OT). During Fall 2019, a 13-item Clinical Learning Satisfaction Survey was developed by CAC to understand students' views about their perception of the process of clinical learning. The Internal Review Board approved the survey tool and the data collection. Then the survey was sent to graduating seniors in all four disciplines. Approximately 200 received the surveys, and 81 responded: Nursing 45.7 %, PT 22.7%, PA, OT 13.6 % each. Results showed overall satisfaction about the clinical education process and learning experience among SHP students. However, it was observed that, unlike other disciplines, there is no choice for PA students for the clinical site selection, and they are unsatisfied about that factor. In addition, the responses from the OT students are different from the rest; OT students did not indicate that clinical instruction improves their critical thinking ability, and that requires further exploration. Future studies will focus on the reasons behind P A studies policies of not providing choices for students and clinical instruction and critical thinking strategies in OT education.

Clinical Instruction Satisfaction Survey for Health Professions Education

Clinical experience is the heart of the health profession's education. Theoretical integration and practice competence in health professions education is accomplished by engaging in the real-world work environment. Appropriate facilitation of clinical learning opportunities by the clinical Instructor enhances professional socialization and inter-professional skills. Identification of factors that influence clinical education is essential to achieve the desired outcomes [1,2]. Continuous review of the process of clinical instruction, cognitive and procedural skills, and Instructor's teaching strategies is valuable in improving clinical outcomes. Periodic feedback from the students about their clinical learning is one measure that helps assess the processes and outcomes. However, obtaining responses about their clinical experience can be challenging because many factors influence the data. Elements such as learner's self-efficacy, emotions, skills, characteristics of the teacher, and the teacher-learner relationship are among those factors [3]. Nevertheless, to improve the quality of clinical education, the School of Health Professions (SHP) Clinical Affairs Committee (CAC) purposed to understand the students' perceptions skills.

Background

A new committee for clinical Affairs was formed, and the members consist of four disciplines represented in the school of Health Professions: Nursing, Occupational Therapy, Physical Therapy, and Physician Assistance studies. The CAC wanted to understand clinical learning factors and considered survey research to understand the students' perspective. Identification of

factors that influence clinical learning is vital for the quality of clinical education. Based on the feedback from the students, a clinical educator/instructor can modify the learning environment to meet the clinical learning outcomes. Without appropriate facilitation by the clinical Instructor, the student becomes disengaged and fails to achieve the intended clinical education outcome. Well-directed clinical instruction in a suitable clinical environment should foster professional skills such as critical thinking, clinical judgment, decision-making, procedural skills, clinical knowledge, and attitude. In addition, clinical education enhances professional socialization and inter-professional competence.

Theoretical Concept

The theoretical base for this study is founded in general systems theory and its application to clinical education. A system is defined as drawing a boundary around objects to include input, throughputs, outputs, and feedback loops. Education is embedded in the surrounding social fabric, and the process and well-being are depended on the condition of the social systems and their institutions. Education is context-related, and therefore, focusing merely on skill acquisition, specific topics, and considering education as a separate entity is either not possible or counterproductive. Therefore, the curriculum should be designed in connection with the society we would share [4]. Systems theory depicts that a network of relationships represents interacting elements. John Dewey believed that more interaction with a particular phenomenon or a specific topic would make us more knowledgeable. The human being is a subsystem in this world, and to know this world, they interact and receive input and process it to

generate information [5]. An educational system can be compared to an organism with input, throughput, and output and feedback loops components or processes to accomplish its educational goals. King (1981) applied General System Theory and conceptual model to clinical education especially nursing education in the goal attainment component. When systems theory is applied to clinical education, the input becomes the personal system of the students, such as motivation to learn, cognitive skills, manual dexterity, organization, and prioritization skills. Throughput is the interpersonal system that encompasses students and faculty in the clinical, educational environment: this includes knowledge and skills gained through the clinical curriculum, the instructional environment, evidenced by clinical competence, and personal satisfaction. This interaction among clinical instructors, peers, and student is the process that influences the output, licensure for preparedness for effective clinical practice. Education influences transform and maintain changes in personal and interpersonal systems and the social system.

Health professions education is the boundary of clinical and theoretical education where input, throughput, and output are embedded. Feedback loops open and maintain communication and continuous improvement. Education influences transform and maintains changes in personal and interpersonal systems and the social system.

This survey study is essential in the context that the modus operandi of clinical learning has shifted from unstructured immersion experience to a structured instructional process that fulfills curriculum-based specific learning outcomes. Students in the health professions should meet all the clinical learning objectives such as knowledge, skill, competence, and communication to patients and peers. The students should learn to be educators themselves from the very early stage in the professions. Small group discussions and peer teachings are some of the modalities that fortify patient education skills in health professions. Presenting key points to enhance retention of the concepts learned, combining words with images, and maintaining brevity of the presentation will be the skills for the health professions students. An astute clinical instructor can collaborate with the learning environment team to optimize such a clinical learning environment that provides mastery in procedural skills and professional communication skills [6]. Elhami found that the clinical Instructor's individual characteristics are a significant factor in the effectiveness of clinical instruction. Nursing has used Clinical Teaching Effectiveness Inventory (NCTEI) and Effective Clinical Teaching Behaviors (ECTB) to evaluate clinical instruction, especially the instructor's effectiveness. These instruments NCTEI and ECTB, have above 45 items on the 5-point Likert scale [7]. Other health professions have used their versions of NCTEI or ECB.

NYIT SHP Survey

New York Institute of Technology (NYIT) and the School of Health Professions (SHP) faculty wanted to learn more about the students' perception regarding clinical learning. The Dean of SHP organized a committee called the 'School of Health Professions Clinical Affairs Committee (CAC),' the purpose of which is to support clinical learning among the different professions represented at SHP. The various programs at NYIT are Exercise Science, Interdisciplinary Health Science, Nursing, Occupational Therapy (OT), Physician Assistant Studies (PA), and Physical Therapy (PT). Except the first two programs, all have clinical experience as the heart of the program. The first step was to assign at least one faculty member from each discipline. Eventually, the CAC constituted three faculty members from

Nursing, including the committee chair, two from PA, one from PT, and one from OT. At the first meeting, CAC decided to assess the quality of clinical instruction through a survey. Instead of using an existing survey tool or questionnaire, the committee decided to use a customized survey suitable for all four disciplines. The survey tool was intended to be short, requesting brief responses to questions that are intended to be applicable to all disciplines. There were options for additional comments and suggestions, as necessary. The results of this survey would lay the foundation for further studies. Overall quality improvement of the SHP clinical instruction was the purpose of the survey.

Validity and Reliability

The survey questions were developed by the committee chair, reviewed by the Dean of SHP, and finally edited by the committee members in a CAC meeting. Representatives of all disciplines who are experts in their fields and supervise clinical education reviewed and revised the survey for content and construct validity. This was the first survey approved to be administered, and it was decided that the same survey would be administered every year. In that context, test-retest reliability and split-half reliability will be measured by SPSS. The final version was used to apply for the NYIT Internal Review Board (IRB) approval. The Office of the Sponsored Programs and Research (OSPAR) granted IRB approval with exempt status to conduct the study.

Methods

The survey was uploaded and sent to the graduating students in each discipline using REDC ap electronic data capture tools hosted at NYIT. REDC ap (Research Electronic Data Capture) is a secure, web-based software platform designed to support data capture for research studies providing

1. an intuitive interface for validated data capture;
2. audit trails for tracking data manipulation and export procedures;
3. automated export procedures for seamless data downloads to standard statistical packages, and
4. procedures for data integration and interoperability with external sources. The committee members who represented diverse disciplines took responsibility for disseminating the survey tool using students' emails. The survey was sent to 200 students and had 81 responses. Nursing represented 45.7%, followed by PT with 22.7%. PA and OT were 13.6 % each. Reminders were sent twice during spring 2020. See Table1. The responses were collected by the CAC chair, and data analysis was performed by the NYITCOM biostatistician.

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Table 1: Items of the Survey to Assess Clinical Instruction (SACI)

| Question Item | Choices given |
|---|------------------------------|
| 1. My discipline is (Discipline): | IHS / Nursing / OT / PA / PT |
| 2. The clinical facilities assigned for me meet the clinical course objectives (Facilities) | Yes / No / Not applicable |

| | |
|--|--|
| 3. I can choose a clinical facility location for my clinical practicum (Choice) | Yes / No / Not applicable |
| 4. My instructors/preceptors challenge me to think critically (Critical thinking) | Yes / No / Not applicable / To some extent / To a great extent |
| 5. My instructors/preceptors give me appropriate feedback on my clinical learning (Feedback) | Yes / No / Not applicable / To some extent / To a great extent |
| 6. I have the opportunity to evaluate instructors/preceptors for providing effective instruction (Evaluation) | Yes / No / Not applicable |
| 7. Instructors/preceptors give written formative and summative evaluation (Written evaluation) | Yes / No / Not applicable |
| 8. The day-to-day issues/concerns/problems are satisfactorily resolved through the chain of communication and coordination (Communication) | Yes / No / Not applicable |
| 9. During a typical clinical day, my time at the clinical facility is fully utilized in learning (Utilization) | Yes / No / Not applicable / 50% of the time / 75% of the time |
| 10. I am satisfied with SHP clinical education rotations/practicums/experience (Satisfaction) | To a great extent / Satisfied / Not at all |

Results

Among those 81 students who had responded, 37 (45.7%) were Nursing, 22 (27.2%) PT, 11 (13.6%) OT, and 11 (13.6%) PA. The positive responses to item 'Satisfaction' were from 72 (88.9%) students; among those, 54 (66.7%) responded 'Satisfied', and 18 (22.2%) 'To a great extent'. Of all 81 respondents, answered positively were the vast majority (> 90%) of students to the items 'Critical thinking', 'Feedback', 'Utilization', and 'Facilities'; a large majority (> 85%) to the items 'Evaluation', and 'Written evaluation'; near three quarters (71.6%) to the item 'Communication'; about a half (48.1%) to the item 'Choice' (Table 2).

Based on the results of the chi-squared test comparisons over disciplines, the proportions of those who answered positively were significantly dif-

Table 2: Frequency and Percent of responses for each question item

| Question item | N (missing) | Yes | No | Not applicable |
|--------------------|-------------|-------------------|------------|----------------|
| Critical thinking | 80 (1) | 77 (95.1%) | 2 (2.5%) | 1 (1.2%) |
| Feedback | 81 (0) | 76 (93.8%) | 4 (4.9%) | 1 (1.2%) |
| Utilization | 81 (0) | 76 (93.8%) | 4 (4.9%) | 1 (1.2%) |
| Facilities | 80 (1) | 74 (91.4%) | 5 (6.2%) | 1 (1.2%) |
| Evaluation | 81 (0) | 71 (87.7%) | 5 (6.2%) | 5 (6.2%) |
| Written evaluation | 81 (0) | 69 (85.2%) | 5 (6.2%) | 7 (8.6%) |
| Communication | 80 (1) | 58 (71.6%) | 11 (13.6%) | 11 (13.6%) |
| Choice | 81 (0) | 39 (48.1%) | 40 (49.4%) | 2 (2.5%) |
| | | To a great extent | Satisfied | Not at all |
| Satisfaction | 79 (2) | 18 (22.2%) | 54 (66.7%) | 7 (8.6%) |

Discussion of the Findings

A large majority of the respondents (positive responses of 88.9%) showed overall satisfaction with clinical education among SHP students. Among all four disciplines, OT students seem to be satisfied the most (54.5% to a great extent; 36.4% satisfied). Nursing (62.2% positive) and PT (63.6%

Table 3: Comparison over disciplines

| Question item | N (missing) | Yes | No | Not applicable | p-value |
|-------------------|-------------|-------------|----------|----------------|---------|
| Critical thinking | 80 (1) | 77 (95.1%) | 2 (2.5%) | 1 (1.2%) | --- |
| Nursing | 36 | 34 (94.4%) | 1 (2.8%) | 1 (2.8%) | 0.73 |
| OT | 11 | 10 (90.9%) | 1 (9.1%) | 0 (0.0%) | |
| PA | 11 | 11 (100.0%) | 0 (0.0%) | 0 (0.0%) | |
| PT | 22 | 22 (100.0%) | 0 (0.0%) | 0 (0.0%) | |

ferent over disciplines with the items 'Written evaluation', 'Choice', and 'Satisfaction', while they were not significantly different over disciplines with the items 'Critical thinking', 'Feedback', 'Utilization', 'Facilities', 'Evaluation', or 'Communication.' To the item 'Written evaluation', OT students, when compared to those in other disciplines, responded positively with a significantly lower proportion (7 (63.6%) out of 11) and 'Not applicable' with a significantly higher proportion (4 (36.4%) out of 11). To the item 'Choice', PA students unanimously responded negatively (11 (100.0%) out of 11), and OT students responded positively with a significantly lower proportion (2 (18.2%) out of 11) compared to those in Nursing or PT. To the item 'Satisfaction', OT students responded 'To a great extent with a significantly higher proportion (6 (54.5%) out of 11) compared to those in Nursing (6 (16.7%) out of 36) or PT (6 (28.6%) out of 21) (Table 2).

positive) students seem to feel more accessible than OT (18.2% positive) and PA (0.0% positive) in choosing their clinical facility location for their clinical practicum. PA students seem to feel irrelevant occasionally in getting written formative and summative evaluations in every clinical course from their instructors/preceptors (36.4% not applicable). See Table 3.

| | | | | | |
|--------------------|--------|-------------------|-------------|------------|---------|
| Feedback | 81 (0) | 76 (93.8%) | 4 (4.9%) | 1 (1.2%) | --- |
| Nursing | 37 | 35 (94.6%) | 2 (5.4%) | 0 (0.0%) | 0.06 |
| OT | 11 | 8 (72.7%) | 2 (18.2%) | 1 (9.1%) | |
| PA | 11 | 11 (100.0%) | 0 (0.0%) | 0 (0.0%) | |
| PT | 22 | 22 (100.0%) | 0 (0.0%) | 0 (0.0%) | |
| Utilization | 81 (0) | 76 (93.8%) | 4 (4.9%) | 1 (1.2%) | --- |
| Nursing | 37 | 35 (94.6%) | 1 (2.7%) | 1 (2.7%) | 0.80 |
| OT | 11 | 10 (90.9%) | 1 (9.1%) | 0 (0.0%) | |
| PA | 11 | 10 (90.9%) | 1 (9.1%) | 0 (0.0%) | |
| PT | 22 | 21 (95.5%) | 1 (4.5%) | 0 (0.0%) | |
| Facilities | 80 (1) | 74 (91.4%) | 5 (6.2%) | 1 (1.2%) | --- |
| Nursing | 36 | 32 (88.9%) | 3 (8.3%) | 1 (2.8%) | 0.30 |
| OT | 11 | 9 (81.8%) | 2 (18.2%) | 0 (0.0%) | |
| PA | 11 | 11 (100.0%) | 0 (0.0%) | 0 (0.0%) | |
| PT | 22 | 22 (100.0%) | 0 (0.0%) | 0 (0.0%) | |
| Evaluation | 81 (0) | 71 (87.7%) | 5 (6.2%) | 5 (6.2%) | --- |
| Nursing | 37 | 29 (78.4%) | 4 (10.8%) | 4 (10.8%) | 0.48 |
| OT | 11 | 10 (90.9%) | 0 (0.0%) | 1 (9.1%) | |
| PA | 11 | 11 (100.0%) | 0 (0.0%) | 0 (0.0%) | |
| PT | 22 | 21 (95.5%) | 1 (4.5%) | 0 (0.0%) | |
| Written evaluation | 81 (0) | 69 (85.2%) | 5 (6.2%) | 7 (8.6%) | --- |
| Nursing | 37 | 30 (81.1%) | 4 (10.8%) | 3 (8.1%) | 0.033 |
| OT | 11 | 7 (63.6%) | 0 (0.0%) | 4 (36.4%) | |
| PA | 11 | 11 (100.0%) | 0 (0.0%) | 0 (0.0%) | |
| PT | 22 | 21 (95.5%) | 1 (4.5%) | 0 (0.0%) | |
| Communication | 80 (1) | 58 (71.6%) | 11 (13.6%) | 11 (13.6%) | --- |
| Nursing | 37 | 23 (62.2%) | 6 (16.2%) | 8 (21.6%) | 0.52 |
| OT | 11 | 9 (81.8%) | 1 (9.1%) | 1 (9.1%) | |
| PA | 11 | 7 (70.0%) | 2 (20.0%) | 1 (10.0%) | |
| PT | 22 | 19 (86.4%) | 2 (9.1%) | 1 (4.5%) | |
| Choice | 81 (0) | 39 (48.1%) | 40 (49.4%) | 2 (2.5%) | --- |
| Nursing | 37 | 23 (62.2%) | 13 (35.1%) | 1 (2.7%) | 0.001 |
| OT | 11 | 2 (18.2%) | 8 (72.7%) | 1 (9.1%) | |
| PA | 11 | 0 (0.0%) | 11 (100.0%) | 0 (0.0%) | |
| PT | 22 | 14 (63.6%) | 8 (36.4%) | 0 (0.0%) | |
| | | To a great extent | Satisfied | Not at all | p-value |
| Satisfaction | 79 (2) | 18 (22.2%) | 54 (66.7%) | 7 (8.6%) | --- |
| Nursing | 36 | 6 (16.7%) | 25 (69.4%) | 5 (13.9%) | 0.021 |
| OT | 11 | 6 (54.5%) | 4 (36.4%) | 1 (9.1%) | |
| PA | 11 | 0 (0.0%) | 10 (90.9%) | 1 (9.1%) | |
| PT | 21 | 6 (28.6%) | 15 (71.4%) | 0 (0.0%) | |

Conclusion

There is an overall satisfaction about the effectiveness of clinical education among SHP students. Critical thinking strategies of OT instructors need to be explored further. It seems that there is no choice for PA students for the clinical sites. The CAC committee will discover the reasons behind the PA school's policies which are not providing choices for the students because it is not a student-friendly approach. In addition, there will a focus study or review on the OT instructors' strategies for facilitating clinical

instruction.

Future Studies

Future studies will focus on Critical thinking strategies in OT clinical education and Choice for clinical placement/practicum assignments of PA students. The CAC committee will reevaluate the questionnaire for modification needed [8-22].

- Min-Kyung Jung, Ph.D, Biostatistician , NYIT College of Medicine.

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Cite this article: Elizabeth B. Simon (2021) Clinical Instruction Satisfaction Survey. *Journal of Nursing and Researchers*. 2: 53-57.

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