

## Physiotherapy Students Satisfaction on Clinical Learning Environment and Supervision at University of Ghana

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### Abstract

**To cite this article:** Nyante G.G, Asare E, Quartey J, Kwakye S.K, Physiotherapy Students Satisfaction on Clinical Learning Environment and Supervision at University of Ghana. *J of Prev and Rehab Med*, Vol. 2, No. 1, 2020, pp. 32-39. doi: 10.21617/jprm2020.216

**Background:** Clinical education is an important and distinct part of health profession education in which students learn to consolidate theory into practice with the aim of gaining clinical competence and enhancing professional knowledge. Clinical knowledge and skills can be achieved through a conducive clinical learning environment with effective supervision. We aimed to determine physiotherapy students' satisfaction on their clinical learning environment and supervision.

**Methodology:** A cross-sectional study, which involved 85 physiotherapy students recruited with the convenience sampling technique from the Department of physiotherapy, University of Ghana who visited four accredited clinical sites. Participants who consented, completed an adapted Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale. Data collected was analysed using SPSS (version 20.0). Pearson's Chi-square was used to test for association between variables.

**Results:** Almost all 80 (94.1%) participants were satisfied with the clinical learning environment only, while more than half 52 (61.2%) had average level of satisfaction with the clinical learning environment and supervision. Majority 60 (80%) of participants had a high level of satisfaction with supervision only. The association between the participants' satisfaction on the clinical learning environment and supervision was statistically significant ( $P < 0.001$ ).

**Conclusion:** Physiotherapy students are generally satisfied with their clinical learning environment and supervision. Periodic assessment of physiotherapy students' satisfaction with clinical learning environment and supervision may be carried out in order to improve clinical leaning.

**Keywords:** *clinical education, clinical learning environment, clinical supervision, clinical supervisor, students' satisfaction.*

## Introduction

The purpose of planned clinical experience is to enable students develop clinical skills, integrate theory with practice, apply problem-solving skills and develop interpersonal skills [1,2, 3]. Hart and Rotem's [4] qualitative study identified six factors that described the clinical learning environment and these were: autonomy and recognition, role clarity, job satisfaction, quality of supervision, peer support and opportunities for learning. Beverley and Jean [5] reported that a clinical instructor can enrich the learning experience of physical therapy students in many ways. For instance, introducing, explaining, demonstrating and allowing students time to obtain information, providing feedback and recapping to confirm learning [5].

Rutherford-Hemming [6] opined that the clinical learning environment can have considerable impact on the development of psychomotor and problem-solving skills, attitudes and knowledge amongst students. He further indicated that the major constraints that impact on student learning are the lack of commitment to education by staff, poor inter staff relationships, and lack of opportunities for students to ask question. A positive role model and/or a supervisor with a positive attitude impacts positively on the student's perception of the clinical placement [7, 8]. Students look up to qualified members of staff for demeanour and professional conduct to which they can aspire and emulate [3]. It is not surprising that the student's satisfaction with the clinical placement is related to the quantity of interaction with their supervisors [9]. Some authors [8, 11] believe that the department or the clinical setting itself has a great influence on students' satisfaction while some authors [3,6,8] also reported that staff in the clinical setting also contributes to students' satisfaction. Other studies [3,7, 9,12] still have also revealed that the attitude of the supervisor also affects the students' satisfaction.

The clinical placement is a crucial time for student learning where students must face unfamiliar, real-world work experiences outside the protective walls of their academic institution [13]. According to Clare and Peter [14] clinical placement can be very challenging for students and some of these challenges emerge from the need to become familiar and

compliant with differing policies and regulations in the various clinical settings [15] while being asked to become the source of strength, guidance, and inspiration for patients recovering from a life-altering event [14]. Considering the challenges health professions students encounter during their clinical placement, it is therefore imperative to determine physiotherapy students' satisfaction on their clinical learning environment and supervision because of the dearth of such information. The aim of the study was to determine physiotherapy students and interns' satisfaction on their clinical learning environment and supervision.

## Materials and Methods

This cross-sectional study was conducted at the Department of physiotherapy, School of Biomedical and Allied Health Sciences, College of Health Sciences, University of Ghana and Physiotherapy Departments of four clinical sites accredited by the School. Participants for the study were second, third and final year (levels 200, 300 and 400) University of Ghana physiotherapy students who offered clinical placements at the selected sites. Level 200 students offered their placements for six continuous weeks at the end of the academic year at the same sites. A convenience sampling technique was used to recruit 85 participants comprising 28 level 200, 33 level 300 and 24 level 400 BSc physiotherapy students.

The Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale which does not appear to have been used for physiotherapy students before was adapted and used to obtain data from the participants. The Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale' is a validated research instrument, and can be used as a part of the total quality assessment of nurse education. The Cronbach's alpha values of the sub-dimensions of the scale ranged from 0.77 to 0.96. The test-retest on the adapted questionnaire was carried out with 12 physiotherapy students who did not take part in the final study. The calculated Chronbach's alpha for the adapted questionnaire was found to be 0.79. A data capturing form was designed and used to obtain demographic information such as the gender, age, level, nationality and

clinical site of participants at the time of the study.

The questionnaire is in three parts namely; the learning environment, the supervisory relationship and the role of the clinical teacher. The questionnaire is scored on a 5-point Likert scale as follows; one is 'Strongly Disagree', 2 is 'Disagree', 3 is 'Not Sure', 4 is 'Agree' and 5 assigned 'Strongly Agree'. The Clinical learning environment satisfaction index which measures participants' satisfaction with the clinical learning environment is classified according to the following score ranges: low (30-49 points), average (50-69 points) and high (70-85 points) satisfaction. The supervision satisfaction index which measures participants' satisfaction with the supervision is also classified according to the following score ranges: low (10-25 points), average (26-39 points) and high (40-50 points) satisfaction. The Composite satisfaction index, which measures participants' overall satisfaction with the general clinical learning environment and supervision, is classified with the following scores: low (40-85 points), average (86-130 points) and high (131-160 points) satisfaction.

Ninety-two (92) copies of the self-administered questionnaire which takes about 10 to 15 minutes to complete were distributed to the participants by the researchers at Korle-Bu Teaching Hospital, Greater Accra Regional Hospital, 37 Military Hospital and Volta Regional Hospital for them to complete at their earliest convenience. Copies of the questionnaire were retrieved over a period of 4 weeks in the second semester of the 2012/2013 academic year.

The data collected was entered onto Microsoft excel spreadsheet and analyzed using SPSS (version 20.0) to run basic descriptive statistics. Pearson's Chi-square was used to test for association between supervision and the clinical learning environment as well as for the association between respondent's overall satisfaction on the clinical learning environment and supervision. Significance level was set at 0.05.

Ethics approval was sought and obtain

ed (certificate number SAHS-ET./10276462/AA/26A/ 2012-2013) from the Ethics and Protocol Review Committee of the School of Biomedical and Allied Health Science. Permission was sought from the heads of department of physiotherapy of the School and the selected clinical sites where students and interns were recruited from. Written informed consent was obtained from the participants after they had been briefed about the study before the questionnaire was administered.

## Results

Of the 92 copies of the questionnaire distributed, 85 were completed and returned which shows a 92% response rate. Of the 85 participants, 40 (47%) were male and 45 (53%) female. The results showed that 75 (88.2%) of the participants were between the ages 18-22 years and 10 (11.8%) were between the ages 23-27 years. Majority, 33 (38.8%) of the participants who took part in this study were third year (level 300) physiotherapy students, followed by 28 (32.9%) second year (level 200) and 24 (28.2%) final year (level 400) students.

More than half 63 (74.1%) of the participants reported average level of satisfaction for the learning environment. Majority 68 (80%) of the participants also reported an average level of satisfaction with supervision received during clinical placement while only 3 (3.5%) indicated high satisfaction. Most 52 (61.2 %) of the participants also reported average overall level of satisfaction, with the clinical learning environment and supervision during clinical placement while less than half, 31 (36.5%) of the participants reported high satisfaction. Table 1 shows the distributions of participants' levels of satisfaction. Seventy-five (88.2%) participants agreed that the clinical staff was easily approachable while 58 (68.2%) participants agreed that there was a positive atmosphere in the clinics and 66 (77.6%) reported that the clinics can be regarded as a good learning environment as depicted in Table 2.

**Table 1: Satisfaction with the clinical learning environment and supervision**

| Satisfaction   | Frequency | Percent |
|--|-----------|---------|
| <b>Clinical learning environment</b>                 |           |         |
| Low satisfaction (30-49 points)                      | 5         | 5.9     |
| Average satisfaction (50-69 points)                  | 63        | 74.1    |
| High satisfaction (70-85 points)                     | 17        | 20.0    |
| <b>Supervision</b>                                   |           |         |
| Low satisfaction (10-25 points)                      | 14        | 16.5    |
| Average satisfaction (26-39 points)                  | 68        | 80.0    |
| High satisfaction (40-50 points)                     | 3         | 3.5     |
| <b>Clinical learning environment and supervision</b> |           |         |
| Low satisfaction (40-85 points)                      | 2         | 2.3     |
| average satisfaction (86-130 points)                 | 52        | 61.2    |
| High satisfaction (131-160 points)                   | 31        | 36.5    |

**Table 2: Pedagogical atmosphere**

| Pedagogical atmosphere  | strongly disagree<br>N (%) | disagree<br>N (%) | not sure<br>N (%) | Agree<br>N (%) | strongly agree<br>N (%) |
|---|----------------------------|-------------------|-------------------|----------------|-------------------------|
| The staff were easy to approach   | 2 (2.4)                    | 5 (5.9)           | 3 (3.5)           | 57 (67.1)      | 18 (21.2)               |
| I felt comfortable going to the department at the start of my shift     | 2 (2.4)                    | 7 (8.2)           | 13(15.3)          | 50 (61.0)      | 13(15.9)                |
| During staff meetings I felt comfortable taking part in the discussions | 7 (8.2)                    | 12 (14.1)         | 34 (40)           | 28 (32.9)      | 4(4.7)                  |
| There was a positive atmosphere in the department                       | 2 (2.4)                    | 10 (11.8)         | 15 (17.6)         | 49 (57.6)      | 9 (10.6)                |
| The staff were generally interested in the student supervision          | 5 (5.9)                    | 6 (7.1)           | 23 (27.1)         | 44 (51.8)      | 7 (8.2)                 |
| The staff learned to know the students by their personal names          | 3 (3.5)                    | 6 (7.1)           | 14 (16.5)         | 42 (49.4)      | 21 (24.7)               |
| There were sufficient, meaningful learning situation in the department  | 0 (0)                      | 6 (7.1)           | 18 (21.2)         | 53 (62.4)      | 8 (9.4)                 |
| The learning situations were multi-dimensional in terms of content      | 2 (2.4)                    | 10 (11.8)         | 22 (25.9)         | 44 (51.8)      | 7 (8.2)                 |
| The department can be regarded as a good learning environment           | 3 (3.5)                    | 6 (7.1)           | 10 (11.8)         | 54 (65.9)      | 12 (14.1)               |

More than half 56 (65.9%) of the participants agreed that the feedback from Heads of departments could easily be considered as a learning situation while 62 (72.9%) also agreed that the heads of departments were team members. Participants' responses concerning the leadership style of the Heads of departments is depicted in Table 3. Seventy-two (84.7%)

participants agreed that documentation (daily recording of procedures, treatment plans etc.) was clear and 48 (56.5%) agreed that there were no problems regarding information flow related to patients' care. Table 4 shows the frequency distribution of responses about physiotherapy care.

**Table 3: Leadership style of the Head of Department**

| Leadership style of the HoD  | Strongly disagree<br>N (%) | Disagree<br>N (%) | Not sure<br>N (%) | Agree<br>N (%) | Strongly agree<br>N (%) |
|--|----------------------------|-------------------|-------------------|----------------|-------------------------|
| The HoD regarded the staff in his/her department as a key resource       | 2(2.4)                     | 2(2.4)            | 13(15.3)          | 49(57.6)       | 19(22.4)                |
| The HoD was a team member  | 2(2.4)                     | 4 (4.7)           | 17 (20)           | 45 (52.9)      | 17 (20)                 |
| Feedback from the HoD could easily be considered as a learning situation | 3 (3.5)                    | 5 (5.9)           | 21 (24.7)         | 45 (52.9)      | 11 (12.9)               |
| The effort of individual employees was appreciated                       | 0 (0)                      | 6 (7.1)           | 20 (23.5)         | 50 (58.8)      | 9 (10.6)                |

Key: HoD - Head of Department

**Table 4: Physiotherapy care in the department**

| Physiotherapy care on the department  | Strongly disagree<br>N (%) | Disagree<br>N (%) | Not sure<br>N (%) | Agree<br>N (%) | Strongly agree<br>N (%) |
|---|----------------------------|-------------------|-------------------|----------------|-------------------------|
| The physiotherapy philosophy was clearly defined                              | 2 (2.4)                    | 9 (10.6)          | 17 (20)           | 44 (51.8)      | 13 (15.3)               |
| Patients received individual care   | 0 (0)                      | 4 (4.7)           | 9 (11)            | 56 (65.9)      | 16 (18.8)               |
| There were no problems in the information flow related to patients' care      | 2 (2.4)                    | 15 (17.6)         | 20 (23.5)         | 41 (48.2)      | 7 (8.2)                 |
| Documentation (treatment plans, daily recording of procedures etc.) was clear | 4 (4.7)                    | 6 (7.1)           | 3 (3.5)           | 55 (64.7)      | 17 (20)                 |

Majority, 55 (64.7%) participants' supervision varied according to shift, posting to various specialties and/or clinical site where they worked, 24 (28.2%) reported they had a group supervisor while two (2.4%) indicated a personal supervisor as shown on Table 5. Table 6 depicts the frequency of separate private unscheduled supervision meetings with the

supervisor. For content of supervisory relationship 68 (80%) participants agreed that their supervisor showed a positive attitude towards supervision during clinical placement as shown on Table 7. Most, 64 (75.3%) participants agreed that there was mutual interaction in the supervisory relationship.



**Table 5: Occurrence of supervision**

| Occurrence of supervision  | Frequency | Percent      |
|--|-----------|--------------|
| I did not have a supervisor at all   | 1         | 1.2          |
| The supervisor changed during the placement, even though no change had been planned                  | 3         | 3.5          |
| The supervisor varied according to shift or place of work  | 55        | 64.7         |
| Same supervisor had several students and was a group supervisor rather than an individual supervisor | 24        | 28.2         |
| A personal supervisor was named and our relationship worked during this placement.                   | 2         | 2.4          |
| <b>TOTAL</b>   | <b>85</b> | <b>100.0</b> |

**Table 6: Frequency of separate private unscheduled supervision with the su**

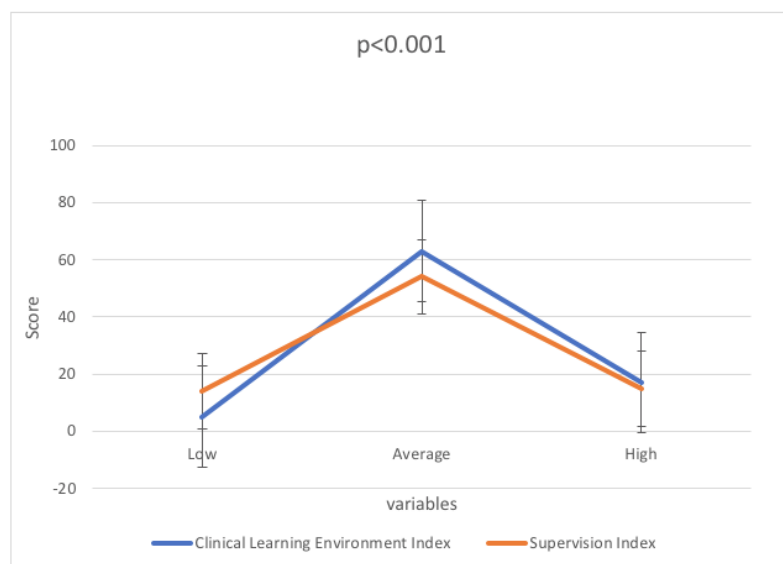
| How often did you have private unscheduled supervision with the supervisor | Frequency | Percent |
|--|-----------|---------|
| Not at all   | 49        | 57.6    |
| Once or twice during the course  | 8         | 9.4     |
| Less than once a week  | 6         | 7.1     |
| About once a week  | 10        | 11.8    |
| More Often   | 12        | 14.1    |
| Total  | 85        | 100.0   |

**Table 7: Content of supervisory relationship**

| Content of supervisory Relationship  | Strongly disagree N (%) | Disagree N (%) | Not sure N (%) | Agree N (%) | Strongly agree N (%) |
|--|-------------------------|----------------|----------------|-------------|----------------------|
| My supervisor showed a positive attitude towards supervision                         | 2(2.4)                  | 5 (5.9)        | 10 (11.8)      | 53 (62.4)   | 15 (17.6)            |
| I felt that I received individual supervision  | 5 (5.9)                 | 17 (20)        | 28 (32.9)      | 35 (41.2)   | 0 (0)                |
| I continuously received feedback from my supervisor                                  | 2 (2.4)                 | 13 (15.3)      | 19 (22.4)      | 45 (52.9)   | 6 (7.1)              |
| Overall, I am satisfied with the supervision I received                              | 2 (2.4)                 | 8 (9.4)        | 24 (28.2)      | 43 (50.6)   | 8 (9.4)              |
| The supervision was based on a relationship of the equality and promoted my learning | 2 (2.4)                 | 17 (20)        | 18 (21.2)      | 43 (50.6)   | 5 (5.9)              |
| There was a mutual interaction in the SR   | 2 (2.4)                 | 12 (14.1)      | 7 (8.2)        | 60 (73.2)   | 4 (4.9)              |
| Mutual respect and approval prevailed in the supervisory relationship                | 3 (3.5)                 | 8 (9.4)        | 20 (23.5)      | 49 (57.6)   | 5 (5.9)              |
| The supervisory relationship was characterized by a sense of trust                   | 0 (0)                   | 12 (14.1)      | 26 (30.6)      | 44 (51.2)   | 3 (3.5)              |

Figure 1 shows the summary of the association between respondents' satisfaction with the clinical learning environment and supervision. There was a significant association ( $p$ - value <

0.001) between participants' satisfaction with their clinical learning environment and supervision.

**Figure 1: Association between satisfaction with clinical learning environment and supervision.**

## Discussion

The results of this study reveal that the attitude of the staff at the physiotherapy departments at the various clinical sites contributed to the increased satisfaction since majority of participants generally agreed that the staff are

easy to approach and therefore felt comfortable going to the department. It was also shown that the staff was interested in student learning as reported by majority of the participants. The behaviour of the staff is an indication of good culture. The staff are workers of accredited facilities students visited during their placement,

which includes physiotherapists, nurses, receptionists, physiotherapist assistants and other health worker. Price and colleagues [10] reported that it was not always the diversity of opportunities available to the student that reinforced the perception of a quality placement, but rather the culture of the department. Participants indicated a positive atmosphere in the physiotherapy departments, which corroborates the findings of Rutherford-Hemming [6] who reported that the major constraints that impact on student learning are the lack of commitment to education by staff.

Most participants agreed that feedback by Heads of the physiotherapy department could easily be considered a learning situation, which suggests that heads of department should be key supervisors and as previously corroborated in reports by Schwind and colleagues [9]. Saarikoski [11] opined that the leadership style of the nursing profession's ward manager has been shown to dictate the environment that students perceive. Similarly, as shown in this study, majority of the students indicated a commendable leadership style of the heads of departments, which served as a source of motivation towards their learning [16]. Furthermore, majority of the respondents agreed that the clinical settings (individual care, information flow related to patients care, clearly defined physiotherapy philosophy and proper documentation) positively influenced their leaning process. Reports by Saarikoski [9] and Schwind et al. [11] alludes to this finding. Thus, the majority of the participants were generally satisfied with the clinical learning environments visited for their clinical placements.

More than half of the participants were under different supervisors due to the shift, posting to a particular specialty or clinical site, which determined the unit in which students practiced clinical skills and whether there was a group or individual supervisor. Schwind and Colleagues [11] revealed that students who have a successful one-on-one relationship with a supervisor, report more positively than students with multiple supervisors. Physiotherapy students who participated in this study were generally satisfied and gave positive indications about their relationship with their supervisors during clinical placements. The finding of this study buttresses reports by Saarikoski [9] who emphasized that a supervisor with a positive

attitude is a determining factor for students' perception about the clinical placement and makes positive role models.

This study showed a significant association between respondents' satisfaction with their clinical learning environment and satisfaction with supervision giving the indication that good supervisors make the clinical placement site a good one for training physiotherapy students. This finding is similar to those of Chuan and Barnett as well as Saarikoski and Leino-Kilpi [7 & 11] who showed that when the staff develops a sense of respect, mutual interaction and trust for the students, there is a positive perspective of that particular clinical site and placement. Papp and Colleagues [8] also stated that when supervisors regard students as junior colleagues in a clinical setting, the students regard that relationship as a good clinical learning environment.

Clinical learning environment and supervision is a significant component of clinical learning and learning outcomes. Student's experience greater satisfaction in a clinical setting when the physiotherapy philosophy is clearly defined, staff are welcoming and interested in student learning and supervision. They also experience satisfaction when the heads of departments are part of the team, appreciate the effort of each individual of the team and provide constructive feedback to the students while the supervisors serve as a positive role model with positive attitude and provide constructive feedback.

## Conclusion

This study shows that the clinical learning environment and supervision possess the aforementioned positive attributes and it is concluded that physiotherapy students are satisfied with the clinical learning environment and supervision in general. Further research may be carried out to ascertain the differences in level of satisfaction of physiotherapy students about the clinical learning environment and supervision in different clinical settings across the country.

## Declarations

### *Acknowledgement*

Special thanks go to the 2012/2013 batch of clinical year physiotherapy students, 2012 BSc Physiotherapy interns and Management of the School of Biomedical and Allied Health

Sciences for their participation and support.

### Disclosures

Funding Source: None

Conflict of interest: There is no conflict of interest to declare

### Author contributions

GN, EA and JQ contributed to the study design, collected and the analysed data. SK took part in data collection. JQ and SK sourced and reviewed relevant literature. GN, EA, JQ and SK wrote and also reviewed the manuscript for important intellectual content. GN, EA, JQ and SK revised the final draft version and approved the final version of the manuscript for submission.

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