

Factors Influencing Student's Satisfaction in the Physiotherapy Education Program

This article was published in the following Dove Press journal:
Advances in Medical Education and Practice

Melaku Hailu Temesgen¹
Yisak Girma²
Tamiru Dugo²
Getachew Azeze²
Mihret Dejen²
Melkamu Deres²
Balamurugan Janakiraman¹

¹Department of Physiotherapy, School of Medicine, College of Health Sciences, Mekelle University, Mekelle, Tigray, Ethiopia; ²Department of Physiotherapy, School of Medicine, College of Medicine and Health Sciences University of Gondar, Gondar, Ethiopia

Background: Despite the expansion of the physiotherapy program over the past decade in Ethiopia, there is modest knowledge of the extent of physiotherapy students' satisfaction. This study was conducted at the Department of physiotherapy, University of Gondar in Ethiopia.

Purpose: The objective of this study was to assess the satisfaction of students with the teaching and learning process and to identify the factors influencing course satisfaction amongst physiotherapy students. This questionnaire survey investigated the effects of demographic variables, perceptions of satisfaction, and education-related parameters on the level of student satisfaction with their educational experience.

Methods: An institutional-based cross-sectional study was conducted by recruiting entry-level physiotherapy students during 2018. Data were collected from a sample of 173 physiotherapy students using structured and validated self-administered Students Satisfaction Questionnaires. Logistic regression model was used to identify factors significantly associated with student satisfaction in the teaching and learning process.

Results: Out of 173 participants, most of them 112 (64.7%) were male and the majority of them (37%) were third-year students. The overall student satisfaction was 33.1% for all categories. Awareness about physiotherapy education before enrolling into the physiotherapy educational program (AOR 6.3, 95% CI: 2.2–17.8), year of study (AOR 0.12, 95% CI: 0.02–0.67) and availability of classroom furniture (AOR 0.05, 95% CI: 0.04–0.66) were statistically significant associated factors for student satisfaction.

Conclusion: The overall student's satisfaction on the learning and teaching process was low, in particular, the satisfaction for the clinical training is also below par, which is a major concern. Area of intervention and endorsements identified by this study was information about physiotherapy before joining the university, course duration, and availability of the classroom furniture. The efforts to raise physiotherapy student satisfaction in Ethiopia shall focus on creating awareness of the physiotherapy education program at the pre-college level and improving classroom facilities in the first place.

Keywords: teaching, learning, satisfaction, physiotherapy, student, Ethiopia

Background

Educational services that are provided by higher educational institutions are important service fields in any society and plays a unique role in societal development. Continuous evaluation of the educational process is one of the factors that assesses the success of higher education program.^{1,2} Besides, student satisfaction in a higher educational institution is as an indicator of institutional effectiveness.³

Understanding the factors that contribute to student satisfaction may lead to the improvement of educational inputs. The student's positive feelings and satisfaction

Correspondence: Melaku Hailu Temesgen
Department of Physiotherapy, College of Health Sciences, Mekelle University, P.O. Box: 1871, Mekelle, Ethiopia
Tel +251 915 86 20 23
Email physiomelaku2008@gmail.com

are associated with the student's academic and social experiences that are acquired at the learning institution.⁴⁻⁶ Student satisfaction is one of the major determinants for the success of the academic institution that helps to detect the areas that need improvement.^{4,7} In today's international educational market, higher education institutions must gain student satisfaction by analyzing the quality of service offered and provide sustainable high-quality educational service. Quality education is the main pillar of sustainable reasonable advantage.^{8,9}

How teaching becomes effective is the current point of discussion in the higher education community.¹⁰ Effective teaching aims at producing purposeful learning by creating a supportive learning environment, and continuous evaluation of the teaching and learning process helps to improve upon its effectiveness.^{10,11} The students' opinions and feedback are both rational and reliable sources of evidence to be an effective and efficient program in a University.^{3,7,12} Most of the prominent universities have a scheme of obtaining student's satisfaction surveys even after the completion of the program.¹³⁻¹⁵ However, University of Gondar as a pioneer of physiotherapy education in Ethiopia lacks in the evaluation of physiotherapy program.¹⁶

Universities' daily task is to increase the quality of their academic (teaching and learning process), research, and community services. At the same time, welfare services including suitable dormitories, libraries having adequate books, food services are the factors to create favorable conditions for students in order to make every effort to achieve their goals.^{7,17,18} Physiotherapy education emerged a decade ago in Ethiopia.¹⁶ To the best of the author's knowledge, there is a scarcity of empirical investigation and published reports about the teaching and learning process and influencing factors for students' satisfaction among physiotherapy students in Ethiopia. The findings of this study will have potential information to inform higher learning physiotherapy institutions about the factors that need to be addressed to improve the teaching and learning process. Therefore, this study was conducted to assess the satisfaction of the teaching and learning process and factors influencing satisfaction among physiotherapy students of the University of Gondar, Ethiopia.

Methods

Study Period, Design, and Setting

An institutional-based cross-sectional design was conducted from February to June 2018 at the University of

Gondar, College of Medicine and Health Sciences, Department of Physiotherapy. University of Gondar is a pioneer for physiotherapy education to train in a bachelor of degree in 2002. Since then more than 350 students have been graduated as physiotherapists from the university. Now it has undergraduate and postgraduate students with a full enrolment of four years and two years respectively.

Study Participants

All undergraduate (BSc) physiotherapy students at the University of Gondar were enrolled in the study. A total of 181 students were available at the Department of Physiotherapy, University of Gondar. Students, who had completed the registration in the physiotherapy course based upon the pre-requisite, signed the informed consent form, and physically able to mark the answers without any help were included in this study.

Data Collection Tool and Procedure

A self-administered questionnaire (N=36 items) was adopted from the University of Gondar learning and teaching satisfaction questionnaire¹⁹ and other related literature.^{15,20-22} In addition to that; socio-demographic variables, physiotherapy related information, and accessibility of compass facilities were also included in the questionnaire. The satisfaction questionnaire had five categories; teaching and learning strategies, evaluation methods of the students' performance, academic advising, evaluation of teacher and courses, and clinical training. Satisfaction was measured by a 5-point Likert scale (strongly disagree, disagree, neutral, agree, and strongly agree) and it was categorized into satisfied and dissatisfied by a summative scale. If the mean of one category was more than or equal to 3.4, it was leveled as satisfied, and if below 3.4 dis-satisfied.²³ The understanding and clarity of the items included in the questionnaire were tested in a higher education centre. After the pilot run, modifications were made to improve the understanding of the items identified to be difficult. Ethical approval was granted by the Ethical review committee, University of Gondar. A detailed orientation of the survey objectives, procedures, possible outcomes. And benefits were explained to the participants. This study was conducted in accordance with the Declaration of Helsinki.²⁴ The questionnaire was prepared in the English version and distributed to the students after the informed consent was signed. Data

were collected by the post-graduate interns of physiotherapy from the University of Gondar.

Data Analysis

Data were entered and analyzed using Statistical Package for Social Sciences software version 21.0 (SPSS Inc., IBM Corp, Chicago, USA) for Windows. Descriptive statistics were computed using frequencies, distribution among variables, and significant factors for student teaching and learning satisfaction in physiotherapy education. Then study finding was explained using texts and frequency tables. Logistic regression analysis was used to predict the significantly associated variables for student satisfaction. A p-value of less than 0.05 was considered as a significant variable. STROBE (STrengthening the Reporting of OBservational studies in Epidemiology) cross-sectional reporting guidelines were used to assess the paper components of the manuscript.²⁵

Results

Socio-Demographic Characteristics of Physiotherapy Students

A total of 173 students were convenient to participate in this study giving a 95.6% response rate. Out of which 112 (64.7%), were males. The majority of them 64 (37%) were third-year students. Almost half of them 87 (50.3%) had information about physiotherapy before joining university from friends, media, health institutions, and family. For more than half of the student's (57.8%), physiotherapy program was not their primary preference of choice during their enrollment in the first year (Table 1).

Student Satisfaction on the Learning and Teaching Process

The overall satisfaction of students for the learning and teaching process was found to be 33.1% (CI: 27.4–39.9). Nearly one-third of the students (32.1%), were satisfied with the teaching and learning strategies. Within this domain, the highest satisfaction point (36.4%) was for the item “I am always updated about new research done in the area of my specialization” and the highest point of dissatisfaction (78.8%) was for the “well-coordinated balanced teaching loads are given to me”.

The cumulative satisfaction for clinical practice was found to be 32.9%. Among this category, the participation of clinical expertise in clinical training has the highest satisfaction level (35.8%). More than one-third

Table 1 Socio-Demographic Characteristics of Undergraduate Physiotherapy Students at the University of Gondar, Ethiopia 2018 (N=173)

Variables	Female	Male	Total
Age (year)			
18–20	42 (68.9%)	36 (32.1%)	78 (45.1%)
>20	19 (31.1%)	76 (67.9%)	95 (54.9%)
Year of study			
First year	22 (36.1%)	24 (21.4%)	46 (26.6%)
Second year	15 (24.6%)	23 (20.5%)	38 (22.0%)
Third year	17 (27.9%)	47 (42.0%)	64 (37.0%)
Fourth year	7 (11.5%)	18 (16.1%)	25 (14.5%)
Distance from home to university			
1–400 kilo meter	19 (31.1%)	60 (53.6%)	79 (45.7%)
401–999 kilo meter	34 (55.7%)	35 (31.2%)	69 (39.9%)
≥ 1000 kilo meter	8 (13.1%)	17 (15.2%)	25 (14.5%)
Sponsor for education			
Self	3 (4.9%)	1 (0.9%)	4 (2.3%)
Government	58 (95.1%)	111 (99.1%)	169 (97.7%)
Information about physiotherapy before joining university			
Yes	37 (60.7%)	50 (44.6%)	87 (50.3%)
No	24 (39.3%)	62 (55.4%)	86 (49.7%)
If yes, Source of info to join physiotherapy			
Media	14 (23.0%)	18 (16.1%)	32 (18.5%)
Friend	10 (16.4%)	23 (20.5%)	33 (19.1%)
Family	4 (6.6%)	2 (1.8%)	6 (3.5%)
Health institution	9 (14.8%)	7 (6.2%)	16 (9.2%)
Was physiotherapy your primary preference			
Yes	24 (39.3%)	49 (43.8%)	73 (42.2%)
No	37 (60.7%)	63 (56.2%)	100 (57.8%)

of students (34.7%) reported being satisfied with a domain of evaluation methods of the students' performance. From this domain, 38.7% of students reported to be satisfied with “the methods of student assessment procedures”.

Among the categories, evaluation methods of the students' performance had the highest satisfaction (34.7%), whereas, teaching and learning strategies and evaluations of teachers and course had the lowest satisfaction. Detailed description for all categories and each item of satisfaction for the learning and teaching process is displayed in Table 2.

Table 2 Physiotherapy Students Satisfaction on the Teaching and Learning Process at the University of Gondar, Ethiopia 2018 (N=173)

Items	Satisfied	Dissatisfied
Satisfaction with the teaching and learning strategies (Category #1)	32.1%	67.9%
Adequate office hours provided by the teaching staff	30.6%	69.4%
The methods used to help me scientifically	30.1%	69.9%
I gained benefits from the scientific help of teaching staff	30.1%	69.9%
Well-coordinated and balance teaching loads are given to me	27.2%	78.8%
There are adequate and quality education tools in our program	30.6%	69.4%
The methods and strategies used in the education program are good enough	34.1%	65.9%
Various course are well coordinated to ensure equality among student	35.8%	64.2%
The faculty members are keen enough on the completion of the course curriculum	34.1%	65.9%
I am always updated about new research done in the area of my specialization	36.4%	63.9%
Satisfaction on the academic advising (Category #2)	34.4%	65.6%
I have a good communication with students, alumni and recruiters	43.9%	56.1%
I can get academic advise whenever I went	29.5%	70.5%
There is well informative and important orientation program for new Students	39.3%	60.7%
Adequate and helpful explanation are given about the requirements of courses at the beginning of the semester was helpful for the students.	36.4%	63.6%
The university guide contribute a lot to facilitate my work and function	28.9%	71.1%
The college guide contribute a lot to facilitate the work and function	30.1%	69.9%
The section guide contributes a lot to facilitate the work and function	34.7%	65.3%
The student guide contributes a lot for me by directing to deal with the university environment	37.0%	63.0%
Satisfaction on the evaluation of teachers and courses (Category #3)	32.1%	67.9%
Teaching assistance and lecture eligible to teach.	30.1%	69.9%
I can evaluate methods of teaches, teaching assistance and lecturers evaluation timely	34.7%	65.3%
I do have a role in the evaluation of scientific and practical training courses	34.7%	65.3%
The faculty member are using the potential as much as possible to improving the	40.5%	59.5%
Faculty member has good ability in the educational process	27.2%	72.8%
Adequate tools available to me to express the difficulties that I face with a faculty member	23.7%	76.3%
Faculty member have a positive sprit toward me	31.2%	68.8%
My faculty member have excellent in academic, practical and professional experiences	35.8%	64.2%
Satisfaction on the evaluation methods of the students' performance (Category #4)	34.7%	65.3%
Method of student assessment mechanism	38.7%	61.3%
I see effective results of the student assessment to the program	30.6%	69.4%
Mechanism of fraud control in the students' duties and tests	30.6%	69.4%
Test materials, methods of results review, and correction of answer sheet are good enough	38.7%	61.3%
Satisfaction on the clinical/practical training (Category #5)	32.9%	67.1%
Participation of clinical/practical expertise in clinical training.	35.8%	64.2%
Experience of the students in hospital clinical/practical training	32.9%	67.1%
Benefits gained by the students during hospital clinical/practical training	30.6%	69.4%
Mechanisms of preparation of the students for hospital clinical/practical training	32.4%	67.6%
Suitability of clinical/practical training situations for training goals	32.9%	67.1%
Benefits gained by the students from the supervisors in the clinical/practical training sites	32.5%	67.5%

Accessibility of Facilities for Students

Regarding the accessibility of facilities, more than half (58.4%) of the students were agreed with the accessibility of library service. Majority (60.1%) of them, reported that they disagree with the classroom furniture accessibility of the University (Table 3).

Factors Associated with Students' Satisfaction

In bivariate logistic regression analysis, student satisfaction was significantly associated with; years of study, information about physiotherapy before joining the university, accessibility of classroom furniture, distance from

Table 3 Facility Accessibility for Physiotherapy Students at the University of Gondar, Ethiopia 2018 (N=173)

Variables	Agree	Disagree
Rich and updated library services	58.4%	41.6%
Sufficient ICT services	48.6%	51.4%
Well-equipped classroom furniture	39.9%	60.1%
Sufficient recreational facilities	27.2%	72.8%
Adequate dormitory facilities	32.9%	67.1%
Adequate food-related service	19.1%	80.1%
Participating in a club in your campus (yes/no)	20.2%	79.8%

home to the university, accessibility of information communication technology (ICT) services, and accessibility of library services. However, in multivariate logistic regression analysis, students' satisfaction was significantly associated with years of study [AOR=0.12, 95% CI (0.02–0.67)], information about physiotherapy before

joining university [AOR= 6.25, 95% CI (2.19–17.79)], and accessibility of well-equipped classroom furniture [AOR= 0.05, 95% CI (0.04–0.66)] as displayed in Table 4.

Discussion

The study aimed to assess students' satisfaction in their learning and teaching process at the Physiotherapy Department, University of Gondar. The overall satisfaction for five categories of teaching and learning process was 33.1%, representing a low satisfaction for the students towards their learning and teaching process. In particular, the findings of this study also showed that the student's satisfaction for clinical training was 32.9, which is also a major concern. This is consistent with a study done in Ghana, which assessed the student's satisfaction with the quality of service offered by the public higher education institutions.²⁶ However, this result was lower than the

Table 4 Factors Associated with Satisfaction of Physiotherapy Students at the University of Gondar, Ethiopia 2018 (N=173)

Variables	Satisfaction		COR (95% CI)	AOR (95% CI)	p-value
	Satisfied	Not Satisfied			
Year of study					
First year	14	32	5.10 (1.34–19.41)	0.30 (0.05–1.73)	0.179
Second year	3	35	0.64 (0.29–1.43)	1.20 (0.18–8.23)	0.851
Third year	26	38	2.30 (0.67–7.94)	0.12 (0.02–0.67)	0.016*
Fourth year	4	21	I ref	I ref	
Distance from home to the university					
I–400km	25	54	1.99 (0.79–4.99)	1.76 (0.58–5.39)	0.319
400–999km	10	59	5.45 (1.94–15.28)	0.51 (0.13–2.09)	0.351
≥1000km	12	13	I ref	I ref	
Information about physiotherapy before joining university					
Yes	35	52	4.15 (1.97–8.75)	6.25 (2.19–17.79)	0.001*
No	12	74	I ref	I ref	
Rich and updated library service					
Disagree	13	59	4.74 (1.32–16.96)	1.57 (0.17–14.40)	0.690
Agree	34	67	I ref	I ref	
Sufficient information communication technology service					
Disagree	16	73	4.21 (1.31–13.51)	4.76 (0.53–42.59)	0.163
Agree	31	53	I ref	I ref	
Well-equipped class room furniture					
Disagree	19	85	2.22 (0.57–8.66)	0.05 (0.04–0.66)	0.023*
Agree	28	41	I ref	I ref	

Note: *p < 0.05 Significant.

Abbreviations: km, kilometer; AOR, adjusted odds ratio; CI, confidence interval; COR, crude odds ratio.

international students satisfaction²⁷ and physiotherapy students of Taif University, Saudi Arabia.²⁸ The possible reasons could be that physiotherapy education in Ethiopia is relatively new when compared to the other countries.¹² Lack of experienced faculty members and awareness about the program might have influenced these results. In this study, almost half of the students reported that they never knew about physiotherapy before joining the program.

In this study, students were dissatisfied with the teaching and learning strategies, with the evaluation of academic advising, evaluation of teachers and courses, and evaluation methods of the students' performance. In contrast, the study done in Brazil found that the students were satisfied with the evaluation of the course.¹² The reasonable explanation for students' satisfaction could be mediated by teacher skills, methods of effective knowledge-sharing quality, and experience. For instance, in Brazil, the qualification of the teaching staff was covered by a larger number of Masters and Ph.D. holders which might bring didactic and pedagogical innovations. At the same time, the lack of experienced clinical experts and particularly Ph.D. holders in the physiotherapy academic program in Ethiopia might be one of the reasons for most of the study participants not being satisfied with the teaching and learning strategy. Further, teacher's experience and qualifications are the strongest predictors of student satisfaction.^{4,29} Clinical programs like physiotherapy need clinical experts with vast experience and higher educational attainment like a Ph.D. as that brings a more clinical approach to the course. Besides being physiotherapists they should be trained in teaching and assessment. Further, the satisfaction of the higher education institution with the graduates is always good to know and reflects the quality of the course.

This study revealed that students who had information about physiotherapy before joining the university were six times more likely to be satisfied compared with those who had no information. Previous information about your future career is the most important thing for a major preference during department selection that makes a decision based on your interest. Student's satisfaction in their primarily preferred courses may have a positive attitude towards the careers emanating from their preferred courses of choice based on their aptitude during selecting the undergraduate program.³⁰ However, in this study physiotherapy was not their primary preference for more than half of the students during the selection of department. This could be due to the

way students joining their major profession which was based on the school grades, not their aptitude or interests and this is mostly the nature of higher education in Ethiopia. In line with this, majority of the Korean physiotherapy students those who selected their department based on their aptitude or interests reported higher satisfaction compared to those who did have interest.^{20,31}

In this study, students who were in their third year were 88% less likely to be satisfied compared with those who had studied in the fourth year. This finding is similar to the studies conducted in Saudi Arabia and Jordan, where the year of study in the physiotherapy program influenced the reported level of satisfaction among students.^{32,33} The possible reasons could be, due to increasing the sense of being a professional. It is believed that a sense of support for more patients that students deliver during their training will upgrade their self-reliance as a professional as they become more senior.³²

Students who had disagreed on the availability of well-equipped classroom furniture were 50% more likely not to be satisfied compared with those who were agreed students. Similarly, a case study in 2018, reporting "Student Satisfaction Regarding Service Quality at an Ethiopian Public Higher Education Institutions" revealed that the service quality was perceived by students to be very poor and this was reflected by their low satisfaction scores.³⁴ Conversely, majority of the students from Dire Dawa University were satisfied with the service that the university offers.³⁵ Generally, the availability of infrastructure facilities at university are an important and significant factor for student teaching and learning satisfaction.³⁶⁻³⁸

Limitation

It is plausible that some limitations might have influenced the results obtained. First, this is a snapshot study and may not show variations over time on the teaching and learning process and the level of students' satisfaction. Secondly, there were no comparison of the results of physiotherapy students with other students from similar facilities. Hence, the findings of this study may not suggest if the students are actually symptomatic of University satisfaction rather than physiotherapy profession-specific. Another possible source of limitation is satisfaction measuring tools may not be reliable across different countries and students.

Conclusion

In this study, the low overall student satisfaction and in particular for the clinical training is a major concern. The

main determinants contributing negatively to the students satisfaction are lack of information about physiotherapy before joining the University, year of study, and unavailability of the furniture in the classroom. The efforts to raise physiotherapy student satisfaction in Ethiopia the higher education institutions shall design initiatives to create awareness of the physiotherapy education program at the pre-college level and improve classroom facilities in the first place.

Abbreviations

AOR, Adjusted Odds Ratio; COR, Crude Odds Ratio; OR, Odd's Ratio; PT, Physiotherapy.

Data Sharing Statement

All data relevant to our findings are contained within the manuscript. The full dataset contains sensitive participant information. Requests for further details on the dataset and queries concerning data sharing shall be addressed to the corresponding author.

Ethics Approval and Consent to Participate

Ethical approval was granted by the Ethical Review Committee of the University of Gondar College of Health Sciences and written consent was obtained from all the participants.

Acknowledgments

We are grateful to the College of Medicine and Health Sciences, the University of Gondar for allowing doing this research. We would like to express our special thanks to all study participants for sparing their time during data collection, and the authors thank the Department of Physiotherapy, University of Gondar for providing us all the necessary information.

Author Contributions

All the authors made a significant contribution in the conception of the idea, proposal, study design, execution, acquisition of data, analysis, and interpretation, or in all these areas; took part in drafting, revising, or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Funding

There was no funding for this research.

Disclosure

Authors declare that they have no conflict of interest.

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