

Original Research Article

Satisfaction with teaching and learning quality among undergraduate pharmacy students in a Nigerian university

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ABSTRACT

Background: There is increasing acceptance that learning environment has significant impact on academic performance. Learning and teaching experiences influence satisfaction and perception of quality. Pharmacy education in Nigeria is evolving rapidly with new emphasis on acquisition of cognitive skills that upon graduation students can effectively implement pharmaceutical care. The evaluation of satisfaction can be used as a measure of quality and feedback system of teaching and learning experiences of students. The purpose of this study is to assess satisfaction with teaching and learning and their determinants.

Methods: This was a cross sectional survey study involving third to fifth year pharmacy students. The educational service quality instrument was used to elicit response on items related to satisfaction. The 37-item questionnaire was administered on consenting students to elicit responses on a five-point Likert scale. The data was analyzed using descriptive statistics and one way ANOVA with post Hoc test. Factor analysis using principal component analysis and varimax rotation was used to identify items that have the most impact on satisfaction. $P \leq 0.05$ was considered statistically significant

Results: Majority of students have less than average satisfaction across six domains of the instrument, though significant differences exist between lower and higher-level students in areas of administration and expertise ($p < 0.01$). Several studies reported contrasting results some of which have comparable results with this study. Satisfaction and its determinants vary widely so emphasis should be in areas that produce the greatest impact on academic performance

Conclusions: Satisfaction with quality of learning is generally low and there is need for institutions leadership to improve learning environment for students.

Keywords: Satisfaction, Quality, Teaching, Pharmacy students, Determinants, Environment

INTRODUCTION

In many institutions of higher learning there is an increasing acceptance that student satisfaction with quality of teaching and learning environment is an important component of the overall educational experience. This came from the realization that there is a direct relationship between satisfaction with quality of learning environment and academic achievement. There is also awareness that high quality teaching and learning environment is critical to sustenance of improvement in

student academic performance.¹ There are reports that the information from student satisfaction assessment has found the use in designing programs intended to sustain improvement in the quality of teaching as well as learning.² High level student satisfaction is reflected when there is positive perception of the quality of how well learning environment support their academic pursuit.³

It is generally understood that University administrators have reasonable level of control over physical

environment, facilities, staff performance and support services that contribute to satisfaction. While it is acknowledged that absence of basic services can make students unhappy, providing them does not necessarily result in satisfaction. A number of factors has been reported to cause dissatisfaction some of which include favourable learning environment, high work load, length of training, high cost, boredom etc.^{4,5} Other factors reported to have significant influence on perception of quality include opportunity for active participation in learning activities, counseling and advisory services, fair assessment and physical facilities etc.⁶⁻⁹

In spite of arguments about inherent difficulties, measurement of satisfaction has found application across service industry and education.¹⁰ Satisfaction therefore represents the overall education experience, interactions with staff members and services received in and out of classroom, feedback system facilities, staff competence as well as administrative and social support services. Satisfaction involves multiple components, so availability of proper infrastructure, good services and supportive learning environment may not necessarily improve student perceptions of quality.¹¹⁻¹⁴ It is therefore important that initiatives that improve quality and satisfaction should be based on regular assessment of multiple factors.¹⁵

The concept of satisfaction as a measure of quality is widely debated in literature and among the many widely used satisfaction instruments are SERVQUAL/SERVPERF.^{16,17} Their five dimensions of service quality have faced criticisms and intense debate in literature as to their applicability across different service industry. The criticisms arose out of valid concerns about how best to analyze scales that measure psychosocial constructs such as satisfaction and service quality. The first challenge is that if summed responses are used, significant information will be lost, if however, individual items are used for the analysis, interpreting results would be rather difficult because of the multiple co-linearity.

In an attempt to address this challenge some researchers proposed a three-dimensional model that is uniquely applicable in educational settings (Educational service quality-ESQ).¹⁸ This tool with its 37 items covers several components including facilities, interpersonal behavior, faculty expertise, faculty communication and administration. In many Nigerian pharmacy school's little attention is given to student satisfaction. Satisfaction with quality of learning will be valuable contribution to overall development of the pharmaceutical education in the country.

Objectives

Objectives of the study was to assess students' level of satisfaction with quality of teaching and learning experiences and its determinants

METHODS

Setting

The study was carried out among students in their third to fifth year of study in the faculty of pharmacy, university of Maiduguri, Nigeria

Study design

This was a cross sectional survey using educational service quality (ESQ) instrument developed by Holdford and Reiders 2001.

Sample size and sampling

A total of 205 students were involved in the study representing the entire population of students in third to fifth year of study in faculty of pharmacy.

Data collection

The 37-item questionnaire was self-administered during normal classroom interaction and retrieved on completion. The items consist of five-point Likert scale responses ranging from highly satisfied [1] satisfied [2], moderately satisfied [3], dissatisfied [4] and highly dissatisfied [5]. Respondents were requested to select the option that best reflect their level of agreement or disagreement with each statement in the questionnaire.

Data analysis

The data were coded and entered into SPSS 20 for descriptive and inferential statistics. Analysis was done using descriptive statistics and one way ANOVA with post Hoc test. Factor analysis was done using principal component analysis with varimax rotation. Keiser-Meyer-Olkin test of sampling adequacy was 0.646 and Bartlett's test of sphericity <0.001 which both indicated that sample size was adequate and also suitable for factor analysis. Items with factor loadings less than 0.4 were suppressed. $P \leq 0.05$ was considered statistically significant.

RESULTS

Majority of respondents were males accounting for about two third (61%) of student population. The mean age was 24.4 ± 2.8 years indicating that most of the students were relatively young (Figure 1).

Distribution of respondents according to year of study showed that a third of students (32.2%, 33.2% , 34.6%) were almost evenly spread across the third to fifth year of their program (Figure 2).

The overall satisfaction with faculty facilities averaged 44.5%. It was observed that third year students were more likely to be satisfied with facilities compared to students in higher levels of study (Table 1).

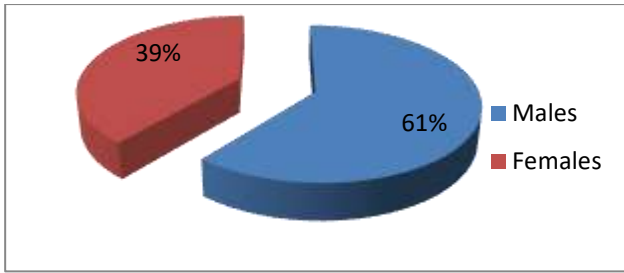


Figure 1: Demographic characteristics (n=205).

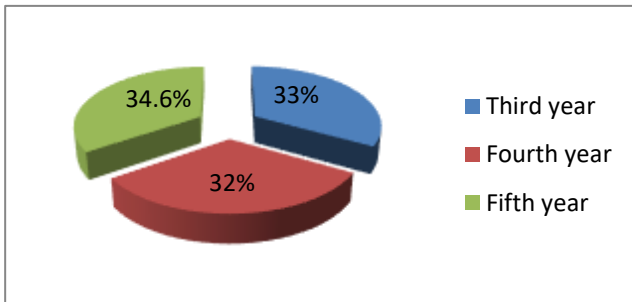


Figure 2: Distribution of respondents.

Satisfaction score with interpersonal relationships was low (42%) and there was no significant difference based on level of study (Table 2).

There appeared to be declining level of satisfaction with perception of faculty expertise with increasing years of study. Satisfaction level was significantly higher with third year students compared to higher levels of study as shown in the Table 3.

Satisfaction with communication was less than average, and third year students satisfaction appeared to be higher compared to higher level students (Table 4).

Overall satisfaction level of this domain was less than average and appeared to decline with years of study. There was significant difference in satisfaction level between third year students and higher levels of study (Table 5).

The level of satisfaction level for this domain was less than average and there is no significant difference between years of study.

Table 1: Influence of facilities on satisfaction.

F	Satisfaction (%)	300 L, mean (SD)	400 L, mean (SD)	500 L, mean (SD)	P value
There are modern teaching tools and equipment	0.743 40.5	2.69 (1.28)	2.27 (0.99)	2.42 (1.06)	0.104
Physical facilities are appealing and comfortable	0.811 33.7	2.74 (1.25)	2.11 (0.99)	2.31 (0.99)	0.003
Facilities are convenient and accessible	0.838 32.2	2.38 (1.13)	2.24 (1.09)	2.14 (0.91)	0.399
Information systems are adequate for my needs	0.784 47.2	2.68 (1.19)	2.58 (1.29)	2.69 (1.15)	0.836
I think ICT facilities are an important asset	0.473 50.1	1.74 (0.84)	1.74 (0.83)	1.82 (0.96)	0.832
Facilities are available for my use all the time	0.654 63.4	2.69 (1.29)	3.47 (1.37)	2.97 (1.22)	0.002
Average	44.5				

F=factor loading (Principal component analysis with varimax rotation).

Table 2: Influence of interpersonal relationships on satisfaction.

F	Satisfaction (%)	300 L, mean (SD)	400 L, mean (SD)	500 L, mean (SD)	P value
Staff members are friendly and approachable	0.809 39.0	2.12 (1.11)	2.44 (1.11)	2.46 (1.18)	0.141
My lecturers are ready and willing to help	0.741 34.6	2.09 (0.96)	2.21 (1.16)	2.51 (1.04)	0.067
They are available outside class hours	0.709 46.3	2.40 (1.22)	2.47 (1.18)	2.61 (1.09)	0.563
The staff keep their promises	0.805 45.9	2.38 (1.17)	2.70 (1.25)	2.66 (1.03)	0.221
The behavior of staff instill confidence	0.696 52.2	2.24 (1.29)	2.36 (1.17)	2.48 (1.13)	0.490
I see honesty in their dealings with me	0.808 47.8	2.38 (1.34)	2.71 (1.17)	2.52 (1.13)	0.292
I am treated with deserved respect	0.797 28.3	2.21 (1.23)	2.64 (1.33)	2.49 (1.27)	0.141
Average	42.0				

F=factor loading (Principal component analysis with varimax rotation).

Table 3: Influence of faculty expertise on satisfaction.

F	Satisfaction (%)		300 L, mean (SD)	400 L, mean (SD)	500 L, mean (SD)	P value
Lecturers have knowledge to answer questions	0.891	34.6	1.69 (0.88)	2.08 (0.88)	2.28 (1.11)	0.002
Staff are current with new developments	0.931	25.4	1.71 (0.91)	2.12 (0.90)	2.28 (1.16)	0.003
They show understanding on relevant topics	0.90	35.6	1.65 (1.01)	2.00 (0.89)	2.03 (1.03)	0.012
Average	31.9					

F=factor loading (Principal component analysis with varimax rotation).

Table 4: Influence of communication system on satisfaction.

F	Satisfaction (%)		300 L, mean (SD)	400 L, mean (SD)	500 L, mean (SD)	P value
There is consistency in grading and information	0.756	38.5	1.84 (1.03)	2.32 (1.02)	2.20 (1.15)	0.024
I receive explanations in ways I can understand	0.841	46.3	2.10 (1.17)	2.30 (1.02)	2.23 (1.02)	0.553
They have my best interest at heart	0.733	42.4	2.15 (1.27)	2.42 (1.04)	2.52 (1.63)	0.240
There is attempt to understand my needs	0.836	46.3	2.10 (1.19)	2.58 (0.99)	2.28 (1.17)	0.052
There is clarity of what is expected of me	0.824	50.2	2.15 (1.19)	2.33 (0.90)	2.21 (1.13)	0.601
There is adequate feedback on my performance	0.780	45.5	2.07 (1.33)	2.50 (1.15)	2.46 (1.24)	0.088
Average	44.9					

F=factor loading (Principal component analysis with varimax rotation).

Table 5: Influence of general administration on satisfaction.

F	Satisfaction (%)		300 L, mean (SD)	400 L, mean (SD)	500 L, mean (SD)	P value
There is sincerity/interest to solve student problems	0.811	48.3	2.04 (1.32)	2.73 (1.17)	2.48 (1.32)	0.008
Leadership is friendly and approachable	0.826	48.3	1.96 (1.29)	2.62 (1.16)	2.21 (1.27)	0.009
I feel they are dependable	0.803	51.7	2.04 (1.29)	2.71 (1.15)	2.34 (1.22)	0.008
I believe there are attempts to understand my needs	0.804	43.9	2.09 (1.36)	2.53 (1.09)	2.39 (1.26)	0.110
There is promptness of action to resolve problems	0.826	42.4	2.15 (1.36)	2.68 (1.24)	2.49 (1.26)	0.054
I see willingness to help me	0.903	42.4	2.01 (1.25)	2.53 (1.13)	2.28 (1.21)	0.047
I know they are honest with me	0.825	43.4	2.07 (1.24)	2.50 (1.14)	2.14 (1.13)	0.078
Their behavior instill confidence in me	0.868	46.3	2.13 (1.30)	2.56 (1.08)	2.28 (1.24)	0.120
They are sensitive to student confidentiality	0.825	41.0	2.00 (1.23)	2.50 (1.18)	2.23 (1.19)	0.058
I am kept informed of issues that concern me	0.789	39.5	2.04 (1.14)	2.53 (1.17)	2.32 (1.20)	0.056
They treat me with respect	0.770	56.6	1.81 (1.39)	2.27 (1.21)	2.20 (1.38)	0.097
They have knowledge to answer my questions	0.702	32.7	1.63 (1.17)	2.08 (0.93)	2.03 (1.19)	0.040
There is consideration of student opinions/concerns	0.762	31.2	2.12 (1.57)	2.67 (1.32)	2.34 (1.36)	0.082
Average	49.7					

F=factor loading (Principal component analysis with varimax rotation).

Table 6: Comparison of determinants of satisfaction.

F	Satisfaction (%)		300 L, mean (SD)	400 L, mean (SD)	500 L, mean (SD)	P value
I am satisfied with physical facilities	0.796	42.9	1.84 (1.32)	2.06 (1.11)	1.90 (1.12)	0.538
I am satisfied with the high-quality education	0.827	46.3	1.71 (1.17)	1.92 (0.98)	1.85 (1.08)	0.409
I am satisfied with the quality of teaching	0.858	30.7	1.87 (1.13)	2.33 (1.10)	2.11 (1.20)	0.087
I am satisfied with the extent of teaching	0.851	34.1	2.06 (1.38)	2.33 (1.01)	2.13 (1.16)	0.385
I am satisfied with library facilities	0.792	43.9	1.66 (1.11)	1.97 (0.93)	1.86 (1.03)	0.216
I am satisfied with my intellectual development	0.848	48.3	1.93 (1.26)	2.12 (1.06)	1.80 (0.94)	0.227
I am satisfied with the administration of faculty	0.807	41.6	2.04 (1.41)	2.33 (1.14)	1.97 (1.12)	0.198
I am satisfied with the curriculum of my program	0.808	34.7	2.18 (1.42)	2.35 (1.17)	2.23 (1.26)	0.672
Average		45.5				

F=factor loading (Principal component analysis with varimax rotation).

DISCUSSION

Satisfaction with quality of teaching and learning is an important component of overall educational experience. The facilities and support services provided for students by the institution are aimed at enhancing their quality of learning. The results of this study showed low to moderate level of satisfaction across all the domains evaluated similar to some previous studies.¹⁹⁻²¹ This result is in contrast to high level satisfaction earlier reported, where it was added that there is a strong relationship between satisfaction and academic performance.² Students with high level satisfaction were reported to have higher grades compared to those with low level of satisfaction. Pharmacy education is intensive with high work load, long hours of study and long duration of training, so organization of teaching and learning environment has the potential to influence satisfaction. The intellectual, physical, socioeconomic and psychological demands of training place enormous responsibilities on students, so teaching and learning environment should be as supportive as possible if satisfaction and positive academic outcomes is to be achieved.

While there was low level satisfaction with physical facilities; significant differences exist in between third- and fifth-year students with the latter expressing more dissatisfaction. Physical infrastructure has been reported to influence student satisfaction and the low level of satisfaction observed in this study is similar to several studies.^{10,19,23,24} There appear to be steady decline in the level of satisfaction as student's progress in their academic programs. This observation is consistent with studies which reported that older students tend to be less satisfied compared to fresh students. Students at higher levels of study have greater demands and expectations and are more likely to be dissatisfied with low quality facilities.²⁵⁻²⁷ In addition older students' expectations and

perceptions have evolved through experiences and therefore more likely to express their views on satisfaction; though this view was disputed.^{28,29}

Satisfaction with academic and administrative interpersonal relationships was also low. Students expect cordial, friendly, and approachable relationship with faculty staff, so where such relationship is strained, ineffective or difficult, dissatisfaction is highly probable. Some studies noted that out of classroom interaction with staff can have positive influence on academic outcomes and increase levels of satisfaction.³⁰⁻³² There appear to be no significant differences between the various levels of study with regards to staff student interactions. Majority of fifth year students have low satisfaction with faculty expertise compared with third- and fourth-year students. This observation was consistent across other domains where higher-level students expressed lower satisfaction due to poor quality learning experience.³³ The probable reason here may be related to ineffectiveness of teaching methods and absence of student feedback which often leads to frustration and dissatisfaction.

In the aspect of communication and administration, satisfaction was low to moderate similar to previous studies.^{34,35} Open channels of communication within the faculty that allows staff to show interest and willingness to help support students' academic should be encouraged effort. It is also important that information from such interaction provides valuable feedback on student performance and how best to respond to their challenges in a timely way. It could also be related to deficiencies in availability of services and/or challenges with quality-of-service delivery. Modern day administration must lay emphasis on understanding the unique needs and problems of students, develop relevant and effective communication as well as support systems that deliver services timely. Where these elements are either missing

or are not being delivered optimally, there is likelihood of frustration and dissatisfaction.

CONCLUSION

The overall level of satisfaction of students is low to moderate and it tended to decline with higher levels of study. There is need for faculty authorities to consider changes to management systems to make it more acceptable and conducive for students.

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