

Original Article

Identification of Factors Affecting the Satisfaction of Students with Public Sector Medical Colleges: A Survey Based Study

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ABSTRACT

Background: This study explores the factors influencing student satisfaction in public sector medical colleges, emphasizing the impact of various educational aspects on the overall experience of students.

Objective: To examine the determinants of student satisfaction in public sector medical colleges, with a focus on infrastructure, quality of instructional materials, and clinical and practical training exposure.

Methods: A survey-based primary data collection was utilized, with a sample size of 100 students from public sector medical colleges. The survey included questions targeting different aspects of the educational experience. Statistical analysis was performed to assess the correlation and regression among the variables.

Results: The correlation analysis showed a significant relationship between all examined variables and student satisfaction. Infrastructure and facilities emerged as the most influential factors, with a Pearson correlation coefficient of 0.957 ($p < 0.001$). Student satisfaction with practical training and clinical exposure had a correlation of 0.608 ($p < 0.001$), and the quality of teaching and learning materials was correlated at 0.475 ($p < 0.001$). The regression analysis yielded an R-squared value of 0.917, indicating a strong positive correlation between these factors and student satisfaction.

Conclusion: The study concludes that while several factors contribute to student satisfaction in public sector medical colleges, infrastructure and facilities, along with quality instructional materials and clinical exposure, are key drivers. Enhancing these areas could lead to a more positive educational experience for students.

Keywords: Clinical Training, Educational Satisfaction, Infrastructure, Instructional Materials, Medical Education, Public Sector, Student Satisfaction.

INTRODUCTION

The globalization of higher education has increased competition among universities to enhance their teaching systems. Pakistan, a third-world country, is also experiencing pressure to improve its educational system, which is considered average (1). The country allocates a nominal budget to education due to resource and economic challenges. However, actions to improve the curriculum based on international standards have been taken for medical education. Strategies related to the enhancement of the teaching system, assessment, and evaluation have been developed to produce high-quality medical graduates. Still, further improvements are necessary to enhance the teaching system (2-3). Therefore, quality improvement, in line with international standards, remains a key area for development in Pakistan.

Consideration of multiple stakeholders, such as teachers, alumni, society, and students, is essential to increase the quality of medical educational institutions. However, students, being the primary customers of these institutions, must be the focus of satisfaction efforts. This is crucial because students are the direct beneficiaries, and adapting the curriculum to meet their needs is important for providing high-quality education (4). A clear channel between students and the university is necessary to address suggestions, complaints, and to increase support and technical services for students. This is crucial as it pinpoints the areas needing improvement to enhance student satisfaction (5). Hence, considering student satisfaction is vital for improving the educational system in Pakistan.

Although previous studies have focused on student satisfaction with the educational system, they have not specifically concentrated on Pakistan's educational institutions. In the USA, a Graduate Exit Questionnaire (GEQ) was conducted to assess routine medical educational practices by gathering feedback from students. This survey aided in the revision of the curriculum and quality assurance, assessing the advantages and areas needing improvement from the student survey (6). Another study focused on Iraqi student satisfaction using the GEQ questionnaire for quality improvement in educational institutions (7). However, there is a lack of studies focused on the satisfaction of medical students in Pakistan. Therefore, this research aims to identify the factors influencing the satisfaction of students in medical colleges. The first objective of the study is to review the factors affecting students' satisfaction with college education. The second objective is to investigate the factors influencing the satisfaction of students in Pakistan's public sector medical colleges. The final objective is to recommend strategies to enhance the educational system based on students' perspectives. This research is significant in highlighting the main factors influencing student satisfaction and is important for improving the quality of Pakistan's educational system.

Educational Service Quality and Student satisfaction

Student satisfaction is the main focus of this research, aiming to increase the service quality of educational institutions. Student satisfaction depends on the academic experience, which involves interaction with faculty members, students' learning experiences, course design, administrative services, staff behavior, advisory support, social environment, and facilities related to academics and extracurricular activities (8). Considering the holistic learning experience of students is necessary to improve the educational environment, specifically curriculum design based on evolving technology and challenges. This results in highlighting the satisfaction level of students and the fulfillment of society's needs (9). Hence, understanding the concept of student satisfaction is essential for educational service quality.

Factors affecting student satisfaction

Gratitude on the part of students is a fleeting emotion stemming from assessments of their educational experiences. Various elements impact the multi-dimensional process of student satisfaction. Key determinants of student satisfaction include the caliber of lecturers, the quality of physical facilities, and the effective use of technology (10). "One of the primary objectives of all educational institutions is to ensure that students are satisfied with their experiences. In today's world, colleges offer education as a service. College services directly benefit students (11). Colleges and their management are now confronted with the pressing issue of student satisfaction. Increasingly focusing on students, their views on the services provided by higher education institutions are crucial. Meeting the expectations and needs of students is becoming more important to higher education institutions (12). Researchers have also demonstrated that the services offered by a college impact the level of satisfaction felt by students.

Quality of education

According to researchers (13), students at public medical schools are dissatisfied with the quality of their education and the resources available to them. To better prepare students for their future careers, there have been calls for more career planning sessions and a stronger focus on improving classroom instruction and hands-on experience. Several factors impact students' levels of satisfaction with the academic programs and campus life of public sector medical institutions (14). The standard of education is a crucial consideration. Course content, instructional strategies, and staff knowledge and experience significantly impact students' perspectives.

Effective resources

Students are more likely to be satisfied when they find the instructional material interesting, useful, and presented effectively. Resource availability is another important factor. A conducive learning atmosphere is greatly enhanced by sufficient infrastructure, fully-stocked laboratories, an extensive library, and state-of-the-art technology (12). Having these resources available to students improves their academic experience and contributes to their satisfaction with the institution. Additionally, the efficiency of administrative and support services greatly impacts student satisfaction. A positive experience is enhanced by prompt communication, efficient management of administrative tasks, and a helpful staff (15). Conversely, bureaucratic hurdles and unresponsive administrative practices can lead to student frustration and dissatisfaction.

Recommendations for medical colleges and literature gap

While there is extensive research on what contributes to overall student satisfaction, there may be less investigation into how cultural or geographical differences affect it. Research should consider the distinct cultural settings of various public sector medical colleges to better understand the opportunities and threats faced by specific regions (16). With technological advancements, more medical schools are using digital resources to supplement their curricula. There is possibly a lack of research examining the positive and negative ways in which technology affects student satisfaction. Aspects such as healthcare, virtual simulations, and online learning platforms could fall under this category (17). There is also a gap in understanding the correlation between student satisfaction and post-graduation outcomes, as most studies focus on student satisfaction at the present time. Researchers could survey alumni to

learn how their college experiences affected their professional lives and long-term satisfaction. By addressing these gaps, a better understanding of what satisfies students in public sector medical colleges can be achieved, leading to improved policies and practices that benefit current and future medical students.

MATERIAL AND METHODS

In this research, primary data collection was performed. The use of this technique in this study is justified and offers various benefits (18). Gathering primary data enables researchers to tailor the survey to the intricacies of their study objectives. This approach ensures that the research aligns with the specifics of public sector medical schools and captures all the nuances of variables that can affect students' satisfaction. Primary data collection allows for direct interaction with the target population, providing a deeper understanding of their experiences (19). It has been demonstrated that researchers can gain significant insights into students' perceptions of educational quality, faculty interactions, and overall campus climate by exploring their subjective perspectives through surveys.

The research instrument in this study was a survey, consisting solely of close-ended questions. The survey was distributed among the target population, which were students from public sector medical colleges. The sample size for this research was set at 100. The survey was distributed online among the students to facilitate easy participation. In most cases, conducting surveys online is more cost-effective than traditional methods. There are no expenses for printing, mailing, or manually entering data. Researchers can disseminate their surveys to a broad audience at little or no cost. Online surveys also provide access to a diverse and geographically dispersed audience (20). Studies that collect data from individuals in different parts of the world can greatly benefit from this global reach.

RESULTS

Summarizing the pattern of variation within a dataset, frequency distribution tabulates the count or frequency of each unique value or range of values. It serves as a statistical representation. Essentially, it offers a systematic approach to organizing and displaying raw data, which facilitates the identification of trends, patterns, and distributional characteristics (16). The results of the survey revealed that out of 100 participants, 24 were male and 76 were female, indicating that the majority of the respondents were female.

Gender

	Frequency	Percent
Male	24	24.0
Female	76	76.0
Total	100	100.0

Regarding the age of participants, it was evaluated that 7% of students were smaller than 18, 50% fell between the age range of 18-21, and while rest were more than 21.

Age

	Frequency	Percent
<18	7	7.0
18-21	50	50.0
>21	43	43.0
Total	100	100.0

Correlation analysis

To determine how closely two variables are linearly related, statisticians use the Pearson correlation coefficient. This coefficient can range from -1 to 1, where 0 indicates no correlation, 1 indicates a strong positive correlation, and -1 indicates a strong negative correlation. According to the correlation study, all four variables are highly correlated with each other. The most significant relationship is between student satisfaction and the quality of amenities and infrastructure ($r = 0.957$, $p < 0.001$). This suggests that students are more likely to have a positive overall experience if they are satisfied with the infrastructure and amenities of their medical institution. The second most significant relationship is between students' satisfaction and their practical training and clinical exposure ($r = 0.608$, $p < 0.001$), indicating that high-quality clinical exposure and practical training are likely to enhance overall satisfaction with the college experience. There is also a substantial link between student satisfaction and the quality of teaching and learning materials ($r = 0.475$, $p < 0.001$). This implies that satisfaction with available resources for learning and instruction throughout medical school is likely to contribute to a positive overall experience.

Correlations				
		Quality of teaching and learning resources	Practical training and clinical exposure	Facilities and infrastructure.
Quality of teaching and learning resources	Pearson Correlation	1	.241*	.507**
	Sig. (2-tailed)		.016	.000
Practical training and clinical exposure	Pearson Correlation	.241*	1	.654**
	Sig. (2-tailed)	.016		.000
Facilities and infrastructure.	Pearson Correlation	.507**	.654**	1
	Sig. (2-tailed)	.000	.000	
Satisfaction of students with public sector medical colleges	Pearson Correlation	.475**	.608**	.957**
	Sig. (2-tailed)	.000	.000	.000

Regression analysis

An indicator of a model's fit to the data is the R-squared value. An R-squared value of 1 implies a perfect fit, while 0 indicates no fit at all. In this case, the very strong positive correlation is indicated by the R-squared value of 0.917. This suggests that the model successfully accounts for a significant portion of the variance in the dependent variable, student learning outcomes, using independent variables such as clinical exposure, practical training, and the quality of teaching and learning materials. The model's fit to the data can also be evaluated using the adjusted R-squared value, which takes into account the number of independent variables in the model. Here, the adjusted R-squared value is also very high at 0.917. The standard error of the estimate, a measure of the variability in the model's predictions, enhances the accuracy of the predictions when reduced. In this case, the standard error of the estimate is 292.54. The regression results demonstrate a positive correlation between high-quality instructional materials, hands-on experience, clinical rotations, and students' final grades. Therefore, improving these aspects is likely to result in enhanced student education.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.957 ^a	.917	.914	.29254

a. Predictors: (Constant), Facilities and infrastructure., Quality of teaching and learning resources, Practical training and clinical exposure.

ANOVA

Analysis of variance (ANOVA) uses a comparison of treatment means to the overall mean of the dependent variable to find statistical significance between groups created by the levels of the independent variable. In this study, the results of ANOVA indicated a statistically significant difference when examining the means of the dependent variable across different values of the independent variable. With a p-value of 0.000, which is lower than the significance level ($\alpha = 0.05$), and an F-statistic of 352.530, considerably higher than the critical value ($F(3, 96) = 2.71$), the value being less than 0.05 signifies that the model is significant.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	90.508	3	30.169	352.530	.000 ^b
	Residual	8.216	96	.086		
	Total	98.723	99			

a. Dependent Variable: Satisfaction of students with public sector medical colleges.

b. Predictors: (Constant), Facilities and infrastructure, Quality of teaching and learning resources, Practical training and clinical exposure.

Coefficients					
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	-.109	.091		-1.206	.231
	Quality of teaching and learning resources	-.033	.062	-.018	-.531	.596
	Practical training and clinical exposure	-.041	.049	-.033	-.846	.400
	Facilities and infrastructure.	.995	.045	.988	22.326	.000

The value of coefficients have been shown in the table above. The sig values of each variable has been presented. It can be seen that the value of the variable “facilities and infrastructure” is less than 0.05, which means that it has a significant impact. Furthermore, rest of the variables have insignificant values.

DISCUSSION

Thus, it has been determined that various factors significantly impact student satisfaction with public sector medical institutions, as indicated by the results of the correlation study. However, infrastructure and amenities appear to be the critical factors. Facilities and infrastructure have a significant and positive effect on the satisfaction of students in medical colleges, with a significance value of less than 0.05. Students are more likely to have a positive overall experience if they are satisfied with the infrastructure and facilities of their medical institution. Nonetheless, even among students who are content with the institution's physical environment, there is a broad spectrum of satisfaction (20).

Student satisfaction is likely influenced by more than just the course content. This includes the quality of course materials, the extent of hands-on experience students receive in the classroom and clinical rotations, and the rapport between students and teachers. This study suggests that medical colleges offering degrees in medicine should prioritize the maintenance and improvement of their physical infrastructure to enhance overall student satisfaction. Additionally, it is also necessary to focus on other aspects such as high-quality learning materials, extensive hands-on experience, and strong student-teacher relationships to make learning more comprehensive and engaging for students.

CONCLUSION

To conclude, the aim of this research was to examine the factors affecting the satisfaction of students with public sector medical colleges. Primary data collection, specifically through a survey, was conducted in this research. The responses of students were collected and analyzed. The study evaluated the variables and their impact on student satisfaction, which included the quality of teaching and learning resources, practical training and clinical exposure, as well as facilities and infrastructure. This research on student satisfaction in public sector medical colleges has illuminated the complex forces shaping students' educational experiences. An in-depth understanding of the various factors influencing student satisfaction was achieved through primary data collection, particularly online questionnaires. The study found that various factors influence student satisfaction, with facilities and infrastructure having a positive impact. With this knowledge, public sector medical institutions can make more informed decisions and implement effective interventions to enhance student satisfaction. By identifying the factors contributing to student dissatisfaction, administrators, policymakers, and educators can collaborate to implement targeted solutions. It is crucial to acknowledge the limitations of this research, such as the potential for response bias and the inherent subjectivity of self-reported data, even though it provides valuable insights. Future research could focus on specific areas such as cultural differences, integration of technology, and long-term outcomes post-graduation to further understand the complex dynamics surrounding student satisfaction at public sector medical institutions.

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