

# Socioeconomic Status: A Lethal Weapon in Deteriorating the Satisfaction Level Attributed to Thalassemia Management in Pakistan

Muhammad Mohsin Javaid<sup>1</sup>, Israr Ahmad<sup>2</sup>, Emaan Mansoor<sup>3</sup>, Syed Inayat Ali<sup>4</sup>, Saima Bairam<sup>5</sup>, Muhammad Umair<sup>6</sup>, Afsheen Mansoor<sup>7</sup>, Muhammad Farooq Umer<sup>8</sup>

<sup>1</sup>Demonstrator, Community Dentistry, School of Dentistry/SZABMU Islamabad

<sup>2</sup>Assistant Professor Orthopaedic Surgery, Multan Medical College, Multan

<sup>3</sup>Islamic International Dental College, Riphah International University, Islamabad

<sup>4</sup>Professor, Department of Anatomy, Baqai Medical University, Karachi

<sup>5</sup>Assistant Professor, Community Medicine Department, Bahria University College of Medicine, Islamabad

<sup>6</sup>Deputy Director, Provincial Health Directorate, Quetta

<sup>7</sup>Associate Professor, Science of Dental Materials, School of Dentistry, SZABMU, Islamabad

<sup>8</sup>Department of Preventive Dentistry, College of Dentistry, King Faisal University, KSA

## Author's Contribution

<sup>1</sup>Methodology, <sup>2</sup>Wrote Discussion,

<sup>3</sup>Wrote Introduction, <sup>4</sup>Study idea,

<sup>5</sup>Analysis, <sup>6</sup>Data collection

<sup>7</sup>Drafting, <sup>8</sup>wrote introduction

Funding Source: None

Conflict of Interest: None

Received: Sept 25, 2024

Accepted: Nov 21, 2024

## Address of Correspondent

Dr Muhammad Farooq Umer

Department of Preventive

Dentistry, College of Dentistry,

King Faisal University, KSA

rafoooq@hotmail.com

## ABSTRACT

**Objective:** To investigate the association between the sociodemographic status and patient satisfaction level with reference to thalassemia management involving tertiary public sectors of Pakistan.

**Methodology:** This cross-sectional study was conducted from July-Sept 2020, at Bolan Medical Hospital (BMCH) & Sandeman Provincial Hospital (SPH) Quetta. Systematic-random sampling was done to gather data through preformed structured questionnaire. Ethical consideration was acquired before the research. Participants who don't have hearing or talking issues, without mental confusion or any systemic illness, were part of this research. The satisfaction scale was a 5-item Likert-type. A higher score indicates a higher degree of satisfaction from the respondent.

**Results:** A total of 100 participants were included in this study. Regarding earning family members, 81% of the respondents have only 1 earning member. More than half (58%) of the fathers of the children were laborers by occupation. Chi square test revealed statistical insignificant relationship of occupation of earning members of family, area of living with level of satisfaction among participants, where p-values were 0.133 and 0.456 respectively. Chi square test showed statistically significant relationship between quality of life and level of satisfaction among participants, where p-value was 0.028.

**Conclusion:** The present study concluded low satisfaction level among the Pakistani population with reference to the management of the thalassemic major patients in the public sector because of their declined socioeconomic status. Their monthly income could have played a major role in availing the facilities from the public sector that deals with the mass population.

**Key words:** Level of satisfaction, sociodemographics, socioeconomic status, thalassemia

Cite this article as: Javaid MM, Ahmad I, Mansoor E, Ali SI, Bairam S, Umair M, Mansoor A, Umer MF. Socioeconomic Status: A Lethal Weapon in Deteriorating the Satisfaction Level Attributed to Thalassemia Management in Pakistan. *Ann Pak Inst Med Sci.* 2025; 20(4):795-799. doi. 10.48036/apims.v20i4.1207.

## Introduction

The socio-economic status and Demographic factors have been playing a dominant role in providing the high quality of health. The population of developing countries like Pakistan have low income which is the major problem that declines the patient satisfaction level especially in these regions. The satisfaction level of patients has been referred as their beliefs and attitude

expression attributed to the health care services especially in the public sectors. The number of factors have been responsible in upgrading the patient satisfaction level towards the specific medical treatment such as: expectation level, service experience, cognitive and emotional response associated with the health care system selected for the patients. Thus, interaction between revived actual care perception and expectation of a patient basically displays true emotional reaction and

cognitive behavior of that individual regarding the satisfaction level of that treatment which can be taken as a subjective evaluation as well.<sup>1</sup> This satisfaction level parameter has become quite an essential component because it is based on the personal experiences and emotional attributes of the patients that need to be addressed in a proper manner for the advancements in the public health delivery systems.

Currently, the quality of care provided at the health care system is totally dependent on the Patient satisfaction confirming that it's a key indicator.<sup>2,3</sup> This is a convenient method of providing patient centered care that could pose success in the provision of appropriate treatment in the public sector hospitals. The dissatisfaction of any patient towards the health-care service results in the worst outcomes of the treatment including leaving hospital without doctors' advice, non-adherence to treatment plan, and increased chance of missing appointment.<sup>4</sup> According to a study, about 1/3 of patients are not satisfied with the services being offered from various public health care sectors.<sup>5</sup>

Apart from socio-economic factors, other components associated with the patient's satisfaction level regarding health-care delivery incorporate the personal and facility oriented preferences. The certain personal features allow the old age, high education, previous hospital visit/admission, negative attitude and magnified expectation towards hospital-service whereas hospital oriented characteristics like the environment, location, patient staff ratio, size, and communication skills of the health care workers might shape patient's satisfaction level on the greater extent.<sup>6-8</sup> Collectively, these factors might be responsible for the declined patient's satisfaction level with respect to public health care delivery systems.<sup>9,10</sup> Still, there is lack of evidence concerning the patient's satisfaction level and associated factors in the public sector of a low income country like Pakistan where managing the un-curable diseases like thalassemia is a challenge. Thus, the main objective of the current study was to investigate the association between the sociodemographic status and patient satisfaction level with reference to thalassemia management involving tertiary public sectors of Pakistan.

## Methodology

This was a cross-sectional research of about 03 months (July-Sept 2020) duration, which was carried-out at Bolan Medical Hospital (BMCH) & Sandeman Provincial

Hospital (SPH) Quetta. Sample size of 100 was estimated. Systematic-random sampling was done to gather data through preformed structured questionnaire. Ethical consideration was acquired from IRB of HSA and participants before the research. Participants who don't have hearing or talking issues, without mental confusion or any systemic illness, were part of this research. While exclusion criteria were those parents who had haemoglobinopathies or problems/issues other than malnourishment. The satisfaction scale was a 5-item Likert-type. Responses were scored as follows: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. A higher score indicates a higher degree of satisfaction from the respondent [<sup>11,12</sup>]. Questionnaire was alienated into numerous portions; First part having parents' & patient's demographic data, 2<sup>nd</sup> section evaluating financial burden on entire family by questioning about ailment expenditure, parent's earning & occupations, and last part level of satisfaction evaluated by support of friends, family & health services. Chi square test was applied, keeping p-value of < 0.05 as significant. Descriptive statistics I.e. percentages & frequencies were also calculated and results were presented in form of tabulation.

## Results

A total of 100 participants were included in this study. Regarding earning family members, 81% of the respondents have only 1 earning member at their home where as 17% of the respondents having 2 to 4 earning members in their home. More than half (58%) of the fathers of the children were laborers by occupation, 25% were government servants, 15% of them were shopkeepers, and 2% of them were guards. Socio demographic characteristics of study population are shown in table I.

Chi square test revealed statistical insignificant relationship between number of earning members of family and level of satisfaction, where p-value was 0.072. Similarly, chi square test revealed statistical insignificant relationship of occupation of earning members of family, area of living with level of satisfaction among participants, where p-values were 0.133 and 0.456 respectively. As depicted in table II.

Chi square test was applied, which showed statistical significant relationship between quality of life and level of satisfaction among participants, where p-value was 0.028. Cross tabulation of quality of life with level of satisfaction is shown in table III.

**Table I: Socio demographic characteristics of the study population having thalassemia major.**

Number of earning members of family	(N)
1	81
2 –4	17
5 –6	2
Occupation of earning members of family	
Laborer	58
shopkeeper	15
Government servant	25
Guard	2
Area of living	
Urban	72
Rural	28

**Table II: Association between the earning members, their occupation and residential area with reference to the satisfaction level among the thalassemic major patients.**

Variables	Satisfied %	Dissatisfied %	P-value
Number of earning members of family			
1	51.9	48.1	0.072
2	87.5	12.5	
3	80	20	
4	100		
Occupation of earning members of family			
Labor	56.9	43.1	0.133
Shop keeper	46.7	53.3	
Government servant	72	28	
Guard	0	100	
Residential Area			
Urban	56.9	43.1	0.456
Rural	60.7	39.3	

**Table III: Relationship between the Income Oriented Quality of Life and Satisfaction Level among thalassemic major patients vising a Public Sector hospital.**

Variables	Percentage of Satisfaction Level			P-value
	Minimum	Moderate	Maximum	
	Satisfaction Level	Satisfaction Level	Satisfaction Level	
Quality of Life	51%	48%	01%	0.028

## Discussion

This study gave an overview of the patient satisfaction level attributed to the socioeconomic status managing the thalassemic major in the public sector hospitals of Pakistan. The management of thalassemia in the public sector is the chief concern of the major health care delivery systems. Various studies have been conducted on evaluating the satisfaction level of thalassemic patients globally but in the hospitalized patients and not in the outdoor patients especially in the developing countries like Pakistan<sup>13</sup>, Nepal<sup>14</sup>, Ethiopia<sup>04</sup>, China <sup>15</sup>, and Nigeria.<sup>16</sup> There is lack of data available on the

satisfaction level of thalassemic outdoor patients which is the requirement of the day.<sup>17</sup> That might be significant because of the severity and incurable nature of the disease that demands its management in the current epic.

The satisfaction level in the current study displayed maximum satisfaction level in 1%, moderate satisfaction level in 48% and minimum satisfaction level in 51% of the thalassemic major patients managed at the public sector hospital. The results in the current study were not consistent with the previous study that revealed high percentage of satisfaction level among the thalassemic patients.<sup>09</sup> The plausible explanation for this difference in this percentage might be the health facility and environment disparity between a private and public sector hospital where variance in the socioeconomic status could be the possible justification. In addition to concerns regarding satisfaction of patients in developing nations, there are continuously chances & fear of the cross-contamination as well.<sup>18,19</sup>

According to the research the main predictor of diversity in the healthcare facilities provided at private and public sector is the cost.<sup>20-23</sup> Socioeconomic status (SES) is an unswerving and firm predictor of vast array of outcomes across one's lifespan. SES comprises not just salary but also financial security, subjective perceptions of social class and status, educational accomplishment.<sup>24</sup> Poorer SES might be responsible for non-utilization of available health resources in countries like Pakistan.<sup>25</sup> Quality of life of patients should also be improved.<sup>26</sup>

In this study, chi square test revealed statistical insignificant relationship of occupation of earning members of family with level of satisfaction among participants, where p-values was 0.133. This is not in harmony with the findings of Adhikari Et al, where occupation was associated with majority of dimensions of the patient satisfaction ( $p < 0.05$ ).<sup>14</sup>

In this study, chi square test revealed statistical insignificant relationship of area of living with level of satisfaction among participants, where p-value was 0.456. This is opposite to the findings of Djordjevic Et al, where residence was significantly associated with satisfaction ( $p < 0.001$ ).<sup>27</sup>

In this research, chi square test showed statistical significant relationship between quality of life and level of satisfaction among participants, where p-value was 0.028. This is synchronized with another study, where there was a highly significant association (p-value  $< 0.001$ ) between quality of life and satisfaction.<sup>28</sup>

The service qualities, health care providers' responsiveness, and hospital's environment are extremely dependent in amplifying or declining the patient satisfaction level<sup>13,15,20</sup>, with reference to the particular ailment for which they visited the hospital. Thus, the market value of private sector is more enriched in terms of both the facility and quality provision as compared to the public sector. The private sector can demand high cost after the health care delivery with only the elite socioeconomic class visiting the private sector. On the other hand, public sector has to deliver the health care to the mass population belonging to the middle and lower class socioeconomic status without any payment. Thus, the public sectors of Pakistan cope up with the huge patient load as compared to the private sectors due to the income discrepancy.

In Pakistan, the monthly income of about 80% population is ranging between 10000 - 20000 rupees in comparison to the 10000 - 20000 rupees in any another Asian country.<sup>29</sup> Thus, low income of majority Pakistani population could be the main reason in intensifying their dislikes and highlighting their concerns regarding patient satisfaction level visiting the hospital especially in the thalassemia major patients.

**Limitations:** Smaller sample size and short duration were the main limitations of this study. Patients were recruited from public sector hospitals only.

**Recommendations:** Further studies with large sample size, advance statistical tests and exploring the probable association between sociodemographic factors and level of satisfaction are recommended.

## Conclusion

The present study concluded low satisfaction level among the Pakistani population with reference to the management of the thalassemic major patients in the public sector because of their declined socioeconomic status. Their monthly income could have played a major role in availing the facilities from the public sector that deals with the mass population. Therefore, government programs should be launched at both the national and international level in order to expedite the health care delivery among the thalassemic major patients visiting the public sector as a result of the severity and incurability of that disease.

## References

1. Sharew NT, Bizuneh HT, Assefa HK, Habtewold TD. Investigating admitted patients' satisfaction with nursing

- care at Debre Berhan Referral Hospital in Ethiopia: a cross-sectional study. *BMJ Open*.2018; 8:21107. doi: 10.1136/bmjopen-2017-021107
2. Lyu H, Wick EC, Housman M, Freischlag JA, Makary MA. Patient Satisfaction as a Possible Indicator of Quality Surgical Care. *JAMA Surg*.2013; 148:362–7. doi: 10.1001/2013.jamasurg.270
3. Woodward CA, Ostbye T, Craighead J, Gold G, Wenghofer EF. Patient satisfaction as an indicator of quality care in independent health facilities: developing and assessing a tool to enhance public accountability. *Am J Med Qual*. (2000) 15:94–102. doi: 10.1177/106286060001500303
4. Begum F, Alam S. Consumer subsequent plan for selection of hospital in the perspective of hospital services and expenditure. *South East Asian J Public Health*.2016; 6:14–9. doi: 10.3329/seajph.v6i1.30339
5. Biresaw H, Mulugeta H, Endalamaw A, Yesuf NN, Alemu Y. Patient satisfaction towards health care services provided in Ethiopian health institutions: a systematic review and meta-analysis.2021 14:11786329211040689. doi: 10.1177/11786329211040689
6. Chandra S, Ward P, Mohammadnezhad M. Factors Associated with Patient Satisfaction in Outpatient Department of Suva Sub-divisional Health Center, Fiji, 2018: A Mixed Method Study. *Front Public Heal*.2019 7:183. doi: 10.3389/fpubh.2019.00183
7. Versluijs Y, Brown LE, Rao M, Gonzalez AI, Driscoll MD, Ring D. Factors associated with patient satisfaction measured using a guttman-type scale. *J patient Exp*. 2020;7:1211–8. doi: 10.1177/2374373520948444
8. Kruse CS, Krowski N, Rodriguez B, Tran L, Vela J, Brooks M. Telehealth and patient satisfaction: a systematic review and narrative analysis. *BMJ Open*.2017;7: e016242. doi: 10.1136/bmjopen-2017-016242
9. Adhikary G, Shajedur Rahman Shawon M, Wazed Ali M, Shamsuzzaman M, Ahmed S, Shackelford KA, et al. Factors influencing patients' satisfaction at different levels of health facilities in Bangladesh: results from patient exit interviews. *PLoS ONE*.2018; 13: e0196643. doi: 10.1371/journal.pone.0196643
10. Andaleeb SS, Siddiqui N, Khandakar S. Patient satisfaction with health services in Bangladesh. *Health Policy Plan*. 2007; 22:263–73. doi: 10.1093/heapol/czm017
11. Tanujaya B, Prahmana RC, Mumu J. Likert scale in social sciences research: Problems and difficulties. *FWU J Social Sciences*. 2022 Dec 1;16(4):89-101. DOI:10.51709/19951272/Winter2022/7
12. Alillyani B, Kerr M, Wong C, Wazqar D. A Psychometric Analysis of the Nurse Satisfaction with the Quality of Care Scale. *Healthcare (Basel)*. 2022 Jun 20;10(6):1145. doi: 10.3390/healthcare10061145.
13. Javed SA, Liu S, Mahmoudi A, Nawaz M. Patients' satisfaction and public and private sectors' health care service quality in Pakistan: application of grey decision analysis approaches. *Int J Health Plann Manage*.2019; 34: e168– 82. doi: 10.1002/hpm.2629
14. Adhikari M, Paudel NR, Mishra SR, Shrestha A, Upadhyaya DP. Patient satisfaction and its socio-demographic correlates in a tertiary public hospital in Nepal: a cross-



- sectional study. BMC Health Serv Res.2021; 21:135. doi: 10.1186/s12913-021-06155-3
15. Shan L, Li Y, Ding D, Wu Q, Liu C, Jiao M, et al. Patient satisfaction with hospital inpatient care: effects of trust, medical insurance and perceived quality of care. PLoS ONE.2016 11: e0164366. doi: 10.1371/journal.pone.0164366
  16. Lawal BJ, Agbla SC, Bola-Lawal QN, Afolabi MO, Ihaji E. Patients' satisfaction with care from nigerian federal capital territory's public secondary hospitals: a cross-sectional study. J Patient Exp.2018; 5:250–7. doi: 10.1177/2374373517752696
  17. Aldana JM, Piechulek H, Al-Sabir A. Client satisfaction and quality of health care in rural Bangladesh. Bull World Health Organ.2001 79:512–7.
  18. Khan N, Sartaj R, Sajid M, Jamil M, Javaid M. Patient perception regarding cross infection control; a cross sectional study. Pak Oral Dent J. 2021; 41(1):15-17
  19. Ahmad M, Javaid S, Saad-Ullah M, Mahmood A, Javaid M & Mahmood R. Status of vaccination against hepatitis B virus among medical students of a private medical institute in Multan. Pak J Med Health Sci 2021; 15(4):703-5
  20. Fenton JJ, Jerant AF, Bertakis KD, Franks P. The cost of satisfaction: a national study of patient satisfaction, health care utilization, expenditures, and mortality. Arch Intern Med.2012; 172:405–11. doi: 10.1001/archinternmed.2011.1662
  21. Xesfingi S, Vozikis A. Patient satisfaction with the healthcare system: assessing the impact of socio-economic and healthcare provision factors. BMC Health Serv Res(2016; 16:1–7. doi: 10.1186/s12913-016-1327-4
  22. Geberu DM, Biks GA, Gebremedhin T, Mekonnen TH. Factors of patient satisfaction in adult outpatient departments of private wing and regular services in public hospitals of Addis Ababa, Ethiopia: a comparative cross-sectional study. BMC Health Serv Res.2019; 19:1–13. doi: 10.1186/s12913-019-4685-x
  23. Nguyen T, Nguyen H, Dang A. Determinants of patient satisfaction: lessons from large-scale inpatient interviews in Vietnam. PLoS ONE. (2020) 15: e0239306. doi: 10.1371/journal.pone.0239306
  24. Javaid MM, Tariq MA, Sajid M, Uraneb S, Zia Q, Umer MF Et al. Impact of Socioeconomic Status and Duration of HIV/AIDS on Scarcity of Vitamin-D among HIV Infected Patients. Pak J public health. 2023;13 (2):84-7. <https://doi.org/10.32413/pjph.v13i2.1184>
  25. Mansoor A, Mansoor E, Sana A, Javaid MM, Hussain K. Vaccination Status of Hepatitis-B Among Dental Patients Visiting a Public Health Sector of Islamabad. Ann Pak Inst Med Sci. 2023; 19(3):356-360. doi. 10.48036/apims.v19i3.929
  26. Baqi A, Zia Q, Shaikh SP, Shoaib M, Javaid MM, Malik MS. Determinants of anxiety in amputees owed to traumatic & non-traumatic causes. Ann Pak Inst Med Sci. 2022;18 (3):175-80. doi. 10.48036/apims. v18i3.671
  27. Djordjevic IM, Vasiljevic D. The effect of sociodemographic factors on the patient satisfaction with health care system. Experimental and Applied Biomedical Research (EABR). 2019;20(3):251-5. DOI:10.1515/sjecr-2017-0042
  28. Petkari E, Pietschnig J. Associations of quality of life with service satisfaction in psychotic patients: a meta-analysis. PLoS One. 2015 Aug 14;10(8): e0135267. <https://doi.org/10.1371/journal.pone.0135267>
  29. Hossain MJ, Islam MW, Munni UR, Gulshan R, Mukta SA, Miah MS et al. Health-related quality of life among thalassemia patients in Bangladesh using the SF-36 questionnaire. Scientific Reports. 2023 May 12;13(1):7734. <https://doi.org/10.1038/s41598-023-34205-9>