Assessment of parental satisfaction with paediatric health services in public sector tertiary hospitals within a low-income setting using Patient Satisfaction Questionnaire (PSQ-18)

Babar Naeem 1, Javeria Nasim,2 Amna Anwar,3 Sheh Noor,4 Aqdas Arshad,5 Mohammad Zamrood Khan,6 Muhammad Ahmed,6 Imad Ali Shah7

ABSTRACT

Introduction Patient satisfaction is an integral part of healthcare quality, impacting treatment adherence, patient loyalty and healthcare utilisation. Parental satisfaction is particularly crucial as parents influence decision-making for their child’s healthcare.

Objective The objective was to assess parental satisfaction levels (as measured by Patient Satisfaction Questionnaire-18 (PSQ-18)) related to paediatric healthcare services and identify specific factors significantly influencing parental satisfaction with paediatric healthcare services.

Methodology This is a descriptive cross-sectional study that used a structured questionnaire based on the PSQ-18. The study was conducted in Faisalabad, Islamabad, Peshawar and Swat. Seven subscales measured satisfaction across various dimensions.

Results We found 882 suitable responses indicating a diverse participant demographic, with the largest group in the 6–12 years age category. The overall mean parental satisfaction score was 2.0±0.5 (40.0%). Notably, financial aspects scored highest at 2.8 (55%), followed by accessibility and convenience at 2.0 (40.5%). However, lower satisfaction scores in the interpersonal relationship (1.8±0.5) and technical quality (1.8±0.5) domains were recorded. Sociodemographic analysis indicated age, education and occupation significantly influenced satisfaction. Conversely, factors such as gender, residence and the presence of chronic disease did not significantly impact satisfaction levels.

Conclusion The study offers valuable insights into paediatric patient satisfaction in Pakistan, emphasising the need for targeted interventions and improvements in specific domains to enhance overall healthcare quality.

INTRODUCTION

Patient satisfaction (PS) is an integral part of healthcare quality that has gained significant attention in recent years.1 Assessing PS is vital to evaluate the effectiveness of healthcare services and identify areas that need improvement.2 Gaining insights into PS is instrumental for healthcare providers in enhancing the quality of care, fostering increased patient engagement and enhancing patient outcomes. Moreover, PS is linked to outcomes such as adherence to treatment, patient loyalty and the utilisation of healthcare services.3 4 Thus, monitoring PS is essential for healthcare organisations to ensure the provision of high-quality care. In paediatric healthcare, the involvement of both the child and their parents in the care process adds complexity.5 6 PS is particularly crucial, as parents play a vital role in decision-making and support for their child’s healthcare.

The Patient Satisfaction Questionnaire (PSQ-18) is a validated tool widely used to assess PS with healthcare services. It comprises 18 items that measure various aspects of PS, including general satisfaction, interpersonal manner, communication effectiveness, financial consideration, duration of doctor–patient interactions and ease of access. The PSQ-18 is a reliable and valid tool that has been used in various healthcare settings to evaluate PS.6 7 Due to its ease of administration and provision of valuable information for improving care quality, the
WHAT THIS STUDY ADDS

⇒ This study unveils insights into parental satisfaction within Pakistani public sector tertiary hospitals, assessing paediatric outpatient services across Faisalabad, Islamabad, Peshawar and Swat. It identifies varied satisfaction levels across domains, with financial aspects scoring highest and time spent with the doctor and technical quality domains recording lower satisfaction. Sociodemographic factors such as age, education and occupation significantly influenced satisfaction, while factors such as gender, residence and chronic diseases did not show a significant impact. These findings underscore the need for targeted interventions to enhance healthcare quality.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ The study emphasises the necessity for improvements in specific domains of paediatric healthcare in Pakistan’s public sector. It prompts healthcare providers and policy-makers to reevaluate emergency care processes, emphasising personalised and empathetic care. Addressing challenges in effective communication, provider competence and overall care quality is crucial. This study advocates for a more patient-centred approach, recognising the constraints within the public healthcare system and the need for comprehensive assessments to enhance overall patient experience and satisfaction.

PSQ-18 is suitable for assessing PS with paediatric health services at tertiary hospitals. Paediatric is a specialised area of healthcare that requires careful consideration of the dynamics involved in meeting the needs of both parents and children. Assessing PS with paediatric health services is essential to identify areas that require improvement to enhance the quality of care. Paediatrics uniquely involves a dual dynamic, where the satisfaction of both the parent and the child is pivotal. The importance of evaluating parental satisfaction in paediatric healthcare is underscored by the recognition that parents serve as primary advocates and decision-makers for their children’s well-being. Their contentment not only reflects the effectiveness of clinical practices but also serves as an essential gauge for the child’s overall healthcare experience. In paediatrics, the caregiver’s satisfaction is intrinsically linked to the child’s welfare, making it a vital metric for healthcare providers to consider.

However, the specific healthcare environment in Pakistan has received limited research attention, with existing studies often confined to single hospitals, limiting generalisability. Moreover, there is a notable absence of studies that encompass multiple healthcare facilities within our setting. To address this gap, our study focuses on assessing parental satisfaction in the paediatric outpatient departments (POPDs) of public sector hospitals in four major Pakistani cities—Faisalabad, Islamabad, Peshawar and Swat—among parents of children aged 16 years or younger.

By focusing on this specific demographic across multiple cities, we aim to gain valuable insights into the perceptions and experiences of parents accessing healthcare services for their children in diverse settings. Understanding the factors that contribute to parental satisfaction in these settings is essential for both healthcare professionals and policy-makers to improve the quality of care offered to children. The objective was to assess parental satisfaction levels (as measured by PSQ-18) related to paediatric healthcare services and identify specific factors significantly influencing parental satisfaction with paediatric healthcare services.

MATERIALS AND METHODS

Study setting and site

The investigation centred on patients availing medical services in POPDs of four prominent tertiary care hospitals in Pakistan, namely Saidu Medical College in Swat, Shaheed Zulfikar Bhutto Medical University in Islamabad, Hayatabad Medical Complex in Peshawar and Allied Hospital Faisalabad.

Research instrument

Parental satisfaction was gauged using a structured questionnaire based on the PSQ-18. This tool, demonstrating robust internal consistency, test–retest reliability and validity, comprises 18 items grouped into 6 domains. Each item is rated on a 5-point Likert scale, reflecting responses from ‘strongly agree’ to ‘strongly disagree’ (strongly agree, agree, uncertain, disagree and strongly disagree).

Participants

The study encompassed all parents of children under 16 attending POPDs in the specified hospitals. Exclusions comprised parents in critical health conditions, those referred to other departments, requiring immediate admission or unwilling to provide informed consent.

Sample size calculation

A sample size of 882 was calculated using Select Statistical Services, UK. Population mean—sample size—select statistical consultants (select-statistics.co.uk). This calculator uses the following formula for the sample size n:

\[ n = \frac{N \times X}{(N + X - 1)} \]

where, \( X = \frac{Z_\alpha/2}{\sigma} \times \frac{\sigma^2}{MOE^2} \)

and \( Z_\alpha/2 \) is the critical value of the normal distribution at \( \alpha/2 \) (eg, for a confidence level of 95%, \( \alpha = 0.05 \) and the critical value is 1.96), MOE is the margin of error, \( \sigma^2 \) is the population variance, and \( N \) is the population size.

To estimate a mean with a 95% confidence level and acceptable difference of 0.10 with an assumed SD of overall satisfaction score of PSQ-18 of 1.13 with 40% loss of subjects.

The PSQ questions were translated into Urdu by consensus of two different experts. To authenticate the precision of the translation, the questionnaire was subsequently translated back into English. The Delphi technique was used to assess the validity of the contents. Cronbach’s alpha test was used to assess the internal
Scoring method
All items were scored on an ordinal scale from 1 to 5 so that high scores reflect greater parental with the healthcare delivery system. The questionnaire is structured into seven distinct subscales, each concentrating on specific aspects of satisfaction. To ensure consistency in scoring, items within each subscale were averaged together, generating a mean score for each domain. The breakdown of items for each subscale was as follows:

- General satisfaction (items 3 and 17).
- Technical quality (items 2, 4, 6 and 14).
- Interpersonal manner (items 10 and 11).
- Communication (items 1 and 13).
- Financial aspects (items 5 and 7).
- Time spent with doctor (items 12 and 15).
- Accessibility and convenience (items 8, 9, 16 and 18).

To further interpret satisfaction levels, each domain’s mean score was converted into a percentage using the formula (mean score/maximum score)×100.

Some PSQ-18 items are worded so that agreement reflects satisfaction with healthcare, whereas other items are worded so that agreement reflects dissatisfaction with medical care. To standardise the scoring process, all items were scored to emphasise agreement as an indicator of satisfaction with medical care. The scoring was conducted on a 5-point Likert scale, with response values ranging from 1 to 5. The scoring scheme is detailed in table 1.

Data collection
The data collection process for this study took place between January 2023 and August 2023, during operational hours (8:00–14:00 hours) of the POPDs in the designated hospitals. Investigators approached potential participants after the paediatricians concluded their consultations with the children. Informed consent was obtained from each participating parent after thoroughly explaining the study’s objectives, methods, benefits and potential risks to parents. A pretested structured questionnaire, based on the PSQ-18, was used for data collection. The questionnaire, available in both English and Urdu, was given to parents on completion of their visit to the POPD. Parents had the opportunity to read the questionnaire and decide whether they wished to participate. In cases where parents were illiterate, the investigator provided verbal assistance by reading out each question and recording the participant’s response. The aim was to ensure inclusivity and gather responses accurately, irrespective of the literacy level. The local hospital investigator was responsible for the actual administration of the survey to maintain a connection with the hospital’s unique dynamics and ensure cultural appropriateness. To maintain the quality of data collection, investigators were trained in the administration of the questionnaire and in dealing with potential queries from participants.
Data analysis
SPSS V.27.0 for Windows facilitated data analysis. Missing data were excluded, and descriptive and inferential statistics were employed to evaluate PS. Subscale scores were calculated, and relationships between different factors and PS were evaluated. The non-normal distribution of data was confirmed through the Kolmogorov-Smirnov test and a non-parametric Kruskal-Wallis test was used to assess the relationship between PS and sociodemographic variables with a p <0.05 was taken as statistically significant.

Patient and public involvement
The public (respondents) were not involved in the design, conduct, reporting or dissemination plans of our research.

RESULTS
The distribution of participants across various demographic categories is presented in table 2. Notably, the majority of participants belonged to the age group of 6–12 years (31.9%), with the next significant group being 3–6 years (27.4). In terms of gender, 54.8% were male, and 45.2% were female. Education-wise, the majority of attendants (61.3%) had not received formal education, while 27% had completed primary education. A substantial 85.1% of attendants identified as labourers or farmers. Geographically, 64.7% resided in rural areas, with the remaining 35.3% from urban locales. Concerning health, 11.3% of the children had a chronic disease and 62.4% of participants were making their first visit for their current health issue.

Table 3 summarises the descriptive statistics for individual questions assessing PS. The mean scores range from 1.7 to 2.9, with SDs ranging from 0.5 to 1.2, indicating a degree of variability in the responses. The minimum and maximum scores reflect the range of responses observed.

Sociodemographic characteristics and satisfaction scores
Table 4 presents sociodemographic characteristics and their effects on participants’ satisfaction scores. Age, education and occupation status significantly influence overall satisfaction levels. Urban residence significantly correlates with lower satisfaction scores. Gender and the presence of a chronic disease do not show significant associations with reported satisfaction.

Distribution of study population into domains
Table 5 shows the satisfaction level for each domain. The highest mean satisfaction score is observed in the financial aspects category with a mean value of 2.8 (55%), followed by accessibility and convenience at 2.0 (40.5%).

DISCUSSION
We evaluated parental satisfaction regarding the outpatient services provided at the major tertiary care public hospitals in Pakistan, where patients expect to receive the highest standard of care. The study incorporated samples from four major hospitals across different provinces, aiming to provide a comprehensive overview. The findings revealed that 40% of parents expressed satisfaction...

with the quality of care their children received. No analogous studies conducted in the paediatric population are currently available within the Pakistani context for comparative analysis. However, the observed satisfaction level falls below those reported in other global regions, implying a potential deficit in patient-centric approaches or overall satisfaction with patient care. Comparative studies conducted in Malaysia, Ethiopia, Greece and India demonstrated varying degrees of parental satisfaction, with satisfaction levels ranging from 80% to 97%. Khattak et al compared the PS scores of public and private hospitals and found that patients were more satisfied with the public sector hospitals services as compared with public hospitals. Farooq et al did a comparative analysis of PS in military and public sector hospitals in Pakistan and showed a deficiency in all seven dimensions of PS in public hospitals. Naeer identified several determinants contributing to low PS in Pakistan, including the lack of privacy, limited autonomy, insufficient involvement in decision-making, poor communication and issues related to sanitation/hygiene. These factors were associated with negative patient experiences and were recognised as significant contributors to reduced satisfaction within the healthcare system. These findings underscore a compelling imperative for immediate, targeted interventions within the public healthcare sector, particularly in paediatric departments, to enhance the overall patient experience.

Certain sociodemographic characteristics exhibited varying degrees of influence on participants’ overall satisfaction with healthcare. Interestingly, less educated parents were more satisfied as compared with more educated parents. This phenomenon may be attributed to elevated expectations among highly educated parents, aligning with the findings of Jafari Kelarijani et al. In their study, the highest satisfaction levels were reported among illiterate individuals, with a mean of 4.27, compared with highly educated individuals with a mean of 4.09 (p=0.001). The literature, however, offers mixed results on the association between educational status and PS, with some studies indicating higher satisfaction in highly educated patients and others in less educated patients. Another intriguing discovery was the lower satisfaction reported by parents with younger children (p<0.001). This trend may be attributed to the likelihood that parents with younger children are more prone to experiencing depression and anxiety. These emotional factors could contribute to a more critical assessment and a tendency to express negative opinions about the quality of healthcare services.

Conversely, factors such as gender, residence and the presence of chronic disease did not significantly impact satisfaction levels. These nuanced findings underscore

Table 4 Sociodemographic characteristics with corresponding satisfaction level

<table>
<thead>
<tr>
<th>Sociodemographic characteristics</th>
<th>Satisfaction level score</th>
<th>Mean</th>
<th>SD</th>
<th>P value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>2.0</td>
<td>0.5</td>
<td>0.85</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>2.0</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td></td>
<td>1.8</td>
<td>0.5</td>
<td>0.001</td>
</tr>
<tr>
<td>1–3</td>
<td></td>
<td>2.0</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>3–6</td>
<td></td>
<td>2.0</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>6–12</td>
<td></td>
<td>2.1</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>12+</td>
<td></td>
<td>2.0</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td>1.9</td>
<td>0.6</td>
<td>0.001</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td>2.1</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>2.0</td>
<td>0.4</td>
<td>0.001</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>2.1</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td>1.8</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
<td>1.9</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td></td>
<td>1.3</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Occupational status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td></td>
<td>1.2</td>
<td>0.2</td>
<td>0.001</td>
</tr>
<tr>
<td>Govt</td>
<td></td>
<td>1.1</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td></td>
<td>1.3</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Farmer/labour</td>
<td></td>
<td>2.0</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>2.0</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>No of visits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>2.1</td>
<td>0.4</td>
<td>0.001</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1.9</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>1.7</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>4 or more</td>
<td></td>
<td>1.4</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05.

Table 5 Satisfaction level of each domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Mean</th>
<th>SD</th>
<th>Maximum mean</th>
<th>Satisfaction in percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General satisfaction</td>
<td>2.0</td>
<td>0.6</td>
<td>5</td>
<td>39.9</td>
</tr>
<tr>
<td>Technical quality</td>
<td>1.8</td>
<td>0.5</td>
<td>5</td>
<td>36.8</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>1.8</td>
<td>0.6</td>
<td>5</td>
<td>35.0</td>
</tr>
<tr>
<td>relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>1.9</td>
<td>0.6</td>
<td>5</td>
<td>38.5</td>
</tr>
<tr>
<td>Financial aspects</td>
<td>2.8</td>
<td>1.1</td>
<td>5</td>
<td>55.0</td>
</tr>
<tr>
<td>Time spent with</td>
<td>1.9</td>
<td>0.6</td>
<td>5</td>
<td>38.0</td>
</tr>
<tr>
<td>doctor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td>2.0</td>
<td>0.5</td>
<td>5</td>
<td>40.5</td>
</tr>
<tr>
<td>and convenience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>2.0</td>
<td>0.5</td>
<td>5</td>
<td>40.0</td>
</tr>
</tbody>
</table>
the multifaceted nature of factors shaping parental satisfaction in the context of paediatric healthcare.

The survey results indicated that the financial aspects category recorded the highest parental satisfaction score (mean: 2.8, 55%), which can be attributed to the common practice of offering outpatient services free of cost in Pakistan. These findings align with prior research; for instance, Iqbal et al reported a mean PS score of 3.8 in the financial domain within a public hospital in Pakistan.12 Similarly, another study conducted in Pakistan indicated a mean satisfaction score of 3.59 in the financial aspect.18

However, the study identified the lowest satisfaction scores in interpersonal manners, communication, time spent with the doctor and technical quality domains, prompting a reevaluation of emergency care processes. Patients emphasised the need for personalised and empathetic care, expressing discontent with perceived haste and impersonal interactions. Challenges in effective communication, with patients feeling ignored, underscore the importance of active listening. Doubts about healthcare providers’ competence and general dissatisfaction suggest broader concerns, necessitating comprehensive assessments of professionals’ qualifications and support systems. These results are consistent with previous national and international studies conducted in similar settings.17-19 25-27 These findings highlight critical challenges in the public healthcare system, emphasising the need to address concerns about diagnostic precision, treatment efficacy and overall care quality. Factors such as high patient volumes, resource limitations and operational constraints require attention to foster a more patient-centred approach.10 19 20

A major strength of our study lies in its comprehensive, multicentre approach, providing a diverse representation of parental perceptions across major Pakistani cities. The utilisation of the PSQ-18 enhances the study’s reliability, ensuring standardised assessment. However, our study also has several limitations. The absence of a direct comparison within the Pakistani context restricts a more nuanced interpretation of the satisfaction levels. Additionally, the cross-sectional design limits establishing causation, warranting future longitudinal investigations. The reliance on self-reported measures introduces potential response bias.

CONCLUSION
This study sheds light on the imperative need for targeted interventions to improve parental satisfaction in paediatric healthcare at major public hospitals in Pakistan. The observed moderate satisfaction level (40%) indicates potential shortcomings in patient-centric approaches, signalling a crucial call for systemic enhancements. While financial aspects emerge as a satisfaction stronghold, deficits in interpersonal manners, communication, time spent with the doctor and technical quality present clear avenues for improvement in emergency care processes.

Our findings offer valuable insights for healthcare providers and policy-makers to refine paediatric healthcare experiences, emphasising the need for personalised and empathetic care, addressing communication challenges, and ensuring provider competence. Despite the study’s strengths in its multicentre approach and use of the established PSQ-18, cautious interpretation is warranted due to limitations such as the absence of direct comparisons within the Pakistani context and reliance on self-reported measures, pointing to the need for future investigations to deepen our understanding of satisfaction dynamics in this evolving healthcare landscape.

Acknowledgements The authors are thankful to all the parents who willingly participated in the study, contributing valuable opinions on the subject. Additionally, the authors express gratitude to Dr. Zenab Aziz (SR Paediatrics, Jinnah Hospital Lahore) for her assistance in translating the questionnaire.

Contributors BN: study design, selection of the other authors, data analysis, supervision and proofreading. JN: study design, data collection, supervision and proofreading. AA: data collection, data analysis, proofreading. SN, MZ and MA: data collection, approval of the final draft. AA: manuscript writing. IAS: data analysis, proofreading. BN is acting as guarantor.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests No competing interests.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Consent obtained from parent(s)/guardian(s).

Ethics approval This study involves human participants and ethical approval was taken from Ethical Review Board Saidu Medical College (Reference no. 36-ERB/023), Ethical Review Board Shaheed Zulfiquar Ali Bhutto Medical University Islamabad (F-1-1-2015/ERB/SZABMU/1147) and ‘Hospital Research and Ethical committee’ Hayatabad Medical Complex Peshawar (RB/PMC/2023/036). Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request. Data can be obtained from the corresponding author on reasonable request.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

ORCID iD
Babar Naeem http://orcid.org/0000-0002-5479-8746

REFERENCES


12 Iqbal A, Nourou I, Liaquat N. Patient satisfaction questionnaire: a tool towards quality improvement of health care services. *Esculap* 2019;15:


19 Naseer M. Determinants of patient’s satisfaction with health care system in Pakistan: a critical review; 2012.


