THE EVALUATION OF PATIENT SATISFACTION AND PERCEIVED QUALITY OF CARE IN OPD SETTINGS IN MIRPUR AJK: A CROSS-SECTIONAL STUDY

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ABSTRACT

Objective: Patient satisfaction is a reliable indicator of healthcare quality and an outcome measure for physicians. This study sought to assess patient satisfaction at Ahsan's Medical Complex, Mirpur Azad Jammu and Kashmir, Pakistan.

Study Design: Cross-sectional study.

Place and Duration of Study: Ahsan's Medical Complex, Mirpur Azad Jammu and Kashmir, Pakistan from August to October 2024

Patients and Methods: One hundred and seventy patients participating in face-to-face interviews using convenience sampling method. The Patient Satisfaction Questionnaire Short Form (PSQ-18) was used to rate patient satisfaction across seven dimensions. The responses were summarized using descriptive statistics and the data was analyzed using SPSS.

Results: One hundred and seventy participants had a variety of demographic features, with the largest age groups being 27-36 years (28%) and 37-46 years (23%), majority were female (71%) and married (91%). The PSQ-18 results showed high overall patient satisfaction, with a 90% rating in the high satisfaction category. Patients expressed high levels of satisfaction with interpersonal manner, communication, time spent with clinicians and accessibility. However, 10% patients reported moderate or low satisfaction levels, citing worries regarding technical quality and economical elements of care.

Conclusions: In general, patients were satisfied with the medical care they received, particularly with the interpersonal and communication skills of the staff.

Keywords: Patient satisfaction, healthcare quality, PSQ-18, Technical quality

INTRODUCTION

The World Health Organization emphasizes the necessity of providing high-quality medical services in the healthcare system. Healthcare systems should

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prioritize meeting the population's needs while treating individuals with dignity and respect. The healthcare system has transformed from a noble profession to a customer-oriented service sector, impacted by internet access, patient expectations, health insurance and medical technological advancements. Patient perception and satisfaction are essential for enhancing healthcare quality, performance and clinical efficacy. It evaluates the perceived quality of care and serves as a feedback instrument for medical professionals, providing noteworthy information about various

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healthcare subjects, including their treatment efficacy and level of understanding. Adopting a client-centered approach, modifying attitudes, and creating a pleasant environment can all help providers improve their services.^{3,4}

A mixed-method cross-sectional research of 410 outpatient service participants in Fiji's Suva Subdivision revealed that most patients (69.3%) were satisfied with their consultations. Patient satisfaction was substantially related to age, gender, education level, waiting time, doctor's communication behavior, and patient trust.² A cross-sectional observational study was conducted at Ayub Teaching Hospital in Abbottabad, Pakistan, which involved 240 patients; 78.69% were satisfied with the registration process, 82.62% were satisfied with staff courtesy and 51.80% were confident with hospital hygiene. The overall satisfaction score was 58.03%, with 32.79% satisfied with the staff's technical and professional expertise and 9.18% satisfied with medical treatment affordability.3 A study of 66,348 hospital patients and 2963 inpatient nurses in England revealed that patients' views of care were considerably harmed by a lack of trust in nurses and doctors and an increase in missed nursing care. The study discovered that missed care was negatively related to six out of eight outcomes, correlated favorably with larger patient-to-nurse ratios, and negatively associated with better work environments.4 The study assessed patient satisfaction with inpatient care at the Black Lion Specialized Hospital in Addis Abeba, Ethiopia. Out of 398 participants, 46.2% were pleased. Patient and healthcare professional interactions and facility amenities accounted for 96.4% of the variability in satisfaction levels.5 The study at the University Polyclinic in Messina, Italy, evaluates patient satisfaction in healthcare departments. A survey yielded over 350 observations, which were used to generate a logistic model. Patient satisfaction is influenced by care quality, parking lot availability, structure cleanliness and physician judgment.6

A cross-sectional study was conducted in Ebonyi State, Nigeria, to assess patients' satisfaction with the quality of care in general hospitals. Out of 396 patients, 39.4% were men and 60.6% were women. Most patients were between 18 and 39 years, had a secondary education, were married, made less than \$18,000 yearly and traded. Patients expressed satisfaction with tangibility, dependability, responsiveness, assurance, and empathy. Patient satisfaction surveys are essential for detecting gaps and executing quality improvements in the

healthcare industry. They help reduce costs, meet patient expectations, develop effective management strategies, evaluate plan implementation and compare healthcare institutions. Patient satisfaction encompasses necessary medical care, therapies and healthcare provider actions and behaviors. Doctors must have strong technical and interpersonal abilities to ensure patient satisfaction. 8-13

Doctors must maintain professionalism and ethical practices to meet patient expectations. Their technical expertise includes experience, diagnosis, clinical procedure performance, prescription and knowledge of medical developments. Patient satisfaction is a multidimensional construct influenced by health care's technical, infrastructural, functional, environmental and interpersonal aspects. A satisfied patient chooses health services and comply with treatment and follow-up recommendations. Dissatisfied patients may stop seeking healthcare from a physician they believe to be inept, resulting in delays and self-medication. Patient contentment is imperative to accelerating the transition to high-quality health systems in low- and middle-income nations. ^{18,19}

The current literature on patient satisfaction in healthcare settings is extensive, covering various factors such as doctor-patient communication, technical quality and overall satisfaction. However, there remains a gap in understanding how satisfaction varies across different aspects of healthcare services in private hospitals in regions like Azad Jammu and Kashmir (AJK), Pakistan, particularly in relation to accessibility, time spent with doctors and financial hardships. Existing studies often focus on broader regional or public healthcare settings and there is limited research addressing these specific domains within private healthcare institutions in this region. A questionnaire-based cross-sectional study was undertaken at Ahsan's Medical Complex in Mirpur, Azad Jammu, Pakistan. Our study aimed to evaluate patient satisfaction, providing valuable data for doctors and hospital administration to identify and address issues.

PATIENTS AND METHODS

This cross-sectional study was conducted at Ahsan's Medical Complex, a major private hospital in Azad Jammu and Kashmir (AJK), Pakistan from August to October 2024 following Ethical Approval (vide letter No. 609 dated 01-08-2024), to assess patient satisfaction. The hospital was selected due to its comprehensive medical services and high patient traffic, making it an ideal setting for this investigation. A

convenience sampling technique was used to select 170 participants for the study. While the sample size was considered sufficient for a representative assessment of patient satisfaction, the absence of a formal justification such as a power analysis to support this claim is a limitation. A probability sampling method may have enhanced the robustness of the sample.

Data was collected using the Patient Satisfaction Questionnaire Short Form (PSQ-18), a validated tool designed to assess various aspects of patient satisfaction. The PSQ-18 evaluates seven key areas: overall satisfaction, technical quality, interpersonal style, communication, financial hardships, time spent with doctors and accessibility. The scoring system involves a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating greater satisfaction. Items are reverse-scored to maintain consistency and the total score, ranging from 18 to 90, reflects overall satisfaction across the domains assessed. The data were processed using SPSS version 23, with descriptive statistics such as frequencies, means and standard deviations used to summarize the results.

RESULTS

The study included 170 participants with a diverse range of ages. The largest age group was 27-36 years, which made up 28% of the sample, followed by the 37-46 years age group at 23%, the 47-56-year age group at 19% and the 57-76-year age group at 17%. Smaller proportions were represented in the 7-16-year (3%), 17-26-year (3%), 67-76-year (4%) and 77-86-year (3%) age ranges. The majority of participants were females, accounting for 71% of the study population and 29% were males. The vast majority of the participants, 91%, reported being married, providing significant insight into the participants' personal lives while only 9% were unmarried. Looking at educational attainment, the largest group was with no formal education, comprising 31% of the sample, followed by those with only primary level education, consisted of 30% participants. Smaller population had completed secondary school (14%), higher secondary school (9%), undergraduate degrees (11%) and postgraduate degrees (5%). Regarding employment status, over half of the study sample, 64%, were unemployed. Another 29% were employed, while 7% were retired. The demographic details of the participants have been shown in table I.

Table I: Demographic characteristics of the participants

Demographic			
Characteristics	N (170)	Percentage	
Age			
7-16 years	5	3 %	
17-26 years	5	3 %	
27-36 years	47	28 %	
37-46 years	39	23 %	
47-56 years	33	19 %	
57-66 years	29	17%	
67-76 years	7	4 %	
77-86 years	5	3%	
Gender			
Male	49	29 %	
Female	121	71 %	
Marital Status			
Unmarried	16	9 %	
Married	154	91 %	
Education			
Uneducated	52	31 %	
Primary	51	30 %	
Secondary	24	14 %	
Higher secondary	16	9 %	
Graduation	19	11 %	
Masters	8	5 %	
Employment			
Employed	49	29%	
Unemployed	109	64%	
Retired	12	7 %	

The sample was collected from different OPDs is mentioned in Table II.

Table II: Distribution of OPDs of the participants

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OPDs	Frequency (n=170) %
Orthopedic Surgery	51 (30%)
General Medicine	30 (18%)
ENT	14 (8%)
Neurosurgery	27 (16%)
Urology	24 (14%)
Gynecology and Obstetrics	10 (6%)
General Surgery	14 (8%)

The general satisfaction subscale consists of questions 3 and 17. For item 3, 50% strongly agreed, while 48% agreed that their medical care was nearly excellent,

indicating a high degree of overall satisfaction. For item 17, the majority strongly agreed that they are dissatisfied with some parts of their medical care despite the high overall satisfaction. Items 2, 4, 6, and 14 are in the technical quality subscale. 36% strongly agreed with item 2, whereas 58% agreed that the doctor's office has everything needed to provide comprehensive medical care. However, for item 4, 59% participants strongly

agreed that they sometimes wonder if the doctor's diagnosis is correct. Similarly, for item 14, 5% participants agreed and 1% were uncertain about their doctor's ability. These mixed responses suggested some concerns about the technical quality of care. The interpersonal manner subscale consists of items 10 and 11. For item 10, most participants (39% disagreed, 56% strongly disagreed) indicating that doctors do not

Table III: Responses of the participants to PSQ-18 items.

PSQ 18 Items	Response	N (170)	Mean	Standard Deviation
1.Doctors are good about explaining the reason for medical	Strongly agree	126 (74%)		
tests. (Communication)	Agree	44 (26%)	0.26	0.439
2. I think my doctor's office has everything needed to	Strongly agree	61 (36%)		
provide complete medical care. (Technical Quality)	Agree	99 (58%)	0.70	0.574
	Uncertain	10 (6%)		
3. The medical care I have been receiving is just about	Strongly agree	86 (50%)		
perfect. (General Satisfaction)	Agree	81 (48%)	0.51	0.536
	Uncertain	3 (2%)		
4. Sometimes doctors make me wonder if their diagnosis is	Strongly agree	101 (59%)		
correct. (Technical Quality)	Agree	59 (35%)	0.46	0.607
	Uncertain	10 (6%)		
5. I feel confident that I can get the medical care I need	Strongly agree	26 (15%)		
without being set back financially. (Financial Aspects)	Agree	100 (59%)	1.11	0.635
	Uncertain	44 (26%)		
6. When I go for medical care, they are careful to check	Strongly agree	91 (54%)		
everything when treating and examining me. (Technical	Agree	79 (46%)	0.46	0.500
Quality)				
7. I have to pay for more of my medical care than I can	Agree	52 (30%)		
afford. (Financial Aspects)	Uncertain	109 (64%)	1.75	0.545
	Disagree	9 (6%)		
8. I have easy access to the medical specialists I need.	Strongly agree	51 (30%)		
(Accessibility and Convenience)	Agree	93 (54%)	0.96	0.922
	Uncertain	12 (7%)		
	Disagree	9 (6%)		
	Strongly	5 (3%)		
	Disagree			
9. Where I get medical care, people have to wait too long	Agree	14 (8%)		
for emergency treatment. (Accessibility and Convenience)	Uncertain	27 (16%)	2.91	0.849
	Disagree	89 (52%)		
	Strongly	40 (24%)		
	Disagree			
10. Doctors act too businesslike and impersonal toward me.	Agree	6 (3%)		
(Interpersonal Manner)	Uncertain	4 (2%)	3.48	0.681
	Disagree	67 (39%)		
	Strongly	95 (56%)		
	Disagree			

11. My doctors treat me in a very friendly and courteous	Strongly agree	40 (24%)		
manner. (Interpersonal Manner)	Agree	92 (54%)	1.06	0.858
, , , , , , , , , , , , , , , , , , ,	Uncertain	29 (17%)		
	Disagree	5 (3%)		
	Strongly	4 (2%)		
	Disagree			
12. Those who provide my medical care sometimes hurry	Uncertain	2 (1%)		
too much when they treat me. (Time Spent with Doctor)	Disagree	126 (74%)	3.24	0.452
,	Strongly	42 (25%)		
	Disagree			
13. Doctors sometimes ignore what I tell them.	Uncertain	2 (1%)		
(Communication)	Disagree	51 (30%)	3.68	0.494
	Strongly	117 (69%)		
	Disagree			
14. I have some doubts about the ability of the doctors who	Agree	9 (5%)		
treat me. (Technical Quality)	Uncertain	2 (1%)	3.26	0.718
***	Disagree	95 (56%)		
	Strongly	64 (38%)		
	Disagree			
15. Doctors usually spend plenty of time with me. (Time	Strongly agree	6 (3%)		
Spent with Doctor)	Agree	89 (52%)	1.67	0.953
,	Uncertain	37 (23%)		
	Disagree	31 (18%)		
	Strongly	7 (4%)		
	Disagree			
16. I find it hard to get an appointment for medical care	Agree	9 (5%)		
right away. (Accessibility and Convenience)	Uncertain	19 (11%)	2.92	0.647
	Disagree	122 (72%)		
	Strongly	20 (12%)		
	Disagree			
17. I am dissatisfied with some things about the medical	Strongly agree	6 (3%)		
care I receive. (General Satisfaction)	Agree	2 (1%)	3.59	0.867
	Uncertain	4 (2%)		
	Disagree	32 (19%)		
	Strongly	126 (75%)		
	Disagree			
18. I am able to get medical care whenever I need it.	Strongly agree	56 (33%)		
(Accessibility and Convenience)	Agree	95 (56%)	0.89	0.907
	Uncertain	7 (4%)		
	Disagree	5 (3%)		
	Strongly	7 (4%)		
	Disagree	1 ` ′	1	

act too businesslike and impersonal. For item 11, 24% strongly agreed, while 54% agreed that their doctor treated them courteously and kindly. These results show high satisfaction with the providers' interpersonal skills. Items 1 and 13 are part of the communication subscale. On item 1, 26% of participants agreed and 74% strongly agreed that doctors are adept at describing the purpose of medical tests. However, regarding item 13, 69% of

participants strongly disagreed and 30% argued that doctors occasionally disregard what they tell them. These findings suggest generally effective communication between patients and providers. Items 5 and 7 make up the subscale for financial aspects. For item 5, 15% strongly agreed and 59% agreed that they were confident they could receive the medical treatment they required without incurring financial

hardship. However, for item 7, 30% of respondents agreed that they must pay for more medical treatment than they can afford. These comments demonstrated some concern about the financial aspects of treatment. Items 12 and 15 are included in the subscale of time spent with the doctor. For item 12, 74% of participants disagreed, with 25% strongly disagreeing that individuals delivering medical care are sometimes excessively rushed. Regarding item 15, 3% strongly agreed and 52% agreed that the doctor typically spends much time with them. The accessibility and convenience subscale consist of items, 8, 9, 16 and 18. For item 8, 30% participants strongly agreed and 54% agreed they had easy access to the needed medical specialist. For item 9, 52% participants disagreed and 24% strongly disagreed that people must wait too long for emergency treatment. For item 16. 72% participants disagreed and 12% strongly disagreed that getting a medical appointment right away is hard. For item 18, 33% strongly agreed, while 56% agreed they could access medical care anytime needed. These data showed that patients were quite satisfied with the accessibility and ease of medical care. Table III shows the participants' detailed responses.

The total possible score on the PSQ-18 ranges from 18 (lowest satisfaction) to 90 (most satisfaction), depending on the scoring method utilized. In this study, the average total PSQ-18 score was 90, indicating a high degree of patient satisfaction. The distribution of total scores among the 170 participants was as follows (Table IV).

Table IV: Distribution of PSQ-18 Score Range among Participants

Total Score Range	Number of Participants
81-90	112 (66%)
71-80	40 (24%)
61-70	10 (6%)
51-60	6 (4%)
41-50	2 (1%)
31-40	0
21-30	0
=20	0

The PSQ-18 score distribution reveals three degrees of satisfaction: high (90%), moderate (10%), and low (1%). High satisfaction suggests that 90% of patients

were highly satisfied with their healthcare services, showing that the hospital performed exceptionally well in fulfilling patient expectations and providing quality care. Moderate satisfaction indicates opportunities for development, such as technical quality or financial aspects. Low satisfaction means that only 1% of patients reported significant unpleasant experiences or low overall satisfaction, indicating an opportunity for the hospital to address unmet needs or concerns in this group.

DISCUSSION

Patient satisfaction with health care is an essential and frequently used quality indicator. Assessing patient satisfaction evaluates treatment quality and identifies opportunities for improvement for future services. 11 The study, conducted in the Suva Subdivision health centers in Fiji, assessed patient satisfaction and its determinants in 2018. The findings revealed that the majority of patients (69.3%) were generally satisfied with their consultations. Factors such as age, gender, education level, waiting time, doctors' communication behavior and patient trust were significantly associated with satisfaction. The study highlighted that patients who trusted their doctors and were seen within one hour were significantly more likely to report high satisfaction with their consultation. Additionally, the doctors' communication style was a key factor in enhancing patient satisfaction, with many patients expressing that the quality of consultation made the wait worthwhile. These results align with similar findings at Ahsan's Medical Complex in Azad Jammu and Kashmir, Pakistan, where patients were highly satisfied with their medical care, particularly in terms of overall satisfaction, communication and the perceived quality of care. Both studies emphasize the importance of trust, communication and timely care in shaping patient satisfaction, as seen in earlier research using the PSQ-18.² Regarding the interpersonal approach, participants overwhelmingly claimed that their doctors do not act businesslike or impersonally but rather treat them with amiability and courteousness. This aligns with earlier research conducted by Akin LH et al. in 2021 which surveyed 66,348 hospital patients and 2,963 inpatient nurses across 161 NHS trusts in England, provides valuable insights into how hospital care is perceived by patients. It found that patient satisfaction is strongly linked to confidence in nurses and doctors, staffing levels and the overall hospital work environment. Specifically, patients' perceptions of care were significantly impacted by a lack of confidence in

healthcare providers and increased missed nursing care. The study showed that higher patient-to-nurse ratios and poorer work environments were associated with lower patient satisfaction. Conversely, improved nurse staffing levels were positively linked to better patient satisfaction.⁴

The study in Ebonyi State, Nigeria, aimed to assess patient satisfaction with the quality of care in general hospitals using the SERVQUAL model. A sample of 400 patients was surveyed and 396 responses were retrieved. The results indicated that patients were particularly satisfied with the responsiveness, assurance and empathy dimensions, with average scores of 3.06, 3.07 and 3.12, respectively. Satisfaction with tangibility and reliability was lower, with scores of 2.57 and 2.84. The majority of participants were females (60.6%) and aged between 18-39 years (58.8%). These findings align with earlier research that highlights the importance of effective communication in enhancing patient satisfaction. Similar to the study in Ebonyi, patients at Ahsan's Medical Complex expressed high satisfaction, particularly with doctor-patient communication. Patients believed that their doctors were skilled in explaining procedures and medical tests, contributing to the overall satisfaction with their care. This supports the view that strong communication is a key factor in improving patient satisfaction across various healthcare settings.7

The study examined the relationship between patient characteristics, postoperative outcomes and nonresponse to the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey after total knee arthroplasty (TKA). Among 4,804 TKA patients, 1,498 (31.22%) returned the survey. Multivariate analysis revealed that patients who did not return the survey were more likely to have higher American Society of Anesthesia (ASA) scores, be partially or totally dependent, experience readmission, be discharged to a location other than home or have longer hospital stays. These findings emphasize that certain patient factors, including higher postoperative risks, may influence survey participation. Similarly, this aligns with findings from studies at Ahsan's Medical Complex, where patients expressed high satisfaction with the time spent with their doctors. The majority reported that doctors did not rush through appointments and dedicated adequate time to consultations. This highlights the importance of doctor-patient interaction and the significant role it plays in patient satisfaction, further reinforcing the need for quality time spent with healthcare providers.8

The retrospective survey review evaluated patient satisfaction in neurosurgical spine versus non-spine clinics at Stanford Medical Center using the Press Ganey survey. A total of 578 spine clinic patients and 1,048 nonspine clinic patients were analyzed, with the survey covering 40 questions related to physician and nursing care, personal concerns, room conditions, treatment, discharge and overall clinic assessment. Results showed that spine clinic patients reported lower satisfaction scores in several categories, including physician care (89.5 vs. 92.6), nurse care (91.3 vs. 93.4), room conditions (81.0 vs. 83.1) and overall clinic assessment (92.9 vs. 95.5). These findings align with our research highlighting the importance of accessibility and convenience in patient satisfaction. In this study, patients valued quick access to medical professionals, low wait times and the ability to schedule visits, which are consistent with prior studies emphasizing these factors. However, similar to the concerns raised in this study regarding physician competence and diagnosis accuracy, patients at Stanford's spine clinic expressed lower satisfaction in aspects related to physician care and room conditions.12

This cross-sectional study assessed patient satisfaction at a tertiary care hospital in Haryana by conducting exit interviews with patients from the outpatient department (OPD) and inpatient department (IPD) between January and March 2019. Satisfaction was evaluated across four domains: registration process, interaction with the doctor, hospital infrastructure, and medicine availability. The results revealed that 84% of patients were satisfied with OPD services, while 77% were satisfied with IPD services. Factors such as being male, literate and certain social groups were associated with higher satisfaction levels. Specifically, students, retired and unemployed individuals, as well as those from reserved social castes, showed higher satisfaction with IPD services. These findings align with similar results observed at Ahsan's Medical Complex in Azad Jammu and Kashmir, where patients generally reported high satisfaction with their medical care, particularly in areas like communication and overall care quality. However, both studies also highlighted areas for improvement, such as addressing financial concerns in healthcare, which may affect patient satisfaction. This emphasizes the need for continued efforts to improve healthcare services and ensure 100% patient satisfaction in both settings, while also focusing on addressing areas of concern, particularly related to the affordability and accessibility of care. 13

A significant gap in the existing literature is the need for

additional studies on patient satisfaction in Pakistan's private healthcare industry. Most studies are focused on public-sector facilities, indicating a need for more information from the expanding commercial hospital scene. This study contributes to closing this gap by offering insights into patient perceptions of care quality at a significant regional private hospital. 17,18 Future research could use more rigorous selection procedures, such as random sampling, to ensure a more representative sample of patients receiving care at Ahsan's Medical Complex and other regional private hospitals. Additionally, incorporating qualitative datagathering methods, such as in-depth interviews or focus group discussions, could provide a more nuanced understanding of the elements influencing patient satisfaction.²⁰ A notable limitation of this study was the absence of a formal ethical review committee. While efforts were made to obtain approval from local authorities, this does not fully substitute for the independent oversight provided by an ethics committee. Such oversight is essential to ensure the protection of participant rights and the confidentiality of collected

Overall, the PSQ-18 results suggest that this study population was generally satisfied with the medical care they receive, particularly high levels of satisfaction in interpersonal manner, communication, time spent with the doctor and accessibility or convenience. Some areas of potential concern include technical quality and financial aspect of care.

Conclusion:

In conclusion, this study shows that patients at Ahsan's Medical Complex are generally satisfied with their care, particularly in areas such as interpersonal communication, time with doctors and accessibility. These findings contribute to the growing body of research on patient satisfaction and can guide healthcare providers and administrators in delivering high-quality, patient-centered care.

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Authors' contributions:

Fatima Khurshid: Conception of study, Manuscript Writing

Ayesha Khurshid: Study Conduction

Ahsan Ul Haq: Critical Review

Khawar Hussain Awan: Analysis / Interpretation

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Sana Tariq: Discussion

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