

1 **Assessing the basic health facilities and satisfaction level of rural people in the Evidence**
2 **from District Sanghar, Pakistan.**

3

4 **Abstract**

5 The availability of basic healthcare affects quality of life in rural and developing areas, with
6 disparities in health services across Pakistan's Provincial Districts. We investigated access to
7 essential health services and satisfaction with their use among people who sought healthcare in
8 the District Sanghar, Sindh Province, Pakistan. This survey used a cross-sectional/multi-stage
9 cluster sampling design, with a questionnaire distributed to 300 participants and including both
10 closed- and open-ended questions. The study applied Descriptive and Multiple Regression
11 Analyses to examine the availability of healthcare services and the factors, including
12 socioeconomic indicators of access to healthcare facilities. This analysis showed that only one-
13 fourth of the health facilities surveyed were rated "satisfactory" by their users, while another
14 40% were rated "unsatisfactory". The lowest in the satisfactory category was Jam Nawaz Ali
15 taluka, one of the health facilities in this study. Even though many government hospitals and
16 vaccination centers are nearby, the population still faces barriers to using an ambulance or
17 making an appointment at a family planning center, a sanitation center, or a specialty care
18 facility. The regression analysis (Adjusted $R^2 = 0.526$) found that access to basic healthcare was
19 positively predicted by education, marital status, cemented housing, permanent residence,
20 possession of a CNIC, and income support, but negatively by unstable employment. The study
21 reveals that barrier to fair patient access and poor patient satisfaction in the healthcare system
22 stem from structural, socioeconomic, systemic, and gender-based factors. The Government of
23 Pakistan should invest in developing health infrastructure, enhancing the quality of care, and
24 improving the socioeconomic status of rural residents to combat these barriers.

25 Keywords: health facilities; rural healthcare; patient satisfaction; socioeconomic factors;
26 Sanghar; Pakistan.

27

28

29

30

31

32 **Introduction**

33 Healthcare is part of community wellness because it facilitates community health
34 development and supports social and economic growth. The availability of quality healthcare
35 services will lead to early diagnosis, successful treatment, and disease prevention, and enhance

36 people's quality of life (Khoso et al., 2022). Viable communities are those with reduced ill health
37 and mortality, increased productivity, and social unity (WHO, 2020). Lack of effective healthcare
38 systems may add further vulnerability to societal equality and unfairly affect vulnerable groups,
39 such as the elderly, children, and the poor (Marmot & Bell, 2022). Preventive healthcare
40 programs such as immunizations, maternal care programs and chronic disease management
41 indeed lower the cost of healthcare and prevent outbreaks of infectious diseases (CDC, 2021);
42 mental health services are also part of the overall well-being of individuals and communities,
43 decrease the level of stress and foster the resiliency of a community (Patel et al., 2018; Suyuhan
44 et al., 2026). Healthcare investments also have broad socioeconomic advantages, such as
45 fostering healthier economies that are more inclined to join the workforce and drive economic
46 growth, and supporting the environment for future generations (Bloom et al., 2021). The local
47 economy is bolstered by hospitals, which provide jobs, promote health education through local
48 schools, and support initiatives that enhance community members' health (Ying et al., 2024; Asif
49 & Khoso, 2025). Therefore, by improving access to healthcare services, we also promote better
50 health and build more resilient communities. (McCullough et al., 2022).

51 Since healthcare is an evolving field, the system's effectiveness must be measured, and
52 patient satisfaction should be considered. Patient satisfaction is a person's reaction to the various
53 characteristics of their healthcare experience (Donabedian, 2020). Patient satisfaction assessment
54 may provide useful insights into the quality of daily care provision. It is widely recognized as a
55 distinct aspect of healthcare quality, encompassing internal hospital factors (. Patient satisfaction,
56 however, was not taken seriously before but is currently receiving growing interest in the
57 healthcare sector (Aharany& Strasser, 2023). The quality of care is also directly associated with
58 the services offered; therefore, it is important to consider the efficiency of care delivery. Some
59 researchers have suggested a relationship between health outcomes and patient satisfaction. The
60 proposed study aims to identify the key factors affecting patient satisfaction, helping healthcare
61 managers optimize resource use and maximize the patient experience and overall satisfaction.
62 (Pascoe, 2022).

63 Measurements of healthcare quality and satisfaction are essential to effective resource
64 management and can be tailored to user preferences. When talking about public hospitals,
65 conducting these studies may not be particularly interested in profits and therefore may not be
66 financially interested. In a more competitive market, private companies must meet patient needs,
67 satisfy patients, and remain loyal to the organization. Patient satisfaction helps to build reviews
68 related to patient decisions regarding inpatient care. From an organizational management
69 perspective, it is relevant (Otani et al., 2022). Therefore, the quality of health,patient satisfaction
70 and services are key factors for the long-term success of health agencies. Despite extensive
71 research on this topic, the results remain inconclusive and vary across documents. There is
72 contradictory evidence due to the subjective nature of patient satisfaction studies. Because
73 perceptions differ, fulfillment is a comparative concept shaped by individual expectations and
74 evaluations of healthcare service quality (Batbaatar et al., 2021).

75 Similarly, the most frequently used methods are lacking, and none provide an inclusive,
76 in-depth analysis with bibliographic support. Therefore, this analysis aims to assess various
77 aspects of patient satisfaction in global health settings and to identify key countries, in this field
78 institutions, documents, authors, and journals, along with joint citation and bibliographically
79 coupled networks. This systematic review can contribute to the understanding of patient
80 satisfaction, including whether influential factors or recommended methodologies are important
81 to researchers and scientists assessing it. The constant request for better outcomes and higher-
82 quality health services is crucial to developing more effective organizational policies tailored to
83 patients' needs. Health organizations recognize that health market promotions and service quality
84 are particularly relevant to public image (Parasuraman et al., 2020). Thus, it is possible to assess
85 and identify the surface of patient satisfaction as a variable to enhance the quality of healthy
86 tissue and identify the most relevant dimensions. Patient satisfaction helps measure health care
87 quality and, therefore, serves as an essential indicator. It impacts clinical outcomes, medical
88 misconduct, and timely, efficient, and patient-centered health care (Gill & White, 2021). Patient
89 satisfaction and the quality of health services are priorities for the service industry, given
90 increased consumption, and are key factors in the long-term success of the Institute of Health
91 (Sofaer & Firminger, 2020).

92 The evaluation of basic healthcare facilities and individuals' level of satisfaction with
93 their healthcare services are two critical components of effectively managing healthcare quality.
94 The data collected during this evaluation process will provide information on how well existing
95 healthcare systems serve the population, where to focus improvement efforts, and whether there
96 is sufficient access to meet patient needs (Donabedian, 2023). Three domains created by
97 Donabedian, namely structure, process, and outcome, can be used to evaluate the quality of
98 healthcare. These three types offer a holistic model of evaluating the accessibility, availability
99 and quality of healthcare facilities and services. Another valid outcome measure of healthcare
100 organization quality is patient satisfaction. Many factors determine satisfaction levels and the
101 quality of healthcare facilities, such as how services are provided, employee competence, the
102 time patients spend waiting, and the physical facilities (Alhassan et al., 2023). The accessibility
103 of healthcare facilities and the quality of medical services received are good measures of an
104 efficient healthcare system. Primary care facilities, hospitals, and specialty clinics that offer a
105 significant range of health-related services are examples of basic healthcare facilities. To provide
106 these services, facilities should be equipped with the resources needed, including emergency
107 care, maternal/child health, and chronic illness management. According to the World Health
108 Organization (WHO) in 2018, access to basic health care is a right that ensures people have the
109 medical treatment they require (WHO, 2018). Assessments of health facilities typically involve
110 evaluating the building and its installations, employee performance, drug and equipment
111 inventory, and doctors' and nurses' attitudes toward patients. (Harrison et al., 2023).

112 The most widely used measure of healthcare quality is patient satisfaction, typically
113 assessed through surveys or patient feedback. High patient satisfaction indicates that the services

114 met or exceeded expectations and that patients are more likely to pursue treatment and achieve
115 their treatment objectives (Ware et al., 2021). Health care professionals' competence and ability,
116 communication with patients, facility cleanliness, and the overall treatment experience are
117 among the factors that help determine patient satisfaction (Jenkins et al., 2019). Alghamdi et al.
118 (2017) found that the relationship between staff and patients and the accessibility of patient care,
119 such as the timeliness of care, were two important determinants of patient satisfaction in a
120 primary health care system. In most cases, patient satisfaction is measured using a standardized
121 instrument, such as the Patient Satisfaction Questionnaire (PSQ) or SERVQUAL, which allows
122 researchers and policymakers to assess and compare expectations and perceived quality of health
123 care services (Parasuraman et al., 2021). The outcomes of the tools can also highlight areas for
124 improvement in health care services. Moreover, Williams (1994) outlined other critical factors
125 influencing patient satisfaction: wait times, staff attitudes, and clinical quality of care.

126 Assessing health facilities helps determine how well healthcare systems function and the
127 disparities in the provision of healthcare resources. Most low-income countries have basic health
128 facilities that are underfunded or poorly managed, leaving patients dissatisfied. Research has
129 found that the availability of necessities and qualified healthcare workers negatively affects the
130 quality of services patients receive and patient satisfaction (Mutale et al., 2023). Furthermore, the
131 availability and proper functioning of basic health services would lead to greater patient
132 satisfaction, especially in rural regions with limited access to care. (Kruk et al., 2024).
133 Weaknesses identified by Healthcare Systems allow participants and stakeholders to gather and
134 use data to improve the Access, Effectiveness, and Efficiency of Healthcare Services. As a result,
135 healthcare systems' ongoing efforts enable continual adaptation to a rapidly growing population
136 while maintaining high-quality health care. Continued Investment in Research and Evaluation of
137 Health Facilities and Population Satisfaction will help promote Health Equity and improve the
138 overall health of Communities (Gupta et. al., 2019). Therefore, this study evaluated the level of
139 satisfaction amongst the local population of Sanghar District regarding the Basic Health
140 Facilities Available to them.

141 **Research Gap**

142 Research investigating levels of access to health care services and patient satisfaction has
143 tended to focus on cities, tertiary hospital systems, or the national level. Research at a rural
144 district level is limited. Research evidence from the district level across Sindh remains
145 particularly sparse. Disparities in access to information and services, along with socioeconomic
146 status differences, shape patients' health-seeking behavior in Sindh. To date, no empirical study
147 has assessed the conditions of basic health facilities, patient satisfaction, or socioeconomic
148 determinants in District Sanghar. The proposed research will address this gap by conducting a
149 district-level, cross-sectional survey of patients in District Sanghar, followed by modelling the
150 socioeconomic determinants of their health-seeking behavior and satisfaction with the services
151 they receive.

152 **Review of Literature**

153 Investigating factors related to non-delivery of medical needs is important as it can reflect
154 access to healthcare. This study examined the relationship between undiscovered medical needs
155 in patients with hypertension and satisfaction with nearby health services. 4.3% of study
156 participants reported unmet medical needs. Among those who were not satisfied with nearby
157 health services (indications: 1.69, 95% CI: 1.49-1.92), the probability of greater medical need
158 was higher than among those who were satisfied with nearby services. A similar trend has been
159 determined whether individuals are currently receiving treatment for hypertension or not, but
160 significant differences were found among groups of currently untreated participants. The results
161 show that implementing public health guidelines requires that nearby health services consider
162 patient satisfaction and address the unmet medical needs of patients with hypertension (Kim et
163 al., 2024).

164 Otojari and Adefala (2024) also reported research on patient satisfaction with health
165 services, in which major health facilities in Chanthaga identified possible predictors. A
166 descriptive research design of the survey was conducted. The target population was patients aged
167 15 years of age at selected PHC facilities. The sampling technology applied was targeted. The
168 PHC Center was selected with 50 participants from all primary health facilities. The sample size
169 was 150. The results of this study showed that the overwhelming majority of respondents (88%)
170 strongly agreed that physicians had high technical competence. The study continued to show that
171 the majority of respondents (41%) agreed that lessons were clear and adequate on diagnostic
172 tests and treatment-related issues, and 56% agreed that appropriate primary levels were
173 maintained during consultations with health service providers. These results show that by
174 ensuring service regulations for service diagram requirements, service reliability and response
175 capabilities improve, and ongoing identification of patient needs is achieved, leading to
176 improved patient satisfaction.

177 Patient satisfaction with healthcare and services in RIADS' advanced facilities (Mani
178 & Goenwicz, 2024). T General satisfaction domains showed positive links to other regions.
179 Participants who were satisfied with the accessibility of communication and the convenience of
180 healthcare providers were the only ones generally satisfied with the PhD field. The findings of
181 this study may serve as a starting point for benchmarks and quality assurance procedures for
182 Saudi Arabia's health services (Aljarallah et al., 2023). Patient satisfaction among pre-health
183 students and the factors that influence it are the main focus of much scientific research. Insurance
184 for the quality of services provided is extremely important to meet patients' expectations and
185 needs. This study sought to identify determinants of patient satisfaction in the global context,
186 review the literature, and conduct analyses to address gaps in the bibliographic review. Thus, the
187 researchers have concluded that medical care, patient communication, and patient age are among
188 the most important factors (Ferreira et al., 2023).

189 Perceptions of quality of care from a patient's perspective, accessible within a medical
190 facility, are considered extremely important in the healthcare industry. This report presents
191 conclusions from studies assessing the quality of health services in hospital facilities. This study
192 sought to identify a dichotomy in the quality of care between public and private health facilities,
193 focusing on patient care, attention, and satisfaction. Additionally, the research business
194 investigated health service provider restrictions and customer service premiums. A mixed-
195 methods approach was used to elicit responses from 400 patients in the hospital via a
196 questionnaire. Mutual adjustment and independent CHI tests were used to analyze and interpret
197 the data. The results of this study show that care and attention are higher than in public and
198 private healthcare facilities. This study was conducted on a sample of 400 hospital service users
199 using simple random sampling techniques. Data collected in a structured questionnaire and
200 analyzed using SPSS for Windows version 16.0 were statistically tested, where required, at the P
201 <0.05 significance level. According to satisfaction surveys, people don't see a significant
202 difference between public and private hospitals. Patients seem happier with private hospitals,
203 rating their care as better than that at state-run hospitals (Kumar, 2023).

204 This research will investigate the accessibility of basic health facilities in rural
205 communities and examine patients' satisfaction with them. The survey and interviews were
206 conducted among 200 people in the rural villages where the data were collected. Results reveal
207 that, despite the affordability of health facilities, the quality of care is poor, leaving locals very
208 dissatisfied. There was a significant relationship between infrastructure quality and patient
209 satisfaction. This paper therefore recommends improving healthcare facilities and educating
210 medical personnel to enhance service provision (Smith & Lee, 2022). The link between one-third
211 of health facility infrastructure and urban community satisfaction in low-income urban areas. By
212 following a mixed-methods research approach that included focus groups and survey
213 questionnaires, we identified immediate concerns about how healthcare is delivered. Findings
214 suggest that although facilities are available, issues such as long waiting times and poor staff
215 training also play a vital role in reducing satisfaction. Among the recommendations for
216 improvement, it is possible to mention increasing healthcare funding and implementing patient-
217 centered care practices (Brown & Harris, 2023). The satisfaction of the local population with the
218 quality of healthcare services in the new rural healthcare facilities. With 150 residents in total,
219 there is a shortage of specialized services and poor equipment, which greatly affects the
220 satisfaction levels. The research shows that satisfaction could be improved by increasing
221 investment in rural health facility infrastructure and ensuring a consistent supply of medicines.
222 (Johnson & Green, 2021).

223 A survey was conducted in semi-urban areas to assess the satisfaction of community
224 health center staff and patients with the quality of services provided. The authors found that
225 health sites were generally accessible to patients, but most dissatisfaction stemmed from
226 perceived unprofessionalism among health professionals and poor hygiene. The authors
227 suggested placing greater emphasis on ensuring that medical staff receive high-quality training

228 and that required hygiene standards are observed (Wang & Lie, 2020). The authors have stressed
229 the importance of local health facilities for the overall welfare of the people they serve. The
230 authors employed qualitative and quantitative methods to assess patient satisfaction and
231 healthcare quality by analyzing data from patients in a small village. They have highlighted that
232 knowing how to access available health services optimally improves patients' access to services
233 and, therefore, overall patient satisfaction. The authors also suggested including more
234 community health education to help patients use available services more effectively (Morris &
235 Gupta, 2021; Chen & Khoso, 2025). A study was also conducted in a metropolitan area to assess
236 residents' satisfaction with public health facilities. Data were collected through a survey
237 involving more than 500 participants, who reported that although they generally enjoyed access
238 to health services, they were not satisfied because they had to wait long and had poor
239 communication with their health care providers. Research indicates that one way to address such
240 concerns is to use digital health records and telemedicine (Adams & Goldstein, 2022). Poor
241 access to basic health services in deprived areas and the degree of population satisfaction with
242 immediate services. The study suggests that poor staffing, service delays, and insufficient
243 medical supplies are the primary factors that can lead to patient dissatisfaction. The authors state
244 that mobile clinics and local and state governments must allocate more funds to health care and
245 expand it to address access to care in the aforementioned regions (Carpenter and Scholley 45).
246 (Williams & Thompson, 2021).

247 Patients indicated that they were not satisfied with maternal health services specifically.
248 Based on the research findings, the authors suggest implementing policy interventions to
249 improve the quality of health care services and infrastructure in rural regions (Kenyatta & Moyo,
250 2022). Data on patient satisfaction with care at a district hospital are primarily evaluated through
251 access to care, quality of care, and the patient experience. The patient satisfaction study based on
252 survey results shows that, overall, patients are satisfied with the well-equipped facility; however,
253 the lack of individualized care and delays in the administrative process negatively affect
254 satisfaction. Chang and Tan (2023) propose additional administrative procedures and better
255 patient-provider communication to improve patient satisfaction. Determinants of patient
256 satisfaction with basic health services in rural India. In this research, questionnaires were used to
257 collect data. It was determined that people's satisfaction is strongly influenced by the availability
258 of required medicines, medical staff's positive attitudes, and the quality of facilities. The article
259 indicates that we must ensure that medicine gets where it belongs and better educate healthcare
260 workers, so that people in the community are more satisfied with local healthcare. (Reddy &
261 Prakash, 2021).

262 Researchers assessed the specific health services (EPI, prenatal care, basic health care)
263 offered at selected BHUs in Peshawar to determine the number and types of services being
264 delivered. To conduct these assessments, they collected information using standardized
265 checklists and locally developed/community-based questionnaires. They completed a YES/NO
266 response for each checklist question. SPSS v.22 was then used to analyze the data descriptively.

267 (EPI) (MCHC-MCCHC) All Bhus received complete vaccination coverage and folic acid
268 supplementation; however, their nutritional status was inadequate. Approximately 80% of BHUs
269 had appropriate infrastructure. Security and hygiene protocols for BHUs were not consistently in
270 place, as required by standard operating procedures for the management of hazardous waste and
271 the disposal of sharp objects (needles). The majority of health facilities were present in the
272 inspected BHUs, including vaccination, MCHC, and infrastructure services, as well as security
273 and sanitation. Female staff were appropriate, but male employees were poor (Raza et al., 2020).

274 It includes patient satisfaction with health services and physician behavior, as well as
275 mitigation of health services. This study aims to assess patients' satisfaction with laboratories and
276 medical services, including diagnostic, preventive, and prenatal care, in Pakistan's public health
277 sector. This study uses regression to examine whether patient satisfaction with health services
278 and physician behavior are associated with patient satisfaction and healthcare outcomes. General
279 opinions regarding patient satisfaction with hospital medical services were positive. Satisfaction
280 is high across laboratory and diagnostic care, preventive health care, and prenatal care. Based on
281 the results, this study confirms that the proposed hypothesis is statistically significant.
282 Additionally, the study provides guidance for future research (Manzoor et al., 2019).

283 Patient satisfaction with the care received is of paramount importance for delivering high-
284 quality care. Goal: This study was planned to assess factors associated with satisfaction among
285 stationary patients participating in government health agencies. A cross-sectional study was
286 conducted among all eligible inpatients in state health facilities in northeastern India, using a
287 semi-structured questionnaire to assess seven domains of patient care. A total of 751 patients
288 were interviewed, with 275 caring men (36.6%). Almost a third of patients (32.5%) were very
289 satisfied with the overall care they received. The patient education domain was insufficient for
290 185 patients (24.6%). Patients admitted to the surgery and the alliance departments reported
291 significantly higher satisfaction with care ($p < 0.001$) than those admitted by other departments.
292 The conclusion is that physician and nursing home satisfaction is a high management priority for
293 improving station comfort and cleanliness, thereby enhancing overall quality of care and
294 increasing patient loyalty (Rajkumari & Nula, 2017).

295

296

297

298

299

300

301

302

303

304 **Research Methodology**

305 **Study area**

306 A cross-sectional survey was conducted in rural areas of the District Sanghar, Sindh, Pakistan.
307 The district comprises six taluks with predominantly agrarian livelihoods and dispersed rural
308 settlements.

309 **Sample Size and Sampling Technique**

310 The present study was conducted in the Sanghar District, a rural setting, and a sample of 300
311 respondents was selected using multistage cluster sampling. All six talukas were chosen in the
312 initial phase. A sample of 50 respondents was randomly selected, and two Union Councils (UCs)
313 were selected in each taluka. A survey was then carried out. The medical facilities, pharmacies,
314 and the local population were also contacted and invited to participate in the study and to collect
315 the relevant data using a valid, credible, and structured closed-ended questionnaire. A sample of
316 300 respondents was selected to achieve a 5 percent margin of error with a 95 percent
317 Confidence Level.

318 **Data Collection Instrument**

319 A closed-ended questionnaire was designed to gather information on people's socioeconomic
320 status, the accessibility of medical services, and their satisfaction with the services provided. The
321 questionnaire the co-authors developed was very comprehensive, drawing on input from various
322 sources. Moreover, the Technical Committee scrutinized and offered recommendations on how
323 the questionnaire would be conducted. To obtain more specific demographic information, a
324 personal interview was used to gather data on respondents' business features and concerns. The
325 personal interviews were also used to elaborate on the issues, thus making the questionnaire data
326 more valid.

327 **Data analysis**

328 The SPSS (Statistical Package for the Social Sciences) is used to analyze the data collected in
329 this study. The initial analysis will provide descriptive statistics on demographics and results for
330 the availability/facility indicators. A multiple regression analysis was then performed to identify
331 the factors affecting healthcare facilities in the study area. Based on this, it is reasonable to
332 conclude that descriptive and multiple regression analyses will provide sufficient data to support
333 generalization and analysis of the overall findings.

334

335

336

337

338

339 **Results**

340

341

342

343

344

345

346

347

348

349

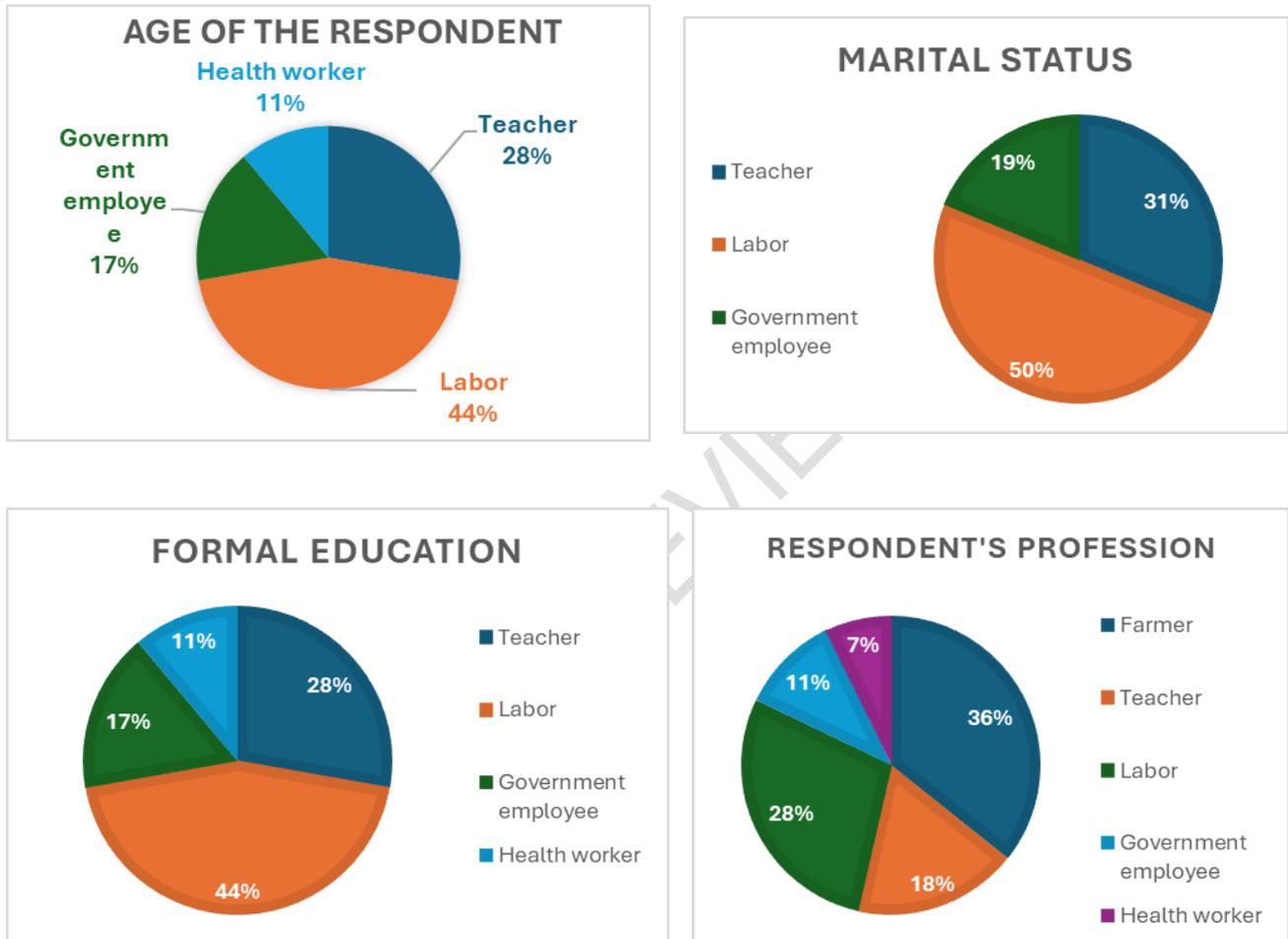
350

351

352

353

354



355

Figure1 Respondents' Background Characteristics

356

357

358

359

360

361

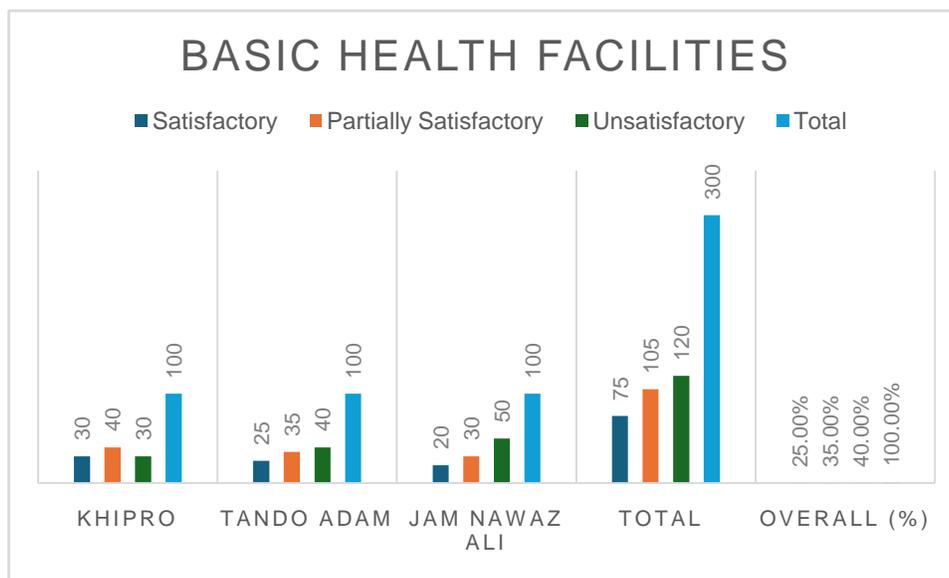
362

363

364

365

The respondents' age distribution is shown in the figure. Most respondents were aged 20-30, accounting for 30% of the total sample. There were also high numbers for ages 31-40 and 51+, each accounting for 25% of respondents' ages. Thus, most respondents were aged 20 to 40. The Respondent's Marital Status is displayed in the figure. In the study, 50% of respondents were married, 40% were single, and 10% were divorced. Therefore, most respondents were married and lived with a partner in a joint family. The Respondent's Education Level is represented in the figure. Among respondents, 33.33% had obtained a Matric, the highest percentage across all groups; next was 26.67% with an Intermediate (Inter) Education level; third, 23.33% had achieved a Middle Level Education; and 16.67% reported No Formal level of Education. Therefore, on average, one-third of respondents had completed Matric, while a considerable



366 number
367 formal
368 schooling.
369 majority

had no
The
of

370 respondents were engaged in Farming or Daily Wage Labor, as shown in the figure.

371

372

373

374

375

376

377

378

379

380

Figure 2: Taluka-wise basic health facilities in the study area

381 In the study area, Figure 2 shows the number of basic health service facilities across the three
382 talukas of Khipro, Tando Adam, and Jam Nawaz Ali. The facilities have been classified into three
383 levels of service quality: satisfactory, partially satisfactory, and unsatisfactory. Of the 300
384 facilities assessed, only 75 (25 percent) were satisfactory, 105 (35 percent) were partially
385 satisfactory, and 120 (40 percent) were unsatisfactory. In Khipro, 30 percent of the total basic
386 health facilities (100 in total) were assessed as satisfactory, 40 percent as partially satisfactory,
387 and 30 percent as unsatisfactory. The situation in Tando Adam appears worse: only 25 percent of
388 facilities met satisfaction standards, while 40 percent did not. Again, this highlights a very
389 serious issue regarding the quality and effectiveness of health services in this region, as nearly
390 two-thirds of locations are rated below standard. The Jam Nawaz Ali area has the lowest
391 percentage of health facilities rated satisfactory, with only 20 percent rated satisfactory, 30
392 percent rated partially satisfactory, and 50 percent rated unsatisfactory, the largest proportion out
393 of all three talukas.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	194.596	26.068		7.467	.000
Formaleducation	11.057	1.983	.305	5.578	.000
MaritalStatus	31.764	5.435	.304	5.843	.000
Job category (Full-timejob)	-29.782	3.043	-.256	-4.890	.000
Housetype (Cemented)	26.573	5.761	.245	4.612	.000
Residentialstatus (Permanent)	14.849	5.412	.144	2.742	.007
PersonalCNIC card	15.964	5.692	.142	2.806	.006
GovernmentalIncome Support	12.026	5.117	.118	2.349	.020
Dependent Variable: Basic health facilities; $r = .735^a$; $r^2 = .542$; Adjusted $r^2 = .526$; $F = 32.478$; Significant = $.000^b$					

Table 1: Relationship of Basic Health Facilities Variables

394
395 A multiple regression analysis was conducted to determine the effects of socioeconomic variables
396 on access to basic health facilities. The regression model was statistically significant ($F = 32.478$,
397 $p = .001$), indicating a very strong overall fit. The model accounted for 54.2% of the variance in
398 access to basic health facilities ($R = .735$, $R^2 = .542$; Adjusted $R^2 = .526$). Access to basic health
399 facilities was determined by formal education ($b = .305$, $p < .001$) and marital status ($b = .304$, p
400 $< .001$), the strongest predictors, with positive coefficients. Positive effects on housing quality (b
401 $= .245$, $p < .001$), permanent residential status ($b = .144$, $p = .007$), possession of a personal CNIC
402 card ($b = .142$, $p = .020$) and receipt of governmental income support ($b = .118$, $p = .020$) were also
403 found to be statistically significant. However, full-time employment was negatively correlated
404 with the availability of basic health facilities ($b = -0.256$, $p < 0.001$), possibly indicating limited
405 time or work-related reasons. In general, the results show that socioeconomic stability and legal
406 identification substantially improve access to primary health services, whereas employment-
407 related factors may impede it.

408 Discussion

409 The quality and availability of basic health facilities to the population are significant
410 factors affecting a community's health and well-being. Understanding health outcomes requires
411 evaluating both the degree of satisfaction with health care services and their accessibility for
412 people living in rural areas of District Sanghar, Pakistan. In addition to assessing health care
413 providers' infrastructure, this assessment will evaluate residents' satisfaction with the health care
414 services they receive. Creating a data-collection framework with community members will help
415 identify opportunities to better deliver health care services in District Sanghar and provide
416 recommendations to improve health outcomes for all people within that jurisdiction, based on the
417 findings of this assessment. The data show that the majority of respondents are between ages 20
418 and 30 (30%); at this age, individuals are typically in the early stages of their careers, education,
419 and family life. Since many respondents are in the 20–30 age range, this indicates a large number
420 of young people in the District Sanghar demographic and aligns with standard trends in
421 developing regions worldwide, where a higher proportion of residents are young (Khan &
422 Ahmed, 2018). The respondents are almost equally represented in the 31-to-40 and 51 and older
423 age groups (each at 25%). Only a few respondents are aged 41-50 (20%). A demographic
424 transition in those countries' populations shows that most people will be younger than the older
425 population, creating a gap between the two groups. The research shows an imbalance in the
426 distribution of younger and older age groups, driven by factors such as migration trends and
427 economic opportunities. For example, when young adults migrate to find better job opportunities
428 or to obtain an education, they typically leave their elders behind who still live in less developed
429 or rural areas. The age groups also contrast with the findings of previous studies, which indicated
430 greater bias toward older adults, as older persons were not expected to travel far from home to
431 seek employment or educational opportunities and, in many cases, were unable to do so (Amin,
432 2020).

433 Two-thirds of the respondents are dominant Muslims, and only 1 in every 3 is not-
434 Muslim. This observation supports the faith of most South Asian countries since the majority of
435 them are of Islam faith. The supremacy of Muslims is a reflection of the socio-cultural and
436 religious environment of the region, which is likely to influence the daily lives of people, their
437 social norms, families, and even medical practices (Mahmood & Khan, 2020). This homogeneity
438 of religion is also consistent with previous findings, which showed that the same figures were
439 reported in studies conducted in regions with a majority-Muslim population (Zaman & Ali,
440 2018). However, this 10 percent of non-Muslim respondents may well be capable of providing
441 some good information on the minority community issues that might be compromised in the
442 mainstream social and political discourse. The analysis shows that the highest proportion (33.33)
443 of the respondents had Matric education, followed by the intermediate education (26.67) and no
444 education (33.33). The percentage of uneducated individuals with no formal schooling was also
445 high (16.67), indicating the existing education gap, especially in low-income and rural areas.
446 Inequalities in education in such locations have been discussed, and access to education shows
447 wide disparities and is highly dependent on socioeconomic factors, geographic location, and
448 gender (Ali & Khan, 2020). Despite the milestones of Matric and Intermediate education, in

449 most cases, there is no higher-paying, more professional employment to match them. The less
450 educated often struggle to secure a better job. This trend is consistent with past research, which
451 indicates that less educated individuals often struggle to secure better jobs. (Siddiqui, 2020).
452 Moreover, 16.67 percent of people without formal education cite the ongoing problem of limited
453 educational access in some communities.

454 The respondents' marital status was divided as follows: 50% were married, 40% were
455 unmarried, and 10% were divorced. The data provide information about family structure and also
456 show what society expects of those who marry and raise families. Cultural and religious beliefs
457 influence the expectations associated with marrying and raising families; the data are
458 representative of a conservative culture that strongly values marriage as an important part of the
459 family unit. (Hassan & Jamil, 2021). According to earlier research on family structure in
460 Southern Asia, the trends identified by this study continue to hold: the marriage rate is relatively
461 high, the divorce rate is quite low, and divorce is very limited due to social stigma. Of the
462 respondents, 16.67% reported that they do support and/or practice polygamy, while the
463 overwhelming majority of respondents (83.33%) did not. This statistic suggests that there are
464 still people who hold very different opinions about marriage from those held by a majority of
465 society today; thus, this data suggests that a deeper understanding of polygamy's presence within
466 some societies or communities may be necessary. Though polygamy is not encouraged in most
467 countries across the globe, it still exists in a few corners of some populations, mostly in rural
468 regions. The proportion of the respondents who supported polygamy is rather low, but the
469 existence of polygamy is not a contradiction to the literature. These results also reveal that 60
470 percent of those interviewed lived in multigenerational or extended families and 40 percent lived
471 in nuclear families. One of the most prominent and common aspects of social organization in
472 many South Asian and Middle Eastern societies with diverse cultural traditions is the joint family
473 system (Khan, 2020). One impact of cohabiting is that most people live in multigenerational
474 households before starting their own families. However, this number indicates that families
475 continue to maintain intimate relationships through extended family ties within joint families,
476 even as nuclear families are gaining popularity worldwide. The interviews indicated that most
477 families had more than 2 members, underscoring the value of extended family relationships in
478 these regions. Another fact is that about 30 percent of the interviewed families had more than 5
479 people, which may be attributed to rural communities being associated with larger families
480 (Ahsan & Shahid, 2018). Statistics on larger families are available in urban areas. However, none
481 are available in rural areas, as the world tends towards urbanization and the trend towards
482 smaller families.

483 The respondents' housing conditions reveal that half rent. The other 40 percent live in
484 cement houses (constructed), which implies that most of those who took part in this survey lack
485 their own homes, or, if they do, live in communities with different infrastructure standards. The
486 need to rent a house is often a sign of limited financial means, especially in regions where
487 homeownership is inaccessible or unaffordable to a large portion of the population (Ali, 2020).

488 The fact that a huge percentage of the participants were in cement housing points out to the fact
489 that the development of infrastructure in this country is more than in several other countries, but
490 it also points out that the disparity between the rich and the poor in this country is very wide, as
491 not all the people who have taken part in this survey can afford the newer homes. The other
492 observation in the report is that 4 out of 10 have maintained their socioeconomic status over the
493 past 2-3 years. This stability, however modest, means that a significant percentage of the
494 population cannot move much upward, a tendency often linked to limited access to schools and
495 employment opportunities (Jamil & Hassan, 2021). The biggest professional group surveyed is
496 the farmers. (33.33%), followed by laborers (26.67%). Findings of this nature highlight the role
497 of farming and handwork in the local economy. In most developing nations, the agricultural
498 industry still employs a large number of people, and on several occasions, they lack access to
499 new technology and modern farming methods (Rahman, 2020). This aligns with previous results
500 indicating that, in rural economies, employment diversification is minimal because they are
501 highly dependent on agriculture (Siddiqui & Nawaz, 2019). Within the health industry, although
502 there is positive feedback about government hospitals and vaccination programs, the negative
503 attitude towards the condition of hospitals and services, such as sanitation, is also an issue. Prior
504 studies have found a lack of access to quality healthcare resources and difficulty obtaining care
505 in rural areas or in poorly served communities. In addition, He (2019) published a review paper
506 on health-related behaviors. There are also many other determinants of health behavior, including
507 social demographic factors such as age, sex, marital status, education, and income level.

508 Ochan et al. (2018) explained that satisfaction is the degree to which patients feel the
509 service they received fulfilled their expectations. Dissatisfaction with healthcare services is
510 growing among patients due to the commercialization of medical services, the bureaucratic
511 nature of healthcare providers, and poor relationships between patients and healthcare providers.
512 The paper will examine the determinants of patient satisfaction during services in tertiary care
513 hospitals and the extent to which these determinants are statistically significantly associated with
514 patients' demographic data. Demographic data analysis shows statistically significant differences
515 ($P < 0.05$) in patient satisfaction by gender, geographic location, education, occupation, and
516 health insurance status (Kamara et al., 2016).

517 The aim of the research was to examine various measures of patient-centered healthcare
518 quality. The findings will support further research on the roles of institutional, quality, and
519 socioeconomic determinants in service quality in the health care delivery system, and on how
520 patients perceive their experiences and the level of service they receive. All the factors
521 mentioned above, as well as socioeconomic factors such as age, cultural beliefs, education level,
522 income level, and occupation, should be considered by hospital management during service
523 design to better serve patients (Zeithaml et al., 2019).

524 In the healthcare sector, patient satisfaction assessment is of prime importance for quality
525 evaluation and improvement, as it is a significant factor in treatment compliance and health
526 outcomes. Although it is of great significance, research on patient satisfaction in public health

527 centers in Addis Ababa remains scarce. This research indicates the need to understand patient
528 encounters in this context, focusing on key factors such as staff conduct, the adequacy of medical
529 resources, waiting times, and the overall care atmosphere. The results highlight aspects that, if
530 taken into account, could inform the development of policies and practices to increase patient
531 satisfaction in Addis Ababa's public healthcare system. (Tollera et al., 2025).

532 **Conclusion**

533 The Study Results presented a combination of positive and negative response on the provision of
534 health care services in the Region. Although most respondents acknowledged the presence of
535 Government-run medical institutions, Vaccinations, and related health services, they were also
536 aware of very limited access to private doctors, female doctors, ambulance services for
537 emergencies, and family planning. Cultural and familial constraints were also among the factors
538 respondents identified as reasons for being unable to receive health care. Another issue that was
539 of concern to the respondents was Sanitation and Equitable Service Delivery throughout the
540 Region. The survey conducted by Taluka revealed that 40% of health care establishments were
541 categorized as Unsatisfactory, with the Taluka of Jam Nawaz Ali being the most dissatisfied. In
542 general, health care facilities received low ratings, with only 25 percent rated Satisfactory,
543 indicating significant gaps in health care infrastructure. The Regression Analysis ($R^2 = 0.526$)
544 demonstrated that Formal Education, Marital Status, Housing Condition of Cement, Permanent
545 Residency, Possession of a CNIC, and Receipt of Income Support were significant, Positive
546 Predictors of Access to Health Care Services. Alternatively, respondents' Uncertain Job
547 Categories negatively affected their access to Basic Health Care Services throughout the Study's
548 Research Region. The Study concluded that the Research Region needs improved socioeconomic
549 conditions, Infrastructure Improvements, and social reforms to facilitate the Equitable and
550 Effective Delivery of Health Care Services.

551 **Recommendations**

- 552 1. Enhance health care informatics in primary health care in most underserved rural
553 talukas, including Jam Nawaz Ali.
- 554 2. Enhance hygiene, transport by ambulance and family planning services in the rural
555 healthcare facilities.
- 556 3. The intervention to overcome the cultural barriers that limit access to healthcare by
557 women includes increasing the number of women in healthcare.
- 558 4. Offer a higher coverage of CNIC and income support in order to allow equal access
559 among all marginalised households.
- 560 5. To increase the utilization and satisfaction of services, implement the community
561 health education research.

562

563 Acknowledgement: The author acknowledges the respondents' support for their time and
564 consideration.

565 Declarations:

566 The author declares that this manuscript is original and has not been submitted elsewhere.

567 All authors contributed equally from generating the idea through the end of the manuscript.

568 The author declared there are no conflicts among authors.

569 All data were collected ethically with informed consent.

570 Funding: No funding was received for this research.

571

572

573

574

575

576 **References**

577 Adams, R., & Goldstein, M. (2022). Public health service satisfaction in metropolitan areas:
578 Challenges and opportunities. *Urban Health Policy Review*, 19(3), 77-85.

579 Asif, M., & Khoso, A. R.(2025). Educating Under Pressure: A Sociological Analysis of
580 Academic Stress and Mental Well-being among Graduate Students in
581 Sindh. *Symbiohealth*, 4(1), 1–12. <https://doi.org/10.59525/symbiohealth.1051>

582 Alghamdi, M. S., Alshammari, S. A., Alwahaibi, A. A., &Alzahrani, A. M. (2017). Patient
583 satisfaction in primary healthcare centers in the Kingdom of Saudi Arabia. *Journal of Family*
584 *Medicine and Primary Care*, 6(1), 88-94.

585 Alhassan, R. K., Nketiah-Amponsah, E., &Atinga, R. A. (2023). Does performance- based
586 financing influence health care workers' motivation? A mixed methods study from Ghana.
587 *BMC Health Services Research*, 13(1), 1-11.

588 Aljarallah, N. A., Almuqbil, M., Alshehri, S., Khormi, A. M. S., AlReshaidan, R. M.,
589 Alomran, F. H., &Asdaq, S. M. B. (2023). Satisfaction of patients with health care services in
590 tertiary care facilities of Riyadh, Saudi Arabia: A cross-sectional approach. *Frontiers Journal*
591 *of Public Health*, 10(4), 1077-1089.

- 592 Batbaatar, E., Dorjdagva, J., Luvsannyam, A., & Amenta, P. (2021). Conceptualization of
593 patient satisfaction: A systematic narrative literature review. *Journal of Perspectives in Public*
594 *Health*, 35(5), 243–250.
- 595 Bloom, D. E., Canning, D., & Sevilla, J. (2021). The economic impact of health on
596 productivity and development. *Global Journal of Health Science*, 59(4), 718- 730.
- 597 Brown, C., & Harris, L. R. (2023). Patient satisfaction and healthcare accessibility in urban
598 slums. *International Journal of Public Health*, 44(1), 45-59.
- 599 CDC, Centers for Disease Control. (2021). The value of prevention: Reducing health risks
600 and lowering healthcare costs.
- 601 Chen, Q., & Khoso, A. R. (2025). Evaluating the effects of ideological and political
602 education on civic engagement and social behavior among university students: A case study
603 of Sindh Agriculture University Tandojam, Pakistan. *Sage Open*, 15(4),
604 21582440251365400.
- 605 Chang, W., & Tan, C. Y. (2023). Patient satisfaction in district hospitals: An analysis of care
606 quality and administrative efficiency. *Journal of Health Administration*, 16(1), 52-59.
- 607 Donabedian, A. (2020). The quality of care: How can it be assessed? *JAMA*, 260(12), 1743–
608 1748.
- 609 Donabedian, A. (2023). Evaluating the quality of medical care. *Milbank Quarterly*, 83(4),
610 691-729.
- 611 Ferreira, D. C., Vieira, I., Pedro, M. I., Caldas, P., & Varela, M. (2023). Patient satisfaction
612 with healthcare services and the techniques used for its assessment: a systematic literature
613 review and a bibliometric analysis. *Journal of Healthcare*, 11(5), 370-381.
- 614 Gill, L., & White, L. (2021). A critical review of patient satisfaction. *Leadership Journal of in*
615 *Health Services*, 22(1), 8–19.
- 616 Harrison, M., Bero, L., & Baeza, C. (2023). Health facilities and the quality of care.
617 *Health Policy*, 119(3), 356-365.
- 618 Jenkins, R., Olsson, M., & Duggan, P. (2019). Patient satisfaction and its impact on the
619 quality of care. *Medical Care Review*, 16(2), 200-206.
- 620 Johnson, M. E., & Green, K. P. (2021). Satisfaction levels in rural healthcare services: A
621 cross-sectional study. *Journal of Rural Medicine*, 29(3), 188-193.
- 622 Khoso, A. R., Akhtar, F., Narejo, A. A., Mallah, S. A., Vighio, K., & Sanjrani, D. K. (2022).
623 Comparative analysis of service quality between public and private hospitals, using

- 624 SERVQUAL model: a case study of Peshawar, Pakistan. *MEDFARM: Jurnal Farmasi dan*
625 *Kesehatan*, 11(2), 240-252.
- 626 Kenyatta, P., & Moyo, T. (2022). Maternal health services and patient satisfaction in rural
627 African communities. *African Health Journal*, 12(2), 105-112.
- 628 Kruk, M. E., Goldmann, E., & Galea, S. (2024). The impact of health system strengthening
629 on health outcomes in low-income countries: A systematic review. *The Lancet*, 376(9749),
630 1035-1041.
- 631 Mani, Z. A., & Goniewicz, K. (2024). Transforming Healthcare in Saudi Arabia: A
632 Comprehensive Evaluation of Vision 2030's Impact. *Sustainability*, 16(8), 3277.
- 633 Manzoor, F., Wei, L., Hussain, A., Asif, M., & Shah, S. I. A. (2019). Patient satisfaction with
634 health care services; an application of physician's behavior as a moderator. *International*
635 *Journal of Research and Public Health*, 16(18), 3318.
- 636 Marmot, M., & Bell, R. (2022). Fair society, healthy lives: The importance of addressing
637 social determinants of health. *Journal of Public Health*, 26(1), 4-7.
- 638 McCullough, M., Eisenkraft, B., & Sen, B. (2022). Healthcare as community development:
639 Economic and social impact on local well-being. *Journal of Health Affairs*, 31(12), 2932-
640 2940.
- 641 Morris, T. A., & Gupta, N. (2021). The role of health education in improving satisfaction
642 with local health facilities. *Journal of Community Health*, 43(5), 629-635.
- 643 Mutale, W., Manda, E., & Fylkesnes, K. (2023). The performance of the health system in
644 Zambia: A systematic review of the health policy and systems research literature.
645 *International Journal of Health Policy and Management*, 2(1), 1-12.
- 646 Ochan, A. W., Aaron, K., Aliyu, S., Mohiuddin, M., & Bamaiyi, P. (2018). Patients'
647 satisfaction with healthcare services received in health facilities in Bushenyi District of
648 Uganda. *International Journal of Science and Healthcare Research*, 3(1), 76-87.
- 649 Otojareri, K. A., & Adefila Adewale, A. (2024). Assessment of patients satisfaction with
650 health care services from primary healthcare facilities In Chanchanga. *Journal of*
651 *Communication and Medical Health Science*, 15(07), 581-596.
- 652 Otani, K., Waterman, B., & Dunagan, W. C. (2022). Patient satisfaction: How patient health
653 conditions influence their satisfaction. *Journal of Healthcare Management*, 57(4), 276-292.
- 654 Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (2020). SERVQUAL: A multiple- item scale
655 for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- 656 Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (2021). A conceptual model of service
657 quality and its implications for future research. *Journal of Marketing*, 49(4), 41- 50.

- 658 Pascoe, G. C. (2022). Patient satisfaction in primary health care: A literature review
659 and analysis. *Journal of Evaluation and Program Planning*, 6(3-4), 185–210.
- 660 Patel, V., Saxena, S., Lund, C., & Thornicroft, G. (2018). Mental health for all: Translating
661 policy into practice in community settings. *Journal of Medical Research*, 92(8), 1493-1512.
- 662 Rajkumari, B., & Nula, P. (2017). Patient's satisfaction with care in a government health
663 facility in North East India: A cross-sectional study. *Journal of Medical Society*, 31(2), 94-98.
- 664 Raza, A., Jamal, P., Saeed, M., Ahmed, R., Qazi, E., & Rehman, S. (2020). Assessment of the
665 facilities provided to patients in selected Basic Health Units (BHUs) of Peshawar, Pakistan.
666 *Journal of Rehman Medical Institute*, 6(4), 07-11.
- 667 Reddy, S., & Prakash, B. (2021). Determinants of patient satisfaction with healthcare services
668 in rural India. *Asian Journal of Health Studies*, 25(4), 311-319.
- 669 Suyuhan, W., Khoso, A. R., Jintu, G., & Bhutto, S. (2026). The mental health crisis in global
670 higher education: understanding and mitigating academic load stress among international
671 students from Asia and Africa in Nanjing China. *Frontiers in Psychology*, 17, 1707944.
- 672 Smith, J. A., & Lee, T. P. (2022). The availability and satisfaction of health facilities in rural
673 communities: A case study. *Journal of Rural Health Studies*, 38(4), 224- 237.
- 674 Sofaer, S., & Firminger, K. (2020). Patient perceptions of the quality of health
675 services. *Annual Journal of Public Health*, 26(1), 513–559.
- 676 Tollera, G., Retta, M. T., & Girmay, A. M. (2025). Patient satisfaction with healthcare services
677 and associated factors at public health centers in Addis Ababa, Ethiopia. *Discover Social
678 Science and Health*, 5(1), 38.
- 679 Ware, J. E., Jr., & Snyder, M. K. (2021). The measurement of patient satisfaction:
680 Implications for future health services. *Medical Care Review*, 57(2), 205-225.
- 681 WHO, World Health Organization. (2020). Universal health coverage: Promoting health
682 equity and community well-being. WHO Report.
- 683 Williams, B. (1994). Patient satisfaction: A valid concept? *Social Science & Medicine*, 38(6),
684 708-710.
- 685 Williams, D. L., & Thompson, R. J. (2021). Satisfaction with health services in underserved
686 communities: A regional survey. *Journal of Healthcare Accessibility*, 15(4), 210-217.
- 687 Wang, S., & Liu, H. Z. (2020). Patient perceptions of healthcare quality in semi-urban health
688 facilities. *Global Health Review*, 8(2), 111-118.
- 689 World Health Organization (WHO). (2018). Universal Health Coverage: Key facts.

- 690 Ying, H., Khoso, A. R., & Bhutto, S. (2024). A case study investigating the relational well-
691 being of international students at Hohai University Nanjing, Jiangsu Province of China.
692 Behavioral Sciences, 14(7), 544
- 693 Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (2019). The behavioral consequences of
694 service quality. Journal of Marketing, 60(2), 31–46.

UNDER PEER REVIEW IN IJAR