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Factors Affecting Patients' Support and Satisfaction: Investigating A Mediating Role of Patients' Empowerment

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Abstract

Satisfying the healthcare customers is more important than any other service because a patient's health and sometimes life are at stake. Family and doctor's support, access to health, and patient-perceived empowerment are important antecedents to patient satisfaction. However, we found limited studies that have used these variables in their studies. The study documents that family support insignificantly affects patient satisfaction. However, the study found that "doctor support, access to health care, and patient-perceived empowerment positively affect patient satisfaction." Regarding the mediating effect, we found that "patient-perceived empowerment mediates access to health care and patient satisfaction. However, the study did not find support for the mediating effect of patient-perceived empowerment on (i) family support and patient satisfaction and (ii) doctor support and patient satisfaction.

Keywords: *Family support, doctor support, patient-perceived empowerment, and patient satisfaction.*

Introduction

Patient satisfaction is critical to healthcare beyond medical treatment (Miolda et al., 2023). It is about creating a supportive and compassionate environment where patients feel heard, understood, and valued. When healthcare providers take the time to listen, explain, and involve patients in their care, it builds trust and fosters loyalty (Kim et al.,

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2024). Patients also appreciate the little things, like easy scheduling, minimal wait times, and a comfortable waiting area (Rowe & Knox, 2023). By prioritizing patient satisfaction, healthcare providers can improve health outcomes and create a positive experience beyond the clinic or hospital walls (Awwad et al., 2025). Moreover, by putting patients at the center of care, healthcare providers can address their unique needs, leading to better results and satisfaction (Omaghomi et al., 2024).

From a social perspective (Wang et al., 2023), patient satisfaction is shaped by various factors, including social support (Liu et al., 2023), cultural background (Akthar et al., 2023), and socioeconomic status (Alwedyan et al., 2024). Moreover, researchers believe patients with strong social connections and support networks are more satisfied with their care (Akthar et al., 2023). Patients from lower socioeconomic backgrounds (Ye et al., 2024) are often less satisfied. Furthermore, patients with limited health literacy (Hernandez et al., 2024) may need help understanding the doctors' recommendations.

Many studies on patient satisfaction are available, using different antecedents in different countries. For example, a study examined the antecedents of customer satisfaction based on data collected from the University Polyclinic in Messina (Italy). The study found that physicians' competence and professionalism, nurses' judgment, and the ease of collecting reports positively affect patient satisfaction (Alibrandi et al., 2023). Another study examined patient satisfaction from a psychosocial perspective. The study documents that stereotypes, trust, and humanized perception indirectly (through communication) affect patients' satisfaction. Thus, the study concluded that if a hospital lacks clarity in communication, the above variables would not positively affect patient satisfaction (Wang et al., 2023). Dhakate and Joshi (2023) examined customer satisfaction with online consultation during the COVID era and concluded that consumers value online consultation significantly. The study also noted that doctor behavior and knowledge are important precursors of patient satisfaction. Moreover, the study found that satisfied patients who post positive reviews are important. In a study on health care, Liu et al. (2023) found that informational support is more important for patient satisfaction than emotional support. On the contrary, emotional support has a stronger effect on patient attitude than information support.

Similarly, many studies on patient satisfaction have used different moderators. A study used age as a moderator. The study noted that age positively moderates (i) trust in physicians and trust in hospital admission. Similarly, a study in Nigeria examined the moderating effect of patient satisfaction and concluded that patient satisfaction moderates the relationship between operational efficiency and electronic health records (Gumu, 2023). Another study in Malaysia used trust as a moderating variable

and found that trust moderates the relationship between empathy and satisfaction (Abdullah et al., 2023). To address the above gaps, we have formulated the following research objectives.

1. To examine the effect of family and doctor support, access to health, and patient-perceived empowerment on patient satisfaction.

2. To examine the mediating effect of patient-perceived empowerment on (i) family support and patient satisfaction, (ii) doctor support and patient satisfaction, and (iii) access to health and patient satisfaction.

Literature Review

Patient Satisfaction

Patient satisfaction depends on many factors. It includes clear and empathetic communication (Siebinga et al., 2022), quality of care (Febres-Ramos & Mercado-Rey, 2020), and physical and emotional comfort (Young et al., 2024). Satisfied patients are more likely to experience better health outcomes (Febres-Ramos & Mercado-Rey, 2020) and adhere to treatment plans. Moreover, patient satisfaction enhances the reputation of healthcare providers (Keshtkar et al., 2024). Conversely, low patient satisfaction can result in poor health outcomes, decreased adherence, negative reviews, and increased healthcare costs (Akthar et al., 2023). By prioritizing patient satisfaction, healthcare providers can improve the overall quality of care, patient experience, and outcomes (Mandagi et al., 2024).

Family Support

Family support in patient care encompasses support from family and friends (Powers et al., 2024). It profoundly impacts patient outcomes, satisfaction, and well-being (Febres-Ramos & Mercado-Rey, 2020). There are different categories of family support, including emotional support (Powers et al., 2024), practical support (Siebinga et al., 2022), physical support (Gannedahl et al., 2024), and financial support (Akthar et al., 2023). Emotional support relates to love, trust, and empathy (Powers et al., 2024). Practical support relates to assisting patients in their daily routine, including transportation, meal preparation, and medical management (Young et al., 2024). Physical support includes helping patients with physical care, including bathing, dressing, and mobility (Goodrich & Lazenby, 2023). Financial support relates to helping patients with medical expenses and other financial burdens (Akthar et al., 2023).

Doctor Support

Doctor support is essential for the patient's well-being (Dhakate & Joshi, 2023). It includes emotional support (Siebinga et al., 2022) and informational support (Campos et al., 2024). The doctor provides emotional support through empathetic listening and reassurance (Siebinga et al., 2022). Informational support relates to providing clear explanations of medical treatment (Campos et al., 2024). Researchers believe that doctor support improves patient satisfaction, enhances engagement, and increases trust and loyalty. Moreover, it reduces anxiety and stress, ultimately contributing to a positive and supportive healthcare experience (Mandagi et al., 2024).

Access to Health Care

Access to healthcare refers to the ability of individuals to obtain healthcare services (Chen et al., 2023). It includes various dimensions such as geographic accessibility (Wood et al., 2023), financial accessibility (Akor et al., 2024), timely accessibility (Lee et al., 2024), and cultural accessibility (Habicht et al., 2024). If access to healthcare is available, individuals may avoid difficulties obtaining necessary healthcare services, leading to poor health outcomes and disparities (Akor et al., 2024). Improving access to healthcare is crucial to address these issues as it ensures that everyone receives quality healthcare services without barriers. As a result, it leads to better health outcomes, reduced health disparities, and enhanced overall well-being (Gannedahl et al., 2024).

Patient Perceived Empowerment

Patient empowerment is the process that allows patients to make health-related decisions (Lampus & Wuisan, 2024). Many researchers believe it is a process and an outcome (Keshtkar et al., 2024). Due to internet access, patients gather sufficient knowledge before visiting a doctor. Therefore, they expect doctors to listen to their perspectives regarding the illness (Ali et al., 2024). In developed countries, patient empowerment has become quite common. On the contrary, in developing countries, traditional doctors believe patient empowerment may hinder the patient's medical treatment (Dawood-Khan et al., 2024). However, now things are changing. Now, many doctors in developing countries listen to what the patients have to share about their illnesses and perspectives (Keshtkar et al., 2024).

Hypothesis Development

Family Support and Patient Satisfaction

Family support is essential for patients suffering from chronic diseases, as it enhances their morale (Powers et al., 2024). Goodrich and Lazenby (2023) have noted that the presence of a family member helps patients cope effectively with the illness, leading

to patient satisfaction. Moreover, it reduces patients' negative emotions (Akhtar et al., 2023). Mandagi et al. (2024) emphasize that family involvement during the patient's rehabilitation is crucial for patients. For example, it improves mental and physical health and reduces the gravity of the illness (Febres-Ramos & Mercado-Rey, 2020).

Patients who are uncomfortable, anxious, or uncertain about how to deal with their situation feel secure in the presence of family members (Young et al., 2024). We assert that when patients know their family supports them during their illness, they feel comfortable, resulting in quick recovery (Keshtkar et al., 2024). Many past studies found that family support is an important precursor of patient satisfaction (Goodrich & Lazenby, 2023; Akthar et al., 2023).

H1: Family "support positively affects patient satisfaction."

Doctor Support and Patient Satisfaction

Doctors play a vital role in supporting patients beyond providing medical treatment (Dhakate & Joshi, 2023). There are several ways doctors can support patients (Siebinga et al., 2022). Doctors can emotionally support patients by empathically listening to their concerns (Campos et al., 2024). They can also educate patients on their conditions, treatment, and medications (Young et al., 2024). Moreover, doctors can provide psychological support to patients by offering stress management techniques and coping strategies for chronic conditions (Mandagi et al., 2024). Furthermore, personalized support is also important for patient satisfaction. In personalized support, doctors develop tailored care plans that address patients' needs based on their cultural backgrounds and values (Dhakate & Joshi, 2023). All the above-discussed doctors' support directly and indirectly affects patients' satisfaction.

H2: Doctor "support positively affects patient satisfaction."

Access to Health and Patient Satisfaction

A well-developed healthcare system significantly depends on access to health care (Chen et al., 2023). Besides other factors, patient access to healthcare depends on affordability, availability, and quality of care (Akor et al., 2024). Patient satisfaction besides other factors also depends on clear communication and minimal wait times (Gannedahl et al., 2024). Chen et al. (2024) assert that improving access to health care can enhance its overall quality and effectiveness, leading to better patient health outcomes (Akor et al., 2024). The researcher believes a patient-centered approach addresses these aspects, which are critical for a sustainable and effective healthcare system and patient satisfaction (Gannedahl et al., 2024).

H3: Access to "health positively affects patient satisfaction."

Patient-perceived empowerment and Patient Satisfaction

Patient empowerment allows the patients to take the initiative by sharing their symptoms related to issues with the doctors (Lampus & Wuisan, 2024). Furthermore, patients are more satisfied when doctors allow them to ask questions about treatments and medicine prescriptions (Keshtkar et al., 2024). Researchers also believe patient satisfaction increases when doctors educate patients about their conditions and treatment options (Campos et al., 2024). Similarly, patient satisfaction increases when doctors provide access to medical records and test results (Ali et al., 2024). Multiple studies have concluded that patient-perceived empowerment is linked with positive and improved health outcomes such as cost-effectiveness and quality of life (Dawood-Khan et al., 2024).

H4: Patient-perceived "empowerment positively affects patient Satisfaction."

Family Support, Patient Empowerment, and Satisfaction

A patient's perceived empowerment mediates family support and patient satisfaction (Smolej et al., 2023). When patients feel empowered, they are more likely to receive effective support from their family members, enhancing their satisfaction with care (Keshtkar et al., 2024). Empowerment enables patients to communicate their needs and preferences more effectively, allowing family members to provide tailored support (Dawood-Khan et al., 2024). This support can take many forms, including emotional, practical, and advocacy-based support (Ali et al., 2024). Moreover, patients' satisfaction increases when they receive support that aligns with their needs (Lampus & Wuisan, 2024). Conversely, with low empowerment, patients may not be able to communicate their needs, leading to unmet expectations and decreased satisfaction (Mandagi et al., 2024). By fostering patient empowerment, healthcare providers can strengthen the supportive role of families, ultimately leading to improved patient satisfaction and outcomes (Young et al., 2024).

H5: Patient-perceived empowerment "mediates family's support and patient satisfaction."

Doctor Support, Patient Empowerment, and Patient Satisfaction

Patient-perceived empowerment mediates doctor support and patient satisfaction (Dhakate & Joshi, 2023). When doctors provide supportive care, patients are more likely to feel empowered, enhancing their satisfaction (Siebinga et al., 2022). Doctor support encompasses empathy and encouragement, increasing patient autonomy and confidence (Mandagi et al., 2024). Moreover, empowered patients are better equipped

to manage their health and adhere to treatment plans (Campos et al., 2024). This empowerment fosters a sense of control, promoting higher patient satisfaction (Ali et al., 2024). Conversely, without empowerment, patients may feel passive and dissatisfied (Dawood-Khan et al., 2024).

H6: Patient-perceived empowerment mediates doctor support and patient satisfaction."

Patient Empowerment Access to Health and Patient Satisfaction

Patient empowerment is vital in accessing healthcare and achieving satisfaction (Keshtkar et al., 2024). When patients feel empowered, they are more likely to take an active role in their care, make informed decisions, communicate effectively with healthcare providers, and adhere to treatment plans (Lampus & Wuisan,2024). Empowerment acts as a mediator, increasing health literacy, reducing barriers to care, and promoting self-advocacy (Campos et al., 2024). By empowering patients, healthcare providers can break down barriers, improve patient outcomes, and create a more positive and effective care experience (Keshtkar et al., 2024).

H7: Patient-perceived "empowerment mediates access to healthcare and patient satisfaction."

Conceptual Framework

Figure 1 shows the conceptual framework. It has four direct and three mediating relationships.

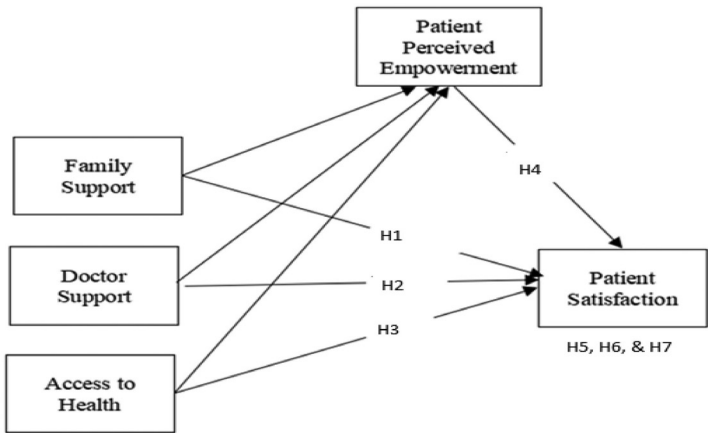


Figure 1: Conceptual Framework

Population and Sample

The study's population includes respondents from every socio-economic class who can read and understand English. The research population consisted of inpatients and

outpatients of tertiary care hospitals in Karachi. The respondents' inclusion criteria include (i) willingness to participate in the survey, (ii) adults who visited a doctor in the last three months. The respondents' exclusion criteria are (i) minors, (ii) have not visited a doctor in the last three months, and (iii) cannot read English.

The study calculated the sample size following Hair Jr et al.'s (2014) suggestions. These researchers suggest selecting five observations for each indicator. The total number of indicator variables in this study is 21. The sample size we came up with was 250 (21 indicators X 10 observations). We distributed 400 questionnaires and received 380.

Scales and Measures

The study used a closed-ended five-point Likert scale with two sections. Section one measures the demographic profile of respondents, and Section two measures all five variables. We generated various questionnaire items from various studies and presented them to medical practitioners, management consultants, and patients. Based on their discussion and feedback, we modified the questionnaire. Table 1 shows constructs, sources, and items.

Table 1: Scale and Measures

| Constructs | References | Items |
|-------------------------------|---|-------|
| Family Support | Tsoli et al. (2019) | 02 |
| Doctor Support | Chiauzzi et al. (2016) and Baker (1999) | 05 |
| Access to Healthcare | Small et al.(2013) and Siegel et al. (2019) | 04 |
| Patient Perceived Empowerment | Hoseini-Esfidarjani et al.(2021) | 05 |
| Patient Satisfaction | Möller-Leimkühler et al. (2002) | 05 |

Statistical Analysis

We used the Smart PLS version 4 for statistical analysis. The first step assessed the quality criteria using a measurement model. In step two, we generated a structural model to test the hypothesized relationships between latent variables.

Demographic Profile

Table 2 depicts the demographic profile: "Gender, age, education, employment status, family income and frequency of doctor visits."

Table 2: Demographic Profile

| Category | Sub-Category | Percentage (%) |
|----------------------------------|----------------------|----------------|
| Gender | Male | 35.36% |
| | Female | 64.26% |
| | Others | 0.38% |
| Age | 18-25 years | 12.93% |
| | 26-30 years | 28.14% |
| | 31-40 years | 42.59% |
| | 41-55 years | 11.03% |
| | 55 Plus | 5.32% |
| | | |
| Education | No Education | 1.52% |
| | Primary-Middle Level | 0.76% |
| | Matriculation | 2.66% |
| | Intermediate | 7.60% |
| | Graduation | 49.05% |
| | Post-graduation | 38.40% |
| Employment Status | Salaried | 52.85% |
| | Self Employed | 15.59% |
| | Part-time job | 8.74% |
| | Homemaker/Housewife | 21.29% |
| | Retired | 1.52% |
| Monthly Family Income | Less than 25,000 PKR | 4.18% |
| | 25,000- 50,000 PKR | 12.93% |
| | 51,000-100,000 PKR | 26.99% |
| | 101,000-250,000 | 27.76% |
| | 251,000-500,000 PKR | 15.21% |
| | 501,000+ PKR | 12.93% |
| | Less than 25,000 PKR | 4.18% |
| | | |
| Doctor's Visits in the Past Year | Every week | 1.52% |
| | Every month | 0.76% |
| | Every 6 months | 2.66% |
| | Once a year | 7.60% |
| | Only when sick | 49.05% |
| | Never | 38.40% |

Results

Measurement Model

Figure 2 shows the “articulated relationships and β values.”

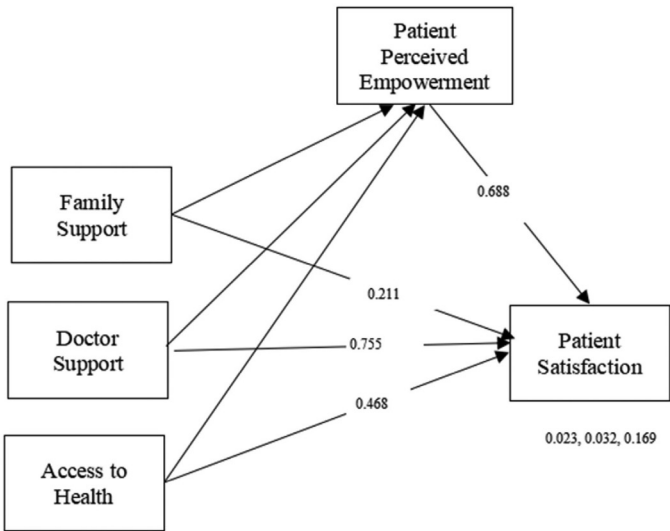


Figure 2 Measurement Model

Convergent Validity

Table 3 depicts Cronbach’s Alpha, composite reliability and AVE values.

Table 3: Convergent Validity

| Constructs | Cronbach's Alpha | Composite Reliability (rho_c) | Average Variance Extracted (AVE) |
|----------------------|------------------|-------------------------------|----------------------------------|
| Empowerment | 0.820 | 0.875 | 0.588 |
| Access to Health | 0.823 | 0.876 | 0.639 |
| Family Support | 0.531 | 0.804 | 0.674 |
| Doctor Support | 0.893 | 0.922 | 0.702 |
| Patient Satisfaction | 0.938 | 0.952 | 0.801 |

Researchers suggest that for internal consistency, Cronbach’s Alpha and composite reliability values must be at least 0.700, and the AVE values must be at least 0.500. Our results meet these criteria, suggesting the constructs “fulfill the requirement of internal consistency and convergent validity.”

Discriminant Validity

Tables 4 and 5 depict the results related to discriminant validity based on Fornell and Larcker’s (1981) Criterion and Heterotrait-Monotrait (HTMT) methods, respectively. The data in Table 4 shows that the “Square root of AVE values are greater than Pearson Correlation values.” Similarly, Table 5 shows that “HTMT values are greater than 0.85.” These results from both methods suggest that “the constructs employed in the study are unique and distinct.”

Table 4: Discriminant Validity (Fornell & Larcker1981)

| Construct | AtH | DS | FS | PPE | PS |
|-------------------------------|-------|-------|-------|-------|-------|
| Access to Health Care | 0.800 | | | | |
| Doctor Support | 0.406 | 0.838 | | | |
| Family Support | 0.249 | 0.272 | 0.821 | | |
| Patient Perceived Empowerment | 0.354 | 0.659 | 0.283 | 0.767 | |
| Patient Satisfaction | 0.468 | 0.755 | 0.211 | 0.668 | 0.895 |

Table 5: Discriminant Validity (Heterotrait-Monotrait (HTMT)

| Constructs | AtH | DS | FS | PPE | PSS |
|-------------------------------|-------|-------|-------|-------|-----|
| Access to Health Care | - | | | | |
| Doctor Support | 0.426 | | | | |
| Family Support | 0.388 | 0.391 | | | |
| Patient Perceived Empowerment | 0.392 | 0.758 | 0.414 | | |
| Patient Satisfaction | 0.478 | 0.820 | 0.207 | 0.756 | - |

Structural Model

The structural model presented in Figure 3 shows the association “between latent variables in terms of t values.”The subsequent section shows the hypotheses’ results.

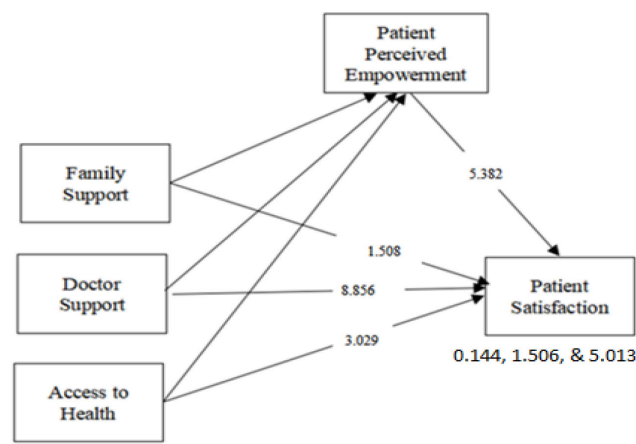


Figure 3: Structural Model

Hypothesis Results

Table 6 shows the results of four direct and three mediating hypotheses.

Table 6: Hypotheses Results

| Direct Hypothesis | β | T. Stat | P. Value | Results |
|--|---------|---------|----------|----------|
| Family Support -> P. Satisfaction (H1) | 0.211 | 1.508 | 0.290 | Rejected |
| Doctor Support -> P. Satisfaction (H2) | 0.755 | 8.856 | 0.000 | Accepted |
| Access to Health Care -> P. Satisfaction (H3) | 0.468 | 3.029 | 0.002 | Accepted |
| Patient Perceived Empowerment -> P. Satisfaction (H4) | 0.688 | 5.382 | 0.001 | Accepted |
| Indirect Hypothesis | | | | |
| Family Support -> P. Empowerment ->P. Satisfaction (H5) | 0.023 | 0.144 | 0.000 | Rejected |
| Doctor Support -> P. Empowerment ->P. Satisfaction (H6) | 0.032 | 1.506 | 0.101 | Rejected |
| Access to Health-> P. Empowerment ->P. Satisfaction (H7) | 0.169 | 5.013 | 0.001 | Accepted |

The results support three direct hypotheses (i.e., Hypothesis 2, Hypothesis 3, and Hypothesis 4) but do not support Hypothesis 1. Similarly, our results support one mediating hypothesis (i.e., Hypothesis 7), but they do not support two mediating hypotheses (i.e., Hypotheses 5 and 6).

Discussion and Conclusion

Discussion

We rejected Hypothesis 1 ($\beta=0.211, t=1.508 > 0.05$), stating, “Family support positively

affects patient satisfaction." Family support is essential for patients suffering from chronic diseases, as it helps them recover from illness (Powers et al., 2024). Goodrich and Lazenby (2023) have noted that the presence of a family member helps patients cope effectively with the illness, leading to patient satisfaction. Moreover, it reduces patients' negative emotions (Akhtar et al., 2023). Mandagi et al. (2024) emphasize that family involvement during the patient's rehabilitation is crucial for patients. For example, it improves mental and physical health and reduces disease intensity (Febres-Ramos & Mercado-Rey, 2020).

We accepted Hypothesis 2 ($\beta = 0.755$, $t = 8.856 < 0.05$), which states, "Doctor support positively affects patient satisfaction." There are several ways doctors can support patients (Siebinga et al., 2022). Doctors can emotionally support patients by empathically listening to their concerns (Campos et al., 2024). They can also educate patients on their conditions, treatment, and medications (Young et al., 2024). Moreover, doctors can provide psychological support to patients by offering stress management and coping strategies for chronic conditions (Mandagi et al., 2024). Furthermore, personalized support is also important for patient satisfaction. In personalized support, doctors develop tailored care plans that address patients' needs based on their cultural backgrounds and values (Dhakate & Joshi, 2023).

We accepted Hypothesis 3 ($\beta = 0.468$, $t = 3.029 < 0.05$), which states, "Access to health care positively affects patient satisfaction." A well-developed healthcare system significantly depends on access to health care (Chen et al., 2023). Besides other factors, patient access to healthcare depends on affordability, availability, and quality of care (Akor et al., 2024). Patient satisfaction is equally important and relies on clear communication and minimal wait times (Gannedahl et al., 2024). Chen et al. (2024) assert that improving access to health care can enhance its overall quality and effectiveness, leading to better patient health outcomes (Akor et al., 2024).

We found support for Hypothesis 4 ($\beta = 0.688$, $t = 5.382 < 0.05$), stating, "patient-perceived empowerment positively affects patient satisfaction." Patients are satisfied when doctors allow them to ask questions about treatments and medicine prescriptions (Keshtkar et al., 2024). Researchers also believe patient satisfaction increases when doctors educate patients about their conditions and treatment options (Campos et al., 2024). Similarly, patient satisfaction increases when doctors provide access to medical records and test results (Ali et al., 2024). Multiple studies have concluded that patient-perceived empowerment is linked with positive and improved health outcomes such as cost-effectiveness and quality of life (Dawood-Khan et al., 2024).

We rejected Hypothesis 5 ($\beta = 0.023$, $t = 0.144 > 0.05$), "Patient-perceived empowerment

mediates family support and patient satisfaction. When patients feel empowered, they are more likely to receive effective support from their family members, enhancing their satisfaction with care (Keshtkar et al., 2024). Empowerment enables patients to communicate their needs and preferences more effectively, allowing family members to provide tailored support (Dawood-Khan et al., 2024). This support can take many forms, including emotional, practical, and advocacy-based support (Ali et al., 2024). Patients' satisfaction increases when they receive support that aligns with their needs (Lampus & Wuisan, 2024). Conversely, without empowerment, patients may struggle to communicate their needs, leading to unmet expectations and decreased satisfaction (Mandagi et al., 2024).

We rejected Hypothesis 6 ($\beta = 0.032$, $t = 1.506 > 0.05$), stating, "Patient-perceived empowerment mediates doctor support and patient satisfaction." When doctors provide supportive care, patients are more likely to feel empowered, enhancing their satisfaction (Siebinga et al., 2022). Doctor support encompasses empathy, encouragement, and involvement, leading to increased patient autonomy and confidence (Mandagi et al., 2024). Moreover, doctor support makes patients feel more empowered. As a result, they become better equipped to manage their health, adhere to treatment plans, and navigate the healthcare system (Campos et al., 2024). This empowerment fosters a sense of control, promoting higher patient satisfaction (Ali et al., 2024).

We accepted Hypothesis 7 ($\beta = 0.169$, $t = 5.013 < 0.05$), stating, "Patient-perceived empowerment mediates access to health and patient satisfaction." Patient empowerment is vital in healthcare, mediating between patient access to health services and patient satisfaction (Keshtkar et al., 2024). By empowering patients, healthcare providers can educate them about their conditions, treatment options, and healthcare services, ultimately enabling them to take control of their health and healthcare decisions (Lampus & Wuisan, 2024). This, in turn, can improve patient access to health services by increasing health literacy, enhancing self-care, and facilitating more effective patient-provider communication (Campos et al., 2024). As patients become more empowered, they are more likely to experience increased confidence in their ability to manage their health and make informed decisions about their care (Ali et al., 2024).

Conclusion

Patient satisfaction is important for quick recovery from illness. The study examined the effect of "family support, doctor support, access to health care, and patient-perceived empowerment on patient satisfaction" and the mediating effect of patient-perceived empowerment on patient satisfaction. The study documents that family support insignificantly affects patient satisfaction. However, the study found that

"doctor support, access to health care, and patient-perceived empowerment positively affect patient satisfaction." Regarding the mediating effect, we found that "patient-perceived empowerment mediates access to health care and patient satisfaction." However, the study did not find support for the mediating effect of patient-perceived empowerment on (i) family support and patient satisfaction and (ii) doctor support and patient satisfaction.

Managerial Implication

This study found important antecedents of patient satisfaction, including "family support, doctor support, access to health care and patient-perceived empowerment." We recommend that healthcare policymakers empower patients to choose different treatment plans and involve them in decisions. We recommend that doctors provide support to patients by listening to their points of view and perspectives. Such support helps patients recover from the illness and increase their confidence in the doctors. The patient needs family support. There are different categories of family support, including emotional support (Powers et al., 2024), practical support (Siebinga et al., 2022), physical support (Gannedahl et al., 2024), and financial support (Akthar et al., 2023). All these types of family support individually and collectively affect patient satisfaction. Access to health care is a significant problem in developing countries like Pakistan. Private hospitals are too expensive for most of the population. The number of government hospitals is insufficient to cater to the demands of the patients. They are too crowded, and the doctors cannot give proper time to the patients. Thus, the government should open more government hospitals in all the cities of Pakistan.

Future Research Direction

The study collected data from territorial hospitals in Karachi. Future studies may collect data from the general hospitals of Karachi and other cities. A comparative study between private and government hospitals may bring more insight, which other studies may undertake. The study collected the patients' responses, other studies may obtain the responses from the doctors. We have used perceived patient empowerment as a mediating variable. Future studies may incorporate other mediators in their conceptual framework. The study used four antecedents to measure patient satisfaction. Future studies may incorporate other antecedents such as stereotypes, institutional, trust, and humanized perceptions. We did not use any moderators in our study. Future studies may incorporate variables such as trust, integrity, and age as moderators.

Annexure 1

Constructs and Items Used in the Questionnaire:

Family Support

- FS1. My family is very supportive of any medical-related issue/problem.
FS2. My friends are always supportive.

Doctor’s Support

- DS1. I receive all health information from the doctors in an easy and understandable form.
DS2. My doctor supports me in including my say/opinion in the treatment.
DS3. The doctor discussed my issues with me in detail.
DS4. My doctor gives me enough time during a consultation session.
DS5. My doctor answered all the questions that I had prepared before the visit.

Patient Empowerment

- PE1. I am aware that I can choose different treatment options.
PE2. I know different treatment options for my health problems.
PE3. I have no difficulty in telling my doctor about my concerns and fears, even if he or she does not address them directly.
PE4. I can easily ask questions or express my wishes during a medical consultation.
PE5. If I am given a treatment by my physician that I don’t agree with, I am likely not to take it.

Patient Satisfaction

- PS1. I am totally satisfied with my visit to my doctor
PS2. I feel understood by my doctor.
PS3. I have no complaints about my doctor.
PS4. I understand my illness much better after seeing my doctor.
PS5. I am satisfied with the relationship I have with my healthcare provider.

Access to Healthcare

- ATH1. The healthcare centre provides all the services that I need.
ATG2. The distance from the health centre to my house is appropriate.
ATH3. The time required to reach the health centre is appropriate.
ATH4. Getting to and from the health centre is easy for me.

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