

Predictors of Patients' Satisfaction with Primary Health Care Services at Kingdom of Saudi Arabia: A Systematic Review

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Abstract

V@i•Á !^•^æ!&@Á , [i\Á i•Á &[]&^!}^áÁ , ìc@Á c@^Á iá^}cá, - cation of the patient satisfaction predictors with the primary health care services by conducting a systematic review in the Kingdom of Saudi Arabia. The three databases in the form of Google scholar, Pubmed, and Medline have been used for the article extraction. Keywords have been used to search the articles related to this work, such as the predictors of patient satisfaction. The different Journals selected were associated with the selected data basis. The research studies selected for the systematic review were evaluated with the help of PRISMA and JBI assessments. The cross-sectional studies have been included in this systematic review. The 3125 articles (1352), Medline (1103), and Google Scholar (670). All the selected studies were evaluated and screened with the help of PRISMA, and after the extraction of the 25 articles for the systematic review, the JBI assessment was applied to the methodologies. The overall quality satisfaction indicated that all the selected studies were suitable for the systematic review. T [•cÁ•c~áá^•Á@æç^Á- [~ }áÁc@^Á, ç^Á { æb [!Á] !^áá&c [!•Á [-Á patient satisfaction in primary health care, which include availability and accessibility, communication-related attributes, rational conduct, and technical skills, along with personal qualities.

Keywords: Saudi Arabia; Primary care; patients' satisfaction; systematic review

Introduction

During the assessment of the contemporary system of health care, patient satisfaction (PS) has garnered immense attention, making it a prime concern of health care professionals and service providers. Ministry of Health (MoH), established in the year 1926, is responsible for ensuring that the services offered in the health care sector meet set standards of quality in KSA. MoH network provides healthcare services in the KSA region at three distinct levels, tertiary, secondary and primary (1).

Patients receive that further includes screening, treatment, and health promotion along with disease prevention (2). Most of the needs related to the health conditions [lifetime]. These needs can be related to the social, physical or mental well-being of the patient. It refers to the initial contact an individual has with the health care system when of medical care (3). Thus, the participation of the public, cooperation within sectors, promotion of health, adequate technology and accessibility are the core principles of PHC (4).

of KSA in recent years. This attention has resulted in improvements and advancements in the performance as well as services of the health care sector. More than 2,200 facilities for PHC are situated in KSA, which offer high quality medical services and PHC to expatriates along with nationals. One of the decisive components of the quality evaluation process in the healthcare sector is the PS (5). The link between the expectations regarding the health care services and the perceptions about the needs of the patients depicts a complex and detailed phenomenon referred to as the PS. Thus, one of the key variables services offered in the health care sector is the satisfaction level of the patients (1).

is necessary in order to improve the inclusive provision and service quality of the health care facilities. Demand for health care services has increased massively in the KSA region due to the sudden surge in urbanization, leading to the social and economic transformation of the region (6). Consequently, it became essential to assess the PS levels in order to evaluate the quality of health care services offered in the region. These assessments will facilitate the medical practitioners and institutes in understanding the perspectives of patients allowing them to further improve their services. Moreover, it can also help in measuring the impact of PS on the decision of patients to follow a particular treatment (7). When evaluating health outcomes and the quality of services offered by any healthcare facility, patient satisfaction is one of the most crucial determinants. patients' satisfaction with primary health care services in the Kingdom of Saudi Arabia.

Material and Methods

The systematic review is used in this research work, and for this purpose, the author reviewed all the included studies that meet the selection criteria, and to assess the quality of the studies. The selected studies are assessed by using the PRISMA analysis, and it is useful to extract the most relevant studies between patient satisfaction and the predictors of patients. The systematic review is based on 25 studies selected on the basis of the PRISMA and the JBI assessment.

Data Sources and Search Strategy

The three search engines namely Google Scholar, Pubmed, and Medline have been used for the extraction of the articles. The keywords have been used to search the articles related to this work, such as the predictors, patient satisfaction, PHC. The different Journals were selected that were associated with the selected data basis. The English language is used to perform the search for required studies. Similar terms, key words and Boolean expressions were used to search the articles on these three databases, and the relevant articles have been used to perform the forward citation for the purpose of searching the studies included in this review based on the most relevant research works.

In this work, the most relevant search terms used are: "patient satisfaction", the "primary health care sector of Saudi Arabia", a "predictor of patient satisfaction", and the "Kingdom of Saudi Arabia". From the search results 1352 articles were extracted from Pubmed, 1103 from Medline and 670 from Google Scholar. All the Journal articles related to healthcare research works are included in the extraction of the relevant research studies conducted by the previous studies behind selecting these three databases is that these data are more than the other databases (8).

Study selection

All the studies selected for the systematic review are evaluated with the help of PRISMA and JBI assessments. The studies included in this work meet the requirements that include the following; the research must be original, conducted between 2007 to 2022, the research area must be KSA, the research determines the patient's satisfaction with the primary healthcare services, the research work is based on a cross-sectional study design methodology. The studies were included and excluded on the basis of the results of the JBI assessment and PRISMA (9).

Quality Appraisal (JBI Assessment and setting Domains)

The aim of the JBI assessment and the Domain is to assess the quality and the methodology that has been used to determine the possibility of bias on the basis of design, conduct and analysis (10). The JBI (Joanna Briggs

Institute) critical appraisal tools are developed to assess the methodology of the research works. The JBI assessment assessing the methodology for the inclusion of the studies in the systematic review (11).

Table 1: The domains of patient satisfaction with doctors' measurement

Domain	Patient-physician measurement
1. Accessibility and availability	<ul style="list-style-type: none"> The physician was accessible. The patient spent sufficient time with the physician, and the patient felt good.
2. Personal qualities	<ul style="list-style-type: none"> Kindness, empathy, concern, sensitivity, and friendliness (humaneness)
3. Attributes related to communication	<ul style="list-style-type: none"> Addressing the patient's questions and concerns Ensuring patient understanding Providing the explanation Listening skills Providing the information Eliciting patient information
4. Relational conduct	<ul style="list-style-type: none"> Patients feel confident in the healthcare Health problems are taken seriously The patient should be treated respectfully Allowed the patient a shared role in the decision-making and medical care Patient felt understood Patient felt heard Professional demeanor
5. Technical skill	<ul style="list-style-type: none"> Professional expertise and knowledge

Data Extraction

Table 2 consists of the cross-sectional checklist under the JBI assessment that was used to assess the methodology of the selected studies. These studies are used in the systematic review.

The eight questions have been included in the checklist because the eight questions were included in the cross-sectional checklist associated with the JBI assessment. The responses have been recorded in the form of Not applicable, No, Yes, and Unclear. The questions associated with the JBI cross-sectional appraisal have been presented as follows;

Q6: Were strategies to deal with confounding factors

Table 2: Results of critical appraisal results for included studies using the JBI cross-sectional critical appraisal checklist

Citations	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Almoajel et al. (2014)	Y	Y	NA	Y	Y	Y	U	Y
Owaidh et al. (2018)	Y	N	Y	Y	NA	Y	U	Y
Abolfotouh et al. (2017)	Y	NA	Y	Y	Y	N	Y	Y
Makeen et al. (2020)	Y	U	Y	Y	NA	Y	Y	Y
Al-Ali et al. (2020)	Y	Y	NA	Y	Y	N	Y	NA
Alfaqeeh et al. (2017)	Y	NA	Y	N	Y	Y	NA	Y
Bawakid et al. (2017)	Y	NA	Y	Y	Y	N	Y	Y
Mohamed et al. (2017)	Y	N	Y	Y	Y	NA	Y	Y
Almezaal EA et al. (2021)	Y	Y	NA	Y	Y	Y	N	Y
Almutairi (2017)	Y	Y	NA	Y	Y	Y	Y	Y
Al-Makhaita & Sabra (2014)	Y	N	Y	Y	Y	U	Y	Y
Alosaimi et al. (2022)	Y	Y	Y	NA	Y	Y	Y	Y
Senitan & Gillespie (2019)	Y	Y	NA	Y	Y	Y	U	Y
Elias et al. (2022)	Y	N	Y	Y	Y	Y	NA	U
Ahmed et al. (2022)	NA	Y	Y	Y	Y	Y	Y	Y
Alsayali et al. (2019)	Y	Y	Y	Y	Y	U	Y	Y
AlOmar et al. (2021)	Y	Y	NA	Y	Y	Y	N	Y
Llego & Al-Shirah (2017)	Y	Y	Y	NA	Y	N	Y	Y
Sadovoy et al. (2017)	Y	Y	NA	Y	Y	U	Y	UA
Alturki & Khan (2013)	Y	Y	NA	Y	U	Y	NA	Y
Albahrani (2022)	Y	U	Y	Y	Y	NA	Y	Y
Alzaid et al. (2016)	Y	Y	NA	Y	N	Y	U	Y
Mohamed et al. (2015)	Y	N	Y	Y	U	Y	NA	Y
Alrasheedi & Al-Mohaithef (2019)	Y	Y	U	Y	N	Y	NA	Y
Alotaibi et al. (2021)	Y	N	Y	NA	Y	Y	U	Y

Y* (Yes); N* (No); U* (Unclear); NA* (Not Applicable).

Results

The three databases were used to search more than 3 thousand articles related to the topic of the study. The 3125 articles were screened, and 2860 articles were excluded after the elimination of the 2860 articles. After that, full-text articles were assessed, and a further 20 articles were excluded for a number of reasons; which include the outcomes being not relevant to the study. The characteristics of the included papers are presented in Figure 1.

Characteristics of the included papers

All the studies have been included from Saudi Arabia because this study is based on a systematic review of the studies conducted in the case of Saudi Arabia. The cross-sectional studies have been included because they are based on originality in the form of their own data analysis. The comparison between the studies has been conducted because of the cross-sectional studies have been based on the survey because all these studies used primary data. The predictors of the overall satisfaction associated with the selected studies is presented below (Table 3).

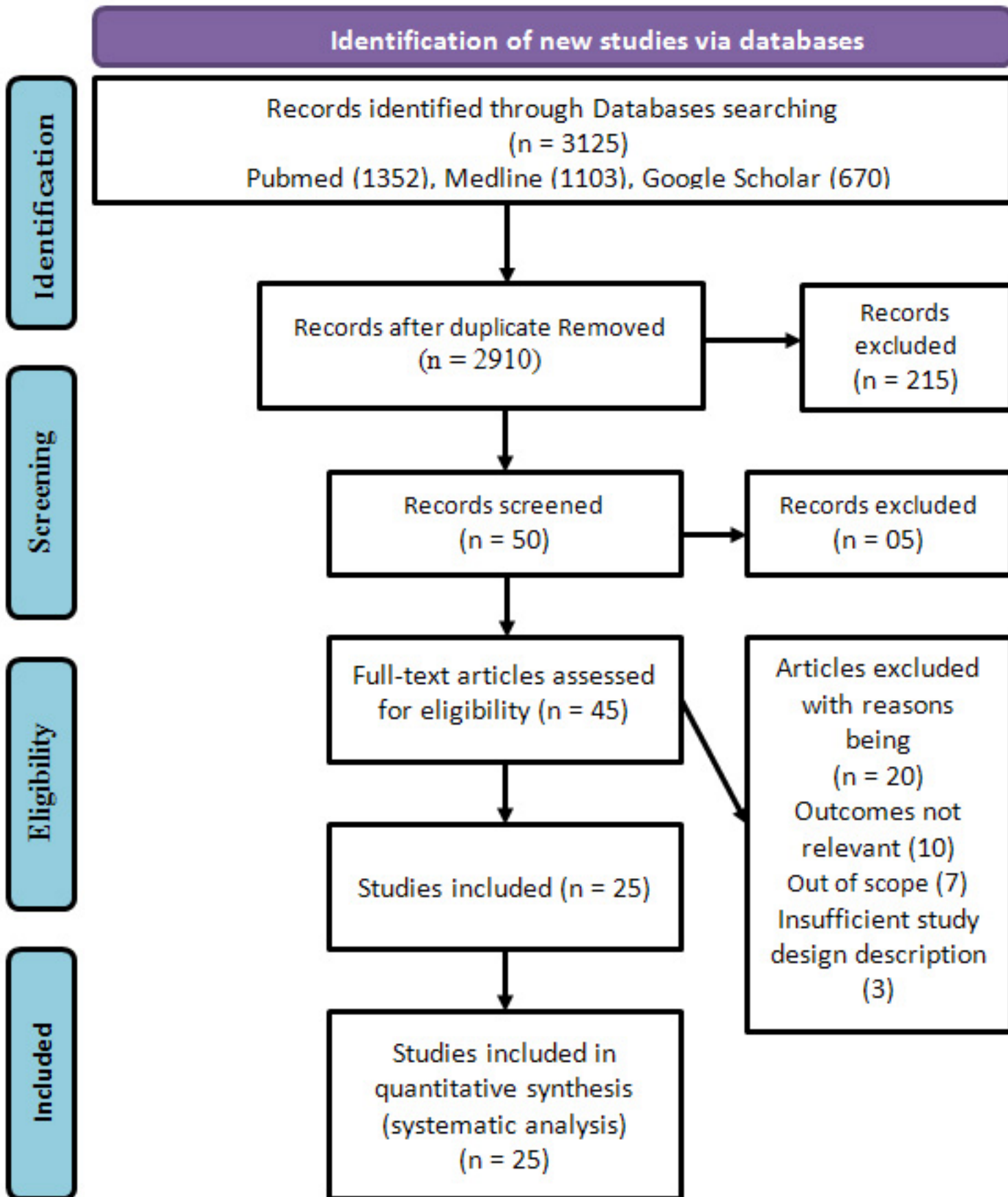
Overall Satisfaction

The overall satisfaction of the studies has been measured with the help of the JBI assessment, and it is also based on the questions that have been asked of the participants at the end of the patient satisfaction questionnaire. All the included studies have been based on the overall satisfaction measured, and most of the studies ranged greater than the minimum level, that is 50 percent, because most of the studies have an overall satisfaction level of more than 80 percent. The overall satisfaction associated with the selected studies is presented below (Table 3).

Table 3: Overall Satisfaction

Study	Overall Satisfaction %
Almoajel et al. (2014)	78%
Owaidh et al. (2018)	80%
Abolfotouh et al. (2017)	79%
Makeen et al. (2020)	88%
Al-Ali et al. (2020)	82%
Alfaqeeh et al. (2017)	85%
Bawakid et al. (2017)	90%
Mohamed et al. (2017)	95%
Almezaal EA et al. (2021)	85%
Almutairi (2017)	78%
Al-Makhaita et al. (2014)	80%
Alosaimi et al. (2022)	90%
Senitan & Gillespie (2020)	95%
Elias et al. (2022)	80%
Ahmed et al. (2016)	89%
Alsayali et al. (2019)	86%
AlOmar et al. (2021)	82%
Llego & Al-Shirah (2017)	85%
Sadovoy et al. (2017)	90%
Alturki & Khan (2013)	95%
Albahrani et al. (2022)	96%
Alzaid et al. (2016)	89%
Mohamed et al. (2015)	88%
Alrasheedi & Al-Mohaithef (2019)	85%
Alotaibi et al. (2021)	80%

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Domain Article	Communication Attributes	Rational conduct	Technical skill and knowledge	Personal qualities	Availability and accessibility	Total of predictors
Almoajel et al. (2014)	Y	Y	Y	N	Y	4
Owaidh et al. (2018)	N	N	Y	Y	N	2
Abolfotouh et al. (2017)	Y	Y	N	N	Y	3
Makeen et al. (2020)	N	Y	Y	Y	N	3
Al-Ali et al. (2020)	Y	N	N	N	Y	2
Alfaqeeh et al. (2017)	Y	Y	N	Y	Y	4
Bawakid et al. (2017)	Y	N	Y	N	N	2
Mohamed et al. (2017)	N	N	Y	Y	Y	3
Almezaal EA et al. (2021)	Y	N	Y	N	Y	3
Almutairi (2016)	Y	Y	N	N	N	2
Al-Makhaitha et al. (2014)	N	Y	Y	Y	N	3
Alosaimi et al. (2022)	N	Y	N	Y	Y	3
Senitan & Gillespie (2019)	N	Y	Y	N	Y	3
Elias et al. (2022)	N	Y	N	Y	Y	3
Ahmed et al. (2016)	N	N	Y	Y	N	3
Alsayali et al. (2019)	Y	Y	N	N	Y	3
AlOmar et al. (2021)	N	N	Y	Y	N	2
Llego & Al-Shirah (2017)	Y	Y	N	N	Y	3
Sadovoy et al. (2017)	N	Y	N	Y	Y	3
Alturki & Khan (2013)	Y	N	Y	N	Y	3
Albahrani et al. (2022)	Y	Y	N	Y	N	3
Alzaid et al. (2016)	N	N	Y	Y	N	3
Mohamed et al. (2015)	N	N	Y	Y	Y	3
Alrasheedi & Al-Mohaithef (2019)	Y	N	N	Y	N	2
Alotaibi et al. (2021)	N	Y	Y	N	Y	3

N* (No); Y* (Yes)

people, researchers typically send reminders, up to three times. Patients who do not respond, may be contacted by phone to encourage them to answer the questionnaire, although this is an additional source of bias that has already been studied (26). Patients admitted to hospitals are generally old and, in some cases, may have functional limitations that prevent them from completing a questionnaire. These conditions of patients may require the help of a relative or friend to answer the questionnaire, and this could be a source of bias. In 2002, a validated inpatient satisfaction questionnaire was used to evaluate the health care received by patients admitted to several hospitals (24). As an advantage over other questionnaires, they had factored it into distinct domains, creating a score for each to assist in the analysis. They used a self-reported version of the questionnaire delivered by mail and allowed patients to complete them personally or with the help of a relative or friend, with the stipulation that they indicate who completed it. These are basic properties that researchers try to show for their instruments. Beyond these, other possible sources of bias may arise when collected data must be analyzed. The degree of patient satisfaction varies from country to country, and even among nations with comparable health outcomes and health care infrastructure. The patient experience has been shown to explain 10% of the diversity in the level of patient satisfaction that exists across nations (17). Surveys are administered at both public and commercial health care institutions, and they are used to investigate both patient satisfaction and health care quality. It has been shown that a lack of basic amenities, a shortage of doctors as well as paramedical staff, a lack of beds, long wait times to get admitted into the hospital, a lack of doctors and paramedical staff, and a problem with sanitation. The level of patient satisfaction has been lacking, despite the fact that the level of satisfaction is a measure of the quality of treatment that is offered to patients (13).

From the examination of the literature, it can be stated that patients are happier with health care services when the health care system is responsive in terms of respect for dignity, autonomy, rapid attention, and satisfying their expectations. In several studies, it was discovered that patient expectations, which are impacted by patient factors such as age, socioeconomic class, education, and income, are determinants of patient satisfaction. Nonetheless, patient views, as well as other psychological aspects, may be disregarded as a role (27). A few studies conducted in Pakistan reveal that the commercial health care industry is somewhat responsive; however, the state sector is grossly underused, and there is no idea of quality improvement or high-quality service supply in government institutions

(14). Capacity building of health professionals, particularly the training of health employees in communication and interpersonal skills, is one of the accessible and practical ways to increase patient satisfaction. This observation is particularly true for resource-poor nations because it is more cost-effective than developing technical facilities (15).

Patients' perceptions of their time spent in medical facilities are becoming an increasingly important criterion for evaluating the quality of care delivered by the healthcare industry in the current day. Concerning the topic of patient satisfaction, a number of aspects, such as the behavior of the staff, the contact between patients and physicians, together with concerns over the management of the health facility, and the physical environment, are essential components. In addition to being a barometer of patient outcome, patient happiness is also a barometer of other health indicators of an institution (28). A patient who is happy with the therapy they are receiving is more likely to follow the prescribed regimen and return for frequent medical treatment (29).

Nearly all of the patient satisfaction surveys that are carried out all over the globe are designed to assess the level of satisfaction a patient has with their health care provider in order to make improvements to the level of treatment that is provided. As an indication of how responsive a health care system is, the World Health Organization employs metrics that quantify the experience that patients have with the health care system. An overall improvement in the health condition of the people who are served is a goal of the health care system. The WHO aims to improve health care while shielding individuals from catastrophic costs (30,31). According to the World Health Organization (WHO), one of the best ways to evaluate how responsive a health care system is would be to poll the general population on their experiences using various medical services. The responsiveness of the health care system is directly linked to factors such as patient satisfaction, the quality of health care provided, and the patient's personal experience. When individuals seek medical attention, they should expect it to be handled in a way that is sensitive to their needs as well as the setting in which they receive treatment (32).

A person's level of contentment with a health care institution may be deduced from their level of contentment with the organization on numerous fronts. The degree to which a patient's expectations of the services and care he or she receive are met by the patient's perceptions of the services and care that are provided, is one way to measure patient satisfaction. The degree to which a patient's expectations of the services and care he or she receive are met by the patient's perceptions of the services and care that are provided, is one way to measure patient satisfaction. The degree to which a patient's expectations of the services and care he or she receive are met by the patient's perceptions of the services and care that are provided, is one way to measure patient satisfaction. The degree to which a patient's expectations of the services and care he or she receive are met by the patient's perceptions of the services and care that are provided, is one way to measure patient satisfaction.

in an effort to reduce the number of persons who have gone missing. In addition, they may attempt to persuade individuals who do not reply to the questionnaire by calling them and pleading with them to do so, despite the fact that this is an additional form of bias that has previously been investigated (35).

Conclusion

of patient satisfaction with primary healthcare services in the Kingdom of Saudi Arabia by conducting a systematic review. The PRISMA and the JBI assessment have been databases in the form of Google scholar, Medline, and Pubmed, have been used for searching the articles. selection criteria of the study. The studies conducted between 2017 to 2022 have been included in the systematic review. The research work is based on including studies that are based on cross-sectional methodology. The inclusion and exclusion of the studies have been based on PRISMA because it is used to select the studies. The English language and the keywords have been used for the search of articles.

availability and accessibility, personal qualities, and attributes related to communication, technical skill, and rational conduct. The PRISMA is used to identify the new studies through databases which include Pubmed (1,352), Medline (1,103), and Google Scholar (670). The number of studies searched through databases was 3125, and after the removal of duplications, 2,910 studies were extracted because 215 studies were excluded. After the screening of the studies, 50 articles were extracted, and 5 articles extracted further. The 45 full-text articles were assessed for eligibility. Finally, 25 studies were included in the systematic review, and 20 articles were excluded because of a number of reasons which include the outcomes predictors of patient satisfaction in primary healthcare, which are availability and accessibility, communication-related attributes, rational conduct, and technical skills, along with personal qualities.

Recommendation

The conclusion of this study is that satisfaction of patients must be the primary goal of the primary healthcare sector considering each of the factors of patient satisfaction that attribute in the form of listening skills and ensuring the understanding of the patient should be improved. The relational conduct must be improved in the form of treating should also improve. The technical skills and personal qualities should be improved by including the knowledge and expertise of the professionals. The accessibility and

the availability must be improved in the primary healthcare sector of Saudi Arabia as far as patient satisfaction is concerned.

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