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# Research Article
# Evaluation of Patient Experiences with Nutrition Clinics in Hospital Outpatient Departments

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## Abstract

**Background and Objective:** The healthcare system has been making efforts to improve the efficiency and affordability of healthcare services by using quality-based measurements to evaluate hospitals, healthcare professionals and healthcare programs. Patient experience is considered one of the most important measurements for evaluating the quality of care in the healthcare field. This study aimed to evaluate outpatient experiences in nutrition clinics in Riyadh City and to provide opportunities for improvement. **Materials and Methods:** This cross-sectional study was conducted in three hospitals in Riyadh City, Kingdom of Saudi Arabia, using the "2011 Picker Survey of Outpatient Experience". Data were collected via electronic and paper questionnaires. Participants were 217 patients (>18 years old) who had visited nutrition clinics in the previous 12 months. **Results:** The survey results indicated that patients lacked information regarding the person to contact (64.0%), parking spaces for their vehicles were inadequate (50.7%) and the "dietitian did not fully explain the treatment plan" (39.6%). **Conclusion:** This study presents an overview of outpatient experiences in nutrition clinics and identifies areas where the performance of healthcare organizations and/or health professionals is poor. Healthcare facilities could potentially improve the experience for a substantial number of patients by focusing on areas with high problem scores. In particular, the patient experience can be improved by implementing patient-centered care more broadly within healthcare organizations.

Key words: Dietitian, healthcare, nutrition clinics, patient centeredness, patient experience

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Data Availability: All relevant data are within the paper and its supporting information files.

## INTRODUCTION

The healthcare industry has a very complex and dynamic nature and has faced major challenges over the years. Shortages of healthcare professionals, technological advances, rising costs and changes in communities and political environments have made it increasingly difficult for healthcare organizations to deliver high-quality services to patients. The concept of quality in healthcare organizations is complex and has been subject to numerous trends and fads; thus, it would be impossible to design the interventions and measures used to improve results without noting these. The Institute of Medicine has defined the quality of care as "The degree to which health services for individuals and populations increases the likelihood of desired health outcomes and are consistent with current professional knowledge[1]. The Institute of Medicine also described the following six domains of healthcare: safety, effectiveness, timeliness, efficiency, equity and patient-centeredness. There are various parameters, indicators and tools that measure healthcare quality and outcomes. The Agency for Healthcare Research and Quality (AHRQ) has defined a quality measure as "A mechanism to quantify the quality of care via comparison to a criterion". Currently, quality measurements in healthcare are becoming more common and can be used to evaluate hospitals, healthcare professionals and healthcare programs. Kelly[2] identified three patient experiences as one of the important measurements for evaluating and judging the quality of healthcare services delivered. Currently, there is a growing demand among patients for participation in their healthcare plan, transparency in access and information and the ability to schedule appointments at the convenience of the patient, not the provider[3]. Such demands are placing pressure on healthcare systems to find ways to become more patient-centered. Patient experience "Encompasses the range of interactions that patients have with the healthcare system, including their care from health plans and from doctors, nurses and staff in hospitals, physician practices and other healthcare facilities[4]. As an integral element of healthcare quality, patient experience consists of several aspects of healthcare delivery that patients consider highly valuable when they seek and receive care, such as obtaining timely appointments, having simple, accessible information and engaging in effective communication with healthcare providers. Understanding patient experience is a crucial step in moving toward patient-centered care. By looking at numerous aspects of patient experience, one can estimate the extent to which patients are receiving care that is considerate of and sensitive to individual patient preferences, needs and values[5]. While there are several ways to gather information on the patient experience, Picker outpatient surveys have become vital tools for organizations interested in determining the patient-centeredness of the care they deliver and identifying areas for improvement[6]. Picker outpatient surveys do not ask patients how content they were with their care; rather, the surveys ask patients to report on the aspects of their experiences that are important to them. The surveys ask well-tested questions that are used to develop standardized and validated measures of patient experience that consumers, providers and others can rely upon[7].

The healthcare system in Saudi Arabia has been making efforts to improve the efficiency and affordability of services. Many changes have occurred in the past few years as a result of these efforts. Healthcare is shifting increasingly from inpatient to outpatient settings. Outpatient department (OPD) visits in government hospitals increased to approximately 14.5 million visits in 2016, compared with 12 million visits in 2014[8,9]. Notably, the Ministry of Health established the General Administration for Quality and Patient Safety and developed a strategic plan for improving quality and patient safety (2016-2019) with the aim of achieving the Ministry's objectives of the National Transition Plan 2020[10]. The plan includes three main strategic objectives: improving quality governance and patient safety, establishing standards for quality and patient safety and spreading the culture of quality and patient safety. Because of the paucity of research examining patient experience in nutrition clinics in Saudi Arabia, the researchers conducted this study with the purposes of evaluating outpatient experiences in nutrition clinics in Riyadh City and providing opportunities for improvement.

**Previous studies:** Numerous studies have focused on patient experience with healthcare in general, with few studies addressing the issue of the dietitian services provided in hospitals. Patient experience in the healthcare industry is considered one of the three cornerstones of quality, in addition to patient safety and clinical effectiveness. Doyle *et al.*[11] conducted a systematic review in a broad range of settings within primary and secondary care settings, including primary healthcare centers and hospitals in the United Kingdom, with a large number of participants of different ages and demographic groups to examine the relationship between these three cornerstones. Researchers used various numbers of primary and secondary outcome measures, such as length of stay, physical symptoms, mortality rate and adherence to treatment. The study identified

5323 articles and summarized fifty-five studies that indicated patient experience as one of the central cornerstones of quality in healthcare. The authors concluded that patient experience is positively related to patient safety and clinical effectiveness.

Patient experience is difficult to measure in healthcare settings, despite the availability of various measurements for evaluation. LaVela and Gallan[12] examined the measurement of patient experience and the evaluation methods used to measure patient experience. They summarized two reasons for the challenges that occur in measuring patient experience: the complexity of the concept and the unclear definition of what the term patient experience means. Evaluating patient experience is important in order to compare the services delivered by different healthcare providers, involve patients' decision-making in their healthcare plan, monitor healthcare services delivered to patients by committees and meet the mission and vision of the organizations effectively.

Wolf *et al.*[13] reviewed studies published from 2000-2014 to address the main components that were commonly used in definitions of patient experience, summarize these definitions into a common one and identify what may be missing from and may support, existing definitions. The study suggests numerous recommendations for the definition of patient experience. First, the patient experience reflects the events that occur individually and collectively in the healthcare organization. Next, patient experience is not the same as patient satisfaction. Patient experience is focused on the care of patients as individuals, meeting their needs and involving them as partners in their healthcare care plan. Additionally, patient experience is strongly linked to achieving positive patient expectations. Finally, there is a close relationship between patient experience and patient-centered care. One of the priorities of patient experience is concentrating on hearing the patient's voice by engaging him/her in the care plan.

Burnett *et al.*[14] conducted a qualitative study that examined patient experiences around healthcare-associated infection (HCAI). Face-to-face interviews were carried out with a group of patients who had been diagnosed with a *Staphylococcus aureus* infection and other groups of patients who had been in the same hospital at the same time but did not contract the infection. The researchers concluded that there were specific issues that must be identified to promote patient safety, quality of care and patient experience with infection control. The lack of verbal and written communication was the main concern for most patients in both groups. Some patients declared that they were not comfortable asking questions, while other patients and their families have no trust in healthcare providers. The study recommended that each patient be a key stakeholder in designing and evaluating the system alongside managers and healthcare professionals.

Understanding the patient experience correctly will provide opportunities to improve healthcare. In this regard, Luxford and Sutton[15] explored how patient experience fits into the overall healthcare framework. Policy makers and health managers obtain feedback from patients about their experiences and satisfaction through surveys. Patients also turn to other resources, such as the internet, to document their experiences and share their opinions. These findings demonstrate that patient experience is an important measurement in the healthcare field. The "Triple Aim" of decreasing costs per capita, enhancing patient experience and improving population health all require focusing on patients to improve clinical outcomes. To meet this goal, the whole organization needs to adopt a patient-centered care approach effectively. Furthermore, the healthcare system must shift from treating diseases to preventing and promoting public health, leading to a higher quality of life.

Berghout *et al.*[16] investigated the importance of the eight dimensions of patient-centered care (i.e., emotional support, physical comfort, patient preferences, coordination of care, access to care, continuity of care, information and education, support from friends and family) from the point of view of healthcare professionals working in a hospital. A total of thirty-four healthcare providers from different departments working at a teaching hospital in New York City were interviewed. The interviewees were asked to respond to 35 statements on eight dimensions of patient-centered care that were identified from the literature. The results revealed three major important elements for patient-centered care: equity in access, respect and dignity and high-quality outcomes. The researchers recommended that every healthcare organization that intended to apply an efficient patient-centered care approach must identify the essential elements. In relation to the current study's purpose, little is known about patient experiences with dietitians or in nutrition clinics. Hancock *et al.*[17] examined patient experiences with dietetic consultations. The study collected data by using focus groups and by interviewing seventeen patients individually. To avoid conflicts of interest, the interviews were conducted by a dietitian who was not involved in the patient's care. The findings of the study indicated that there were a variety of patient experiences and that these experiences were affected by four factors: first, the dietitian's skills and behavior, such as communication skills

and careful listening; second, the patient's expectations of the appointment, the length of time spent with the dietitian and the involvement of other healthcare providers in the consultation; third, the patient's feelings and emotions, such as frustration and guilt and fourth, the clarity of the information given to the patient. Patients agreed that identifying these factors would improve their experiences with dietetic consultations and positively enhance patient-centered care.

A systematic review was conducted by Sladdin *et al.*[18] to better understand patient-centered care in dietetics. Twenty-seven studies met the authors' criteria (i.e., dietitians or patients who had participated in dietetic consultation, one or more of the patient-centered care dimensions and a full-text article in English) and were reviewed and analyzed. The review recommended that dietitians must acquire excellent communication skills and qualifications to develop effective patient-dietitian interactions. Additionally, the patients emphasized the importance of promoting patient-centered care and their involvement in their nutritional care plan.

In a recent study, Sladdin *et al.*[19] investigated the perceptions and patient experience of quality healthcare in the context of dietetics. Participants were selected based on their participation in n>1 dietetic consultations, age over 18 years old, ability to speak English and the condition of "Receiving nutrition care for the management of >1 medical conditions" (p. 189). The participants (N = 11) were interviewed by telephone and the data were analyzed thematically. Four thematic issues were found: (1) fostering and maintaining caring relationships, (2) delivering individualized care, (3) enabling patient involvement and (4) taking control of one's own health. Therefore, the current study aims to evaluate outpatient experiences in nutrition clinics in Riyadh City and to provide opportunities for improvement.

## MATERIALS AND METHODS

**Study design:** This cross-sectional study was conducted to explore outpatient experiences in nutrition clinics in three hospitals in Riyadh City, Kingdom of Saudi Arabia.

**Setting:** The patients were from three hospitals: Prince Mohammed bin Abdulaziz Hospital (PMAH; Ministry of Health (MOH) hospital), King Khaled University Hospital (KKUH; university hospital) and Dallah Hospital (private hospital). These three hospitals are located in Riyadh City, Kingdom of Saudi Arabia.

**Data collection process:** Data were collected by convenience (nonprobability) sampling for thirty-five days from February 20th to March 25th, 2018, by administering both electronic and paper questionnaires. At PMAH, patients completed the questionnaire with the help of one of the resident clinical dietitians. At the other hospitals, the researchers distributed the survey electronically while waiting for the hospitals' approval. The questionnaire link was sent to approximately 420 patients via WhatsApp messages, Twitter and e-mails.

**Participants:** The targeted population for this study included patients who had visited a nutrition clinic in the outpatient department of the following hospitals: KKUH, PMAH and Dallah Hospital. Predetermined criteria were set for selecting participants as follows: they must be over 18 years; they had to have visited the nutrition clinic in the outpatient department of PMAH, KKUH, or Dallah Hospital in the last 12 months; they had to agree to participate in the study and they had to complete the survey. A total of 420 surveys were distributed and 9 surveys were rejected because they were incomplete. The total number of eligible surveys that were complete was 226.

**The study instrument:** The survey used in this study is the "2011 Picker Survey of Outpatient Experience[20]. The Picker Institute works with patients, professionals and administrators to enhance the understanding of patient perception at all levels of healthcare practice and policy. The questionnaire is valid and reflects the priorities and interests of patients. Furthermore, it is based on factors that are most important from the patient's point of view. The Picker survey is divided into eleven sections: before the appointment, arrival at the hospital, hospital environment and facilities, overall impression, background, seeing a doctor, leaving the outpatient department, waiting in the hospital, tests and treatment, seeing another professional and overall opinion about the appointment. These sections cover eleven main domains: doctors' interaction, other professionals' interaction, dealing with the issue, information about discharge, tests, treatment, privacy, cleanliness, medication, dignity and respect and organization of the outpatient department. In this study, the researchers shortened the survey to cover only the first seven sections mentioned above to suit the study's objective. The survey is based on a nonrandom sample of outpatients who attended an appointment at a nutrition clinic during March 2018. Descriptive statistics were used to calculate the data and the level of statistical significance was set at 0.05.

## RESULTS

**Patient demographic:** Table 1 reveals the patients' information and characteristics.

**Problem score:** The Picker Institute used the problem score to demonstrate the percentage of patients who, by their response, indicated for each question that a specific aspect of their care could have been improved. To calculate the problem scores, the author combined response categories. For instance, for the following question, 'Were you given enough privacy when discussing your condition or treatment?', the responses 'Yes, to some extent' and 'No' were combined together to create a single problem score. $p<0.05$ was considered indicative of statistical significance for all analyses. Domains of outpatient experience survey:

**Dietitian interaction:** Table 2 demonstrates the percentage of patients' responses to each question. The questions "having enough time to discuss the health problem", "listen to what you had to say" and "explain the treatment plan" were significantly different because the p value is less than alpha = 0.05. The number of patients responding "yes" to these questions was greater than that responding "no", with 63.6, 65.0 and 60.4%, respectively. In addition, the problem scores were 36.4, 35 and 39.6, respectively. The rest of the questions were not significantly different, indicating that there was a problem. The problem scores were high because the percentages of patients responding "yes" were close to the percentages of those responding "no".

**Dealing with the issue:** The participants were asked three questions concerning the information about their condition, involvement in decision-making and satisfaction with the visit. All the questions are presented in Table 3.

Table 3 shows that the question related to information that a patient might receive showed a significant difference at $p<0.05$, achieving 61.3% and that the problem score was 38.7%. The two remaining questions were not significant, indicating high problem scores.

**Information about discharge:** The participants were surveyed about whether they had been provided information about whom to contact after discharge and whether they had sufficient information about their treatment. Their responses are summarized in Table 4.

Table 4 shows that both questions about discharge information were statistically significant ($p<0.05$) and that the problem scores were 64.0% for the first question and 12.4% for the second question.

**Privacy:** Table 5 shows that there was a significant difference with a problem score of only 25.8%.

Table 1: Patients' demographic characteristics

| Variables | No. | Percentage |
|---|---|---|
| **Sex** | | |
| Male | 83 | 38.2 |
| Female | 134 | 61.8 |
| **Age (years)** | | |
| 16-18 | 5 | 2.3 |
| 19-24 | 33 | 15.2 |
| 25-44 | 115 | 53.0 |
| 45-64 | 62 | 28.6 |
| >65 | 2 | 0.9 |
| **Nationality** | | |
| Saudi | 204 | 94.0 |
| Not-Saudi | 13 | 6.0 |
| **Education level** | | |
| Elementary | 14 | 6.5 |
| Middle | 4 | 1.8 |
| High school | 96 | 44.2 |
| Bachelor's degree | 85 | 39.2 |
| Postgraduate | 18 | 8.3 |

Table 2: Percentages of patients' responses for questions of dietitian interaction

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Did you have enough time to discuss your health of medical problem with the dietitian? | 138 | 63.6 | 79 | 36.4 | 0.000 |
| Did you have enough confidence and trust in the dietitian treating you? | 114 | 52.5 | 103 | 47.5 | 0.455 |
| Did the dietitian seem aware of your medical history? | 122 | 56.2 | 95 | 43.8 | 0.067 |
| Did the dietitian listen to what you had to say? | 141 | 65.0 | 76 | 35.0 | 0.000 |
| Did the dietitian explain the treatment plan in a way that you understand? | 131 | 60.4 | 86 | 39.6 | 0.002 |

Table 3: Percentages of patients' responses for questions of dealing with issue

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Was the information about your condition or treatment enough? | 133 | 61.30 | 84 | 38.7 | 0.001 |
| Were you involved in decisions about your care and treatment? | 98 | 45.10 | 117 | 54.9 | 0.154 |
| Were you satisfied of your visit? | 105 | 48.40 | 112 | 51.6 | 0.635 |

Table 4: Percentages of patients' responses for questions of information about discharge

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Did hospital staff tell you who to contract if you were worried about your? treatment after you left hospital? | 50 | 23.0 | 139 | 64.0 | 0.000 |
| Were you given any written or printed information about your treatment? | 190 | 87.6 | 27 | 12.4 | 0.000 |

Table 5: Participants' response to the privacy issue

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Were you given enough privacy when discussing your condition or treatment? | 161 | 74.2 | 56 | 25.8 | 0.000 |

Table 6. Percentages of patients' responses for questions of cleanliness

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Was the outpatients department clean? | 107 | 49.3 | 110 | 50.7 | 0.839 |
| Were the toilets clean at the outpatients department? | 41 | 18.9 | 68 | 31.3 | 0.010 |

Table 7: Percentages of patients' responses for questions of dignity and respect

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Did you feel you were treated with respect and dignity while you were in the clinic? | 190 | 87.6 | 27 | 12.4 | 0.000 |
| Did the receptionist treated you with courtesy? | 154 | 70.9 | 63 | 29.1 | 0.000 |

Table 8. Percentages of patients' responses for questions of clinic organization

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Was the nutrition clinic well organized? | 104 | 47.9 | 113 | 52.1 | 0.541 |

Table 9: Percentages of patients' responses for questions not included in any domains

| | Yes | | No | | |
|---|---|---|---|---|---|
| Questions | No. | Percentage | No. | Percentage | p-value |
| Once you arrived at the hospital, was it easy to find your way to the nutrition clinic? | 98 | 45.2 | 107 | 49.3 | 0.530 |
| Was it possible to find a convenient place to park in the hospital car park? | 42 | 19.4 | 110 | 50.7 | 0.000 |
| Before your appointment, were you given the name of the person that the appointment was with? | 145 | 66.8 | 72 | 33.2 | 0.000 |
| When you arrived, was your appointment with the person you were told it would be with? | 95 | 43.8 | 52 | 23.9 | 0.000 |
| Was your appointment changed to a later date by the hospital? | 22 | 10.1 | 195 | 89.9 | 0.000 |
| Were you given a choice to book your appointment? | 118 | 54.4 | 94 | 43.3 | 0.099 |

**Cleanliness:** Table 6 shows that the percentage of patients who thought "the toilets are not clean" was only 31.3% (significant difference); however, 108 patients answered, "did not use it" and therefore, they were not included here. Thus, the result must be treated with caution, as the number of responses is somewhat small. The other question, "OPD clean", was not significantly different, indicating a high problem score.

**Dignity and respect:** Table 7 demonstrates that both questions "treated with respect and dignity" and "receptionist treated you with courtesy" were highly significant, ($p<0.05$) and problem scores of 12.4 and 29.1%, respectively.

**Organization of the outpatient department:** Table 8 shows that the clinic organization was not significantly different, ($p>0.05$), indicating that the problem score (52.1%) was high.

**Questions not included in any domain:** Table 9 shows that all questions were statistically significant except item 1: "finding the clinic" and item 6, "booking appointment". The problem scores for these two questions were high and were 49.3 and 43.3%, respectively.

**Ranking problem scores:** The problem scores have been ranked from the highest (most respondents providing an opportunity for improvement) to lowest (fewest respondents

Table 10: Comparison of the study's problem scores and picker average

| Questions | Study's respondents | Picker average (%)* |
|---|---|---|
| **Problem scores 50%+** | | |
| Patient not given information on who to contact | 64.0 | 32 |
| Not fully involved in decisions about care or treatment | 54.9 | 27 |
| Clinic not at all/fairly organized | 52.1 | 38 |
| Patient not completely satisfied or visit | 51.6 | 25 |
| Could not find a convenient place to park | 50.7 | 35 |
| Outpatients department not clean | 50.7 | 1 |
| **Problem scores 40-49%** | | |
| Not easy to find way to the nutrition clinic | 49.3 | 17 |
| Did not have full confidence and trust in dietitian | 47.5 | 17 |
| Dietitian did not know enough about medical history | 43.8 | 15 |
| Not given choice of appointment time | **43.3 | 60 |
| **Problem scores 30-39%** | | |
| Dietitian did not fully explain treatment plan | 39.6 | 21 |
| Not enough or no information given about condition or treatment | 38.7 | 16 |
| Did not have enough time to fully discuss health or medical problem with dietitian | 36.4 | 23 |
| Dietitian did not fully listen to what patient had to say | 35.0 | 18 |
| Not given name of person that appointment would be with | 33.2 | 28 |
| Toilets at the outpatients department not clean | 31.3 | 5 |
| **Problem scores 20-29** | | |
| Courtesy of receptionist was fair, poor | 29.1 | 7 |
| Not given complete privacy when discussing condition/treatment | 25.8 | 13 |
| Appointment not with person told it would be with | 23.9 | 21 |
| Problem scores 10-19% | | |
| Not given any written of printed information about treatment | 12.4+ | 19 |
| Not always treated with respect or dignity | 12.4 | 12 |
| Appointment changed to later date by hospital | 10.1+ | 23 |

providing an opportunity for improvement). Concentrating on areas with high problem scores could potentially improve the experience for a considerable number of patients. These problems scores are depicted in Table 10.

The problem scores summarized in Table 10 were divided into five sections, from the highest to the lowest: "Patient not given information on who to contact" had the highest problem score (64%) and "appointment changed to later date by hospital" had the lowest problem score (10.1%). All problem scores in the current study were higher than the Picker average except the following three: "patient not given choice of appointment time", "not given any written or printed information" and "appointment changed to later date by hospital" with percentages of 43.3, 12.4 and 10.1%, respectively.

## DISCUSSION

With the movement toward adopting patient-centered care (PCC), healthcare organizations are focusing on improving outpatient experiences to enhance the quality of care. The findings of this study identified areas of outpatient experience in nutrition clinics where the performance of healthcare organizations and/or health professionals was poor and needed to be improved. These areas were categorized by the percentage of problem scores (Table 10).

Based on participants' responses, the most significant and highest problem score was 64.0% for the item "patient not given information on who to contact" and the reason behind this could be that hospitals do not have written care plans for patients. The care plan consists of details such as who is responsible for providing support, how to contact them and whom to contact in case of emergency. Having care plans reflects one of the PCC dimensions, which is coordination of care. This finding is supported by the current study, which aimed to implement care plans and coordination of care in 3 hospitals. Patients in these hospitals complained about a lack of communication with their healthcare providers. The goals of coordination of care processes and care plans involve patients and their families in the healthcare plan, view patients' preferences and goals and improve patient-provider interactions. The hospitals found that care plans are helpful and useful for both patients and healthcare professionals[21]. The results of the current study are consistent with Dykes *et al.*[21], who indicated that care plans are patient-centered and improve communication and reflect patients' preferences. They also found that care plans improved the patient's experience, satisfaction and outcomes. In addition, they found that many healthcare organizations do not use care plans, while others use them in a limited way, which was also confirmed in this study.

The second most significant and highest problem score was found for the response "could not find a place to park" (50.7%). This problem occurs in many countries around the world. The findings of this study are consistent with the findings of Yan-Ling *et al.*[22], who identified the current situation of parking problems in China's cities and indicated that a lack of parking spaces around hospitals and poor traffic patterns are causing provider-patient conflicts, disorganized environments and increased treatment durations, thus directly impacting patients' well-being. Additionally, this finding indicated that old hospitals have low-quality parking lots and are mostly on the ground level. Although the standards of new hospitals have improved, parking needs have not yet been met, especially at large hospitals in the middle of cities. This situation is similar to the current study's situation and reflects one of the PCC principles, i.e., access to care.

The third most significant and highest problem score is the statement "dietitian did not fully explain the treatment plan" (39.6%). The reason behind this finding is the complex and scientific language used by dietitians. This finding is consistent with the findings of a systematic review conducted by Nouri and Rudd[23], who indicated that oral communication between patients and healthcare professionals affects the health outcomes of patients. Nouri and Rudd[23] recommend that health providers use simple and plain language; furthermore, they recommend that health providers should receive training for education programs. Additionally, this result is consistent with Larkins *et al.*[24], who conducted a study evaluating 227 outpatient experiences in a gastroenterology clinic using a self-completed questionnaire and found that there are factors affecting patient experiences positively, including "having confidence in providers", "proper explanation of the treatment" and "being listened to".

The fourth most significant and highest problem score is the statement "not enough information given about condition or treatment" (38.7%). Similar results were obtained by Owen-Smith *et al.*[25], who interviewed obese breast cancer patients and their healthcare providers. Their results indicated that almost all patients wanted more information about their treatment choices and expected their healthcare providers to provide it to them. However, healthcare professionals did not understand the importance of the information to patients. Continuity and transition of care are one of the PCC principles that require meeting the patient's need for detailed information regarding treatment or dietary plans.

The findings of this study were compared with those of the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust, which were obtained by Picker Institute Europe[20]. This comparison helps identify aspects where performance is poor and find ways to improve it. The scores of all the survey questions in this study were significantly worse than the Picker average, except for three elements: "choice of appointment time" (43.3% compared to 60% of Picker) and "appointment has not been changed to later date by hospital" (10.1% compared to 23% of Picker). A small number of factors may have influenced these positive results. One of the hospitals included in the study is private and has a policy allowing patients to choose an appropriate appointment. Furthermore, one hospital is a new MOH hospital with a small number of patients and therefore, less pressure is put on the outpatient scheduling system. The response rate from these two hospitals was more than fifty percent. Access to care, including availability of appointments when needed and easy scheduling, is one of the eight principles of PCC. Furthermore, another study indicated that the patient's ability to book his/her own nonurgent appointments has a considerable impact on the patient's satisfaction[26]. The third element involved obtaining written or printed information about treatment (12.4% compared to 19% of Picker). It is important for patients to obtain written information for their treatment or diet plan. Similar results were reported by Prince *et al.*[26], who examined the quality and type of written information for a diet for Inflammatory Bowel Disease and showed that patients appreciate written information and instructions in nutrition plans given by healthcare providers.

The third objective of this study was to examine the relationship between patient experience and PCC. Picker's outpatient experience survey is a measure of PCC that assists in finding opportunities for improvement. As mentioned above, patient experience reflects the implementation of PCC in hospitals. To evaluate PCC accurately, the entire questionnaire must be used to cover all eight Picker dimensions of patient-centered care. In general, the results indicate that patient-centeredness is not adopted broadly by the hospitals.

## IMPLICATIONS, LIMITATIONS AND RECOMMENDATION FOR FUTURE RESEARCH

This study was limited to only three hospitals in Saudi Arabia and future studies are recommended to include many hospitals and cover a large number of patients to increase the validity of the results. Only a questionnaire was administered to collect data from the study participants; thus, future studies may conduct semi-structured interviews to allow patients to verbally express their views about outpatient experiences with nutrition clinics.

## SIGNIFICANCE STATEMENT

This study reveals the perceptions of patients toward nutrition in outpatient clinics in Saudi Arabia. This study will help researchers rectify the deficiencies in patient-centered care that occur in Saudi Arabia.

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