

Barriers and Facilitators to Oral and Dental Prosthesis Care Among Hospitalized Adults: A Qualitative Study of Nurses' and Dental Professionals' Perspectives in a Saudi Tertiary Hospital

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Abstract

Background: Oral and dental prosthesis care may be overlooked during hospitalization, particularly among older and dependent adults. Limited training, unclear responsibilities, and weak coordination between nursing and dental services may contribute to inconsistent care.

Aim: To explore barriers and facilitators to oral and dental prosthesis care among hospitalized adults from the perspectives of nurses and dental professionals in a Saudi tertiary hospital.

Methods: A qualitative descriptive study was conducted in a tertiary hospital in Riyadh, Saudi Arabia, between September 2022 and August 2023. Semi-structured interviews were conducted with 24 healthcare professionals, including 15 nurses and nine dental professionals. Data were analysed using inductive thematic analysis.

Results: Five themes were identified: oral and prosthesis care as a competing clinical priority; unclear professional responsibility and fragmented ownership; practical challenges in denture and prosthesis management; gaps in knowledge, training, and institutional support; and interprofessional collaboration as a facilitator of better care. Participants highlighted concerns related to denture cleaning, storage, loss, poor fit, nutrition, referral processes, and inconsistent clinical guidance.

Conclusion: Oral and dental prosthesis care during hospitalization is influenced by clinical, professional, and organizational barriers. Clearer roles, standardized procedures, staff education, appropriate denture storage systems, and stronger collaboration between nursing and dental services may improve the consistency and safety of inpatient oral and prosthesis care.

Keywords: oral health; dental prosthesis; dentures; nursing; prosthodontics; hospitalized patients; qualitative research; interprofessional collaboration.

Introduction

Oral health is an important component of general health and can significantly influence nutrition, communication, comfort, dignity, and quality of life. During hospital admission, however, oral care may receive less attention than other medical and nursing priorities. Hospitalized adults, particularly older people and those with functional or cognitive limitations, may depend on healthcare staff for oral hygiene

and management of dental prostheses. Previous evidence has shown that oral health can deteriorate during hospitalization, with increases in dental plaque, gingival inflammation, and other oral problems reported among inpatients (Terezakis et al., 2011). This suggests that maintaining oral health should be considered an important part of comprehensive inpatient care.

Nurses have a central role in identifying oral health problems, providing or assisting with oral hygiene, supporting patients who are unable to care for themselves, and initiating referral when dental problems are identified. Nevertheless, studies have reported considerable variation in nurses' knowledge, attitudes, and oral care practices. Barriers such as limited training, lack of clear protocols, time pressure, competing clinical priorities, inadequate resources, and uncertainty regarding professional responsibility have been identified in different healthcare settings (Pettit et al., 2012; Salamone et al., 2013; Ek et al., 2018). Qualitative research has also demonstrated that oral care may sometimes be viewed as an optional rather than essential component of nursing care, particularly when patients have other complex medical needs (Coker et al., 2017).

The management of dental prostheses introduces additional challenges during hospitalization. Many adult and older patients use removable dentures or other dental prostheses to support eating, speech, appearance, and social interaction. When patients are admitted to hospital, they may require assistance with prosthesis removal, cleaning, storage, and reinsertion. Failure to provide appropriate care may contribute to poor hygiene, discomfort, difficulty eating, mucosal problems, or loss and damage of the prosthesis. Observational studies have shown that denture care in hospitalized patients is not always performed consistently and may not be accompanied by adequate cleaning of the oral cavity (Coker et al., 2017). More recent evidence has also demonstrated that targeted oral and denture hygiene training can improve the oral care of hospitalized older adults (Viebranz et al., 2023). These findings highlight the importance of considering dental prosthesis management as a specific component of inpatient oral care.

Effective management of oral and prosthetic needs may require collaboration between nursing and dental professionals. Nurses are often the first healthcare professionals to identify oral problems at the bedside, while dentists and prosthodontists provide specialized assessment and management of dental disease and prosthetic complications. Interprofessional collaboration may therefore improve oral screening, referral, treatment, patient education, and continuity of care. Studies examining collaborative nursing and dental approaches have suggested that oral health training and structured referral systems can strengthen the integration of dental care within general healthcare services (Kohli et al., 2021). However, interdisciplinary oral health practices remain inconsistent, and gaps between healthcare professionals' knowledge, attitudes, and actual clinical practices have been reported (Gaffar et al., 2022).

These issues are particularly relevant in Saudi Arabia. Studies conducted among nurses in Saudi hospitals have identified variation in oral care knowledge, training, assessment practices, and access to oral care policies (Alotaibi et al., 2016; Al Rababah et al., 2018; Iyer et al., 2023). A study conducted in Riyadh found that many nurses had not received formal oral care training and that oral assessment and institutional oral care policies were not consistently implemented (Al Rababah et al., 2018). Saudi research has also identified gaps in interdisciplinary oral health practices and dental referral among healthcare professionals (Gaffar et al., 2022). Although these studies provide important information about oral healthcare practices,

most have used quantitative designs and have focused mainly on knowledge, attitudes, or general oral care practices.

There remains limited understanding of how nurses and dental professionals themselves experience the management of oral and dental prosthesis care among hospitalized adults, particularly within Saudi tertiary hospitals. Important practical issues such as responsibility for denture care, cleaning and storage, prosthesis loss or damage, oral health assessment, nutritional concerns, patient education, communication between services, and pathways for dental referral require further exploration. Understanding these experiences may help identify both barriers to good practice and factors that support effective interdisciplinary care.

Therefore, this study aims to explore the barriers and facilitators to oral and dental prosthesis care among hospitalized adults from the perspectives of nurses and dental professionals working in a Saudi tertiary hospital. By examining the experiences of both professional groups, the study may provide a deeper understanding of current clinical practices and identify opportunities to improve oral care procedures, interprofessional collaboration, dental referral pathways, and the management of dental prostheses during hospitalization.

Methods

Study Design

A qualitative descriptive design was used to explore barriers and facilitators to oral and dental prosthesis care among hospitalized adults from the perspectives of nurses and dental professionals. This approach was selected because it allowed a practical and detailed description of participants' experiences while remaining close to their accounts.

Individual semi-structured interviews were conducted to explore participants' experiences, clinical practices, perceived responsibilities, challenges, and recommendations related to inpatient oral and dental prosthesis care. The study was reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ).

Study Setting

The study was conducted at a large tertiary hospital in Riyadh, Saudi Arabia, between September 2022 and August 2023. The hospital provided specialized inpatient, outpatient, surgical, critical care, rehabilitation, and dental services to a diverse adult patient population.

Nursing participants were recruited from adult inpatient clinical areas where patients commonly required assistance with oral hygiene or dental prostheses. These areas included general medical wards, surgical wards, intensive care units, neurological units, rehabilitation units, and geriatric services.

Dental participants were recruited from the hospital's dental services and included prosthodontists and general dentists who were involved in the assessment, treatment, consultation, or referral of adult patients with oral health or dental prosthesis needs.

Participants and Eligibility

Participants were recruited from two professional groups: registered nurses providing direct care to hospitalized adults and dental professionals involved in oral health or dental prosthesis care.

Participants were eligible if they were registered nurses, dentists, or prosthodontists employed at the study hospital; had at least six months of clinical experience at the institution; had experience caring for, assessing, treating, or providing consultation for adult patients; and were able to communicate in Arabic or English.

Healthcare professionals working exclusively with pediatric patients, administrative staff without direct clinical responsibilities, interns, students, and staff with less than six months of experience at the hospital were excluded.

Sampling and Sample Size

Purposive sampling was used to recruit healthcare professionals who had relevant experience of inpatient oral or dental prosthesis care. Maximum variation was sought by recruiting nurses from different inpatient areas and dental professionals with different professional roles and levels of clinical experience.

A total of 24 healthcare professionals participated in the study, including 15 registered nurses and nine dental professionals. The dental group included five prosthodontists and four general dentists.

Recruitment continued until the research team determined that sufficient depth and diversity of information had been obtained and additional interviews were no longer contributing substantially new information relevant to the study objectives.

Recruitment

Potential participants were approached through approved institutional recruitment procedures. Study information was distributed through the relevant nursing and dental departments. Healthcare professionals who expressed interest received a participant information sheet explaining the purpose of the study, interview procedures, confidentiality arrangements, voluntary nature of participation, and their right to withdraw.

Participation was voluntary, and participants were informed that their decision to participate or decline would not affect their employment, professional relationships, or clinical responsibilities. Individual participation status and interview responses were not shared with supervisors or managers.

Interview Guide

A semi-structured interview guide was developed based on the study objectives and previous literature relating to hospital oral care, denture management, nursing practice, dental referral, and interprofessional collaboration.

The interview guide explored participants' experiences of providing oral care to hospitalized adults; identification and assessment of oral and dental problems; management of removable dentures and other dental prostheses; cleaning, removal, insertion, identification, and storage of prostheses; experiences of prosthesis loss, damage, poor fit, and discomfort; and the impact of dental prostheses on eating, nutrition, communication, and patient comfort.

Participants were also asked about patient and caregiver education, professional roles and responsibilities, availability of policies and clinical guidelines, access to oral care equipment, staff training, communication between nursing and dental services, referral processes, perceived barriers and facilitators, and recommendations for improving inpatient oral and dental prosthesis care.

Open-ended questions were used throughout the interviews. Follow-up questions such as “Can you explain further?”, “Can you give an example?”, and “What usually happens in this situation?” were used to obtain greater detail when needed.

The interview guide was reviewed by two experienced nurses and two prosthodontists to assess its clarity, clinical relevance, and alignment with the study objectives. Two pilot interviews, involving one nurse and one dental professional, were conducted before formal data collection. Minor wording changes were made to improve the clarity and sequence of the questions. As no major changes were required, the pilot interviews were included in the final analysis.

Data Collection

Individual semi-structured interviews were conducted between September 2022 and August 2023. Interviews were conducted in a private meeting room within the hospital to protect participants’ privacy and encourage open discussion.

Before each interview, the researcher explained the purpose and procedures of the study and obtained written informed consent. Separate permission for audio recording was also obtained.

Participants were offered the choice of being interviewed in Arabic or English according to their preference. Interviews lasted between 30 and 50 minutes, with an average duration of approximately 39 minutes.

Interviews were conducted by a member of the research team who had clinical experience and received training in qualitative interviewing. The interviewer was not directly responsible for the participants’ employment evaluation or clinical supervision.

A brief participant information form was completed before each interview. Information collected included profession, clinical area, years of professional experience, years of experience at the study hospital, and previous oral-health-related training. No patient identifiers or identifiable patient information were collected.

All interviews were digitally audio-recorded and transcribed verbatim. Field notes were completed immediately following each interview to document contextual observations, emerging ideas, and areas requiring further exploration during subsequent interviews.

Data Management

Each participant was assigned a unique study identification code. Nursing participants were coded N01 to N15, while dental professionals were coded D01 to D09.

Names and other directly identifying information were removed from the transcripts. Audio recordings, interview transcripts, participant information, field notes, coding files, and analytical documents were stored on password-protected institutional electronic systems accessible only to members of the research team.

Interviews conducted in Arabic were transcribed in Arabic and initially analysed in the original language to preserve participants’ intended meaning. Representative quotations selected for publication were subsequently translated into English by a bilingual researcher and independently reviewed by another bilingual member of the research team to ensure conceptual accuracy.

Data Analysis

Data collection and analysis were conducted concurrently. Interview transcripts were analysed using an inductive thematic analysis approach.

The analysis followed the six phases described by Braun and Clarke: familiarization with the data, generation of initial codes, development of potential themes, review of themes, definition and naming of themes, and preparation of the final analytical narrative.

Researchers initially became familiar with the data by repeatedly reading the interview transcripts and reviewing field notes. Meaningful sections of text were then assigned initial codes. Codes representing similar concepts were compared and grouped into broader categories. These categories were subsequently examined to identify preliminary themes and subthemes.

The preliminary themes were reviewed against both the coded extracts and the complete dataset to ensure that they accurately represented participants' experiences. Themes were then refined, defined, and named before preparation of the final findings.

An inductive and predominantly semantic approach was used. Codes and themes were developed primarily from participants' accounts rather than being based on a predetermined theoretical framework. The experiences of nurses and dental professionals were initially analysed within each professional group. The two datasets were then compared to identify common experiences and differences relating to clinical responsibilities, oral and prosthesis care practices, communication, referral processes, barriers, facilitators, and suggested improvements.

The first researcher conducted the initial coding of all transcripts. A second researcher independently reviewed six transcripts, representing 25% of the dataset, together with the initial codes and developing themes. Differences in interpretation were discussed among the research team, and the coding framework and themes were refined through consensus.

NVivo 12 qualitative data analysis software (QSR International) was used to organize transcripts, codes, categories, themes, field notes, and representative quotations.

Researcher Reflexivity

Because members of the research team had professional backgrounds in both nursing and prosthodontics, reflexivity was considered throughout the research process. Researchers maintained reflexive notes documenting their assumptions, expectations, methodological decisions, and potential influence on data collection and interpretation.

Regular research team discussions were conducted during data collection and analysis to consider alternative interpretations and reduce the influence of individual professional assumptions. The multidisciplinary background of the research team was also considered a strength because it allowed the findings to be examined from both nursing and dental perspectives.

Trustworthiness

Several strategies were used to enhance the credibility, dependability, confirmability, and transferability of the findings.

Credibility was supported through purposive recruitment of healthcare professionals with direct experience of inpatient oral and dental care, inclusion of participants from different professional and clinical backgrounds, use of open-ended interviews, prolonged engagement with the interview data, and regular discussion of emerging findings within the research team.

Dependability was supported through maintenance of an audit trail documenting participant recruitment, interview procedures, modifications to the interview guide, coding decisions, theme development, and methodological decisions made throughout the study.

Confirmability was strengthened through researcher reflexivity, field notes, review of coding by a second researcher, and multidisciplinary discussion of the emerging themes.

Transferability was supported by providing a detailed description of the hospital setting, participant characteristics, professional roles, and clinical context to allow readers to assess the relevance of the findings to other healthcare settings.

Representative anonymized quotations from both nursing and dental participants were used in the findings to demonstrate how the themes and subthemes were grounded in participants' accounts.

Ethical Considerations

Ethical approval was obtained from the hospital's Institutional Review Board before participant recruitment commenced.

All participants provided written informed consent before taking part in the study. Participants were informed that participation was voluntary, that they could decline to answer any question, and that they could withdraw from the study without affecting their employment or professional relationships.

No patient information or patient identifiers were collected. Participant identities were kept confidential, and quotations included in the study were identified only by study codes and limited professional characteristics where appropriate.

Because participants could discuss concerns regarding existing clinical practices, communication processes, institutional procedures, or professional responsibilities, individual responses were not disclosed to supervisors or managers. Findings were reported at an aggregated level to minimize the possibility of identifying individual healthcare professionals.

All study data were stored securely in accordance with institutional research and data-protection requirements.

Reporting

The study was reported in accordance with the 32-item Consolidated Criteria for Reporting Qualitative Research (COREQ) for qualitative studies using interviews.

Results

Participant Characteristics

A total of 24 healthcare professionals participated in the study, including 15 registered nurses and nine dental professionals. The dental group consisted of five prosthodontists and four general dentists. Participants represented a range of adult clinical areas, including medical, surgical, intensive care, neurological, rehabilitation, geriatric, and dental services.

Participants varied in their years of professional experience and exposure to patients requiring oral or dental prosthesis care. Analysis of the interviews identified five major themes: (1) oral and prosthesis care as a competing clinical priority, (2) unclear professional responsibility and fragmented ownership, (3) practical challenges in denture and prosthesis management, (4) gaps in knowledge, training, and institutional support, and (5) interprofessional collaboration as a facilitator of better care.

Theme 1: Oral and Prosthesis Care as a Competing Clinical Priority

Participants described oral care as an important aspect of patient care, but nurses frequently reported that it received less attention when patients had more urgent medical or nursing needs. Oral hygiene and denture care were often performed when time and patient condition allowed rather than being consistently incorporated into routine care.

Nurses working in high-acuity areas described situations in which medication administration, monitoring, procedures, mobility, and other immediate patient needs took priority.

“We know oral care is important, but when the patient is unstable, you have many things that must be done first. Sometimes oral care comes later.” — N04

Another nurse explained that oral care was more likely to be provided consistently when a patient was highly dependent on staff.

“For patients who cannot do anything by themselves, we usually help them. But if the patient looks independent, sometimes we assume they can manage their mouth and dentures themselves.” — N09

Dental professionals also perceived that oral health was often separated from the patient's general medical care.

“The mouth is sometimes treated as a separate issue. The medical problem is managed, but oral health may only become important when the patient complains of pain or cannot eat.” — D03

Participants therefore described oral and prosthesis care as important but vulnerable to being postponed when other clinical demands were considered more urgent.

Theme 2: Unclear Professional Responsibility and Fragmented Ownership

A major theme across both professional groups was uncertainty regarding who was primarily responsible for oral and dental prosthesis care during hospitalization.

Nurses generally considered basic oral hygiene part of nursing care but were less certain about their responsibility for managing dentures or identifying prosthesis-related problems.

“Cleaning the mouth is part of nursing care, but when it comes to the denture itself, especially if it is loose or damaged, we are not always sure what we should do.” — N02

Some participants described different practices between wards and individual staff members.

“There is no one way. Some nurses remove and clean the denture, some ask the family, and some leave it to the patient. It depends on the nurse and the condition of the patient.” — N12

Dental professionals similarly reported that they were generally involved only after a formal referral had been initiated.

“Usually we do not know that the patient has a problem unless the medical team contacts us. There is no routine dental involvement for hospitalized patients.” — D01

Another dental participant highlighted the absence of a clearly defined pathway.

“The issue is not that people do not care. The problem is that responsibility is not clearly defined. Who checks the denture? Who stores it? Who decides when dentistry should be contacted?” — D06

Participants described this uncertainty as contributing to variation in practice and delays in addressing oral or prosthetic problems.

Theme 3: Practical Challenges in Denture and Prosthesis Management

Management of removable dentures emerged as a distinct clinical challenge. Participants discussed difficulties related to denture identification, cleaning, storage, poor fit, loss, and damage.

Nurses reported that dentures were sometimes removed during procedures, altered consciousness, or acute deterioration, creating the possibility that they could be misplaced.

“Sometimes the denture is removed and placed in a cup or tissue. If it is not labelled properly, it can be lost, especially when the patient moves to another unit.” — N07

Another nurse described uncertainty regarding appropriate denture storage.

“We do not always have a specific denture container. Sometimes staff use whatever is available, and that is not ideal.” — N14

Dental participants regarded inappropriate storage and cleaning as potentially preventable problems.

“A denture should not simply be wrapped in tissue because it can easily be thrown away. There should be a labelled container and a clear process.” — D04

Poorly fitting dentures were also described as affecting patients’ comfort and ability to eat.

“We sometimes see patients who stop wearing their dentures because they are painful or loose. Then they have difficulty chewing, but nobody may realize that the denture is the reason.” — D07

Some nurses similarly connected dental prosthesis problems with reduced food intake.

“If the denture does not fit, the patient may eat less. Sometimes we think the patient has a poor appetite, but actually the problem is that chewing is difficult.” — N05

Participants also noted that patients with cognitive impairment, delirium, neurological conditions, or reduced consciousness were particularly vulnerable to problems with denture management because they could not reliably manage or report problems themselves.

Theme 4: Gaps in Knowledge, Training, and Institutional Support

Participants from both professional groups identified limitations in staff education and institutional guidance.

Several nurses reported that oral care had been covered during their basic nursing education but that they had received limited specific training regarding dental prostheses.

“We learned general mouth care in nursing school, but we did not receive much training about dentures, implants, or what to do when there is a prosthetic problem.” — N01

Another nurse described relying mainly on experience.

“Most of what we do comes from experience and what other nurses taught us. I do not remember having formal training specifically about denture care.” — N11

Dental professionals believed that simple training could help nurses recognize common problems and know when referral was required.

“Nurses do not need to become dental specialists. They need basic information about what is normal, what is a warning sign, and when they should contact us.” — D02

Participants also discussed inconsistent availability or awareness of written policies.

“I am not aware of a clear policy specifically for dentures. We have general oral care instructions, but prosthesis management is not very detailed.” — N08

Dental participants suggested that standardized documentation could improve continuity of care.

“It would help if the admission assessment included whether the patient has removable dentures, whether they are with the patient, and whether there are any problems with them.” — D05

Participants therefore identified education, standardized assessment, appropriate storage equipment, and clear protocols as important opportunities for improvement.

Theme 5: Interprofessional Collaboration as a Facilitator of Better Care

Both nurses and dental professionals believed that improved communication between nursing and dental services could strengthen inpatient oral and prosthesis care.

Nurses generally expressed willingness to involve dental professionals but described uncertainty about the referral process.

“If we know whom to contact and the process is simple, we will refer. Sometimes the difficulty is knowing whether the problem really needs dental review and how to arrange it.” — N03

Dental participants similarly supported earlier communication.

“We would prefer to be contacted before the problem becomes severe. A small ulcer from a denture can become very painful if the patient continues wearing it.” — D09

Participants suggested that a structured referral pathway could improve access to dental assessment.

“There should be clear criteria. For example, pain, broken denture, poor fit, oral ulcer, inability to eat, or suspected infection should trigger a dental referral.” — D08

Joint education was also identified as a potential facilitator.

“A short training session from the dental team would be useful. It could show nurses how to clean and store dentures and what signs need referral.” — N06

Dental professionals also viewed nursing staff as important partners because of their continuous contact with hospitalized patients.

“Nurses see the patient every day. They are in the best position to notice that the patient is not wearing the denture, cannot eat, or has an oral problem.” — D03

Participants proposed several practical strategies, including integrating oral and prosthesis assessment into admission procedures, providing labelled denture containers, introducing clear referral criteria, improving documentation, and providing joint nursing–dental education.

Summary of Themes

The findings suggested that barriers to appropriate oral and dental prosthesis care operated at several levels. At the clinical level, competing priorities and patient dependency influenced whether oral care was provided. At the professional level, responsibility for dental prostheses and referral was not always clearly understood. At the organizational level, participants identified limited training, inconsistent protocols, inadequate storage systems, and fragmented communication between nursing and dental services.

Despite these challenges, participants from both professional groups expressed support for improving inpatient oral and prosthesis care. Clearer roles, standardized documentation, access to appropriate equipment, practical staff education, and stronger referral pathways between nursing and dental services were consistently identified as potential facilitators.

Discussion

This qualitative study explored barriers and facilitators to oral and dental prosthesis care among hospitalized adults from the perspectives of nurses and dental professionals working in a tertiary hospital in Riyadh, Saudi Arabia. Five major themes were identified: oral and prosthesis care as a competing clinical priority, unclear professional responsibility and fragmented ownership, practical challenges in

denture and prosthesis management, gaps in knowledge, training, and institutional support, and interprofessional collaboration as a facilitator of better care. Together, these findings suggest that oral and dental prosthesis care is recognized as important by healthcare professionals but is not always consistently integrated into routine inpatient care.

One of the main findings was that oral and prosthesis care frequently competed with other clinical priorities. Nurses described situations in which unstable medical conditions, medication administration, monitoring, procedures, and other immediate care needs took priority over oral hygiene. This is consistent with previous research showing that oral care may receive lower priority in hospital settings, particularly when patients have complex medical needs (Salamone et al., 2013; Coker et al., 2017). Pettit et al. (2012) similarly reported that lack of time and competing responsibilities were important barriers to oral care among hospital nurses. These findings suggest that the problem may not be a lack of recognition of oral health importance, but rather the way oral care is positioned within the wider hierarchy of inpatient clinical responsibilities.

The findings are also important because hospitalization itself may increase the risk of deterioration in oral health. Terezakis et al. (2011) reported that hospitalized patients may experience worsening oral health, including increased dental plaque and gingival inflammation. Patients who are dependent on healthcare staff may be particularly vulnerable because they may be unable to perform their usual oral hygiene independently. In the present study, nurses reported that oral care was more likely to be provided to highly dependent patients, while patients who appeared relatively independent could be assumed to manage their own oral hygiene. This creates a potential gap because patients may appear physically independent while still experiencing pain, weakness, cognitive difficulties, poor dexterity, or problems managing their dentures.

A second important finding was uncertainty regarding professional responsibility. Although nurses generally considered routine mouth care to be part of nursing practice, responsibility became less clear when care involved dentures, damaged prostheses, poor fit, or the need for specialist assessment. Dental professionals, in contrast, were usually involved only after receiving a referral. This created a gap between routine nursing care and specialist dental management.

Similar concerns have been identified in previous qualitative research. Lindqvist et al. (2013) found that unclear responsibility, organizational factors, and communication influenced the provision of oral care. Ek et al. (2018) also described uncertainty, limited routines, and professional attitudes as barriers to oral care among healthcare providers. The current findings extend this issue specifically to dental prosthesis management within the hospital environment. When responsibilities are not clearly defined, care may depend on individual staff experience rather than a standardized system.

The findings therefore suggest that responsibility should not necessarily be assigned entirely to one profession. Rather, different levels of responsibility may need to be clearly defined. Nurses can play a key role in basic oral assessment, hygiene support, denture cleaning, safe storage, identification of problems, and initiation of referral. Dental professionals can provide specialist assessment and management when patients experience problems such as pain, oral lesions, broken prostheses, poor fit, or inability to use the prosthesis effectively. A clearly defined shared-care model may therefore be more appropriate than considering oral and prosthesis care as the responsibility of either nursing or dentistry alone.

Practical problems related to denture management represented another important theme. Participants described concerns regarding denture cleaning, storage, labelling, loss, damage, and poor fit. These issues are particularly important because removable dentures may be removed during procedures, sleep,

deterioration in consciousness, or transfer between hospital units. If dentures are stored incorrectly or placed in tissues or unlabelled containers, they may be misplaced or accidentally discarded.

Previous observational evidence supports concerns about the consistency of denture care in hospitals. Coker et al. (2017) observed that denture care was not always performed consistently and was sometimes provided without adequate care of the remaining oral tissues. Viebranz et al. (2023) also demonstrated that targeted education could improve denture and oral hygiene among hospitalized geriatric patients. Together with the current findings, this suggests that denture care should be addressed specifically rather than being assumed to be adequately covered within general oral hygiene procedures.

Participants also identified a connection between dental prostheses and nutrition. Poorly fitting or painful dentures could reduce a patient's ability or willingness to eat, while the underlying cause might not immediately be recognized by staff. This is clinically important because oral function is closely related to chewing and food intake. In a hospital environment, reduced oral intake may be interpreted as poor appetite or illness-related anorexia when dental discomfort or inadequate prosthesis function may also contribute. Consequently, oral and prosthetic assessment may be particularly important when hospitalized patients experience unexplained difficulty eating.

Patients with cognitive impairment, delirium, neurological conditions, or reduced consciousness were viewed as especially vulnerable. Such patients may be unable to explain that a denture is painful, identify where a prosthesis has been placed, or independently clean and manage it. This finding highlights the importance of documenting dental prostheses during admission and transfer processes. A simple record of whether a patient normally uses a removable dental prosthesis, whether it is currently with the patient, and whether any problems are present could reduce uncertainty and improve continuity of care.

Another major finding concerned gaps in staff knowledge and training. Nurses reported that they had received general education about oral hygiene but had limited specific training on dental prostheses and commonly relied on experience or informal learning from colleagues. This is consistent with Saudi evidence. Alotaibi et al. (2016) identified gaps in knowledge and attitudes regarding oral care among intensive care nurses in Saudi Arabia. Al Rababah et al. (2018), in a study conducted in Riyadh, also reported variability in oral assessment, oral-care policies, and staff training. More recently, Iyer et al. (2023) similarly identified variation in oral care knowledge and practice among nurses in Riyadh.

The consistency of these findings across Saudi studies suggests that education may be a continuing area for improvement. Importantly, participants in the current study did not suggest that nurses required advanced dental knowledge. Instead, both professional groups supported practical training focused on basic oral assessment, denture cleaning and storage, recognition of common problems, and clear indications for referral. This approach may be more feasible than extensive theoretical education and could potentially be incorporated into nursing orientation, continuing professional development, or bedside competency training.

Institutional support was also identified as important. Participants described inconsistent awareness of specific guidance for dental prostheses and suggested the need for standardized documentation, labelled storage containers, and clearer clinical procedures. The absence of such systems may contribute to variation between wards and individual practitioners. Standardizing basic processes could therefore reduce dependence on personal experience.

For example, an inpatient oral and prosthesis care pathway could include documentation of denture status at admission, routine oral assessment for patients requiring assistance, availability of labelled denture containers, guidance for denture cleaning and storage, and explicit criteria for dental referral. Such

interventions are relatively simple and could be incorporated into existing nursing and hospital workflows without creating a separate complex system.

Interprofessional collaboration emerged as the strongest facilitator identified by both participant groups. Nurses valued access to dental advice and clearer referral pathways, while dental professionals recognized that nurses were often the first professionals able to identify emerging oral problems because of their continuous contact with hospitalized patients. This finding is consistent with Kohli et al. (2021), who demonstrated the potential value of interprofessional oral health education and dental referral involving nursing staff.

The finding is also relevant to the broader Saudi healthcare context. Gaffar et al. (2022) reported gaps between knowledge, attitudes, and actual interdisciplinary oral health practices among healthcare professionals in Saudi Arabia. The present study provides qualitative insight into how such gaps may occur in clinical practice. Uncertainty regarding when to refer, how to access dental services, and where responsibility lies may prevent collaboration even when professionals have positive attitudes toward interdisciplinary care.

A structured collaboration model may therefore be beneficial. Rather than relying on informal communication, hospitals could establish clear referral criteria for conditions such as persistent oral pain, mucosal ulceration, suspected infection, broken or unstable prostheses, poor denture fit, inability to wear a normally used prosthesis, or difficulty eating related to an oral problem. A defined pathway could also clarify how urgent and non-urgent dental consultations should be requested.

Joint nursing–dental education was another practical facilitator proposed by participants. Short interdisciplinary training sessions could provide nurses with basic skills in oral and prosthesis care while also helping dental professionals understand the challenges encountered in inpatient nursing environments. Such training may strengthen communication between the professions and create a shared understanding of roles and referral expectations.

Overall, the findings suggest that barriers to inpatient oral and dental prosthesis care operate at multiple levels. At the patient level, dependency, cognitive impairment, illness severity, and ability to self-manage can influence oral care needs. At the healthcare professional level, competing priorities, uncertainty regarding responsibilities, and limited prosthesis-specific knowledge can affect practice. At the organizational level, unclear policies, inconsistent documentation, inadequate storage systems, and fragmented referral pathways can further contribute to variation in care. Interventions are therefore likely to be most effective when they address several of these levels simultaneously rather than focusing only on individual staff education.

Clinical Implications

The findings have several practical implications for tertiary hospitals. Oral and dental prosthesis assessment could be incorporated into routine nursing admission documentation, particularly for older or dependent adults. Documentation should identify whether the patient uses removable dentures or another prosthesis, whether the prosthesis is present on admission, whether the patient can manage it independently, and whether any oral or prosthetic problem is apparent.

Hospitals may also consider providing standardized, labelled denture storage containers in relevant inpatient areas. Written guidance could specify safe cleaning, storage, and handling procedures and outline circumstances requiring dental review.

Brief competency-based education for nurses could address oral assessment, denture hygiene, safe storage, common warning signs, and referral procedures. Finally, a clearly defined communication and referral pathway between inpatient units and dental services could improve timely access to specialist advice and reduce uncertainty regarding professional responsibilities.

Strengths and Limitations

A major strength of this study was the inclusion of perspectives from both nursing and dental professionals. This allowed the study to examine areas of agreement and difference between professionals who encounter oral and prosthesis care from different positions within the hospital system. The inclusion of participants from several adult inpatient clinical areas also increased the diversity of experiences represented.

The use of individual semi-structured interviews allowed participants to discuss professional responsibilities, challenges, and institutional processes in greater depth than would typically be possible using a structured survey. The multidisciplinary research team also supported interpretation of the findings from both nursing and dental perspectives.

Several limitations should be considered. First, the study was conducted within a single tertiary hospital in Riyadh, and organizational processes may differ in other hospitals or regions. The findings should therefore be transferred to other settings with consideration of local context.

Second, participants volunteered to take part in the study, and those with a greater interest in oral health may have been more likely to participate. Third, the findings reflected healthcare professionals' reported experiences and perceptions rather than direct observation of clinical practice. Reported practices may therefore differ from what occurs in routine care.

The study also focused on nurses and dental professionals. Other relevant stakeholders, including patients, caregivers, physicians, dietitians, speech and language therapists, and hospital quality or patient-safety personnel, were not included. Future studies could explore these perspectives and examine patient experiences of oral and dental prosthesis care during hospitalization.

Future Research

Future research should evaluate the development and implementation of standardized inpatient oral and dental prosthesis care pathways. Studies could examine whether interventions such as oral assessment tools, labelled denture storage systems, staff education, and standardized dental referral criteria improve clinical practice and patient outcomes.

Multicentre qualitative studies across different hospitals in Saudi Arabia would also help determine whether the barriers identified in this study are common across healthcare institutions. In addition, patient-focused qualitative research may provide important information regarding comfort, dignity, eating, communication, denture loss, and satisfaction with oral care during hospitalization.

Conclusion

This study identified several interconnected barriers to oral and dental prosthesis care among hospitalized adults, including competing clinical priorities, unclear professional responsibilities, practical challenges in denture management, limited training, and inconsistent institutional support. At the same time, participants identified several feasible facilitators, particularly clearer professional roles, standardized

documentation and storage procedures, practical staff education, and stronger collaboration between nursing and dental services.

The findings highlight the need to consider oral and dental prosthesis care as part of comprehensive inpatient care rather than as an isolated dental issue. Strengthening collaboration between nursing and dental professionals and developing structured hospital processes may improve the safety, consistency, and quality of oral and prosthesis care for hospitalized adults.

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