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Perspective

Nurses' Perspectives about their role in Diabetes Care: a Case Study from Kuwait

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Abstract

Background: Diabetes is increasingly becoming a global public health concern with a high prevalence many countries including Kuwait. Empowering nurses who are involved in diabetes care has been suggested as a possible initiative to address the care needs of diabetes patients. However, the role of nurses in diabetes care is less understood. This study aimed to establish the perspectives of nurses about their role in the management of Type 2 Diabetes in Kuwait.

Methods: We employed a case study approach from Kuwait, with two sites. Data collection was done using individual interviews and participant observations. Data analysis followed the standard case study approach, where each method of data collection was analysed separately, followed by a within-case analysis, and then findings were merged where appropriate. Findings were generated and presented as themes with representative quotes to support the researcher's interpretations.

Findings: The study included nine participants and all participants were females and ranged between 28-38 years. The following findings represent the perspectives of nurses about their role in diabetes care in Kuwait.

The performed role of a nurse in diabetes care: Diabetes Nurses reported participating in various activities such as health education and promotion, providing patient support, prescribing, and attending to other care needs associated with diabetes. Occasionally, diabetes nurses performed roles they felt were beyond their scope which compromised the care provided.

Implications of the nurses' role in diabetes care: Nurses in diabetes care felt that their role contributed to providing timely interventions that are patient focused and that resulted into better quality of life for the patients. Their role was perceived to enhance professional autonomy, expanded their scope of practice, and facilitated collegiality.

Challenges faced by diabetes nurses while undertaking their care role: A number of external forces were identified that interfered with the nurses' work while providing diabetes care and thus affected its quality. These issues included staff shortages, remuneration concerns, heavy workload, and negative relationships with staff.

Conclusions: The role performed by diabetes nurses is complex and requires appropriate preparation and support. To enhance their diabetes care role, nurses should be empowered through specialised training in diabetes and associated complications. Further research should be undertaken to ascertain the role of diabetes nurses using a wider population.

Keywords: Diabetes; Diabetes nurse; Diabetes educators; Kuwait; Roles

Contributions of the Paper

What was already known about the topic

- Diabetes care is a collaborative role requiring a multidisciplinary team.
- Diabetes care staff including nurses requires speciality training in diabetes care and management.

What this Paper Adds

- The diabetes care role is complex, requiring adequate preparation, collaboration, and support of the care providers.
- The diabetes care role is perceived and practiced almost similarly across healthcare settings with geographical contexts.
- Empowering nurses with advanced roles in diabetes management can contribute to quality patient care and resultant good patient outcomes and satisfaction with care.

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Introduction

Diabetes is increasingly becoming a global public health concern with its prevalence steadily on the rise (American Diabetes Association (ADA)) (ADA, 2014). A report by the International Diabetes Federation (IDF) indicated a projection of newly diagnosed patients with diabetes to increase from 14.6 percent to 16.9 percent by 2030 (IDF 2013 p.11), while by the year 2034, the number of people with diabetes is projected to have doubled (ADA, 2009). Diabetes can be defined as 'a state of high blood glucose associated with early death' (IDF, 2013). The World Health Organisation (WHO) identifies the causes of diabetes as lack of insulin production or ineffectiveness of the insulin produced by the pancreas (WHO, 2014). Generally, the majority of individuals affected are: 1) men, as they are believed to be more biologically susceptible than women and 2) people aged between 40-59 years [1]. The US Center for Disease Control and Prevention (CDCP) has reported three major types of diabetes that include:

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Type 1, Type 2, and gestational diabetes (CDCP, 2011). Among these types however, Type 2 Diabetes (T2D) comprises 90 percent of people who are affected (IDF, 2013). The WHO defines T2D as chronic hyperglycaemia caused by decreased insulin production, impaired insulin function or, mutually, in the absence of autoimmune damage of the pancreatic beta cell (WHO, 2006). T2D disorder is typically related to insulin insensitivity that causes failure of pancreatic insulin secretion to compensate for the insulin insensitivity (CDCP, 2011). What makes T2D even more problematic is that it displays no early symptoms and tends in many cases only to be diagnosed years after its onset (Diabetes UK, 2013). Unfortunately, people who are diagnosed in the later stages might develop diabetes complications that require oral hypoglycaemic drugs and who will perhaps need insulin injections in the future (IDF, 2013). Thus, this type of diabetes needs attention, as its complications lead to poor health outcomes and probably to overuse or consumption of healthcare services. Consequently, managing T2D is an on-going challenge in the healthcare sector. Recent studies have shown an increasing number of newly diagnosed diabetes patients in Kuwait (Dasman Diabetes Institute, 2016). In 2010, WHO classified Kuwait among the top ten countries worldwide with a high prevalence of diabetes (WHO, 2016).This high prevalence in Kuwait raises an important call to initiate serious interventions to mitigate this challenge. Empowering nurses who are involved in diabetes care has been suggested as a possible initiative, as this is reported to improve the outcomes of patients with T2D [2].

Nurses' role in T2D Care

Managing T2D requires new models of care and practice. Literature supports the need to prepare nurses with a knowledge base to promote best practice for patients with diabetes [3]. Nevertheless, there is uncertainty regarding the role of nurses in effectively supporting patients with T2D; and this is particularly evident in countries such as Kuwait that do not have specialist diabetes nurses as a recognised group. Additionally, whilst nurses make a fundamental contribution to the effective management of diabetes, their collaborative role with other healthcare providers is less known [4]. Increasingly, healthcare systems are adopting nurse-led models that are believed to be patient centred, as opposed to the more traditional physician-led model that reflects a medically - oriented model of care. When trained, it is claimed that nurses can effectively undertake some roles in the management of specific diseases [5], and current trends have seen a shift in the tasks performed by nurses, which were previously being done by physicians. For example, nurses perform cardiac resuscitation [6] and demonstrate diverse and complex consultant roles in providing high standards of patient-centred care [7]. When comparing a nurse-led model with traditional care, [8] undertook a comparative study in which they compared the care provided by nurses with that of physicians in managing T2D. The results of the study demonstrated that both groups of patients had equal clinical outcomes while other parameters such as self-care behaviour, patient satisfaction, and glycaemic control had improved using the nurse-led model. Similarly, [9], in their comparative study between nurse led hypertension clinic with conventional community care found improvements in patients with T2D systolic blood pressure within a six month period of control in a nurse-led clinic. These data support the trend of engaging nurses in the management of T2D. In practice, the management of T2D in Kuwait involves a multidisciplinary approach, with an integration of different care providers such as physicians, nurses and other professionals [10]. This approach is believed to improve the quality of diabetes care compared with the individual patient-provider care model [11]. Unlike other countries such as the UK, in which there is an integrated diabetes care including physicians, diabetes nurses, dieticians and podiatrist (NICE 2008; Diabetes UK 2013), the nurse's role in diabetes care has not been well developed in Kuwait. This could be attributed to the fact that nurses in Kuwait, irrespective of their function or speciality (such as diabetes educator), are titled 'staff nurse'. The absence of a well-defined role for nurses has caused lack of support, alongside underutilisation of the role [12]. The above data indicates a limited evidence base in Kuwait regarding the role of nurses in T2D care and the current research aims to address this evidence gap.

Study Aim

This article report's findings on the perspectives of nurses about their role in T2D care in Kuwait. The article is part of a larger study that investigated the role of nurses in diabetes care and its impact on patients' perceived quality of nursing care, undertaken by a PhD student at a UK university, who originates from Kuwait, with expertise in chronic diseases and a qualitative researcher. The study will provide evidence that could be used in developing a new system of T2D patient care.

Methodology

The current study employed a qualitative exploratory case study approach [13], underpinned by the philosophy of critical realism. This approach was found the most suitable for investigating individuals' actions and behaviours in social surroundings (Patton, 2005), which required an in-depth understanding of the social phenomenon in its natural context [14]. Specifically, the instrumental case study model was employed in order to understand the nursing care offered in T2D clinics in Kuwait (via the Ministry of Health (MoH)).

Study Settings

Kuwait was selected as the case for this study; a country which is operating under the umbrella of its respective nationalised healthcare system; i.e. the MoH which provides non-profit services. Two hospitals were identified as the case sites in Kuwait (Al-Amiri and Mubarak Hospital). Both hospitals were providing comprehensive care for patients with diabetes in hospital based outpatient clinics. There is one diabetes clinic in each hospital (two diabetes clinics in both hospitals). The site was labelled as the MoH.

Sampling

Sampling aimed at selecting samples that would exhibit relevant descriptions and behavioural actions applicable to the study's aims and objectives [15]. Purposive sampling is usually recommended for studies involving individuals' observation (Patton 1999) and was adopted for this study for the selection of MoH staff who were labelled as code numbers followed by the site. The study samples in Kuwait included nurses working in diabetes clinics.

Research Procedures

Ethical approval

The study protocol was approved by two institutions which included (1) the University Of Nottingham Faculty Of Medicine, (2) and the Ethical Committee of the MoH, Kuwait. In addition, formal permission to undertake the study in the clinics concerned was sought.

Recruitment of participants

Following ethical approvals, the clinics' managers arranged for the researcher to meet with staff, where she introduced herself and made

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known her intentions. Following provision of relevant information, potential participants were requested to consent for study participation which included face-to-face interviews and observations. Consent to observe a care session was also sought from patients and other healthcare providers who would be involved during such a session.

Conducting interviews

Interviews were conducted with diabetes care nurses using a semi-structured interview guide. Participants were interviewed in a private room at each clinic. Following consent of participants, interviews were recorded using a digital voice recorder (Philips 1100 recorders). All interviews were saved on different files in the recorder and were later transferred to a password protected personal computer for the purpose of maintaining confidentiality with the data. Hand-written notes were taken, and reflective accounts of interviews were documented soon after each interview.

Conducting observations

Employing observations in this study enabled the researcher to observe the nature of interactions between nurses and patients during consultations, allowing the researcher to explore the actual roles that nurses were undertaking on a day-today basis within the clinics. A convenient place to sit was selected that allowed the researcher to observe and take notes basing on facial expressions and body language of both nurses and patients. We drew on questions generated from the observations to enrich the interview schedules and improve the trustworthiness of the data [16]. During observations of nursing activities, field notes were written, but the activities were not audio or tape-recorded. Participants' names were not used in the field notes. Observations lasted for seven hours in each of the two clinics in each hospital.

Confidentiality and Protection of Participants

All information given by the participants was held in the strictest confidence, and only the researcher with the supervisory team had access to it. All digital recordings and computer-based copies of the transcripts were stored in a password-protected computer on the university database server and treated according to the university guidelines and data protection laws. All participants' hard copy forms will be kept in a lock-protected cupboard at the university for seven years from the end of the study.

Organisation and Management of Interview Data

Each interview was transcribed verbatim immediately after the interview ended, to enable the researcher capture fresh memories of the interview proceedings including emotions and facial expressions. Interviews were conducted in Arabic and thus were translated prior to analysis. To ensure the quality of our data, translated interviews from Arabic to English were audited against the original Arabic versions by an independent person from the research team. Transcribing each interviews conducted took between six to 10 hours, and translating them from Arabic to English took on average10 hours.

Maintaining of Rigour

To maintain rigour, various individuals were involved in the coding process including the principle researcher and the PhD supervisors. The first author's previous work and research experience in chronic diseases and medical-surgical nursing could have influenced her interpretation of the data and she ensured that this background was considered throughout the research process. Additionally, the current study used multiple data sources (triangulation), that allowed for cross-data validity checks [17], hence strengthening the credibility of the research.

Data Analysis

The data analysis in this study was influenced by both the eight steps and six steps suggested by Stake [18,19] respectively, while the overall scene was guided by Braun & Clark [20]. For each data set, we followed general strategies which include: (1) preparing and organising the data, (2) reducing the data into themes through a coding process and condensing codes, and (3) presenting the data into figures, tables or a discussion by each source of data collection [21]. The analysis process started with a close reading of the raw text to enable familiarisation and understanding of the content. Notes of thoughts and memos were recorded throughout the analysis process. The initial stage of analysis used an inductive thematic analysis approach, where codes were generated from the data. Drawing from a critical realist point of view, a qualitative computer analysis programme (QSR NVivo10) was used to sort codes and categorise data for detailed analysis, and allowing for within case comparisons [22]. Data analysis was initiated within-case to gain understanding of the findings of each data set gained from the interviews and observations, before within-case analysis that identified themes [23]. Initial coding of each transcript was made separately, and all codes were labelled and provided with descriptions. 'Free node' and 'tree node' tasks were employed to arrange data in the computer and to sort and rank codes, which enabled the development of a hierarchy of codes. Within-case analysis allowed an in-depth understanding of what nurses were doing when providing their care and what the researcher observed during the nurse-patient consultations. This within-case analysis allowed the identification of themes for each data set. The coding process stopped when no dissimilar codes emerged, when refinements were not adding any new codes, and when the study's objectives had been met.

Findings

This article report's findings about the role of nurses in providing T2D care in Kuwait. These findings are drawn from a larger study that aimed to establish 'the role of nurses in diabetes care and the impact of the different approaches of Nurses on patients' perceived quality of nursing care'. Using a case study approach, a single case study was researched, with participants drawn from two Kuwait diabetes clinics, and below are findings of the study.

Study Participants

The study included nine female participants from Kuwait, with age ranging from 28 to 38 years, and with nursing experience ranging from one year to 15 years. All nurse participants had qualifications ranging from a Nursing Diploma to Bachelors' degree. Their years of experience in diabetes clinical care ranged from less than one year to ten years, with the majority having more than five years' experience.

Main Study Findings

The data from individual interviews and participant observations generated three key themes, pertaining to the role of Nurses in diabetes care. These included: Nurses' performed role, implications of nurses' performance, and challenges facing diabetes nurses. These findings are summarised below with representative quotes to support the interpretations made by the researchers.

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The Performed Role of a Nurse in Diabetes Care

The performed role of nurses in diabetes care was found to be diverse and challenging. On some occasions, Diabetes Nurses (DNs) found themselves performing roles that were beyond their scope and expertise and required support to adequately address the care needs of T2D patients. DNs reported participating in various activities such as health education and promotion, providing patient support, prescribing, and interprofessional roles as explained in more details in the following sections.

Health education and health promotion

DNs reported providing appropriate health promotion messages to the patients. They taught patients how to interpret laboratory results, with the involvement of patient's family. DNs reported spending much time in consultation with patients, gathering baseline information about them, and providing relevant information about diabetes care. Patient empowerment and encouragement for self-management was an important aspect that DNs included in diabetes care.

Nurse demonstrated about blood sugar test and insulin… administration demonstrated how to use the pen and mixed insulin. (Observation 14-MoH). The main barriers to providing health education included patient's demand for focused and detailed information about their conditions, their progression and treatment. DNs also reported language barrier, by which they sought support from colleagues who spoke the language of the patient, or asked for Arabic speaking third parties to accompany the patient. Such processes sometimes required additional resources. *"We used to ask some patients to bring someone in their family or a friend who can speak both languages …."* (Nurse 13-MoH).

Providing holistic care

DNs provided various kinds of support to their patients to respond to their individual needs. The nurses reported approaching their patients holistically, by attending to other needs that are not directly related to diabetes. One nurse reported how her unit took care of patients' diverse needs including cultural and financial issues, foot care, physical and psychological care, as well as social support:

"Our patients come with different needs such as social needs, or emotional needs and we make sure we cover some of these needs….." (Nurse 11-MoH). Providing care that focused on the individual patients' needs was reported to increase the quality of care provided to T2D patients and was perceived to result in better patient outcomes such as successful diabetes control and patient satisfaction with care. *"… patients are happy about coming here [to the clinic], their needs met, they are having better glycaemic control …."* (Nurse 6-MoH).

Prescribing

DNs undertook an important role in providing patients with medication advice. Although DNs in Kuwait can provide diabetes medication and adjust insulin, nurses cannot prescribe medication. By law, only doctors are mandated to prescribe in Kuwait, which is an empowerment and professional practice challenge for the nurses in Kuwait that requires to be addressed if their role in diabetes care is to be expanded. While taking on the prescriber role may add workload to the diabetes nurse, many viewed it as an added resource to quality care provision and in some cases time saving. For example, waiting for doctors to prescribe would delay a patient's treatment and could lead to clinic delays in general. *"Some patients urgently need some treatment and we should refer them … That can delay the start of treatment... …, prescribing makes the flow of the clinicquicker..."* (Nurse 12-MoH).

Interprofessional roles

Nurses were undertaking roles in collaboration with other nurses and other healthcare professionals. The roles undertaken on patients other than diabetes patients made the diabetes nurse to act out of their scope of practice and were sometimes viewed as disruptive to the diabetes care role. Most times, undertaking additional roles was found challenging and sometimes compromising the quality of care provided to diabetes patients. *"… there is only four of us here and we do jump from thing to thing for the patients."* (Nurse 7-MoH). It therefore appeared that although DNs were happy to write prescription and also willing to work with other colleagues in managing diabetes patients, they needed a defined role which is associated with diabetes care and recognised and respected by other colleagues.

Implications of the Nurses' Role in Diabetes Care

DNs discussed how they felt about the contribution of their role to the overall care of diabetes patients. They felt their role contributed to providing timely interventions that are patient focused and that resulted into better quality of life for the patients. Their role was perceived as one that provided patient-centred care, enhanced their autonomy in practice, expanded their scope of practice, and facilitated collegiality.

Providing patient-centred care

The care provided by nurses to diabetic patients was regarded as patient-centred as it aimed at addressing the holistic care needs of the patients. DNs viewed their role in patient care as being valued, as they met the patients' differing and complex needs in a holistic manner. Nurses admitted that on some occasions they were not able to personally resolve patients' concerns; however, they provided pathways for them to follow to address their worries and concerns. *"My patients are telling me that they like to see me as the way I communicate with them is very comfortable and the information I provide to them is very clear and useful."* (Nurse 12-MoH).A patient centred approach was viewed as holistic, empowering, and one likely to positively impact on patients' outcomes.

Enhancing professional autonomy

The DNs reported that their role shaped their self-confidence in diabetes care. Expression of self-confidence can be considered as an enabler for the DNs' abilities to make decisions, solve problems, and plan patient care independently. DNs had their own patients, which ensured patients' continuity of care. DNs had their own patient caseloads and developed ways of working to deal with most patients' issues, relating both to diabetes care and non-diabetes issues.

Professional development- extending the role

Extending the DNs' role was mainly acknowledged by their ability to adjust and suggest types of diabetic and non-diabetic medications, to facilitate holistic patient care. The role of a nurse prescriber suggests an area of professional development that should be considered, in Kuwait where it is currently not practiced. DNs considered the provision of diabetes care an on-going practice and meetings with their peers and doctors at the clinic contributed to keeping their knowledge, regarding new treatments in diabetes, up to date. Developing the role of a diabetes nurse by extending their role

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and keeping up to date with new treatments and practice was thought to contribute to enhancing patient care.

Challenges Faced by Diabetes Nurses While Undertaking their Care Role

There were a number of external forces that interfered with the nurses' work while providing diabetes care and thus affected its quality. These issues included staff shortages, remuneration, heavy workload, and negative relationships with staff as elaborated below.

Shortage of staff

DNs expressed that the limitations in staff numbers, including both doctors and nurses required them to work more than their normal workload. This affected the quality of their work and impacted their own health. The DNs identified a number of issues that could arise as a result of long hours and exhaustion. *"Sometimes we have to work more than our work hours and that is because of shortage of staff and we have to do long hours to be able to finish our tasks."* (Nurse 4-MoH). The wellbeing of nurses is a fundamental factor in patient care. If the nurse is exhausted and frustrated, she/he may lose her sense of caring as well as being prone to making mistakes, putting patients at risk.

Increased workload

Apart from their few numbers, DNs considered that they were expected to undertake more roles than they could reasonably manage. Nurses reported being assigned additional roles which increased their overall workload. Nurses reported severe workload pressure resulting from undertaking multiple tasks, some being relevant to their role and others not. It was evident that the DNs did not have sufficient time to fully manage all the aspects of patient care, a problem which impacted on their ability to provide quality patient care. *"… there is no limit to the expectation that we would do. There is your seniors' expectation that you discharge duties within the scope of your profession. So, you would not do anything you are not qualified to do. But there is always an expectation that you can fit extra patients into your schedule."* (Nurse 12- MoH). The shortage of nurses and the DN's workload were interrelated. As a result of nurses' shortages and the continuing pressure of work, the DNs considered that they were expected to undertake more than they could reasonably do daily, which was frustrating.

Lack of adequate resources

DNs also complained about not having equipped consultation rooms to meet their patient's needs. This resource lacks impacted on patient's privacy, in particular, they were not being able to discuss confidentially. *"We don't have a consultation room to meet with our patients. We are four nurses with our desks in one room and we meet our patients in this room."* (Nurse 11-MoH).

Lack of recognition and support

DNs complained about their role being undervalued and not recognised by the management and sometimes colleagues. They particularly complained about their managers interrupting with work schedules while doctors sometimes imposed roles on them. *"We spend two hours in education then they will ask me, I mean the administration staff, to help somewhere in other clinics or wards. Then I will be back to find my patient waiting for me …."* (Nurse 16-MoH). The lack of support reported by DNs resulted in feelings of being treated unfairly and sometimes led to frustration.

Financial conflict

A few DNs expressed concerns about not receiving an appropriate level of income to match their role. Some complained that their income was just the same as for nurses working in general departments which are non-specialised, while others felt they did more work compared with the general nurses who are sometimes paid more than them. This is a demotivating factor for the DNs and was a crosscutting concern for the case study. *"The nurse at the ward gates more income than me which makes a big difference she receives 120 KD more than me monthly. She has two patients a day, while I have about ten patients a day, with 10 follow-up appointments and 20 records to complete this is a mess."* (Nurse 15-MoH).

Discussion

The current study aimed to understand how nurses working with diabetes patients undertook their role and how they interpreted this role. The nurses reported to be aware of their role in diabetes care, which is in line with the literature that suggests that nurses who have undertaken educational preparation understand their role [24]. In practice however, DNs reported engaging in various activities that they felt were beyond their job descriptions, which paused a concern on whether they understood and/or operated within their scope. There have been concerns about nurses understanding their scope of practice [25], which is usually reflected in their engagement in multiple roles. The multiple roles undertaken by DNs were partly aimed at addressing the various needs of diabetes patients. In relation to a report by Stenner et al. [26] the current study established that DNs adopted an individualised approach to care, in which each patient's needs were handled on a personal basis. Although this kind of approach can be demanding [27], it has been found to result into better patient outcomes. In a study by Lenz et al. [28] that evaluated the role of nurses in monitoring patients with chronic illnesses, it was established that nurses provided high standards of care comparable to that of doctors. These data point out that nurses involved in the care of patients with chronic illnesses are likely to develop more competencies compared with their counterparts, which is linked to positive patient outcomes. To provide individualised care, DNs engaged into multiple activities. Our findings indicated that as part of their role, DNs provided health education and promotion information on diabetes care, which was valued by the patients. Nurses also provided patients with other types of support including emotional, psychological, and social support, aspects beyond diabetes care. Gore et al. [29] reports that patients' quality of life is enhanced when in addition to their physical needs, their psychological needs are also addressed. Similarly, Ekman et al. [30] considers a holistic approach to be patient-centred and associated with improved patient health outcomes. Hence, the holistic approach adopted by DNs in Kuwait could result into better health outcomes for diabetes patients. Further research in this area could provide more understanding on the DNs' role and its impact on patient health outcomes. In addition, providing holistic care means that the nurses get to spend more time with their patients which have been reported to result into patient satisfaction [31]. It has also been established by numerous researchers that the amount of time spent by patients can influence their treatment outcomes [32-34], including in diabetes care [35]. Hence improving the care of diabetes patients will require redefining the role of diabetes care nurses to empower them to provide holistic care. Providing holistic care may also mean that DNs perform more roles including those outside diabetes care. Performing additional roles was perceived in the current study as a move towards professional autonomy, where nurses wished to have the authority to attend to their patients holistically, including prescribing medications such as those associated with diabetes care. It has been documented

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that nurse prescribing is a successful practice that supports a range of services such as holistic management of chronic diseases [36,37], including diabetes [38]. In the current study, nurses prescribing in diabetes care was highly supported and recommended. Research undertaken in diabetes care has also supported this initiative indicating that it improves the quality of care provided [39]. A study by Carey et al. [40] identified advantages of the nurse's prescribing role which included establishing improved and timely access to medications. A qualitative study by Stenner et al. [41] also suggested that the nurses' specialist knowledge of diabetes is essential in the provision of quality care, while it is reported that poor patient outcomes may result from the nurses' poor consultation skills [42]. Nurses in the current study reported not being specially trained in the diabetes care role, a finding that suggests the need to empower DNs with more diabetes management specialist knowledge/skills. To improve the care of patients, it is suggested that nurses work in a team with other healthcare providers, to ensure the integration and coordination of patient care [43]. In the current study, it was suggested that DNs could not appropriately provide quality care to the patients alone and thus required other members of the health care team. A team-based approach was shown to result into the provision of patient-centred care. However, several DNs reported engaging in more roles compared with their colleagues, which became a demotivating factor to their role performance. Nurses reported undertaking extra workload as a result of the shared roles and called for the understanding and cooperation of their colleagues. In other instances, DNs undertook extra workload due to a shortage of nurses, which is an outstanding challenge in many countries [44]. Workloads make it difficult for nurses to focus on different aspects of each patient's health needs [45], compromising their care and leading to other indirect negative outcomes such as nurse burnout or staff turnover [46]. However, there was no evidence of the existence of these potentially negative issues in the current study and research targeting these areas is recommended. To advance the diabetes care role, it is important to engage a range of healthcare providers, to provide specialised care roles as required. Additionally, nurses reported being demotivated by the lack of adequate resources such as private space which affected the quality of care provided, while some felt demotivated due to underpayment. Whilst not measured in the current study, nurse retention is influenced by factors that affect motivation such as support from colleagues and superiors [47], and empowerment [48]. Not meeting the needs of nurses has also been found to contribute to poor work outcomes [49], while addressing them is associated with quality care and healthcare providers' satisfaction [50-64]. A supportive environment is advocated for in healthcare facilities to enhance the diabetes care role.

Limitations

This was a purely qualitative study that included a small sample of nurses from only 2 healthcare facilities. This limits the application of our findings to only the studied contexts.

Conclusion

The current study aimed to establish the role of diabetes nurses in Kuwait. The findings have shown that the role performed by diabetes nurses is complex and requires appropriate preparation and support. Nurses engage or would want to engage in multiple activities that aim at providing patient centred care. In performing their role, DNs encounter significant challenges, such as limited manpower, low pay and infrastructure concerns. The nurses also feel in adequately prepared for the advanced roles in diabetes care, and therefore require capacity building to facilitate the independent role. Support of management and other healthcare providers is very necessary for diabetes nurses to undertake their role.

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