



HEALTHCARE HORIZONS: INNOVATIONS AND INTERDISCIPLINARY APPROACHES IN NURSING AND HEALTH ASSISTANCE

Mohammed Kalif Aldafery, Salmaa Kalif Aldafery, Fawaz Brik AlJumaili, Awadh Hamoud Hamed Almutairi, Abd Al Hadi Selman Agll Alshmriy, Fahad Ghayib Awad Alshammari, Falah Aftan Khalif Aldhafeeri, Ahmed lafi aldhafeeri

Abstract

The healthcare landscape is rapidly evolving, with a growing emphasis on interprofessional collaboration and innovation. This study aimed to investigate the relationship between interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia. A cross-sectional survey was conducted among 543 technicians using the Interprofessional Collaboration Scale (ICS) and the Job Satisfaction Survey (JSS). Quantitative data analysis revealed moderate to high levels of interprofessional communication and job satisfaction, with significant differences based on healthcare role and work setting. Qualitative findings highlighted the benefits, barriers, and strategies for improving interprofessional communication and job satisfaction. The study emphasizes the importance of fostering a culture of collaboration and providing support for healthcare professionals to enhance job satisfaction and patient outcomes. The findings have implications for healthcare organizations, policymakers, and educators in Saudi Arabia and beyond.

Keywords: interprofessional communication, job satisfaction, nutrition technicians, epidemiology technicians, Saudi Arabia

Introduction

The healthcare system in Saudi Arabia has undergone significant transformations in recent years, with a focus on improving the quality and accessibility of care (Aljuaid et al., 2016). Interprofessional collaboration has been recognized as a key factor in achieving these goals, as it enables healthcare professionals to work together effectively and deliver comprehensive, patient-centered care (Al-Hanawi et al., 2019).

Interprofessional communication, defined as the ability to communicate effectively with professionals from different disciplines, is a critical component of interprofessional collaboration (Kenaszchuk et al., 2010). Effective communication among healthcare professionals has been



linked to improved patient outcomes, increased job satisfaction, and reduced healthcare costs (Schot et al., 2020).

Job satisfaction, defined as the positive emotional state resulting from the appraisal of one's job experiences (Spector, 1985), is another important factor influencing the well-being and performance of healthcare professionals. Studies have shown that job satisfaction is associated with increased motivation, productivity, and retention of healthcare workers (Alharthi & Alenad, 2021).

Despite the growing recognition of the importance of interprofessional communication and job satisfaction in healthcare, there is limited research on these topics among nutrition and epidemiology technicians in Saudi Arabia. These professionals play a crucial role in promoting public health and preventing disease, yet their perspectives and experiences are often overlooked in the literature (Alsulami et al., 2016).

The purpose of this study was to investigate the relationship between interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia. The specific objectives were:

1. To assess the levels of interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia.
2. To examine the differences in interprofessional communication and job satisfaction based on demographic and work experience variables.
3. To explore the perceived benefits, barriers, and strategies for improving interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia.

The findings of this study can contribute to the development of interventions and policies that support the well-being and performance of nutrition and epidemiology technicians, as well as other healthcare professionals in Saudi Arabia and beyond.

Literature Review

Interprofessional Communication in Healthcare

Interprofessional communication is a critical component of effective healthcare delivery, as it enables professionals from different disciplines to share information, coordinate care, and make collaborative decisions (Kenaszchuk et al., 2010). Effective interprofessional communication has been linked to improved patient outcomes, such as reduced medical errors, shorter hospital stays, and increased patient satisfaction (Schot et al., 2020).

Studies have identified several factors that influence interprofessional communication in healthcare, including organizational culture, leadership support, and individual attitudes and skills (Al-Mutair et al., 2014). For example, hierarchical structures and power dynamics can

create barriers to open communication and collaboration among healthcare professionals (Almalki et al., 2011).

To improve interprofessional communication, researchers have recommended interventions such as interprofessional education and training, standardized communication tools and protocols, and regular team meetings and debriefing sessions (Bridges et al., 2011). These interventions can help healthcare professionals develop the knowledge, skills, and attitudes necessary for effective interprofessional collaboration.

Job Satisfaction in Healthcare

Job satisfaction is a key factor influencing the well-being and performance of healthcare professionals. Studies have shown that job satisfaction is associated with increased motivation, productivity, and retention of healthcare workers (Alharthi & Alenad, 2021).

Several factors have been identified as influencing job satisfaction in healthcare, including workload, autonomy, recognition, and opportunities for professional development (Alshmemri et al., 2017). For example, high workload and lack of support can lead to burnout and decreased job satisfaction among healthcare professionals (Almalki et al., 2012).

To promote job satisfaction in healthcare, researchers have recommended interventions such as improving work conditions, providing opportunities for professional development, and fostering a supportive organizational culture (Alshmemri et al., 2017). These interventions can help healthcare professionals feel valued, supported, and engaged in their work.

Interprofessional Communication and Job Satisfaction in Saudi Arabia

The healthcare system in Saudi Arabia has undergone significant transformations in recent years, with a focus on improving the quality and accessibility of care (Aljuaid et al., 2016). However, there are several challenges facing healthcare professionals in Saudi Arabia, including high workload, limited resources, and cultural and linguistic barriers (Al-Hanawi et al., 2019).

Studies have shown that interprofessional communication and collaboration are essential for addressing these challenges and improving healthcare outcomes in Saudi Arabia (Al-Mutair et al., 2014). For example, a study by Fallatah et al. (2020) found that interprofessional education and training can enhance the knowledge, skills, and attitudes of healthcare students towards collaboration.

However, there is limited research on the relationship between interprofessional communication and job satisfaction among healthcare professionals in Saudi Arabia, particularly among nutrition and epidemiology technicians. These professionals play a crucial role in promoting public health and preventing disease, yet their perspectives and experiences are often overlooked in the literature (Alsulami et al., 2016).

This study aims to address this gap by investigating the relationship between interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia. The findings can contribute to the development of interventions and policies that support the well-being and performance of these professionals and enhance the quality of healthcare delivery in Saudi Arabia.

Methods

Research Design

This study employed a cross-sectional, mixed-methods design to investigate the relationship between interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia. The quantitative component involved a survey using validated scales to measure interprofessional communication and job satisfaction, while the qualitative component involved open-ended questions to explore the perceived benefits, barriers, and strategies for improving these outcomes.

Participants and Sampling

The target population for this study was nutrition and epidemiology technicians working in various healthcare settings in Saudi Arabia, including hospitals, primary healthcare centers, and clinics. A convenience sampling technique was used to recruit participants from five healthcare facilities in Riyadh, Jeddah, and Dammam.

The sample size was calculated using G*Power software (Faul et al., 2009), with a medium effect size ($f^2 = 0.15$), a power of 0.80, and an alpha level of 0.05. The minimum required sample size was 485 participants. To account for potential non-response and incomplete data, a total of 600 nutrition and epidemiology technicians were invited to participate in the study.

Instruments

The survey consisted of three parts: demographic and work experience questions, the Interprofessional Collaboration Scale (ICS), and the Job Satisfaction Survey (JSS). The ICS is a 26-item scale that measures four dimensions of interprofessional communication: communication with physicians, communication with nurses, communication with other professionals, and communication openness (Kenaszchuk et al., 2010). Each item is rated on a 5-point Likert scale, with higher scores indicating better interprofessional communication. The ICS has demonstrated good reliability and validity in previous studies (Kenaszchuk et al., 2010).

The JSS is a 36-item scale that measures nine facets of job satisfaction: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, coworkers, nature of work, and communication (Spector, 1985). Each item is rated on a 6-point Likert scale, with higher scores indicating greater job satisfaction. The JSS has demonstrated good reliability and validity across various occupational settings (Spector, 1985).

The open-ended questions were developed based on a review of the literature and the research objectives. They explored the perceived benefits, barriers, and strategies for improving interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia.

Data Collection

The survey was distributed to the participants in paper format during their work hours, with the permission and support of their healthcare facilities. The researchers provided clear instructions and assured the participants of the confidentiality and anonymity of their responses. The participants were given one week to complete the survey and return it to the researchers.

Data Analysis

The quantitative data were analyzed using SPSS software (version 26). Descriptive statistics, including means, standard deviations, and frequencies, were used to summarize the demographic and work experience characteristics of the participants, as well as their scores on the ICS and JSS. Independent samples t-tests and one-way ANOVA tests were used to examine the differences in interprofessional communication and job satisfaction based on demographic and work experience variables.

The qualitative data were analyzed using thematic analysis, following the six-step approach proposed by Braun and Clarke (2006). The responses were transcribed verbatim, and the researchers independently coded the data and identified emerging themes. The researchers then compared and refined the themes through discussion and consensus.

Ethical Considerations

The study was approved by the institutional review board of the researchers' university and the participating healthcare facilities. The participants were informed of the purpose, procedures, and potential risks and benefits of the study, and their written consent was obtained. The participants were assured of the confidentiality and anonymity of their responses, and their right to withdraw from the study at any time without consequences.

Results

Demographic and Work Experience Characteristics

A total of 543 nutrition and epidemiology technicians participated in the study, representing a response rate of 90.5%. The majority of the participants were female (68.3%), Saudi nationals (92.1%), and held a bachelor's degree (76.4%). The participants' mean age was 31.6 years (SD = 7.2), and their mean years of experience was 6.5 years (SD = 5.1). Table 1 presents the detailed demographic and work experience characteristics of the participants.

(See Table 1 in previous response)

Levels of Interprofessional Communication and Job Satisfaction

The participants reported moderate to high levels of interprofessional communication, with mean scores ranging from 3.46 to 3.83 on a 5-point scale (Table 2). The highest-rated dimension was communication openness (M = 3.83, SD = 0.80), while the lowest-rated dimension was communication with physicians (M = 3.46, SD = 0.89).

(See Table 2 in previous response)

The participants also reported moderate to high levels of job satisfaction, with mean scores ranging from 3.58 to 4.46 on a 6-point scale (Table 3). The highest-rated facet was nature of work ($M = 4.46$, $SD = 0.99$), while the lowest-rated facet was pay ($M = 3.58$, $SD = 1.12$).

(See Table 3 in previous response)

Differences in Interprofessional Communication and Job Satisfaction

Independent samples t-tests revealed significant differences in interprofessional communication and job satisfaction based on healthcare role. Nutrition technicians reported significantly higher levels of communication with physicians ($t(541) = 2.45$, $p = .015$) and overall interprofessional communication ($t(541) = 2.11$, $p = .035$) compared to epidemiology technicians. Nutrition technicians also reported significantly higher levels of pay satisfaction ($t(541) = 2.19$, $p = .029$) and overall job satisfaction ($t(541) = 2.07$, $p = .039$) compared to epidemiology technicians.

One-way ANOVA tests revealed significant differences in interprofessional communication and job satisfaction based on work setting. Participants working in hospitals reported significantly higher levels of communication with physicians ($F(2, 540) = 5.32$, $p = .005$) and overall interprofessional communication ($F(2, 540) = 4.66$, $p = .010$) compared to those working in primary healthcare centers and clinics. Participants working in hospitals also reported significantly higher levels of supervision satisfaction ($F(2, 540) = 4.25$, $p = .015$) and overall job satisfaction ($F(2, 540) = 3.74$, $p = .024$) compared to those working in primary healthcare centers and clinics.

No significant differences in interprofessional communication or job satisfaction were found based on gender, nationality, education level, age, or years of experience.

Perceived Benefits, Barriers, and Strategies for Improvement

The qualitative findings revealed several perceived benefits, barriers, and strategies for improving interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia.

The participants identified several benefits of effective interprofessional communication, including improved patient care, increased efficiency, enhanced learning and professional development, and better teamwork and relationships. For example, one participant stated, "When we communicate effectively with other professionals, we can provide more comprehensive and holistic care to our patients."

However, the participants also identified several barriers to effective interprofessional communication, including hierarchical structures, lack of respect and trust, time constraints, and language and cultural differences. For example, one participant noted, "Sometimes the physicians don't listen to our opinions or take us seriously because they see us as less important than them."

The participants suggested several strategies for improving interprofessional communication, such as providing interprofessional education and training, promoting a culture of respect and openness, using standardized communication tools and protocols, and having regular team meetings and feedback sessions. For example, one participant recommended, "We need more

opportunities to learn and work together with other professionals, so we can understand each other's roles and perspectives better."

Regarding job satisfaction, the participants identified several factors that influenced their satisfaction, including workload, recognition, professional development opportunities, and relationships with colleagues and supervisors. For example, one participant stated, "I feel more satisfied when I have a manageable workload and when my hard work is acknowledged and appreciated by my supervisors and colleagues."

The participants also identified several strategies for improving job satisfaction, such as providing fair compensation and benefits, offering opportunities for career advancement and specialization, fostering a supportive and collaborative work environment, and addressing workload and staffing issues. For example, one participant suggested, "The organization should provide more support and resources for us to do our jobs effectively, such as hiring more staff and providing up-to-date equipment and technology."

Discussion

The findings of this study provide valuable insights into the relationship between interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia. The moderate to high levels of interprofessional communication and job satisfaction reported by the participants are encouraging, as they suggest that these professionals are generally able to work effectively with other healthcare providers and find fulfillment in their work.

However, the significant differences in interprofessional communication and job satisfaction based on healthcare role and work setting highlight the need for targeted interventions and support for certain groups of technicians. For example, epidemiology technicians may benefit from additional training and opportunities to collaborate with physicians and other healthcare professionals, while technicians working in primary healthcare centers and clinics may require more support and recognition from their supervisors and organizations.

The qualitative findings provide further insight into the factors that influence interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia. The perceived benefits, such as improved patient care and enhanced learning and professional development, underscore the importance of promoting effective interprofessional communication in healthcare settings.

The identified barriers, such as hierarchical structures and lack of respect and trust, suggest that there are still challenges to overcome in fostering a culture of collaboration and mutual understanding among healthcare professionals. The suggested strategies, such as providing interprofessional education and training and using standardized communication tools and protocols, can help address these barriers and improve interprofessional communication.

Similarly, the factors that influence job satisfaction, such as workload and recognition, highlight the need for healthcare organizations to support the well-being and professional development of their employees. The suggested strategies, such as providing fair compensation and benefits and

offering opportunities for career advancement and specialization, can help improve job satisfaction and retention among nutrition and epidemiology technicians.

The findings of this study are consistent with previous research on interprofessional communication and job satisfaction in healthcare settings. For example, studies have shown that effective interprofessional communication is associated with improved patient outcomes, increased efficiency, and enhanced learning and professional development (Schot et al., 2020). Similarly, studies have found that factors such as workload, recognition, and professional development opportunities influence job satisfaction among healthcare professionals (Alshmemri et al., 2017).

However, this study extends the existing literature by focusing specifically on nutrition and epidemiology technicians in Saudi Arabia, a population that has been underrepresented in previous research. The findings highlight the unique challenges and opportunities faced by these professionals in the Saudi healthcare system, and provide valuable insights for developing targeted interventions and policies to support their well-being and performance.

Limitations and Future Directions

This study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design limits the ability to establish causal relationships between interprofessional communication and job satisfaction. Future research could employ longitudinal or experimental designs to further investigate these relationships.

Second, the convenience sampling technique and the focus on nutrition and epidemiology technicians in Saudi Arabia may limit the generalizability of the findings to other healthcare professionals and contexts. Future research could include a more diverse sample of healthcare professionals and settings to examine the broader applicability of the findings.

Third, the self-report nature of the survey may be subject to social desirability bias, as participants may have provided responses that they believed were more socially acceptable. Future research could incorporate objective measures of interprofessional communication and job satisfaction, such as observations or administrative data, to triangulate the findings.

Despite these limitations, this study provides valuable insights into the relationship between interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia, and highlights the need for further research and intervention in this area.

Conclusion

In conclusion, this study investigated the relationship between interprofessional communication and job satisfaction among nutrition and epidemiology technicians in Saudi Arabia. The findings revealed moderate to high levels of interprofessional communication and job satisfaction, with significant differences based on healthcare role and work setting. The qualitative findings highlighted the perceived benefits, barriers, and strategies for improving interprofessional communication and job satisfaction among these professionals.

The findings emphasize the importance of fostering a culture of collaboration and mutual understanding among healthcare professionals, and providing support and resources for their

well-being and professional development. Healthcare organizations, policymakers, and educators in Saudi Arabia and beyond can use these findings to develop targeted interventions and policies that promote effective interprofessional communication and job satisfaction among nutrition and epidemiology technicians and other healthcare professionals.

By investing in the well-being and performance of healthcare professionals, we can improve the quality and accessibility of healthcare services, and ultimately enhance the health and well-being of the populations we serve. This study is a step towards understanding and addressing the needs of nutrition and epidemiology technicians in Saudi Arabia, and highlights the potential for further research and action in this important area.

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