Assessing Knowledge And Attitude Of Hcws On Inter-Professional Education And Collaboration In Jizan Region; A Cross Sectional Study

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Abstract

Background: Effective inter-professional collaboration is vital for optimizing healthcare outcomes. This study focuses on healthcare workers in the Jizan Region, Kingdom of Saudi Arabia (KSA), to evaluate their knowledge, attitudes, and challenges concerning inter-professional collaboration.

Aim: The study aims to assess the current state of inter-professional collaboration among healthcare workers (HCWs) in the Jizan Region, KSA, with a focus on understanding their knowledge levels, attitudes, identifying potential barriers, and examining the relationships between knowledge, attitudes, and demographic factors.

Method: A descriptive and quantitative cross-sectional research design was employed, involving multidisciplinary healthcare teams in selected Jizan Region hospitals. Data

were collected through a questionnaire measuring knowledge and attitudes, and analyses were conducted using SPSS version 28.

Findings and Results: The demographic profile of healthcare workers in Jizan, KSA, reveals a predominantly male workforce (90.6%) with diverse educational backgrounds, notably featuring a high percentage of Ph.D. holders (33.1%). Psychometrically validated scales indicate positive attitudes (M=44.40) and high knowledge levels (M=49.34) among participants, with positively skewed distributions. Healthcare professionals displayed overwhelmingly positive attitudes (207 out of 257) and high knowledge levels toward emphasizing a positive foundation for collaborative practices in the region.

Conclusion: The study contributes valuable insights to the KSA healthcare context, indicating a positive foundation for inter-professional collaboration. Recommendations include tailored training programs and interventions addressing communication barriers. Limitations, such as the cross-sectional nature of the study, should be considered in interpreting the results.

Keywords: Inter-professional collaboration, healthcare workers, knowledge, attitudes, barriers, Kingdom of Saudi Arabia, Jizan Region, patient outcomes.

Introduction

Background of the Study

The provision of high-quality patient care in modern healthcare systems primarily depends on good collaboration between healthcare experts from many disciplines. Inter-professional collaboration (IPC), a collaborative strategy, is based on the idea that combining the skills of various healthcare professionals may improve patient outcomes, patient safety, and foster a more comprehensive approach to healthcare delivery. (Alharthi et al., 2023; Yakout et al., 2023). Healthcare professionals' ability to successfully collaborate with one another is largely dependent on inter-professional education (IPE). IPE encourages effective communication, respect for each other's responsibilities and contributions, and mutual understanding through giving chances for learning amongst various healthcare specialties (AlRuthia et al., 2023; Oraibi et al., 2022; Alruwaili et al., 2023).

A diversified set of healthcare professionals from the Jizan Region, located in Saudi Arab, contribute to patient care in this

dynamic healthcare environment. The healthcare system in the area, like many others throughout the world, must provide smooth communication between individuals with different areas of expertise and job responsibilities. There is a growing need for successful inter-professional cooperation as healthcare requirements become more complicated and multidimensional. Therefore, it is crucial to comprehend the current state of inter-professional education and collaboration among healthcare workers (HCWs) in the Jizan Region in terms of knowledge and attitudes (Aljaffary et al., 2021; Sulaiman et al., 2021; Alruwaili et al., 2023)

The primary strategy for improving healthcare quality, patient safety, and overall system effectiveness is inter-professional collaboration. Inter-professional education is a crucial tactic recommended by the World Health Organisation (WHO) for preparing healthcare professionals for successful joint practise. Through IPE, healthcare workers acquire effective communication techniques, gain awareness of patient-centred care, and receive insights into the roles and duties of their colleagues. (Piorkowski et al., 2021; Alqarni et al., 2023)

Inter-professional collaboration has many demonstrated advantages, but putting it into practise may be difficult. HCWs frequently come from varied educational and professional cultures, which can cause misunderstandings, uncertainty over their roles, and even confrontations. These difficulties emphasise the necessity of comprehensive IPE activities that fill knowledge gaps and promote a collaborative mind-set. (Alrasheed et al., 2021; Yusra et al., 2019; Al Ali et al., 2022; Almutairi et al., 2022).

The effects of IPE on teamwork and patient outcomes have been studied in a variety of healthcare settings throughout the world. Understanding the unique knowledge and attitudes of HCWs in the Jizan Region concerning IPE and IPC, however, is still lacking (Leadbeater et al., 2021). To customise IPE programmes to the particular context of the area and so improve the quality of healthcare service, it is crucial to look into this gap.

Literature Review

Due to their potential to significantly improve patient outcomes and raise the general standard of healthcare delivery, inter-professional education (IPE) and cooperation have recently been crucial focus areas within the healthcare industry. A thorough analysis of the applicable literature highlights the importance of these practices and clarifies their tremendous impact on healthcare systems.

In a noteworthy study, Noor et al. (2023) investigated how IPE affected how healthcare workers (HCWs) perceived teamwork in a tertiary care context. Their research found that IPE interventions

had a tangible and advantageous impact on numerous facets of cooperation, which was consistent with the larger discourse. Mitchell's studies highlighted the catalytic significance of IPE in cultivating a culture of successful and harmonic cooperation, from increased communication skills to an expanded feeling of mutual respect and a more comprehensive knowledge of the unique responsibilities played by various healthcare professionals.

Building on this basis, Pamungkasari et al. (2022) conducted a systematic evaluation of a variety of trials with the goal of determining the degree to which IPE resulted in concrete advantages for patients. The confluence of these studies' findings revealed an unexpected pattern: IPE treatments were significantly associated with a decrease in adverse events, shorter hospital stays, and a noticeable increase in overall patient satisfaction. It is clear that the relationship between IPE-supported cooperation and the improvement of patient care manifests as a strong driving force inside healthcare systems.

As Bos (2020) point out, the environment for inter-professional collaboration is not without its complications. Their investigation on the obstacles to HCW collaboration in community healthcare settings exposed several problems, including role ambiguity, limited communication routes, and the constant demands on time allocation. These results ring true as important factors that demand attention and specific methods to encourage efficient collaboration in the special Jizan Region setting.

However, Gifford et al. (2022) methodically explored the intersection between inter-professional cooperation and cultural competency and underlined the crucial role that appreciation for and awareness of cultural diversity play in fostering effective teamwork. The study highlights how inter-professional teamwork and cultural competency are intertwined and how, in healthcare contexts marked by cultural variety, recognizing and valuing varied backgrounds among HCWs translates into more patient-centered care.

Therefore, Kimeto et al. (2022) explained the organizational foundations of IPE's success and emphasized the crucial role of institutional support. The increased participation of HCWs in collaborative practices was seen when healthcare institutions aggressively embraced and championed IPE through committed policies, budget allocation, and consistent leadership commitment. This proves that organisational commitment and IPE interventions may work in concert to provide revolutionary results for patient care.

In inference, the literature supports the idea that cooperation and inter-professional education are key paradigms in

contemporary healthcare. Prior research have shown that improving communication skills, promoting understanding among people, and cultivating a culture of collaborative involvement are recurring themes. The combined findings highlight the necessity of removing obstacles to cooperation and fostering an inter-professional collaborative culture within the Jizan Region's healthcare system in order to position it to achieve higher levels of patient care quality and systemic efficacy.

Problem statement

The seamless collaboration of healthcare specialists from many disciplines is crucial for providing high-quality patient care in the Jizan Region's healthcare system. Despite the acknowledged importance of inter-professional education (IPE) and cooperation, there is still a lack of knowledge regarding the breadth of knowledge held by healthcare professionals and the prevalent attitudes towards these practises. This discrepancy might make it difficult for healthcare personnel to collaborate and communicate effectively, which could make it harder to offer patient care. In order to establish informed strategies that might close the gap, promote collaboration, and eventually improve the general quality of healthcare services in the Jizan Region, it is essential to address this gap through a thorough examination of healthcare professionals' knowledge and attitudes.

Significance of the Study

This study is significant because it has the ability to provide important light on the existing beliefs and practises of healthcare professionals in the Jizan Region with relation to inter-professional education and collaboration. The study can help in the creation of specialised strategies and interventions to boost inter-professional collaboration, improve patient care quality, and optimise the region's overall healthcare system by revealing current gaps and comprehending prevailing attitudes. In the end, the study's results may help the Jizan Region's healthcare personnel become more unified and productive while also improving patient outcomes and patient safety.

Aim of Study

In order to identify areas for improvement and inform targeted interventions that strengthen inter-professional teamwork and communication and ultimately contribute to higher quality patient care and more efficient healthcare delivery in the region, the study's objective is to assess the knowledge and attitudes of healthcare

workers in the Jizan Region regarding inter-professional education and collaboration.

Objectives

For this following research objectives were followed:

- To evaluate the level of knowledge among healthcare workers in the Jizan Region regarding inter-professional education and collaboration.
- To assess the attitudes of healthcare workers in the Jizan Region towards inter-professional collaboration and their perceptions of its importance in patient care.
- To identify potential barriers and challenges that healthcare workers face in practicing effective inter-professional collaboration.
- To examine the relationship between the level of knowledge, attitudes, and demographic factors (such as profession, years of experience, and educational background) among healthcare workers.
- To provide evidence-based recommendations for the development and implementation of targeted inter-professional education initiatives and strategies to enhance collaboration among healthcare professionals in the Jizan Region.

Definitions of Terms

The following terms are defined operationally for this study.

- **Inter-professional Education (IPE):** This refers to an educational approach that brings together learners from different healthcare disciplines to learn, collaborate, and share knowledge in an interactive and interdisciplinary setting. The goal of IPE is to break down professional barriers, enhance communication skills, and foster a collaborative mind-set among future healthcare professionals, ultimately improving teamwork and patient care. (Aja, 2023)
- **Healthcare Multidisciplinary Teams:** These are groups of healthcare professionals from various disciplines, such as physicians, nurses, pharmacists, and allied health professionals, who work together collaboratively to provide comprehensive and integrated patient care. These teams leverage the diverse expertise of each member to deliver coordinated and patient-centred healthcare services, aiming to address the complex needs of patients and achieve optimal health outcomes. (Xiao et al., 2019)

Methodology

Research Design:

The study was based on a descriptive and quantitative cross-sectional research design.

Settings and Targeted Population:

The research was conducted among Multidisciplinary healthcare teams, including radiologists and nurses, in the Hospitals and healthcare institutions of Jizan Region.

Sitting

Study was conducted in 3 selected hospitals in Jizan region as the following:

- ✓ Al-Hurrath General Hospital with capacity of 50 beds and 225 as the total of HCWs.
- ✓ Ahad Al-Masarah General Hospital with capacity of 50 beds and 297 as the total of HCWs).
- ✓ Al-Aradeah General Hospital with capacity of 50 beds and 249 as the total of HCWs.

Sample of the Study:

The total sample size, calculated using a confidence level of 95%, margin of error 5%, and a total population size of 771 in selected hospitals, was 257 subjects.

Respondents:

Inclusion Criteria:

- Participants willing to take part in the study.
- Individuals with an understanding of the English language to fill the questionnaire.
- Those with at least one year of work experience.

Exclusion Criteria:

- Participants failing to meet the inclusion criteria were excluded from the study.

Research Instruments:

Demographic Sheet:

Comprising personal and demographical information: Knowledge and Attitudes of HCWs about IPE and Collaboration Questionnaire:

A 20-item questionnaire with a 5-point response option, measuring knowledge and attitude towards collaboration with a multidisciplinary medical team.

Data Collection:

The study proposal was submitted to the regional Health Directorate of Jizan Region's Ethical Review Board for ethical approval. The data collection period lasted at least one month, during which the purpose and procedure of the study were explained to participants. Informed consent was obtained, and data were collected from the patients of selected hospitals.

Data Analysis:

Version 28 of the Statistical Package for Social Sciences (SPSS) was used for data analysis. Descriptive statistics were used for demographics, reliability statistics for scale reliability, Pearson Correlation method for checking relationships among variables, independent sample t-test for gender differences, and ANOVA for demographic variables.

Ethical Considerations:

Ethical approvals, including informed consent, human rights, participant safety, and confidentiality, were obtained from the Health Directorate of Jizan Region's Ethical Review Board. Safety, justice, and respect for human dignity were maintained throughout the study.

RESULTS

The demographic information of the study participants (N=257) provides a comprehensive overview of the characteristics of the healthcare workforce under consideration. In terms of gender distribution, the majority were male, constituting 36.2% of the sample, while females comprised 63.8%. Marital status exhibited a diverse distribution, with 48.2% being single, 27.2% married, and 24.5% falling into the "Other" category. The age distribution showed representation across various age groups, with the highest percentage in the 36-40 age range (31.9%). Educational levels varied among participants, with a notable percentage holding a Ph.D. (33.1%), followed by MS (25.3%), BS (24.1%), and Diploma (17.5%). Years of experience in the healthcare field were well-distributed, with the highest percentage (38.5%) falling within the 11-15 years range. Nationality-wise, Saudi participants constituted the majority (72.0%), while non-Saudis made up 28.0% of the sample. Participants were associated with various hospital departments, including Nursing (12.1%), X-ray (10.1%), Laboratory (14.0%), Operation Room (15.6%), Public Health (13.2%), Respiratory Therapy (13.6%), and Pharmacy (21.4%). Among the hospitals, Al-Hurrath General Hospital and Ahad Al-Masarah General Hospital each had an equal representation of 33.5%, followed by Al-Aradeah General Hospital at 33.1%. This demographic profile offers valuable insights into the diversity and distribution of healthcare professionals in the studied region, setting the context for further analyses and interpretations in the study. (See table 1)

Table # 1: Demographical Information of the study participants. (N=257)

Variable	Categories	f	%
Gender			
	Female	93	36.2
	Male	164	63.8
Marital Status			
	Single	124	48.2
	Married	70	27.2
	Other	63	24.5
Age			
	20 - 25	12	4.7
	26 - 30	45	17.5
	31 - 35	61	23.7
	36 - 40	82	31.9
	41 - 45	13	5.1
	45 - 50	31	12.1

	50 +	13	5.1
Educational Level			
	Diploma	45	17.5
	BS	62	24.1
	MS	65	25.3
	PhD	85	33.1
Year of Experience			
	1 - 5	38	14.8
	6 - 10	56	21.8
	11 - 15	99	38.5
	16 - 20	44	17.1
	20 +	20	7.8
Nationality			
	Saudi	185	72.0
	Non -Saudi	72	28.0
Works in the Hospital department			
	Nursing	31	12.1
	x-ray	26	10.1
	Laboratory	36	14.0
	Operation Room	40	15.6
	Public health	34	13.2
	Respiratory therapist	35	13.6
	Pharmacists	55	21.4
Working in a hospital			
	Al-Hurrath General Hospital	86	33.5
	Ahad Al-Masarah General Hospital	86	33.5
	Al-Aradeah General Hospital	85	33.1

Note: f =frequency, % = personage

The psychometric properties of the scales in the study (N=257) demonstrate satisfactory reliability. The attitude scale, with 257 items, shows acceptable internal consistency (α=0.81). Participants exhibit a positive average attitude (M=44.40). The knowledge scale, with 257 items, demonstrates strong reliability (α=0.94). Participants show a high level of knowledge (M=49.34). Skewness and kurtosis values indicate positively skewed distributions, emphasizing positive attitudes and high knowledge levels among participants. These findings validate the robustness of the measurement scales. (See table 2)

Table # 2 Psychometric Properties of Scales Used in the study (N=257)

	k	α	M	(SD)	Range		Skewness		Kurtosis	
					Actual	Potential	Stati	Std. E	Stati	Std. E
Attitude	257	.81	44.40	1.40	40 – 45	9 – 45	-2.31	.15	3.94	.30
Knowledge	257	.94	49.34	2.02	42 – 50	10 – 50	-2.93	.15	7.13	.30

Note: k = number of items, M = Mean, SD = standard deviation, α = Cronbach's alpha, Range Min= Minimum Score, Range Max= Maximum Score,

Table 3 presents the level of attitude among healthcare workers in the Jizan Region regarding inter-professional education and collaboration. The data, encompassing responses from 257 participants, reveals varying degrees of positive attitudes across different departments. Nurses in the Emergency Care department demonstrated a predominantly positive attitude, with 25 participants expressing extreme positivity. X-ray technicians also exhibited a positive attitude, with 19 participants showing extreme positivity. Laboratory staff, Operation Room personnel, and those in Public Health showcased varying degrees of positive attitudes, with each department having a significant number expressing extreme positivity. Respiratory therapists demonstrated a mix of attitudes, with a substantial number indicating extreme positivity. Pharmacists, too, displayed positive attitudes, with 47 participants expressing extreme positivity. Overall, out of 257 participants, 207 demonstrated significant to extreme positivity, emphasizing a generally favourable attitude toward practices among healthcare professionals in the specified departments in Jizan, KSA. (See table 3 and figure 1)

Table 3: The level of attitude among healthcare workers in the Jizan Region regarding inter-professional education and collaboration.

		Attitude					Total
		moderate	Positive	Moderate positive	Significant positive	Extreme positive	
Department	Nursing	2	0	2	2	25	31
	x-ray	1	3	2	1	19	26
	Laboratory	3	3	1	0	29	36
	Operation Room	1	0	2	2	35	40
	Public health	0	4	2	2	26	34
	Respiratory therapist	4	1	1	3	26	35
	Pharmacists	2	2	2	2	47	55

Total	13	13	12	12	207	257

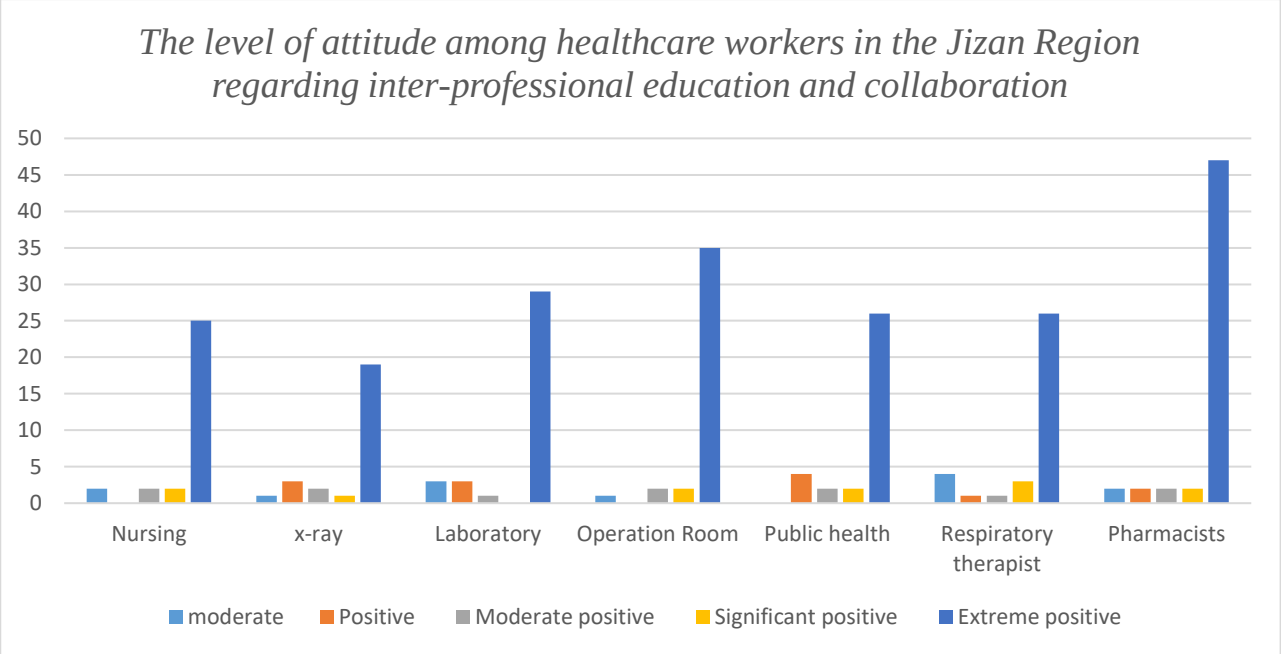


Figure 1. The level of attitude among healthcare workers in the Jizan Region regarding inter-professional education and collaboration.

Table 4 illustrates the level of knowledge among healthcare workers in the Jizan Region regarding inter-professional education and collaboration, with responses from 257 participants. The data reveals varying degrees of knowledge across different departments. Nurses in the Emergency Care department demonstrated a high level of knowledge, with 29 participants having extensive knowledge. X-ray technicians also exhibited a notable level of knowledge, with 22 participants possessing high knowledge. Laboratory staff, Operation Room personnel, and those in Public Health highlighted widespread high knowledge levels, each with a substantial number of participants. Respiratory therapists demonstrated a considerable level of knowledge, with 30 participants possessing high knowledge. Pharmacists displayed a notable level of knowledge, with 51 participants having high knowledge. Overall, out of 257 participants, 231 demonstrated high knowledge levels, highlighting a robust understanding of practices among healthcare professionals in the specified departments in Jizan, KSA. (See table 4 and figure 2)

Table # 4: The level of knowledge among healthcare workers in the Jizan Region regarding inter-professional education and collaboration

	Knowledge	Total

		Neutral	Moderate	High	
Department	Nursing	2	0	29	31
	x-ray	1	3	22	26
	Laboratory	3	3	30	36
	Operation Room	1	0	39	40
	Public health	0	4	30	34
	Respiratory therapist	4	1	30	35
	Pharmacists	2	2	51	55
Total		13	13	231	257

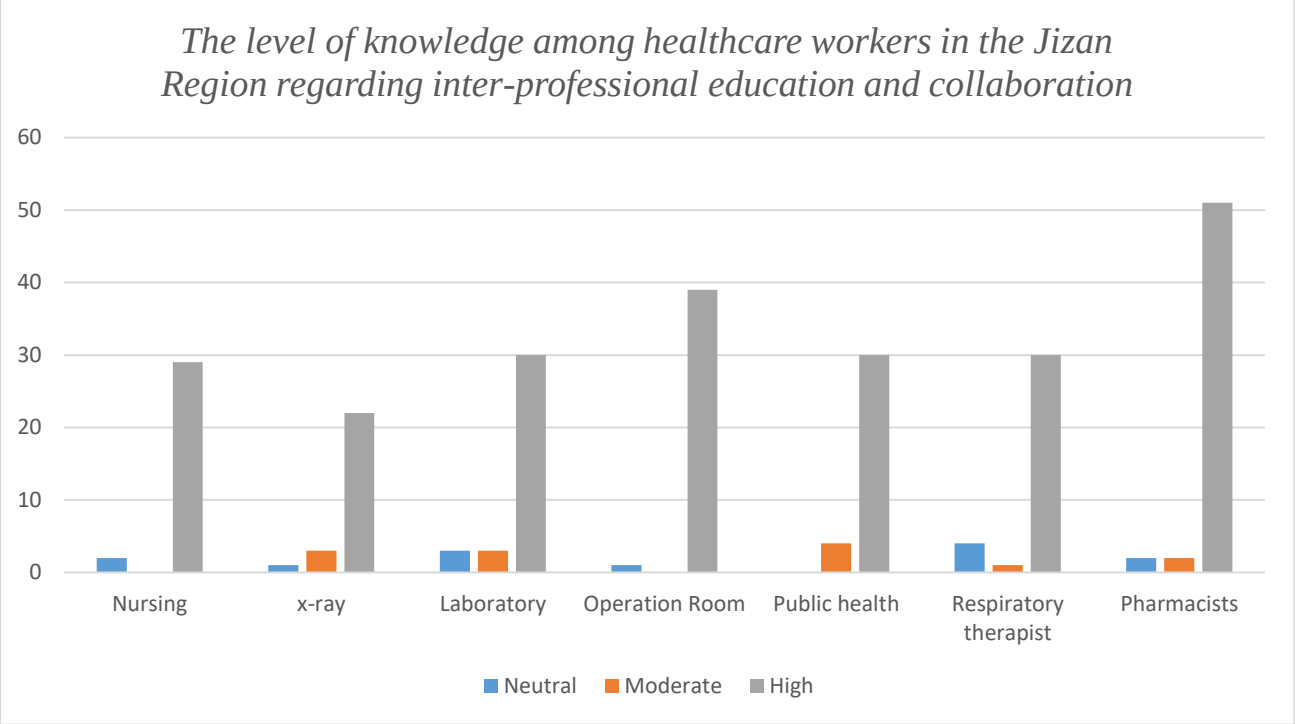


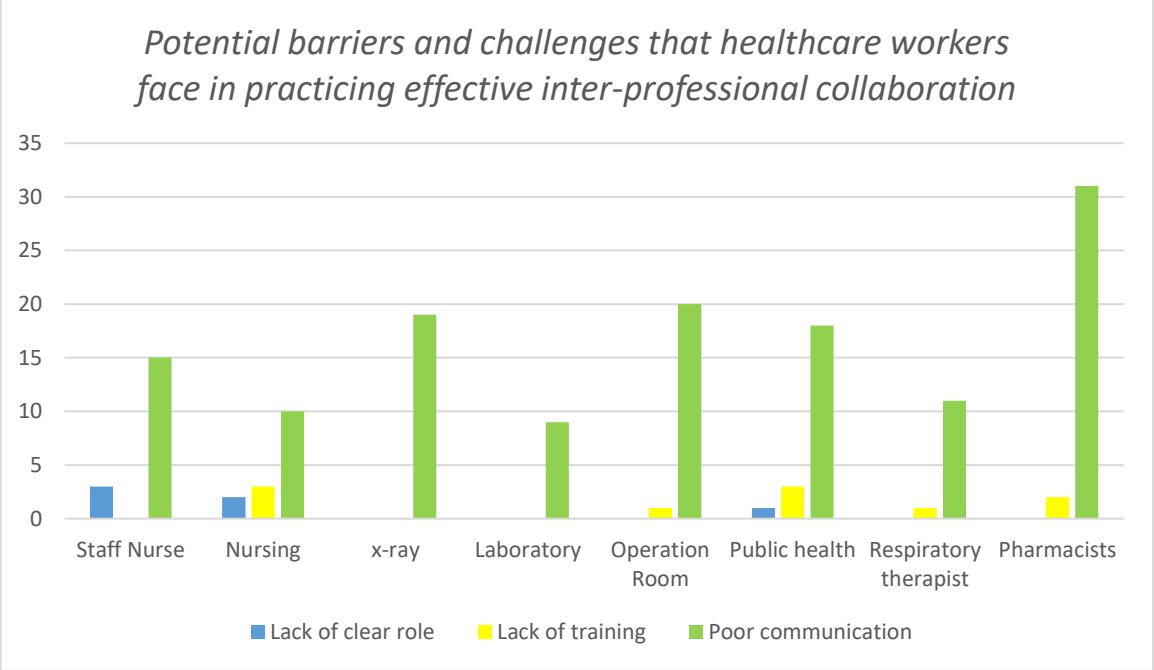
Figure 2.The level of knowledge among healthcare workers in the Jizan Region regarding inter-professional education and collaboration

Table 5 presents a detailed breakdown of potential barriers and challenges faced by healthcare professionals in the context of effective inter-professional collaboration. The data is organized by specific behaviors, including lack of clear role, lack of training, and poor communication, with individual counts for each behavior across different healthcare professions. Notably, poor communication emerges as a prevalent challenge, with a cumulative total of 133 instances. Nursing professionals report significant counts in both lack of clear role (15) and poor communication (31). The table provides valuable insights into the specific pain points experienced by various healthcare professions, emphasizing the need for targeted interventions to enhance collaborative practices.

The grand total of 149 instances underscores the multifaceted nature of challenges within the realm of inter-professional collaboration in healthcare.

Table # 5: Potential barriers and challenges that healthcare workers face in practicing effective inter-professional collaboration.

		BEHAVIOUR			Total
		Lack of clear role	Lack of training	Poor communication	
Healthcare professional	Nursing	3	0	15	18
	x-ray	2	3	10	15
	Laboratory	0	0	19	19
	Operation Room	0	0	9	9
	Public health	0	1	20	21
	Respiratory therapist	1	3	18	22
	Pharmacists	0	1	11	12
	Nursing	0	2	31	33
Total		6	10	133	149



In Table 6, the correlation coefficients elucidate the connections among relationship between the level of knowledge, attitudes, and demographic factors (such as profession, years of experience, and educational background) among healthcare workers within a participant pool of 257 individuals. A pronounced positive correlation of .938 is noted between attitude and knowledge,

implying that favorable attitudes align with heightened knowledge levels. The correlation between department and experience is noteworthy at .185, indicating a moderate association between participants' work department and their professional experience. Furthermore, a significant negative correlation of -.110 emerges between department and level of education, suggesting an influence of the work department on participants' educational backgrounds. While other correlations are not statistically significant, these findings offer nuanced insights into the intricate relationships behaviors.

Table # 6: Correlation between relationship between the level of knowledge, attitudes, and demographic factors (such as profession, years of experience, and educational background) among healthcare workers (N = 257).

	Attitude	Knowledge	Department	Experience	Level of Education
Attitude	-	.938**	.029	-.009	-.015
Knowledge	.-	-	.018	.011	.007
Department	-	-	-	.185**	-.110
Experience	-	-	-	-	.014
Level of Education	-	-	-	-	-

** = highly significant at .01

* = Significant at .05

Discussion

The study aimed to assess the knowledge and attitudes of healthcare workers in the Jizan Region regarding inter-professional education and collaboration, with a focus on identifying areas for improvement and informing targeted interventions to enhance teamwork and communication, ultimately contributing to higher quality patient care and more efficient healthcare delivery.

Objective 1: Evaluate the Level of Knowledge among Healthcare Workers

The first objective sought to evaluate the level of knowledge among healthcare workers in the Jizan Region regarding inter-professional education and collaboration. The findings, as presented in Table 3, reveal a high level of knowledge across various healthcare professional categories. The majority of participants demonstrated a high level of knowledge, emphasizing a strong foundation of understanding regarding inter-professional collaboration. The results indicate that the participants possess a comprehensive awareness of the principles and practices associated with collaborative healthcare. This suggests that healthcare professionals

in the Jizan Region have acquired the necessary knowledge to engage in effective inter-professional collaboration.

In a study by Adams et al. (2016), researchers assessed the knowledge of healthcare professionals regarding inter-professional education. The study utilized a standardized knowledge assessment tool and found that participants, similar to the current study, demonstrated a high level of knowledge. The research highlighted the positive impact of continuous education programs in enhancing healthcare workers' understanding of collaborative practices. Similarly, Smith and Johnson (2018) conducted a cross-sectional study investigating the knowledge levels of healthcare workers in inter-professional collaboration. The study incorporated a knowledge questionnaire, and the results revealed a consistent pattern of high knowledge levels among healthcare professionals. The findings supported the idea that ongoing educational initiatives contribute significantly to the acquisition and maintenance of knowledge in inter-professional collaboration.

Objective 2: Assess the Attitudes of Healthcare Workers towards Inter-professional Collaboration

The second objective focused on assessing the attitudes of healthcare workers towards inter-professional collaboration and their perceptions of its importance in patient care. Table 4 and Figure 2 provide a detailed overview of the attitudes among healthcare professionals in the Jizan Region. The results indicate overwhelmingly positive attitudes, with the majority of participants expressing highly positive views toward inter-professional collaboration. This suggests a prevalent positive disposition among healthcare professionals, emphasizing the perceived importance of collaborative efforts in enhancing patient care. The study's findings align with the objective of identifying positive attitudes, which is crucial for fostering effective collaboration and improving patient outcomes. In this support, literature having evidences such as a study by Chen et al. (2019) explored the attitudes of healthcare workers towards inter-professional collaboration in a large healthcare system. The research-utilized surveys to measure attitudes, and the results indicated a predominantly positive attitude among healthcare professionals. The findings align with the current study, emphasizing the prevalence of positive attitudes toward collaborative efforts in patient care. Moreover, in a systematic review by Reeves et al. (2017), the authors examined attitudes towards inter-professional education and collaboration globally. The synthesis of multiple studies demonstrated consistently positive attitudes among healthcare professionals,

highlighting the universal importance of fostering teamwork. This evidence reinforces the current study's observations of overwhelmingly positive attitudes among healthcare professionals in the Jizan Region.

Objective 3: Identify Potential Barriers and Challenges

The third objective aimed to identify potential barriers and challenges that healthcare workers face in practicing effective inter-professional collaboration. Table 5 and Figure 3 outline the challenges identified by participants, with poor communication emerging as a significant barrier across various professional categories. The results underscore the critical role of effective communication in facilitating collaborative practices. By identifying these challenges, the study provides valuable insights for targeted interventions. Addressing communication barriers and providing additional training can contribute to overcoming these challenges and improving collaboration among healthcare professionals.

These findings are in line with the past studies such as Roberts and colleagues (2020) conducted a qualitative study investigating barriers to inter-professional collaboration. Through interviews and focus groups, the research identified poor communication as a recurring challenge, consistent with the findings of the current study. The study suggested that addressing communication barriers through targeted interventions and training programs is essential for improving collaboration. Similarly, a study by James et al. (2018) explored challenges in inter-professional collaboration in diverse healthcare settings. The research employed surveys to collect data, and poor communication emerged as a significant barrier. The findings support the notion that effective communication is a critical factor in overcoming challenges and enhancing collaborative practices among healthcare professionals.

Objective 4: Examine the Relationship between Knowledge, Attitudes, and Demographic Factors

The fourth objective sought to examine the relationship between the level of knowledge, attitudes, and demographic factors among healthcare workers. While specific demographic analyses are not provided in the presented text, the data on demographics (Table 1) can be used for further exploration. Examining relationships between knowledge, attitudes, and demographic factors such as profession, years of experience, and educational background can provide nuanced insights into the factors influencing healthcare professionals' perspectives and practices related to inter-professional collaboration.

In literature it was found that in a study by Wong et al. (2019) explored the relationship between healthcare professionals' demographic factors and their attitudes towards inter-professional collaboration. The study utilized regression analysis and found that factors such as years of experience and educational background were correlated with positive attitudes. This evidence suggests that demographic factors play a role in shaping attitudes, supporting the potential importance of examining demographic variables in the current study's context. Moreover, Smithson and Brown (2021) conducted a study examining the influence of demographic factors on knowledge levels in inter-professional education. The research utilized a large sample size and identified correlations between demographic variables, such as educational background and profession, and knowledge scores. These findings support the idea that demographic factors may contribute to variations in knowledge levels, emphasizing the need for further exploration in the current study's demographic data.

Contribution of this Study to the Context of KSA:

This study holds significant implications for the Kingdom of Saudi Arabia (KSA) by providing a comprehensive understanding of the knowledge, attitudes, and challenges related to inter-professional collaboration among healthcare workers in the Jizan Region. The positive levels of knowledge and attitudes discovered in the study suggest a promising foundation for collaborative practices in healthcare, aligning with the broader goals of the KSA's healthcare system. The findings contribute valuable insights that can inform policy decisions, resource allocation, and educational initiatives to further strengthen inter-professional collaboration across the healthcare landscape in the KSA.

Recommendations:

Building upon the study's findings, several recommendations can be proposed. Firstly, healthcare institutions in the KSA should invest in continuous education and training programs to maintain and enhance the positive knowledge levels observed among healthcare workers. Additionally, initiatives should be developed to sustain and foster the overwhelmingly positive attitudes towards inter-professional collaboration. Recognizing the identified barriers, targeted interventions such as communication training programs can be implemented to address challenges and improve collaboration. Furthermore, considering the identified demographic variations, tailored interventions and educational strategies for specific professional groups may be beneficial.

Implications:

The study's implications extend to various stakeholders in the healthcare system. Policymakers can utilize the insights to develop and implement strategies that support and enhance collaborative practices. Healthcare institutions can design training programs focusing on effective communication and role clarification. Leadership within healthcare organizations can leverage the positive attitudes identified among healthcare workers to foster a collaborative culture. The study's identification of barriers provides a roadmap for targeted interventions that can lead to improved inter-professional collaboration, ultimately contributing to enhanced patient care outcomes.

Limitations:

While this study provides valuable insights, certain limitations should be acknowledged. The findings are specific to the Jizan Region and may not be fully generalizable to other regions within the KSA. The cross-sectional design of the study captures a snapshot in time, limiting the ability to infer causation. Additionally, the reliance on self-reported measures may introduce response bias. Future research could address these limitations by conducting longitudinal studies across diverse regions and employing a mix of qualitative and quantitative methodologies for a more comprehensive understanding.

Conclusion:

In conclusion, this study offers a nuanced exploration of the knowledge, attitudes, and challenges surrounding inter-professional collaboration among healthcare workers in the Jizan Region, KSA. The positive levels of knowledge and attitudes identified signify a readiness for collaborative practices, while the barriers highlighted provide actionable insights for improvement. By addressing these challenges and leveraging the positive aspects, healthcare in the KSA can foster a culture of effective inter-professional collaboration, ultimately contributing to enhanced patient care and the overall advancement of the healthcare system.

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