

Awareness And Perception Of Healthcare Workers Towards Healthcare Transformation In Saudi Arabia: A Cross-Sectional Study

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Abstract

Background: The healthcare system in Saudi Arabia is in a major change process due to the National Transformation Program (NTP), as one of the initiatives of Vision 2030. It is essential to learn the awareness and perception of healthcare workers towards these reforms in order to implement it successfully.

Aim: The research was conducted to determine the level of awareness, perception, and preparedness of healthcare professionals to the current healthcare transformation in Saudi Arabia.

Method: 300 healthcare workers in the Makkah Health Cluster were purposively sampled, and a cross-sectional study was conducted. The surveys to be completed included the level of awareness, perceived benefits, difficulties, and participants' preparedness to apply the healthcare reforms. The data were analysed using descriptive statistics and Pearson's correlation analysis.

Results: Most respondents were female (71.7 %) and Saudi citizens (87.3%), and nurses were the most prevalent professionals (50 %). There were many positive correlations between perception readiness and the implementation of readiness ($r = 0.83$) and between perception benefits and challenges ($r = 0.66$). Gender differences were also observed, with males scoring higher on perceived benefits and challenges.

Conclusion: Saudi Arabian healthcare professionals were typically willing to engage in the change, but demographic factors such as gender and professional role influenced perceptions. These results underscore the importance of targeted training and communication initiatives to increase healthcare personnel's participation in the transformation process within the framework of Vision 2030.

Keywords: Healthcare transformation, Saudi Arabia, National Transformation Program, healthcare workers, Vision 2030, awareness, perception, readiness.

Introduction

The healthcare system in Saudi Arabia is in the midst of major reform in the context of larger Vision 2030, which is designed to restructure service provision and increase the efficiency and accessibility of healthcare

in the Kingdom (Bin Abdulrahman et al., 2021). One of the key aspects of this change is the National Transformation Program (NTP), which will implement novel forms of care, modern digital health technologies, and a transition to value-based healthcare (VBHC). This is not only a structural but also an ethnocultural and professional shift, as healthcare workers must acquire new roles, competencies, and responsibilities in response to shifting healthcare needs (Lin et al., 2021; Sweeney et al., 2021; Ghalibi et al., 2024). Since healthcare workers play a primary role in service delivery, their knowledge and attitudes toward such changes are key to the effectiveness of the change (Nifakos et al., 2021; Alzahrani et al., 2025).

Research conducted on the knowledge and perception of healthcare workers towards the NTP reveals that there is usually a high degree of awareness regarding the reform but the awareness is usually in bits. A study in Al-Qassim, in particular, identified that healthcare professionals were generally familiar with emerging models of care, although their awareness about particular innovations, including the combination of preventive care or the implementation of the mobile health (m-health) application, was low (Afulani et al., 2021; Lambert et al., 2023; Althuwaybi et al., 2025). Among the key predictors of awareness, it has been found that professionals in their field of specialty, years of education, and previous exposure to educational programs, physicians and individuals with advanced degrees are more familiar with it than nurses or allied health staff (Deressa et al., 2021; Brooks et al., 2021; Kansal et al., 2022). This indicates that the professional experience and the access of resources predict the engagement of healthcare workers in the reform initiatives (Iyanna et al., 2022).

Another aspect that healthcare workers are having different perceptions about the transformation process due to personal experience and working conditions. In a study conducted in Riyadh, most healthcare professionals reported that the reform was a good move toward better health outcomes and greater access to care, but a high percentage of these professionals noted that they were worried about job security, workloads, and training that would allow them to adapt to changes (Parmar et al., 2022; Wanat et al., 2021). Also, a paper in Tabuk noted that the level of preparedness to change differed among demographic and professional categories, with women and physicians being more prepared to change than men and non-physicians (Longhini et al., 2022). These results suggest that the attitude to the reform is not uniform, and individual and professional determinants are highly influential in the process of forming the attitude of healthcare workers to change (Huang et al., 2021; Wubineh et al., 2024).

The present results indicate that health professionals in Saudi Arabia are, on the whole, receptive to the healthcare transformation identified in Vision 2030 because it can enhance service delivery and care to patients. Nevertheless, there is an uneven level of awareness, and the perception is affected by the optimism and fear, as the degree of preparedness within different job groups and demographics varies. These lessons underscore the need to have effective communication, continuous training, and the need to deal with staff issues in order to have their full commitment towards the transformation process. It is essential to ensure that the whole healthcare workforce is properly prepared, educated, and motivated to facilitate the changes so that the healthcare delivery can improve in the long run (Kokshagina, 2021).

This high rate of healthcare reform in Saudi Arabia creates doubts about the knowledge base and readiness of the healthcare workers to the reforms being made. Largely, the reforms are unanimously supported; however, it is notable that there are various differences in knowledge, attitudes, and readiness, across different professional groups and demographic backgrounds, which indicates that the freshly drawn models of care and digital health interventions are not equally prepared. The research will be relevant because it aims at investigating the awareness and attitude of healthcare workers on the current reforms. The systematic analysis of the workforce readiness and gaps in knowledge and perception by the workers will give the study valuable information on how to make healthcare workers more engaged in the process of reform. The main objective of the study is to assess the level of awareness on the subject of healthcare workers towards the National Transformation Program, new models of care and digital health programs, and their views on the opportunities and challenges related to these changes. Also, the paper will look into the effect of factors including profession, demographic factors, and training levels on both awareness and perception and finally give the recommendations on how to make the workforce prepared and successful implementation of healthcare reforms under Vision 2030.

Method

The current research design was based on the case of a quantitative cross-sectional one, which is best suited to the investigation of the awareness of healthcare workers and their perception in a particular time frame. This design gave an opportunity to collect data on participants at one time, analyze the patterns and relationships as well as differences in subgroups without the necessity of longitudinal follow-up. The study took place in Makkah Health Cluster where there is a variety of medical specialties including tertiary hospitals, secondary hospitals, and primary health centers, which allowed conducting a perfect study on the awareness and perception of healthcare workers of the ongoing process of transformation in Saudi Arabia (Ibrahim, 2023). Healthcare workers, such as physicians, nurses, allied health professionals, and administrators, were the focus of the study because the healthcare transformation did not only impact clinical staff but support personnel and decision-makers who were engaged in service planning and implementation (Alqurashi, 2024).

The gravity sample of the study was used since the researcher used a purposive non-probability type of sampling strategy to select those that had a significant exposure to the transformation initiatives such that their responses would be informed and related. The G+power statistical software was used to calculate the sample size and 300 participants were considered to be adequate to find significant differences and relationships at 0.05 level of significance. Participants were required to be active health workers in the Makkah Health Cluster with direct clinical or administrative responsibilities, and offer informed consent to take part in the study as the inclusion criteria. The inclusion criteria were based on people who were not on long leave, temporary employees, or interns because their exposure to the transformation initiatives might have been minimal, making the sample relevant and true to the people concerned with the healthcare reforms (Ibrahim, 2023).

The tools of data collection were a demographic sheet, the Healthcare Transformation Awareness Scale (HTA) and the Healthcare Transformation Perception Questionnaire (HTPQ). The HTA Scale evaluated the knowledge of the participants on essential healthcare reforms, including new care models, preventive health services, and digital health, and the higher the score, the more familiar the participant was (Ibrahim, 2023). The HTPQ assessed the attitude and perception of the healthcare workers regarding the change, their perceived benefits, barriers, and preparedness with good reliability as tested using Cronbachs alpha (Alqurashi, 2024). Data analysis was conducted in SPSS and descriptive statistics, internal consistency analysis, and inferential statistics t-tests, ANOVA, and regression analysis were used in order to investigate awareness, perception, and demographic variables relationships. The ethical considerations were also observed strictly as all the subjects gave their informed consent and institutional approvals before taking part in the study to guarantee the confidentiality and voluntary nature of participation (Alqurashi, 2024).

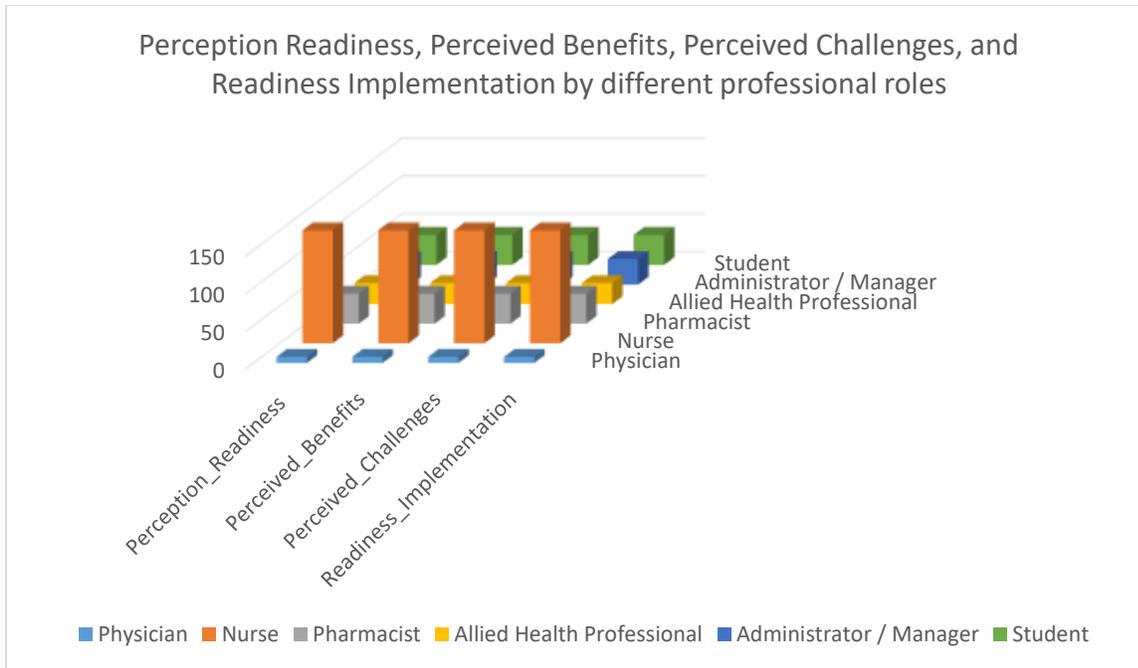
Results

Table 1: Demographical Information of the Study Participants (N=300)

Variable	Categories	f	%
Age Range	18 - 24	44	14.7
	25 - 34	70	23.3
	35 - 44	77	25.7
	45 - 54	52	17.3
	55 - 64	16	5.3
Gender	Male	85	28.3
	Female	215	71.7

Nationality	Saudi	262	87.3
	Non-Saudi	38	12.7
Marital Status	Single	80	26.7
	Married	160	53.3
	Divorced	40	13.3
	Widowed	20	6.7
Educational Qualification	Diploma	103	34.3
	Bachelor's Degree	142	47.3
	Master's Degree	37	12.3
	Doctorate / PhD	18	6.0
Professional Role	Nurse	150	50.0
	Pharmacist	40	13.3
	Allied Health Professional	28	9.3
	Administrator / Manager	34	11.3
Years of Work Experience	1 to 5 years	47	15.7
	6 to 10 years	63	21.0
	10 and above years	167	55.7
Place of Work	Primary Health Center	164	54.7
	Secondary Hospital	74	24.7
	Tertiary Hospital	58	19.3
	Student	4	1.3

The demographic information of the study participants, which is important in presenting the specifics of the subjects, including such aspects as age range, gender, country of origin, marital status, educational level, professional position, work experience, the place of work. Most of the participants were females (71.7%), Saudi (87.3%), nurses (50%), and over 10 years work experience (55.7%), and the highest number of participants worked in primary health centers (54.7%).



The distribution of Perception Readiness, Perceived Benefits, Perceived Challenges, and Readiness Implementation by different professional roles with the largest number in all categories being represented by nurses and a greater number of healthcare workers reporting readiness and positive attitudes towards the transformation initiatives especially in Perception Readiness and Readiness Implementation.

Table 2: Descriptive Statistics and Pearson Correlation Matrix for Healthcare Workers' Perception and Readiness towards Healthcare Transformation (N = 300).

Variable	M	SD	1	2	3	4
Perception Readiness	16.16	2.62	-	0.65**	0.65**	0.83**
Perceived Benefits	15.68	2.56	-	-	0.66**	0.64**
Perceived Challenges	15.68	2.56	-	-	-	0.64**
Readiness Implementation	16.08	2.42	-	-	-	-

Table 2 shows the descriptive statistics (mean and standard deviation) of the four key variables which include Perception Readiness, Perceived Benefits, Perceived Challenges, and Readiness Implementation. Pearson correlation matrix indicates that all variables have significant positive correlations with one another with the highest correlation being between Perception Readiness and Readiness Implementation ($r = 0.83$), which means that the higher the readiness perceptions, the higher the implementation readiness.

Table 3: Group Gender Comparison on Perception and Readiness towards Healthcare Transformation (N = 300)

Variable	Male (n = 85)		Female (n = 215)		t(3.92)	p	Cohen's d
	M	SD	M	SD			
Perception Readiness	16.40	1.69	16.06	2.90	0.98	0.32	0.11
Perceived Benefits	16.16	2.09	15.48	2.71	2.06	0.04	0.25
Perceived Challenges	16.16	2.09	15.48	2.71	2.06	0.04	0.25
Readiness Implementation	16.49	1.70	15.91	2.64	1.86	0.06	0.22

Table 3 addresses the comparison of the perceptions and readiness of male and female healthcare workers showing the difference of gender perception towards healthcare transformation. Although the difference in gender of Perception Readiness was not significant ($t = 0.98$, $p = 0.32$), females had reported much lower scores in Perceived Benefits and Perceived Challenges levels than males (both $t = 2.06$, $p = 0.04$), but with moderate effect sizes (Cohen $d = 0.25$).

Discussion

The objective of the research was to determine the level of awareness and perception of healthcare workers on the healthcare transformation programs taking place in Saudi Arabia especially those under the National Transformation Program (NTP) as one of the activities under the vision 2030. Table 1 of demographics was useful in giving information about the study participants. Most of the participants were female (71.7%), Saudi (87.3%), and nurses (50%). The age group was majorly within a bracket of 25 to 44 years (63.7%), which shows a relatively younger and active working force that was involved in the transformation process. It also indicated that the majority of healthcare workers were over ten years experienced with 55.7% of them being in the bracket thus highlighting the extensive experience and exposure of the workforce to the current changes in the healthcare sector in Saudi Arabia.

The results of Descriptive Statistics and Pearson Correlation Matrix (Table 2) showed that there were positive correlations among all the main variables of the perception and readiness of healthcare workers. Perception Readiness and Readiness Implementation ($r = 0.83$) displayed the highest correlation implying that the more ready the worker is in terms of perception, the more ready they are to implement the transformation strategies. The results are consistent with the literature of the past, and they focus on the role of the readiness and perceptions of healthcare workers to define the effectiveness of healthcare reform programs (Alzahrani et al., 2025). The correlations ($r = 0.65$) between Perceived Benefits and Perception Readiness are moderate, which also serves as the evidence pointing to the importance of positive attitudes towards healthcare transformation as one of the factors to encourage healthcare workers to adapt and embrace new models of care and value-based healthcare.

Table 3 indicated that there were some differences in the perceptions and preparedness of male and female healthcare workers when compared. Males had a little higher Perception Readiness scores ($M = 16.40$) in comparison to the female scores ($M = 16.06$) but this was not significantly different ($p = 0.32$). Nevertheless, in Perceived Benefits and Perceived Challenges, males scored significantly higher as compared to females ($t = 2.06$, $p = 0.04$), which means that men saw the healthcare transformation process as having more benefits and fewer obstacles. Such findings indicate that gender could moderate how healthcare workers view and interact with the current reforms, which can be determined by the workplace roles, experiences, and personal expectations (Brooks et al., 2021).

The results of this research point to the fact that the awareness of healthcare workers and their perception of the transformation are the key to the success of the National Transformation Program. Most healthcare workers were largely in support of the reforms, and were very willing to implement them; however, professional role and gender were some of the demographical factors that were found to affect the perceived benefits and challenges. Such findings are in line with the previous studies that found such factors as professional background, gender, and exposure to training on reforms to be determinants of healthcare workers engagement in transformation efforts (Ghalibi et al., 2024; Afulani et al., 2021). The specific communication, education and support programs that would help to address these factors could contribute to the improvement of the effectiveness of the transformation process and make sure that all healthcare workers, irrespective of their gender or industry, will be sufficiently ready to the changes.

Finally, the paper highlights the need to put into consideration that healthcare workers are diverse in terms of demographics when organizing and making healthcare reforms. The results show that they should develop specific interventions to support the awareness, perception, and readiness of healthcare workers especially during the current transformation of Saudi Arabia under its Vision 2030. Since the healthcare workforce is considered to be one of the most critical factors in implementing these reforms effectively, the future directions of this process should be to increase engagement by providing better

communication strategies, professional training, and responding to the concerns of various groups in healthcare, which is bound to make the goals of Vision 2030 succeed (Bin Abdulrahman et al., 2024).

Limitation

The use of cross-sectional design is one of the limitations of this study as it gives a picture of the awareness and perceptions of the healthcare workers at a particular time, but not how it changes with time. Besides, the research was performed in one healthcare cluster and this can hamper the applicability of the results in other parts of Saudi Arabia.

Recommendation

Further research must take into account longitudinal designs to monitor perceptions and preparedness of healthcare workers on the matter and change over time. Also, future research should extend to several healthcare clusters in Saudi Arabia to have a broader picture of the national change process.

Conclusion

The study explains how the awareness and perceptions of healthcare workers play a vital role in effective execution of the healthcare transformation in Saudi Arabia as envisaged in the vision 2030. Although most of the healthcare workers expressed their readiness and positive perceptions, demographic issues like gender, education level and experience affected their opinion on the changes. The high correlation between perception readiness and implementation readiness implies that the implementation of the transformation would fail without addressing the concerns of workers and encouraging them to have positive attitude toward the change. In order to make healthcare workers fully engaged, specific training and support, especially in the spheres of perceived challenges, are required to reach the objectives of the National Transformation Program.

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