

# Privatization of Healthcare Services from the Nursing Perspective in the Kingdom of Saudi Arabia: A Cross-Sectional Study

Ahmed Sadoun Al-Sadoun<sup>1,\*</sup>, Nourah Obaid Al-Otaibi<sup>1,2,\*</sup>, Hanan Hussien Al-Ahmari<sup>1,3,\*</sup>, Dalal Othman Adawi<sup>1,4,\*</sup>, Laila Matrouk Al-Dalbahi<sup>1,5,\*</sup>, Regie Buenafe Tumala<sup>1,\*</sup>

<sup>1</sup>College of Nursing, King Saud University, Riyadh, 12372, Kingdom of Saudi Arabia; <sup>2</sup>Planning and Strategy Department, Taif Healthcare Cluster-Taif City, Taif, Kingdom of Saudi Arabia; <sup>3</sup>Nursing Department, Armed Forces Hospitals - Southern Region, Abha City, Abha, Kingdom of Saudi Arabia; <sup>4</sup>Nursing Department, King Salman Medical City- Al-Madinah, Al-Munawwarah, Kingdom of Saudi Arabia; <sup>5</sup>Nursing Department, Rafaya General Hospital- Riyadh City, Riyadh, Kingdom of Saudi Arabia

\*These authors contributed equally to this work

Correspondence: Regie Buenafe Tumala, Medical–Surgical Department, College of Nursing, King Saud University, Riyadh, 12372, Kingdom of Saudi Arabia, Tel +966554773976, Email rtumala@ksu.edu.sa

**Background:** While the privatization of healthcare services holds a potential for better healthcare outcomes, a significant gap remains in understanding its impact on the healthcare workforce, especially regarding nurses' perceptions, with limited research available in the Kingdom of Saudi Arabia (KSA).

**Aim:** This study aimed to assess nurses' perceptions of privatization practices in healthcare services in Al-Taif City, KSA.

**Methods:** This quantitative study used a cross-sectional design. The Nurses' Privatization Perception Scale (NPPS) was distributed electronically to potential respondents in four select hospitals in Al-Taif City, KSA. The random sampling technique was used to recruit a total convenient sample of 237 registered nurses. The IBM SPSS (version 25) was used to analyze the collected survey data.

**Results:** The findings indicated that nurses generally hold a positive perspective of privatization, aligning with their favorable perceptions across three dimensions of the NPPS: (1) privatization in general, (2) privatization in healthcare, and (3) impact of privatization on nursing. Significant differences in the overall perceptions of privatization across all three domains were observed, influenced by factors such as the age, nationality, and working areas of the nurses, as well as to the hospital where the respondents were employed.

**Discussion:** Nurses believed that privatization could yield changes that could positively impact healthcare, the nursing profession and their healthcare practices. This outcome is consistent with the current literature, suggesting that privatization could enable the Saudi government to make decisions more quickly and cut costs.

**Conclusion:** Nurses displayed positive perspective about privatization of healthcare in the KSA. However, more research is required to investigate communication strategies to improve the understanding of the concept of privatization and explore confounding factors influencing nurses' perceptions. This study showed that nurses believed that privatization could bring about positive changes and positively impact healthcare and nurses' practices. The results may aid policymakers in identifying gaps in the understanding of nurses' perceptions of privatization in Al-Taif City and other regions of the KSA, and thus result in awareness programs explaining the value of privatization.

**Keywords:** health care, health services, nurses, perception, privatization

## Introduction

Privatization of healthcare has become increasingly common in both developed and developing nations.<sup>1,2</sup> This process can manifest in various ways, such as the privatization of service delivery and healthcare financing, or the transfer of ownership from public entities to private ones.<sup>3</sup> Over the last four decades, numerous healthcare systems globally that were previously publicly owned or funded have shifted towards privatizing their services, predominantly through outsourcing to the private sector.<sup>4</sup>

Research indicates that hospitals that transition from public to private ownership in high-income countries tend to achieve greater profitability compared to their public counterparts, largely due to selective patient intake and workforce reductions. Consequently, the overall rise in privatization often correlates with deteriorating health outcomes for patients. However, there is a scarcity of studies assessing this critical reform, leaving significant gaps in the existing literature on this vital issue.<sup>4,5</sup>

The interrelation of healthcare business practices and ethical principles has been central to legal reforms, particularly the privatization of healthcare institutions.<sup>3,6</sup> A study conducted in Canada examining attitudes and nationalism on healthcare privatization options revealed that the nine predominantly English-speaking provinces exhibit a greater tendency to oppose private hospitals compared to residents of Quebec.<sup>7</sup> Furthermore, there is no single province or region within “English Canada” that predominantly influences these findings; rather, the resistance to private hospitals is uniformly observed across all nine provinces.<sup>7</sup> The analysis by Dufresne et al<sup>7</sup> posits that universal healthcare has become intricately linked to the national identity of English Canada, leading to a widespread reluctance towards private healthcare initiatives outside Quebec.<sup>7</sup> In the KSA, a qualitative investigation focused on the ethical implications (such as autonomy, accountability, and competition) associated with the privatization of healthcare services, involving 21 healthcare stakeholders (13 administrators and 8 clinical staff) in the Eastern province.<sup>1</sup> The findings indicated that both administrators and clinical staff viewed the governance and structural changes to enhance the authority of public hospitals while minimizing bureaucratic obstacles.<sup>1</sup> This perception was underpinned by beliefs regarding improved resource utilization and decreased waste, which are indicative of heightened efficiency within public hospitals and fosters competition between public and private healthcare hospitals.<sup>1</sup> A systematic review by Alayed et al<sup>3</sup> highlighted varying viewpoints regarding the effects of healthcare privatization. Among the studies analyzed, four (36.4%) were in favor of privatization, including two from the KSA, while six (54.5%) opposed it, with three originating from European countries, and one study (9.1%) maintained a neutral position. Studies from the KSA indicate potential advantages related to efficiency and innovation, whereas studies from Europe point to adverse effects such as inequity and diminished quality.<sup>3</sup> This underscores the necessity for further research to comprehensively assess the implications of privatization on healthcare.<sup>3</sup>

The Saudi Ministry of Health has been spearheading the establishment of healthcare clusters across various regions, creating independent networks of healthcare providers.<sup>8</sup> These clusters are meticulously designed to harmonize with regional demographics and capacities.<sup>8</sup> The overarching objective of this initiative is to engage the private sector in service provision and management, fostering competition and innovation, and ultimately optimizing resource utilization.<sup>8</sup> As part of Vision 2030, the Saudi government actively encourages private sector involvement in the healthcare industry.<sup>8,9</sup> This involvement includes promoting private investments in healthcare infrastructure, fostering public–private partnerships (PPPs), and allowing private healthcare providers to take over services previously provided by public institutions. Privatization aims to diversify the range of healthcare services available in the KSA, with a focus on expanding specialized services, introducing new technologies, and offering innovative healthcare solutions. Privatization is expected to bring improvements in the quality and efficiency of healthcare services.<sup>9</sup> Private providers are driven by market competition, which prioritizes patient satisfaction, quality outcomes, and cost-effectiveness. This can lead to enhanced service delivery, reduced waiting times, and improved healthcare experiences for patients.<sup>9</sup>

In the KSA, the privatization of healthcare services is closely tied to the country’s Vision 2030 initiative.<sup>9</sup> Vision 2030 is a long-term plan introduced by the Saudi government in 2016, with the aim of diversifying the economy; reducing dependence on oil; and improving various sectors, including healthcare. Under Vision 2030, the Saudi government has recognized the importance of private sector involvement in healthcare and taken steps to encourage privatization in the sector.<sup>9</sup> The goals of privatization in healthcare align with the broader objectives of Vision 2030, such as improving the quality of services, increasing efficiency, and fostering innovation. As part of the broader healthcare reforms under Vision 2030, the Saudi government has encouraged the privatization of certain healthcare facilities, including allowing private entities to manage and operate public hospitals and promoting PPPs in the healthcare sector.<sup>9</sup> One notable example is the King Fahad Medical City in Riyadh, KSA which underwent privatization in 2002. It was transformed into a public corporation, with private sector involvement in its management and operation. This privatization initiative aimed to improve the quality and efficiency of healthcare services provided by the hospital. However, a notable detail that not all hospitals in the KSA have undergone privatization.<sup>9</sup> The extent of privatization varies across different healthcare facilities, and the decision to privatize is typically

made on a case-by-case basis. The Saudi government continues to evaluate and implement privatization initiatives on the basis of strategic considerations, healthcare needs, and the potential benefits of private sector involvement.<sup>9,10</sup>

In the KSA, the healthcare privatization initiative presents a nuanced landscape of challenges and opportunities. While privatization holds promise for enhanced efficiency and innovation, it poses certain risks. For instance, it may increase costs, potentially rendering healthcare services less accessible to lower-income individuals or those lacking adequate insurance coverage. Privatization could also widen the disparity in healthcare quality among various socioeconomic groups, thereby exacerbating existing inequalities in access to care. It could introduce market competition, motivating healthcare providers to enhance operational efficiency, minimize costs, and increase service quality to attract patients.<sup>11</sup> The involvement of the private sector frequently brings forth new technologies, state-of-the-art medical equipment, and innovative approaches to healthcare delivery, thereby enhancing diagnostic capabilities, expanding treatment options, and ultimately improving patient outcomes.<sup>11</sup> Private healthcare providers often prioritize preventive care and wellness programs, advocating for healthier lifestyles and alleviating the long-term burden on the healthcare system.<sup>11</sup>

The privatization of healthcare services can lead to increased demand for healthcare, potentially resulting in heavier workloads for nurses. This situation can significantly increase the risk of burnout, decrease job satisfaction, and ultimately compromise the quality of patient care. While research on the effects of privatization on nurses' experiences has been conducted in various countries, a focus on nurses' perspectives on privatization is lacking.<sup>12</sup> Understanding nurses' perceptions of these structural changes is crucial for comprehending their impact on the clinical environment and nursing services. A qualitative study involving nurses in Sweden revealed that privatization was associated with an increased patient load, reduced nursing staff, and heightened workload.<sup>13</sup> Despite discussions on how privatization may improve healthcare outcomes, an understanding regarding its effects on the healthcare workforce remains lacking. Literature exploring nursing perceptions of privatization in the KSA is limited. Therefore, this study aimed to assess nurses' perceptions of healthcare privatization in the country.

## Materials and Methods

### Study Design and Sampling

A cross-sectional study design was utilized to collect data from respondents by using convenience sampling at healthcare facilities in Al-Taif City, which is situated in southwest of the KSA. Convenience sampling, a method commonly used in survey research such as the current study, was utilized to recruit respondents by selecting those who were readily accessible to the researchers and conveniently located within the research settings of this study. For the inclusion criteria of the present study, respondents were recruited to take part in the online survey if they are registered nurses currently working in healthcare settings that have undergone privatization or are in the process of privatization. Meanwhile, nurses who had not been exposed to privatization and individuals who declined to participate were excluded.

Respondents were recruited from four select hospitals: Hospital A, Hospital B, Hospital C, and Hospital D. The sample size was determined using the Raosoft Sample Size Calculator, with a margin of error of 5% and a confidence level of 95%. Assuming a response rate of 50%, the population size considered was 1946, resulting in a recommended sample size of 321 respondents. The sample size was increased by 20% to account for potential missing data, resulting in a minimum required sample size of 385 respondents.

### Research Instruments

This study utilized an online survey comprising of two sections. The first section included a sociodemographic characteristic questionnaire with eight items designed to gather nurses' information regarding their age, gender, nationality, working area, educational attainment, years of experience, and their workplace (ie, hospital).

In the second part, the study employed the Nurses' Privatization Perception Scale (NPPS), which was developed by Harmancı Seren and Yıldırım,<sup>13</sup> to assess nurses' perceptions of privatization. Permission from the original developers of NPPS to utilize the instrument in this study was obtained with written permission via Email from Arzu Kader Harmancı Seren dated on the 9<sup>th</sup> of October 2022. This step ensured that proper protocols were followed, and the intellectual property rights associated with NPPS were acknowledged. The NPPS used in this research consisted of a total of 37

items, with 33 items focused on positive evaluations and four items focused on negative evaluations. NPPS encompassed three subscales: general privatization (eight items), health privatization (14 items), and impact of privatization on nursing (15 items). The respondents rated each item on a scale ranging from 1 to 5. In the current study, nurses' responses for each item of the NPPS were computed to determine the average score and the frequency of each response category on the five-point Likert scale, in addition to calculating the average scores for the three subscales and the overall scale. Higher scores indicated a more positive perception of privatization, and lower scores indicated a more negative perception. The reliability of NPPS was assessed using Cronbach's alpha coefficient. For the entire scale, the coefficient was calculated to be 0.95, indicating high internal consistency.<sup>13</sup> The subscales demonstrated good reliability, with Cronbach's alpha coefficients of 0.82, 0.89, and 0.92 for the privatization in general, privatization in health, and impact of privatization on nursing subscales, respectively.<sup>13</sup>

The expertise of professionals in the health field was enlisted to translate the survey into Saudi Arabic language to ensure the suitability of the survey for Arabic-speaking respondents. The Arabic version was subsequently validated and evaluated by six academic experts in the health field. A notable detail that Arabic and English languages were used during the data collection phase. A pre-test study was conducted to evaluate the face validity of the NPPS in both English and Saudi Arabic versions. The test concentrated on the visual aspects of the NPSS, including formatting, readability, stylistic uniformity, and the clarity of terminology for the respondents. Twenty-seven nurses employed in hospitals outside Al-Taif City in the KSA were invited to take part in the pre-test study. They were prompted with the question: "Are the questions and terminology clear? If your response is 'No,' please indicate which questions or terms were unclear." This question was strategically placed at the end of each page, enabling respondents to provide feedback prior to proceeding to the next page of the survey. After completing the survey, respondents were asked three additional questions: (1) "Is the online survey user-friendly and easy to navigate?" to which all 27 respondents affirmed with a "Yes"; (2) "How long did it take you to complete the survey?" with reported completion times ranging from 10 to 12 minutes (average time = 11 minutes); and (3) "Do you have any further comments?" to which no additional remarks were given by the pre-test respondents. The pre-test survey data further confirmed the high reliability of the overall NPSS, indicated by a Cronbach's alpha of 0.97, and also showed good reliability in its subscales, with Cronbach's alpha coefficients of 0.85, 0.88, and 0.91 for the privatization in general, privatization in healthcare, and impact of privatization on nursing subscales, respectively.

## Ethical Considerations

Approval from the Research Ethical Committee of Al-Taif Healthcare Affairs was obtained to facilitate the data collection phase under Institutional Review Board Registration Number with KACST, KSA: (HAP-02-T-067) (approval number: 753, October 30<sup>th</sup>, 2022). The use of an online survey might enable the inclusion of nurses who had not experienced privatization. To prevent this from happening, an additional question was incorporated into the survey, asking: "Have you been exposed to or are you currently employed at a hospital that has undergone privatization?" Respondents who answered "Yes" were instructed to provide implied consent, while those who answered "No" were required to exit the survey.

Prior to participating in the online survey, respondents were also requested to indicate their informed consent by clicking the "Agree" button, implying that they had read and comprehended the objectives of the study and willingly agreed to participate. Those who accessed the survey but chose not to proceed were instructed to click the "Disagree" button and were instructed to leave the survey. It was explicitly indicated in the first part of the online survey that completing the survey would be regarded as implied consent. The tally sheets produced in Microsoft Excel from the Google Form of the online survey, which recorded the implied consent of respondents, are securely archived on the primary investigator's password-protected hard drive.

## Data Collection Process

After obtaining ethical approval to collect the data, an online survey link was provided by the researchers to the research coordinator in each of the four hospitals, who subsequently disseminated it to potential respondents through their institutional email, WhatsApp groups, and Twitter. In addition, a QR code for the online survey was generated and distributed to potential respondents through flyers posted on bulletin boards in the working areas or nursing units of the

four hospitals. To avoid any respondent answering more than once, the online survey was set up to prevent multiple responses. The data gathered from the online survey conducted via Google Form were subsequently extracted and imported into Microsoft Excel, where data cleaning was performed before performing the data analysis.

## Data Analysis

The study's dependent variables were nurses' perceptions of privatization (privatization in general, privatization in health, and impact of privatization on nursing and all privatization practices), and the study's independent variables were the respondents' demographic information, including age, gender, working area, nationality, educational level, years of experience, and respondents' workplaces. The means, chi-square, standard deviations (SDs), and frequencies related to the nurses' sociodemographic data and perceptions of privatization were obtained. Analysis of variance (ANOVA) and *T*-tests were used to analyze the variations among the three domains and overall nurses' perceptions of privatization according to the sociodemographic data of the respondents. These tests of difference were conducted based on the results of the normality tests, specifically the Kolmogorov–Smirnov ( $p$ -value = 0.758) and Shapiro–Wilk ( $p$ -value = 0.898) tests, which suggested that the survey data followed a normal distribution, as demonstrated by  $p$ -values more than 0.05 ( $p$ -values greater than 0.05 signify a normal distribution). The IBM SPSS version 25 (IBM Corp., Armonk, NY, United States) was used to analyze the collected survey data.

## Results

### Sociodemographic Data

A total of 325 responses were recorded and retrieved from the online survey; however, following data cleaning procedures, 88 responses (dropout rate = 27.08%) were excluded due to substantial missing information. Hence, 237 responses from the nurses (response rate = 72.92%) were utilized for the final data analysis. The demographic data are clearly described in Table 1. Most of the participants (48%) were aged 30–40 years old, 18% were 40 years or above, and 33% were 20–30 years old. Significantly, 96% of the respondents were female, and 4% were male. Regarding participants' nationalities, 82% were non-Saudi, and 17% were Saudi. More than half of the participants worked in critical care areas (56%), 36% worked in inpatient departments, 5% worked in administrative departments, and 2% worked in outpatient departments. The years of experience varied among nurses, from 4–9 years (17%) to 10 or more years (31%), 1–3 years (17%), and less than one year (8%). Regarding education, 84% had a bachelor's degree, 11% had

**Table 1** Sociodemographic Data

Sociodemographic Data	N	%
<b>Age (in years)</b>		
20-30	80	33.8
30-40	114	48.1
>40	43	18.1
<b>Gender</b>		
Female	227	95.8
Male	10	4.2
<b>Nationality</b>		
Saudi	42	17.7
Non-Saudi	195	82.3

(Continued)

**Table 1** (Continued).

<b>Sociodemographic Data</b>	<b>N</b>	<b>%</b>
<b>Working area</b>		
In-patient departments	86	36.3
Outpatient department	6	2.5
Administrative departments	13	5.5
Critical care areas	132	55.7
<b>Years of experience</b>		
Less than 1 year	20	8.4
1- 3 years	40	16.9
4- 9 years	104	43.9
10 and above	73	30.8
<b>Educational level</b>		
Diploma	26	11.0
Bachelor	200	84.4
Higher Education (Master/PhD)	11	4.6
<b>Respondents' workplaces</b>		
Hospital A	38	16.0
Hospital B	73	30.8
Hospital C	89	37.6
Hospital D	37	15.6

**Abbreviations:** N, number of nurses who responded; %, percentage.

a diploma, and 5% had a higher education degree. In terms of respondents' workplaces, 38% were from Hospital C, 31% from Hospital B, 16% from Hospital A, and 16% from Hospital D.

## Main Results on Nurses' Perceptions of Privatization

The perceptions of privatization were regarded as positive if the score was higher and negative if the score was lower. Table 2 illustrates the perceptions of nurses regarding privatization. Notably, the nurses' perceptions across the three domains of privatization (in general, in healthcare, and its impact on nursing) exhibited consistency, with statistically significant results ( $p$ -values  $< 0.001$  for all items). The results revealed that nurses have a favorable perspective of privatization in general, as indicated by an average score of 25.48 out of 40 ( $SD = 3.53$ ). Their perceptions regarding privatization in healthcare also displayed positivity, with an average score of 45.91 out of 70 ( $SD = 9.13$ ). Furthermore, nurses viewed the impact of privatization on nursing positively, with an average score of 49.52 out of 75 ( $SD = 10.82$ ). Overall, the total average score (120.91 out of 185  $\pm SD = 21.79$ ) across these three dimensions confirmed that nurses' perceptions towards privatization are predominantly positive.

**Table 2** Nurses' Perception of Privatization

Items	Response [N (%)]					% of Agreement	Chi-Square	
	Strongly Disagree	Disagree	I have no Opinion	Agree	Strongly Agree		$\chi^2$	P-value
<b>Privatization in general:</b> Subscale Mean $\pm$ SD = 25.48 $\pm$ 3.53								
1. The privatization of public enterprises and public services serves the economic welfare of the public.	12 (5.1%)	23 (9.7%)	72 (30.4%)	91 (38.4%)	39 (16.5%)	70.30	69.65	<0.001*
2. Public enterprises and public services impose an economic burden on the state.	21 (8.9%)	36 (15.2%)	90 (38.0%)	63 (26.6%)	27 (11.4%)	63.29	85.93	<0.001*
3. Too many people are employed in public enterprises and public services.	14 (5.9%)	26 (11.0%)	71 (30.0%)	88 (37.1%)	38 (16.0%)	69.28	48.21	<0.001*
4. Excessive investments are made in public enterprises and public services.	17 (7.2%)	26 (11.0%)	92 (38.8%)	76 (32.1%)	26 (11.0%)	65.74	92.09	<0.001*
5. Public enterprises and public services are operated more efficiently with privatizations.	13 (5.5%)	31 (13.1%)	70 (29.5%)	90 (38.0%)	33 (13.9%)	68.35	131.76	<0.001*
6. More qualified services are produced in public enterprises and public services through privatizations.	12 (5.1%)	29 (12.2%)	74 (31.2%)	97 (40.9%)	25 (10.5%)	67.93	150.03	<0.001*
7. Privatization of public enterprises and public services renders the country foreign-dependent.	9 (3.8%)	23 (9.7%)	91 (38.4%)	90 (38.0%)	24 (10.1%)	68.19	137.41	<0.001*
8. The privatization of public enterprises and public services is demanded from our country's governments by foreign financial institutions.	8 (3.4%)	25 (10.5%)	99 (41.8%)	85 (35.9%)	20 (8.4%)	67.09	104.54	<0.001*
<b>Privatization in healthcare:</b> Subscale Mean $\pm$ SD = 45.91 $\pm$ 9.13								
1. Privatization of public health institutions is for the benefit of society.	16 (6.8%)	33 (13.9%)	71 (30.0%)	83 (35.0%)	34 (14.3%)	67.26	84.96	<0.001*
2. More people are employed than necessary in public health institutions.	21 (8.9%)	29 (12.2%)	74 (31.2%)	84 (35.4%)	29 (12.2%)	65.99	106.70	<0.001*
3. More investments are made in public health institutions.	9 (3.8%)	25 (10.5%)	86 (36.3%)	86 (36.3%)	31 (13.1%)	68.86	112.35	<0.001*
4. While public health institutions are privatized, the whole society is included in the social security system.	9 (3.8%)	21 (8.9%)	86 (36.3%)	97 (40.9%)	24 (10.1%)	68.95	99.48	<0.001*
5. Of the public health institutions, only those belonging to the university should be privatized.	10 (4.2%)	31 (13.1%)	89 (37.6%)	78 (32.9%)	29 (12.2%)	67.17	61.71	<0.001*
6. As a result of the privatization of public health institutions, the number of working personnel is increased.	21 (8.9%)	27 (11.4%)	84 (35.4%)	83 (35.0%)	22 (9.3%)	64.89	123.82	<0.001*
7. With the privatization of public health institutions, equality in access to health services is ensured.	15 (6.3%)	32 (13.5%)	74 (31.2%)	89 (37.6%)	27 (11.4%)	66.84	84.12	<0.001*
8. With the privatization of public health institutions, health workers receive higher wages.	27 (11.4%)	41 (17.3%)	66 (27.8%)	72 (30.4%)	31 (13.1%)	63.29	92.35	<0.001*
9. Of the public health institutions, only those affiliated to the ministry of health should be privatized.	24 (10.1%)	42 (17.7%)	90 (38.0%)	57 (24.1%)	24 (10.1%)	61.27	89.90	<0.001*
10. The quality of the health service produced by the privatization of public health institutions is increased.	11 (4.6%)	25 (10.5%)	87 (36.7%)	90 (38.0%)	24 (10.1%)	67.68	96.90	<0.001*
11. With the privatization of public health institutions, more people can benefit from health services.	24 (10.1%)	29 (12.2%)	78 (32.9%)	77 (32.5%)	29 (12.2%)	64.89	64.08	<0.001*
12. In public health institutions, services other than the main service, health care, should be privatized.	15 (6.3%)	34 (14.3%)	78 (32.9%)	89 (37.6%)	21 (8.9%)	65.65	121.46	<0.001*
13. With the privatization of public health institutions, hospitals will be run more efficiently.	10 (4.2%)	27 (11.4%)	84 (35.4%)	79 (33.3%)	37 (15.6%)	68.95	63.95	<0.001*
14. With the privatization of public health institutions, the budget allocated to health is increased.	8 (3.4%)	33 (13.9%)	88 (37.1%)	75 (31.6%)	33 (13.9%)	67.76	35.38	<0.001*

(Continued)

Table 2 (Continued).

Items	Response [N (%)]					% of Agreement	Chi-Square	
	Strongly Disagree	Disagree	I have no Opinion	Agree	Strongly Agree		X <sup>2</sup>	P-value
<b>Impact of privatization on nursing:</b> Subscale Mean $\pm$ SD = 49.52 $\pm$ 10.82								
1. The value of nursing work is increased by the privatization of public health institutions.	11 (4.6%)	27 (11.4%)	85 (35.9%)	75 (31.6%)	39 (16.5%)	68.78	87.37	<0.001*
2. The quality of the nursing service produced by the privatization of public health institutions increases.	11 (4.6%)	24 (10.1%)	77 (32.5%)	99 (41.8%)	26 (11.0%)	68.86	92.09	<0.001*
3. With the privatization of public health institutions, more nurses are employed.	21 (8.9%)	29 (12.2%)	85 (35.9%)	66 (27.8%)	36 (15.2%)	65.65	98.59	<0.001*
4. With the privatization of public health institutions, the social gains of nurses due to civil service are protected.	11 (4.6%)	28 (11.8%)	80 (33.8%)	88 (37.1%)	30 (12.7%)	68.27	140.70	<0.001*
5. Privatization of public health institutions positively affects the professionalization process of nursing.	9 (3.8%)	27 (11.4%)	87 (36.7%)	86 (36.3%)	28 (11.8%)	68.19	110.24	<0.001*
6. With the privatization of public health institutions, conflicts between those working in the field are reduced.	15 (6.3%)	26 (11.0%)	94 (39.7%)	77 (32.5%)	25 (10.5%)	65.99	72.18	<0.001*
7. With the privatization of public health institutions, nurses are employed without job security.	13 (5.5%)	33 (13.9%)	91 (38.4%)	69 (29.1%)	31 (13.1%)	66.08	67.45	<0.001*
8. With the privatization of public health institutions, patients and nurses are less confronted.	10 (4.2%)	40 (16.9%)	92 (38.8%)	75 (31.6%)	20 (8.4%)	64.64	145.17	<0.001*
9. Private branch nursing is developed with the privatization of public health institutions.	13 (5.5%)	25 (10.5%)	104 (43.9%)	76 (32.1%)	19 (8.0%)	65.32	133.61	<0.001*
10. With the privatization of public health institutions, the decision-making authority of the nursing administration increases.	4 (1.7%)	24 (10.1%)	102 (43.0%)	82 (34.6%)	25 (10.5%)	68.44	110.99	<0.001*
11. With the privatization of public health institutions, the status of the nursing profession rises.	16 (6.8%)	19 (8.0%)	86 (36.3%)	95 (40.1%)	21 (8.9%)	67.26	84.08	<0.001*
12. With the privatization of public health institutions, nurses are forced to be more educated.	12 (5.1%)	27 (11.4%)	86 (36.3%)	79 (33.3%)	33 (13.9%)	67.93	98.04	<0.001*
13. With the privatization of public health institutions, nurses are paid more fairly.	21 (8.9%)	37 (15.6%)	77 (32.5%)	68 (28.7%)	34 (14.3%)	64.81	81.59	<0.001*
14. With the privatization of public health institutions, the nursing profession becomes more professional.	14 (5.9%)	29 (12.2%)	91 (38.4%)	70 (29.5%)	33 (13.9%)	66.67	69.65	<0.001*
15. Privatization of public health institutions puts nursing in a stronger position.	15 (6.3%)	36 (15.2%)	82 (34.6%)	73 (30.8%)	31 (13.1%)	65.82	93.36	<0.001*
<b>Overall Nurses' Perceptions of Privatization:</b> Total Scale Mean $\pm$ SD = 120.91 $\pm$ 21.79								

**Note:** Significant at p-value < 0.001\*. Adapted with permission from Harmanci Seren AK, Yildirim A. Nurses' perceptions about health sector privatization in Turkey. *Int Nurs Rev.* 2013;60(3):320–327.<sup>13</sup>

**Abbreviations:** N, number of nurses who responded; %, percentage; SD, standard deviation; X<sup>2</sup>, Chi-Square value.

## Variations in Nurses' Perceptions of Privatization in General Based on Sociodemographic Data

The analysis of the differences in the nurses' perceptions of privatization in general based on the sociodemographic data showed that nationality and respondents' workplaces had a significant variation on perceptions of privatization (p-values = 0.044\* and 0.02\*respectively; Table 3).

## Variations in Nurses' Perceptions of Privatization in Healthcare Based on Sociodemographic Data

Meanwhile, nationality, working areas, and respondents' workplaces had a significant variation in nurses' perceptions of privatization in healthcare (p-values = 0.016\*0.039\*and 0.009\*respectively; Table 4).

**Table 3** Variations in Nurses' Perceptions of Privatization in General Based on Sociodemographic Data

Sociodemographic Data		N	Privatization in General	Test of Difference	
			Mean $\pm$ SD	Test Value	P-value
Age (in years)	20-30	80	25.838 $\pm$ 3.297	F = 1.485	0.229
	30-40	114	25.526 $\pm$ 3.685		
	>40	43	24.698 $\pm$ 3.468		
Gender	Female	227	25.502 $\pm$ 3.552	t = 0.440	0.660
	Male	10	25.000 $\pm$ 3.018		
Nationality	Saudi	42	26.476 $\pm$ 3.556	t = 2.029	0.044*
	Non-Saudi	195	25.267 $\pm$ 3.492		
Working area	In-patient departments	86	25.686 $\pm$ 3.565	F = 2.156	0.094
	Outpatient department	6	28.667 $\pm$ 5.785		
	Administrative departments	13	25.846 $\pm$ 2.794		
	Critical care areas	132	25.167 $\pm$ 3.400		
Years of experience	Less than 1 year	20	26.550 $\pm$ 3.187	F = 0.723	0.539
	1- 3 years	40	25.300 $\pm$ 3.376		
	4- 9 years	104	25.317 $\pm$ 3.470		
	10 and above	73	25.521 $\pm$ 3.783		
Educational level	Diploma	26	26.038 $\pm$ 3.789	F = 0.871	0.420
	Bachelor	200	25.355 $\pm$ 3.497		
	Higher Education	11	26.455 $\pm$ 3.475		
Respondents' workplaces	Hospital A	38	26.895 $\pm$ 3.645	F = 3.340	0.02*
	Hospital B	73	25.726 $\pm$ 2.750		
	Hospital C	89	24.910 $\pm$ 3.860		
	Hospital D	37	24.919 $\pm$ 3.601		

**Note:** Significant at p-value < 0.05\*. Adapted with permission from Harmanci Seren AK, Yildirim A. Nurses' perceptions about health sector privatization in Turkey. *Int Nurs Rev.* 2013;60(3):320–327.<sup>13</sup>

**Abbreviations:** N, number of nurses who responded, t, t-test value, F, analysis of variance (ANOVA) value.

**Table 4** Variations in Nurses' Perceptions of Privatization in Healthcare Based on Sociodemographic Data

Sociodemographic Data		N	Privatization in Healthcare	Test of Difference	
			Mean ± SD	Test Value	P-value
Age (in years)	20-30	80	48.150 ± 9.099	F = 4.341	0.014*
	30-40	114	45.246 ± 9.161		
	>40	43	43.488 ± 8.376		
Gender	Female	227	45.811 ± 9.226	t = -0.775	0.439
	Male	10	48.100 ± 6.540		
Nationality	Saudi	42	48.976 ± 9.014	t = 2.426	0.016*
	Non-Saudi	195	45.246 ± 9.042		
Working area	In-patient departments	86	47.233 ± 9.248	F = 2.841	0.039*
	Outpatient department	6	53.000 ± 15.375		
	Administrative departments	13	47.077 ± 6.396		
	Critical care areas	132	44.606 ± 8.753		
Years of experience	Less than 1 year	20	50.100 ± 10.062	F = 2.189	0.090
	1- 3 years	40	46.975 ± 8.002		
	4- 9 years	104	45.644 ± 9.141		
	10 and above	73	44.548 ± 9.211		
Educational level	Diploma	26	47.308 ± 10.059	F = 0.342	0.711
	Bachelor	200	45.730 ± 9.129		
	Higher Education	11	45.818 ± 7.097		
Respondents' workplaces	Hospital A	38	48.763 ± 9.003	F = 3.913	0.009**
	Hospital B	73	47.575 ± 7.104		
	Hospital C	89	44.258 ± 9.554		
	Hospital D	37	43.649 ± 10.625		

**Note:** Significant at p-value < 0.05\*. Significant at p-value < 0.01\*\*. Adapted with permission from Harmanci Seren AK, Yildirim A. Nurses' perceptions about health sector privatization in Turkey. *Int Nurs Rev.* 2013;60(3):320–327.<sup>13</sup>

**Abbreviations:** N, number of nurses who responded; t, t-test value; F, analysis of variance (ANOVA) value.

## Variations in Nurses' Perceptions of the Impact of Privatization in Nursing Based on Sociodemographic Data

Table 5 explains the differences of nurses' perceptions regarding the impact of privatization on nursing based on sociodemographic data, showing that nationality, working areas, and respondents' workplaces had significant variations (p-values = 0.003\*0.003\*and < 0.001\*respectively).

## Variations in the Overall Nurses' Perceptions of Privatization Based on Sociodemographic Data

Age, nationality, working areas, and respondents' workplaces had a significant variation on the overall perceptions of privatization (all three domains) of the nurses (p-values = 0.047\*0.005\*0.008\*< 0.001\*respectively; Table 6).

**Table 5** Variations in Nurses' Perceptions of the Impact of Privatization in Nursing Based on Sociodemographic Data

Sociodemographic Data		N	Impact of Privatization on Nursing	Test of Difference	
			Mean $\pm$ SD	Test Value	P-value
Age (in years)	20-30	80	51.263 $\pm$ 10.522	F = 2.047	0.131
	30-40	114	49.140 $\pm$ 11.021		
	>40	43	47.279 $\pm$ 10.566		
Gender	Female	227	49.493 $\pm$ 10.904	t = -0.173	0.863
	Male	10	50.100 $\pm$ 9.207		
Nationality	Saudi	42	54.024 $\pm$ 9.369	t = 3.025	0.003*
	Non-Saudi	195	48.549 $\pm$ 10.888		
Working area	In-patient departments	86	50.605 $\pm$ 11.352	F = 4.699	0.003*
	Outpatient department	6	63.333 $\pm$ 9.158		
	Administrative departments	13	51.154 $\pm$ 7.448		
	Critical care areas	132	48.023 $\pm$ 10.345		
Years of experience	Less than 1 year	20	55.700 $\pm$ 9.148	F = 2.591	0.054
	1- 3 years	40	49.625 $\pm$ 9.612		
	4- 9 years	104	48.423 $\pm$ 11.481		
	10 and above	73	49.329 $\pm$ 10.523		
Educational level	Diploma	26	52.000 $\pm$ 10.123	F = 1.519	0.221
	Bachelor	200	49.000 $\pm$ 10.876		
	Higher Education	11	53.091 $\pm$ 10.867		
Respondents' workplaces	Hospital A	38	53.868 $\pm$ 9.696	F = 8.547	<0.001**
	Hospital B	73	52.726 $\pm$ 8.600		
	Hospital C	89	46.236 $\pm$ 11.165		
	Hospital D	37	46.622 $\pm$ 11.929		

Note: Significant at p-value < 0.01\*. Significant at p-value < 0.001\*\*.

Abbreviations: N, number of nurses who responded; t, t-test value; F, analysis of variance (ANOVA) value.

**Table 6** Variations in the Overall Nurses' Perceptions of Privatization Based on Sociodemographic Data

Sociodemographic Data		N	Total practices	Test of difference	
			Mean $\pm$ SD	Test value	P-value
Age (in years)	20-30	80	125.250 $\pm$ 21.564	F = 3.103	0.047*
	30-40	114	119.912 $\pm$ 21.841		
	>40	43	115.465 $\pm$ 21.005		

(Continued)

**Table 6** (Continued).

Sociodemographic Data		N	Total practices	Test of difference	
			Mean ± SD	Test value	P-value
Gender	Female	227	120.806 ± 21.996	t = -0.339	0.735
	Male	10	123.200 ± 17.223		
Nationality	Saudi	42	129.476 ± 20.102	t = 2.852	0.005**
	Non-Saudi	195	119.062 ± 21.747		
Working area	In-patient departments	86	123.523 ± 22.340	F = 3.993	0.008**
	Outpatient department	6	145.000 ± 28.768		
	Administrative departments	13	124.077 ± 13.641		
	Critical care areas	132	117.795 ± 21.004		
Years of experience	Less than 1 year	20	132.350 ± 21.377	F = 2.184	0.091
	1- 3 years	40	121.900 ± 19.476		
	4- 9 years	104	119.385 ± 22.473		
	10 and above	73	119.397 ± 21.572		
Educational level	Diploma	26	125.346 ± 22.323	F = 0.911	0.403
	Bachelor	200	120.085 ± 21.897		
	Higher Education	11	125.364 ± 18.244		
Respondents' workplaces	Hospital A	38	129.526 ± 20.596	F = 6.489	<0.001***
	Hospital B	73	126.027 ± 16.427		
	Hospital C	89	115.404 ± 22.826		
	Hospital D	37	115.189 ± 24.973		

**Note:** Significant at p-value < 0.05\*. Significant at p-value < 0.01\*\*. Significant at p-value < 0.001\*\*\*.

**Abbreviations:** N, number of nurses who responded; t, t-test value; F, analysis of variance (ANOVA) value.

## Discussion

This study was conducted to determine nurses' perceptions of the privatization of healthcare services across four hospitals in Al-Taif City, KSA. Overall, nurses reported favorable perspectives regarding the privatization of healthcare within their hospitals; however, the findings exhibited significant variations influenced by sociodemographic factors, including the nurses' age, nationality, and working areas or nursing units, as well as the hospitals where the respondents were employed. The NPPS produced effective and valid results, reflecting the findings of previous studies,<sup>13,14</sup> including satisfaction in the privatization of healthcare services in Jeddah, KSA.<sup>15</sup> The random sampling technique, which was chosen to accurately represent the entire population, was the most suitable technique for this study because the participants were busy with their everyday hospital duties and their patients. Furthermore, the study design and data collection method were the most efficient and cost-effective means to evaluate nurses' perceptions of the privatization of healthcare services at four hospitals in Al-Taif City, because this study is simply a snapshot study.

In this study, the total number of respondents was 237 nurses; 96% were female, 48% were 30–40 years of age, 82% were non-Saudi, 84% had a bachelor's degree, and 56% worked in critical care areas. Hospital C yielded the greatest number of respondents among the four hospitals. Given that  $p = 0.001^*$  for every response, the results across the three domains were impressive in that they were similar and had significant values. The finding revealed that nurses believed privatization could positively impact healthcare and nurses' practices. This outcome is consistent with Hazizi and

Chandramohan's<sup>16</sup> findings that privatization could enable the Saudi government to make decisions more quickly and cut costs. The nurses' general perceptions of privatization were positive and their perceptions of privatization in healthcare were also positive. These findings are contrary to the results of a qualitative study conducted by Al-Hanawi et al.<sup>10</sup> Their research revealed that the majority of survey respondents were dissatisfied with the lengthy wait times required when visiting public hospitals. For example, people with private hospital insurance must wait longer than those who pay cash.<sup>10</sup> In a peer-reviewed article by Almutairi and Al Shamsi,<sup>17</sup> the results showed that healthcare privatization in Australia could impact the most vulnerable individuals' ability to access healthcare services.<sup>17</sup> Comparable results were also reported in another qualitative study in the KSA, focusing on ethical considerations such as autonomy, accountability, and competition in the context of Saudi healthcare systems privatization.<sup>1</sup> The findings indicated that both administrators (n = 13) and clinical staff (n = 8) viewed governance and structural changes as mechanisms to enhance the authority of public hospitals while minimizing bureaucratic barriers.<sup>1</sup> This perspective was reinforced by the belief in improved resource efficiency and decreased waste, suggesting a potential increase in operational efficiency within public hospitals and fostering competition between public and private healthcare institutions.<sup>1</sup>

Although nurses believed in the positive impact of privatization, a variable level of significance could be observed in the three domains' total scores. The study results indicated significant variations in nurses' perceptions regarding the privatization of their hospitals influenced by some sociodemographic factors such as nurses' age, nationality, working areas and workplaces. These results align with a previous study conducted in Turkey,<sup>13</sup> which demonstrated significant differences in the NPPS scores and subscale scores among nurses, contingent upon the institutions where they are employed, professional associations and types of employment. This suggests that despite the privatization of hospitals, the implementation may vary, subsequently shaping the diverse perspectives of nurses based on their respective workplaces. Differing viewpoints were also reported in a qualitative research investigation carried out in Canada regarding perspectives on attitudes and nationalism related to healthcare privatization options indicating that the nine mainly English-speaking provinces show a stronger inclination to resist private hospitals than those from Quebec, Canada.<sup>7</sup> A recent systematic review also revealed diverse perspectives on the impact of healthcare privatization.<sup>3</sup> Of the studies examined, four supported privatization of healthcare, including two from the KSA, while six opposed it, with three studies from European nations, and one study remained neutral. Research from the KSA suggests potential benefits in terms of efficiency and innovation, whereas European studies highlight negative consequences such as inequality and reduced quality.<sup>3</sup> This emphasizes the need for additional research to thoroughly evaluate the effects of privatization on healthcare systems.<sup>3</sup>

## Limitations

A site visit was conducted to persuade nurses to participate in this study by highlighting the importance of their perceptions of privatization due to the respondents' lack of responses during the first period of data collection. Privatization impacts the entire Saudi healthcare system, but this study was undertaken in a single region only, and it was not a multiregional study. While the present study involved four hospitals, the online survey relied on a convenience sample comprised of nurses who opted to respond. This self-selection may lead to bias, as it is plausible that the respondents with strong opinions or notably challenging experiences, or alternatively, those with very favorable perspectives, were more inclined to participate. Consequently, the generalizability of the results is somewhat limited by the study design, method of sampling and the characteristics of the respondents. Additionally, leaving out other types of healthcare professionals, such as physicians, could be a flaw that could affect the study's findings. However, one of the study's advantages is that it is the first to discuss privatization in Al-Taif City in the KSA.

## Conclusions

This study aimed to determine nurses' perceptions of the privatization of healthcare services in Al-Taif City, KSA and the findings revealed that nurses displayed an overall positive perspective about privatization of healthcare, however their perceptions varied significantly influenced by some sociodemographic factors. The findings showed that nurses believed that privatization could bring about positive changes and positively impact healthcare, the nursing profession and nurses' healthcare practices.

## Implications and Recommendations

The results of this study may aid policymakers in identifying gaps in the understanding of nurses' perceptions of privatization in Al-Taif City, KSA, which may then result in awareness programs explaining the value of privatization. Nurse managers and leaders could use the study's findings to improve their use of evidence-based management practices. Additionally, this study could assist leaders and managers in concentrating on practices that could improve the communication process by ensuring that nursing staff have adequate knowledge of the privatization concept. Hence, nursing leaders must comprehend and put into practice techniques to increase nurses' staff awareness of the privatization process. More research is required to investigate the communication strategies required to improve the understanding of the concept of privatization.

## Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

## Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki, and approved by the Research Ethical Committee of Al-Taif Healthcare Affairs (protocol code HAP-02-T-067 and date of approval 30<sup>th</sup> October 2022).

## Acknowledgments

Ahmed Sadoun Al-Sadoun is thankful for the financial support provided by the Researchers Supporting Project number (RSPD2025R888) at King Saud University, Riyadh, Kingdom of Saudi Arabia.

## Funding

This research received no external funding.

## Disclosure

The authors declare no conflicts of interest in this work.

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