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[Abdulaziz A. Alsulaiman](#)^{*}, [Saeed S. Banawas](#)^{*}, [Abdulrhman Albougami](#)^{*}, [Sharifa M Alasiry](#)^{*}

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Article

The Relationship Between Job Efficacy, Patient Safety and Quality of Patient Care among Nurses Working in Secondary Hospital in Riyadh Second Health Cluster, Saudi Arabia

Abdulaziz A. Alsulaiman ^{1,*}, Saeed S. Banawas ^{2,*}, Abdulrhman Albougami ^{3,*} and Sharifa Alasiry ^{3,*}

¹ Department of Nursing, College of Nursing, Majmaah University, Al-Majmaah 11952, Saudi Arabia

² Department of Medical Laboratories, College of Applied Medical Sciences, Majmaah University, Al-Majmaah 11952, Saudi Arabia

³ Department of Nursing Administration, College of Nursing, Majmaah University, Al-Majmaah 11952, Saudi Arabia

* Correspondence: alsulaiman.a66@gmail.com (A.A.A.); s.banawas@mu.edu.sa (S.S.B.); a.albougami@mu.edu.sa (A.A.); s.alasiry@mu.edu.sa (S.A.)

Abstract: Background: Nursing profession is one of the most crucially healthcare profession in hospitals, and there are many factors affecting job efficacy of these nurses which may then affect positively or negatively the patients' safety and quality of care in the healthcare settings. **Aim:** This study aims to determine the relationship between Job Efficacy, Patient Safety and Quality of Patient Care among nurses working in Secondary Hospital in Riyadh Second Health Cluster, Saudi Arabia. **Methodology:** A cross-sectional study was conducted on conveniently selected nurses in various hospitals located in Second health cluster in Riyadh, Saudi Arabia to fill questionnaire for six weeks, an online questionnaire was used, and it consist of Hospital Survey on Patient Safety Culture and the Self-Efficacy Scale, all data then was analysed using SPSS program. **Results:** From total 326 participants with more than half (51%) are male and 44% of the sample are 31-40 years old, as well as, about 44% of the sample are BSN graduate, 51% of nurses have 5 years to 10 years, the responses of the sample of the study sample showed a general trend towards approving for Job Efficacy with mean = 2.66 ± 0.46 , the study sample showed a general trend towards approving for Patient Safety, with mean is 3.25 ± 0.41 , and the sample showed a general trend towards approving for Quality of Patient Care among nurses, with mean is 3.71 ± 0.73 . The results revealed a significant difference in job efficacy among participants due to gender (P-value = 0.043), age (p-value = 0.027), total years of experience working as a nurse (p-value = 0.017), and there is no significant difference with Job efficacy among participants due to marital Status (p-value = 0.948). **Conclusion:** Nurses' job efficacy can affect positively on the patient's safety and quality of care among patients who are visiting second health cluster.

Keywords: Job Efficacy; Patient Safety; Quality of Patient Care; nurses; Riyadh; Second Health Cluster; Saudi Arabia

1. Introduction

Nurses serve as the cornerstone of patient care and support in the healthcare industry, playing a critical role in advancing society and promoting the well-being of every individual. According to Al-Hanawi, healthcare professionals in Saudi Arabia encounter the same challenges as their colleagues in many other nations (Al-Hanawi, 2019). These challenges include a fast-expanding healthcare system, increased demands from patients, and stressful working conditions. The Saudi Commission for Health Specialties (SCFHS) is in charge of overseeing the nursing profession in Saudi Arabia (Aljohani et al., 2022). Furthermore, the SCFHS is responsible for implementing strict professional rules and standards. Notably, the nursing workforce in the country is diverse, with

nurses coming from a variety of ethnic backgrounds. In hospital settings, job efficacy is a critical issue that considerably impacts both the welfare of patients and the quality of care they receive. Nursing professionals consider nursing shortage a major problem that requires immediate attention and innovative solutions (Khan, 2018). Poor job efficacy among nurses can negatively impact patient safety. According to Tutuo and Mohammad Nezhad, a lack of nurses can lead to burnout and excessive workloads (Tutuo & Mohammad Nezhad, 2022). Overworked nurses are at risk of making mistakes, missing essential details, or failing to provide therapy on time, all of which threaten patient safety. Adverse patient events are more likely to occur in cases of inadequate monitoring, medication errors, or delayed treatment. These challenges often leave nurses feeling stressed and depressed as they strive to provide high-quality care under pressure (Witczak et al., 2021).

In 2020, Castilho and colleagues determined the factors influencing the patient safety climate in emergency hospitals. They found that working in the emergency, surgical, or medical departments; having the intention of leaving; and working night shifts considerably reduced the overall safety climate within the hospital. Furthermore, nurses who were younger, worked night shifts, and had less than 4 years of experience had relatively poorer patient safety cultures. Conversely, having contract staff enhanced both the safety of the workplace and the satisfaction of employees. In Tunisia, Tlili et al. evaluated the level of patient safety at 30 basic healthcare centers. The findings revealed that there was outstanding teamwork, but there were deficiencies in event reporting, nonpunitive responses to errors, and staffing. The involvement of the committee in risk management and the primary care district seemed to be connected with patient safety culture. These findings highlight the importance of leadership development to improve healthcare institutions (Tlili et al., 2020).

In their study, Almutairi et al. found that emergency department nurses held positive views toward patient safety culture (Almutairi et al., 2018). However, their reluctance to disclose unpleasant incidents stemmed from fears of punishment and negative repercussions. According to Molina-Mula and Gallo-Estrada, nursing professionals recognize the direct connection between nursing job efficacy and treatment quality (Molina-Mula & Gallo-Estrada, 2020). When the nurse-to-patient ratio is inadequate, it becomes difficult to provide comprehensive and patient-centered treatment. Nurses may have limited time to spend with each patient, which can reduce opportunities for education, emotional support, and tailored treatment. This limitation may negatively impact the overall quality of care (Molina-Mula & Gallo-Estrada, 2020). In addition, poor job efficacy among nurses may hinder the implementation of evidence-based practices and the highest standards of care. The extensive amount of core responsibilities that nurses are required to perform regularly can make it difficult for them to stay current with the latest research and standards. This could lead to delays in adopting innovative and improved healthcare techniques, ultimately affecting the outcomes of patients and the overall quality of treatments. According to Al-Hanawi et al., nurse experts believe that self-efficacy has a major and detrimental impact on job efficacy, patient safety, and the standard of care in healthcare settings (Al-Hanawi et al., 2019). It is imperative that this matter be handled to ensure that patients are provided with the superior treatment to which they are legally entitled. Several potential solutions include workforce planning, improving working conditions, investing in education and training, and implementing policies to attract and retain nurse experts. By addressing nursing job efficacy, patient safety, and patient care quality, healthcare institutions can enhance both the overall quality of service and the safety of patients.

In the context of healthcare delivery within the Riyadh Second Health Cluster in Saudi Arabia, understanding the role of general self-efficacy adds another layer of complexity to the relationship between job efficacy, patient safety, and patient care quality in secondary hospitals. General self-efficacy refers to individuals' beliefs in their ability to successfully perform tasks and overcome challenges in various domains of life (Cabrera-Aguilar et al., 2023). In healthcare settings, the level of general self-efficacy among healthcare professionals can significantly influence their job performance, adherence to safety protocols, and delivery of high-quality care (Cabrera-Aguilar et al., 2023).

Within the Riyadh Second Health Cluster, which encompasses several secondary hospitals catering to a diverse patient population, the influence of general self-efficacy on job efficacy is particularly pertinent (Alasiri & Mohammed, 2022). Healthcare professionals who possess high levels

of general self-efficacy are more likely to approach their roles with confidence, adaptability, and resilience. This confidence can translate into improved job efficacy, as these individuals are better equipped to navigate complex clinical scenarios, collaborate effectively with colleagues, and communicate with patients and their families. Moreover, the impact of general self-efficacy extends to patient safety within secondary hospitals. Individuals with high levels of general self-efficacy are less prone to errors stemming from self-doubt or a lack of confidence, thereby contributing to a safer healthcare environment for patients (Albalawi, Kidd, & Cowey, 2020). By recognizing the interplay between general self-efficacy and the key factors of job efficacy, patient safety, and patient care quality, healthcare leaders and policymakers can develop targeted interventions to optimize healthcare delivery within the Riyadh Second Health Cluster. This holistic approach acknowledges the importance of individual beliefs and behaviors in shaping organizational outcomes, ultimately contributing to improved patient outcomes and organizational performance in secondary hospital settings.

2. Materials and Methods

2.1. Study Design and Setting

The study employed descriptive cross-sectional study. The researcher observes, describes, and documents the attitude aspect of nurses particularly towards patient safety.

The present investigation will be executed across multiple medical institutions to ensure a comprehensive and diverse analysis. This research will be carried out at various medical facilities in Secondary Hospital in Riyadh Second Health Cluster, Saudi Arabia.

2.2. Research Instrument

An electronic self-reported questionnaire will be issued to gather the required data for the study. The questionnaire will consist of three major sections: First and foremost, the demographic attributes of the nurses. Second The General self - Efficacy. Third The Hospital Survey on Patient Safety Culture has been developed by the US Agency for Healthcare Research and Quality.

2.3. Data Collection

The study will undergo step-by-step process to start data collection such as 1) getting approval from the respective authorities, 2) distributing the informed consent form, 3) distribution of questionnaires and 4) retrieval of the questionnaires.

2.4. Data Analysis

Since the study employ descriptive correlational design, the study will utilize a combination of descriptive statistics specifically the frequency, percentage, mean and standard deviation to describe the responses of the participants in terms of the demographic characteristics of the respondents and the extent of patient safety climate nurses and job efficacy as perceived by the nurses. A spearman correlation will also be used to test whether there is a statistical relationship between the patient safety climate and demographic profile of the nurses.

3. Results

Analysis of the Demographic Characteristics

Table 1. The demographic characteristics.

Variables	Categories	N	%
Age	20-30 years old	68	21%
	31-40 years old	145	44%
	41-50 years old	113	35%
Gender	Male	165	51%

	Female	161	49%
Marital status	Single	109	33%
	Married	149	46%
	Divorced/separated	55	17%
Educational attainment	Widow	13	4%
	Diploma graduate	61	19%
	BSN graduate	143	44%
	Post graduate Degree	122	37%
Total years of experience working as a nurse	Less than 5 years	60	18%
	5 years to 10 years	167	51%
	10 years above	99	30%
Years of experience in the present unit	Less than 5 years	76	23%
	5 years to 10 years	157	48%
	10 years above	93	29%
Working Unit	Artificial Kidney Unit	21	6%
	Emergency Department	63	19%
	General Ward	20	6%
	Intensive Care Unit	36	11%
	Medical Department	20	6%
	Nursing Administration	42	13%
	Obstetric Department	37	11%
	Operating Room	25	8%
	Outpatient Department	15	5%
	Pediatric Ward	26	8%
	Surgical Department	21	6%
Working hours per week	Less than 40 hours	112	34%
	40 hours to 50 hours	155	48%
	51 hours and above	59	18%
Total		326	100%

The results showed that there were 326 participants, among these participants, 51% are male, 49% are female, 44% of the sample are 31-40 years old, 35% of the sample are 41-50 years old, 21% of the sample are 20-30 years old, according to Marital Status, 46% of the sample are Married, 33% of the sample are Single, 15% are Divorced, 4% of the sample are Widow, in related to Educational attainment, that 44% of the sample are BSN graduate, 37% of the sample are Post graduate Degree, 19% of the sample are Diploma graduate, in related to Total years of experience, 51% of the sample have 5 years to 10 years, 30% of the sample are have 10 years above, 18% of the sample have Less than 5 years, according to “Years of experience in the present unit” 48% of the sample have 5 years to 10 years, 29% of the sample have 10 years above, 23% of the sample have Less than 5 years, according to Working Unit, 19% working in Emergency Department, 13% worked in Nursing Administration, 11% worked in Intensive Care Unit and Obstetric Department, according to working hours per week, 48% of the sample worked 40 hours to 50 hours, 34% of the sample worked Less than 40 hours, 18% worked 51 hours and above.

Analysis of the Dimensions

Job Efficacy

Table 2. The descriptive statistics for the subdimension “Job Efficacy”.

No	Items	Mean	Std. Deviation	Degree
1	When I exert sufficient effort, I am always able to successfully resolve challenging challenges.	2.94	1.02	Moderately true
2	When faced with opposition, I am able to devise strategies and methods to achieve my desired outcomes.	2.61	0.90	Moderately true
3	The task of adhering to my objectives and achieving my goals is really effortless for me.	2.57	0.91	Moderately true
4	I am certain in my ability to effectively handle unforeseen circumstances.	2.52	0.88	Moderately true
5	By virtue of my ingenuity, I possess the ability to effectively manage unexpected circumstances.	2.62	0.92	Moderately true
6	With the application of sufficient effort, I am capable of resolving the majority of difficulties.	2.68	0.96	Moderately true
7	My ability to maintain composure in challenging situations is attributed to my reliance on my coping mechanisms.	2.70	0.93	Moderately true
8	When faced with an issue, I typically have the ability to identify multiple feasible solutions.	2.71	0.93	Moderately true
9	When faced with difficulties, I am typically able to devise a resolution.	2.62	0.92	Moderately true
10	Typically, I am capable of managing any situation that arises.	2.60	0.91	Moderately true
	Job Efficacy	2.66	0.46	Moderately true

According to the previous table, it can be concluded that, the responses of the sample of the study sample showed a general trend towards approving for Job Efficacy, where mean is 2.66 while its standard deviation is 0.46 and that means that sample of the study has a Moderately true towards Job Efficacy.

Patient Safety

Table 3. The descriptive statistics for the subdimension “Patient Safety”.

No	Items	Mean	Std. Deviation	Degree
1	People support one another in this unit	3.45	0.69	Agree
2	The staffing levels are sufficient to manage the required workload.	3.24	0.64	Moderate
3	When faced with a substantial workload, we collaborate as a team to efficiently accomplish the tasks.	3.35	0.62	Moderate
4	Within this unit, individuals exhibit mutual respect for one another.	3.27	0.60	Moderate
5	The staff in this unit work beyond the optimal hours for effectively providing patient care.	3.24	0.60	Moderate
6	We are proactively implementing measures to enhance patient safety.	3.25	0.59	Moderate
7	Our utilization of agency/temporary staff exceeds optimal levels for patient care.	3.24	0.64	Moderate
8	Staff perceive their errors as being unfairly used against them.	3.25	0.63	Moderate
9	Errors have resulted in beneficial transformations to this point.	3.19	0.65	Moderate
10	Chance alone prevents more significant errors from occurring in this area.	3.26	0.64	Moderate
11	During periods of high activity in one section of this unit, other divisions provide assistance.	3.27	0.66	Moderate
12	Reporting an event can create the impression that the individual is being labeled rather than being the cause of the issue.	3.23	0.60	Moderate
13	Post-implementation of measures to enhance patient safety, we assess their reaction.	3.22	0.67	Moderate
14	We operate in acute crisis mode, striving to accomplish excessive tasks at an accelerated pace.	3.23	0.64	Moderate

15	Commitment to patient safety is never compromised in order to increase productivity.	3.22	0.66	Moderate
16	There is concern among staff members that errors they commit are retained in their personnel file.	3.17	0.66	Moderate
17	Significant patient safety issues exist inside this facility.	3.18	0.68	Moderate
18	The efficacy of our procedures and protocols in error prevention is commendable.	3.24	0.65	Moderate
19	Effective monitoring and management of chronic diseases in elderly individuals are of utmost importance.	3.20	0.59	Moderate
	Patient Safety Culture	3.25	0.41	Moderate

According to the previous table, it can be concluded that, the responses of the sample of the study sample showed a general trend towards approving for Patient Safety, where mean is 3.25 while its standard deviation is 0.41 and that means that sample of the study has a Moderate agree towards Patient Safety.

Quality of Patient Care among Nurses

Table 4. The descriptive statistics for the subdimension “Quality of Patient Care among nurses”.

No	Items	Mean	Std. Deviation	Degree
1	When my supervisor/manager observes a job completed in accordance with established patient safety protocols, he/she comments positively.	3.23	0.70	Moderate
2	The supervisor/manager gives top priority to staff recommendations for enhancing patient safety.	3.22	0.69	Moderate
3	When faced with increasing pressure, my supervisor/manager expects us to work at an accelerated pace, even if it entails resorting to shortcuts.	3.21	0.64	Moderate
4	The supervisor/manager fails to provide adequate attention to recurring patient safety issues.	3.17	0.65	Moderate
	The Supervisor/Manager	3.21	0.54	Moderate
1	The input we receive regarding the implemented changes is derived from event reports.	3.26	0.66	Moderate
2	Staff members are encouraged to voice any concerns or incidents that could have a detrimental impact on patient care.	3.18	0.59	Moderate
3	We receive notifications of errors occurring in this unit.	3.29	0.59	Moderate
4	Staff members are encouraged to challenge the decisions or actions made by individuals in positions of greater responsibility.	3.25	0.60	Moderate
5	This module focuses on strategies to mitigate the recurrence of errors.	3.27	0.62	Moderate
6	Some staff members hesitate to ask questions when something appears amiss.	3.25	0.63	Moderate
	Communications	3.25	0.44	Moderate
1	When an error is detected and rectified before it impacts the patient, how often is this reported?	3.95	0.90	High
2	When an error is committed, but poses no risk to the patient, how often is this reported?	3.92	0.92	High
3	How frequently is the reporting of errors that have the potential to damage the patient, but ultimately do not, documented?	3.95	0.88	High
	Frequency of Events Reported. In your hospital work area/unit, when the following mistakes happen	3.94	0.81	High
	Patient Safety Grade	3.85	0.78	High
1	The hospital administration fosters a work environment that actively encourages safe patient care.	4.14	0.78	High
2	Hospital units lack effective coordination among themselves.	4.08	0.83	High
3	During the transfer of patients from one unit to another, several aspects often go overlooked or missed.	4.13	0.83	High
4	The hospital units that need to collaborate exhibit commendable joint efforts.	4.10	0.80	High
5	Shift changes can result in the loss of crucial patient care information.	4.07	0.88	High
6	Collaborating with personnel from different hospital units can be frequently onerous.	4.02	0.87	High

7	Frequent issues arise in the transmission of information between different hospital units.	4.15	0.75	High
8	The activities undertaken by hospital management demonstrate that patient safety is of utmost importance.	4.15	0.77	High
9	Hospital administration appears to prioritize patient safety only in response to an unfavorable event.	4.09	0.85	High
10	Effective collaboration among hospital units ensures optimal patient care.	4.16	0.75	High
11	Transitions between shifts pose challenges for patients at this institution.	4.03	0.91	High
Your Hospital		4.10	0.61	High
Quality of Patient Care		3.71	0.73	High

According to the previous table, it can be concluded that, the responses of the sample of the study sample showed a general trend towards approving for Quality of Patient Care among nurses, where mean is 3.71 while its standard deviation is 0.73 and that means that sample of the study has a high agree towards Quality of Patient Care among nurses.

4. Discussion

Nursing is one of the most crucial healthcare professions in hospital settings. Various factors affect the job efficacy of nurses, which can consequently positively or negatively influence patient safety and care quality in healthcare settings. This study determined the relationship between job efficacy, patient safety, and patient care quality among nurses working in secondary hospitals in the Riyadh Second Health Cluster, Saudi Arabia.

Among the 326 participants in this study, more than half were men. This finding is inconsistent with several reports in Saudi Arabia, wherein the majority of nurses in the country are women (Altakroni et al., 2019; Elmorshedy et al., 2020). In terms of age, the present study noted that 44% of the participants were aged 31–40 years, consistent with various reports indicating that most nurses in Saudi Arabia are aged 30–45 years (AbuRuz, 2017; Al-Haroon & Al-Qahtani, 2020; Almazan et al., 2019). Conversely, 51% of the participants in this study had 5–10 years of experience. Alshammari et al. and Alquwez similarly found that the mean work experience among nurses in the country ranged from 6 to 11 years (Alshammari et al., 2023; Alquwez, 2023).

The current study showed a general trend toward agreeing with the items on job efficacy, with a mean score of 2.66 ± 0.46 . This finding agrees with the report by Abd-Elrhaman et al., who conducted a descriptive correlational study to examine the self-efficacy of 164 nurses (Abd-Elrhaman et al., 2020). Their study revealed that around 48.8% of nurses assessed their self-efficacy as moderate. Chen et al. also reported similar findings in their study conducted among 1,029 young nurses employed full-time in nine top-tier grade A hospitals in Chengdu, China. They investigated the job efficacy of nurses and its correlation with their work (Chen et al., 2020).

In the present study, the participants showed a general trend toward agreeing with the items on patient safety, with a mean score of 3.25 ± 0.41 . Alingh et al. conducted a cross-sectional survey among a sample of 980 nurses and demonstrated strong connections between nurses’ perceptions of control-based safety management and the safety climate (Alingh et al., 2019). Han et al. also reported similar findings in their cross-sectional study conducted from February to May 2018 in two university hospitals (Han et al., 2020). The authors found that the mean scores for patient safety competency related to working in teams with other healthcare professionals were higher. In addition, Hadad et al. evaluated the perspectives of staff nurses at Minia General Hospital about patient safety culture (Hadad et al., 2019). The study revealed that the majority of staff nurses obtained high total ratings in relation to patient safety culture, specifically in feedback and communication about errors.

The participants in this study generally agreed with the items on patient care quality, with a mean score of 3.71 ± 0.73 . This finding agrees with the report by Cho et al., who conducted a cross-sectional survey in 2015 among 2,114 staff nurses from 156 medical or surgical units of 49 general hospitals. The survey revealed that a greater number of missing activities and inadequate staffing were linked to a lower level of patient safety and poorer quality of nursing care (Cho et al., 2020).

The present findings showed a positive significant relationship between patient safety and care quality. Melnyk et al. performed a cross-sectional descriptive study, collecting data from an anonymous online poll of practicing nurses across the United States (Melnik et al., 2018). The study found a moderate positive correlation between patient safety competency and treatment quality. Osman et al. also found similar trends in their analysis conducted on a sample of 145 staff nurses and 145 critically sick patients. The findings revealed that the majority of patients (61.4%) perceived a moderate quality of patient care (Osman et al., 2019).

In this study, job efficacy significantly differed according to sex ($p = 0.043$), age ($p = 0.027$), and total years of experience working as a nurse ($p = 0.017$) but not according to marital status ($p = 0.948$). This finding is consistent with the report by De Simone et al. demonstrating a favorable relationship between self-efficacy and agentic skills relative to all demographic characteristics (De Simone et al., 2018). Further, Kim and Park conducted a cross-sectional survey among 438 nurses employed at four general hospitals and three small-to-medium hospitals in K Province, South Korea. The results revealed a positive link between self-efficacy and age and sex (Kim & Park, 2023).

5. Conclusions

This study concludes that in the Riyadh Second Health Cluster, the levels of patient safety and job efficacy among nurses working in secondary hospitals are high, consequently reflecting a high quality of patient care. Patient safety is positively correlated with patient care quality. Further, sex, age, and years of experience can predict the level of nursing job efficacy.

5.1. Limitations

- One of the limitations of this study is the small sample size compared to the overall population in Riyadh.
- The restricted setting of the study may be another limitation.
- The use of the convenience sampling technique reduced bias but limited the study population.

5.2. Recommendations

- Further studies must be conducted in regions other than Riyadh and include larger sample sizes to obtain more reliable and diverse data.
- Additional scales that can measure patient safety based on patients' perspectives should be developed.
- More training sessions should be offered to nurses to enhance their job efficacy.
- Future studies should include other hospital units, such as operating rooms, inpatient wards, and emergency departments.

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Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board (or Ethics Committee) of Riyadh Second Health Cluster under ethical approval No. **24-250E** on June04,2024.

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