

Decision-making Styles and Job Security among Nurses Working at Public Hospitals in Saudi Arabia: A Cross-sectional Multicentre Study

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ABSTRACT

Introduction: Decision-making and job security have been linked to increased motivation and productivity in nursing. However, research on these variables in the Saudi context is limited.

Aim: To examine the association between decision-making styles and job security among nurses working at public hospitals in Saudi Arabia.

Materials and Methods: A cross-sectional, multicentre study was conducted on a convenience sample of 295 nurses working at four public hospitals in Saudi Arabia from March to June of 2021. Data were collected through an online self-administered survey. The nurse decision-making instrument was used to measure decision-making style. Job security scale was utilised to measure job security among nurses. An independent sample t-test, Pearson's coefficient correlation, one-way Analysis of

Variance (ANOVA), and multiple linear regression analyses were conducted using Statistical Package for the Social Sciences (SPSS).

Results: The mean age of the study participants was 33.43 years. Nurses reported intuitive decision-making (mean=87.85, SD=21.08) and a moderate level in job security (mean=20.93, SD=7.48). A significant difference was found between average income level and job security (p -value <0.05). Decision-making style was also significantly and positively associated with job security ($r=0.450$, $p<0.05$). In a multivariate analysis, income level ($\beta=0.182$, $p<0.05$) and decision-making style ($\beta=0.436$, $p<0.05$) were predictors of job security.

Conclusion: Decision-making style was found associated with job security. Improved patient care outcomes require excellent nurse decision-making.

Keywords: Healthcare workers, Job insecurity, Performance, Workforce

INTRODUCTION

Nursing is one of the largest professions and it plays a significant role in healthcare systems' constant changes. To address these changes and client needs, the healthcare field requires competent decision-makers [1]. Healthcare systems depend primarily on healthcare providers, the majority of which are nurses. However, the high demand for nursing care, along with a global shortage of nurses, remains challenging and needs to be addressed [2]. Shortage of nurses is a great concern in some countries such as Saudi Arabia. It was found significantly associated with high nurse turnover thus, leading to a lower quality of patient care and poor work performance [3,4].

Decision-making is "an interaction between a decision maker and a decision-making task" [5]. Decisions are necessary in nursing and should be made to advance clinical and administrative work and the overall health system [6]. Decision-making is also important in making choices that improve organisations. When faced with multiple patients' needs, the nurse should establish priorities and determine the order in which they assist their patients.

In addition, decision-making is an important part of human and managerial actions, but its processes are often difficult to understand. More importantly, understanding which factors must be taken into account when making decisions is necessary for positive outcomes [7]. Important decision-making styles are: analytic and intuitive. Analytic nurse decision-making necessitates combining patient cues to arrive at a logical decision that helps meet the patient's needs. Intuitive nurse decisions are made based on experience and identifying similarities between patient care situations and developing awareness over time [1,8]. Both can be used for making effective decisions. Though experienced nurses are secure in their abilities, this confidence may not translate into competent decision-making [1]. One of the causes of dissatisfaction and job insecurity among nurses in Saudi Arabia is the requirement of making decisions that are beyond the scope of nursing [9].

Job security refers to the feeling that a person will be able to keep his or her job in the near future with no pressures or issues. Job security is associated with employees' quality of work life and contributes to higher productivity [10]. Further, it may have a detrimental impact on employees' job satisfaction and commitment, as well as on their health and well being at work [2]. Employees with fewer participatory decision-making opportunities can also have higher levels of job insecurity [11]. This highlights the importance of job security for facilitating everyday work and clinical decisions, as well as for providing high quality care.

Several studies have been conducted on factors associated with job security and its importance for employee engagement. For example, research has supported that employees feels more secure and a part of the organisation if they are involved in decision-making and revision of goals [12]. Further, Achim N et al. reported a positive association between job security and decision making [13]. Some research has also focused on the association of job insecurity with perceived work related symptoms, job satisfaction, and employee turnover [14]. It is essential to present evidence confirming the potential relationship between decision-making and job security because decision-making is important for contributing to a sense of belonging and security at work. This relationship has not yet been studied in Saudi Arabia. Therefore, the purpose of this study was to examine the relationship between decision-making and job security among nurses working at public hospitals in Saudi Arabia.

Study Objectives

The following aims were addressed:

- Describing the style of decision-making and level of job security among a sample of nurses working at hospitals;
- Identifying factors associated with both decision-making style and job security;

- Determining the predictors of job security among nurses in Saudi Arabia.

Based on the study objectives, there were two hypothesis for the study; A null hypothesis that there maybe no association between the decision-making style and job security among nurses, and a research hypothesis that the decision making style may be positively associated with job security among nurses.

MATERIALS AND METHODS

A cross-sectional, multicentre study was conducted on 295 nurses working at four hospitals between March and June 2021. The hospitals were coded as Type 1, Type 2, Type 3, and Type 4 for confidentiality purposes. The four hospitals were selected based on convenience and operational feasibility. They are located in three different regions of Saudi Arabia: one in the Makkah region (Type 1), one in the Al-Baha region (Type 2), and two in the Riyadh region (Types 3 and 4). The hospitals in the Makkah and Al-Baha region were public hospitals managed by the Ministry of Health to provide healthcare to citizens and foreigners. One of the hospitals in the Riyadh region (Type 3) was a specialised tertiary hospital, while the other (Type 4) was a teaching hospital that serves university students. The study was approved by the Institutional Review Boards located at King Saud University (KSU-HE-21-194), King Fahad Medical City (21-043E), East Jeddah General Hospital (H-02-J-002), and Health Affairs in Al-Baha region (no number). Participation was voluntary, and informed consent was ensured.

Sample size calculation: A convenience sample was used to find eligible and interested participants [15]. Total number of nurses in the four selected hospitals may be around 1200. The minimum sample size estimated was 292 with a proportion (50%), a 95% confidence interval and a margin of error of 5% using the Raosoft sample size calculator (http://www.raosoft.com/sample_size.html) [16]. Because the study is multisite, the authors planned to have the sample divided as evenly as possible among the four hospitals.

Inclusion and Exclusion criteria: Saudi male or female nurses who worked at one of the selected hospitals for at least one year; 2) Who provided daily care to patients; and 3) Who had the ability to respond to the survey in English were included in the study. Nurses holding administrative or educational positions were unable to participate, as they did not make clinical decisions in patients' daily care.

Study Instruments

A structured survey including demographic variables and two selected instruments was created. Common demographic and associated variables included: age, gender, level of education, income level, years of experience, employment status, work ward, and hospital type. The two instruments that measured decision-making style and job security were:

Decision-making style: The Nurse decision-making instrument by Lauri S and Salanterä S was used to assess the decision-making style [5]. A shortened version of the original 56-item instrument was used, which included 24 items scale and four subscales; each included six items ranged from 1 (never or almost never) to 5 (almost always or always). Even numbered items indicated decision making in unstable tasks. For instance, "I make assumptions about forthcoming nursing problems during the first contact with the patient." Odd numbered items were about decision making in structured tasks. For example, "On the basis of my advance information, I specify all the items I intend to monitor and ask the patient about [17]." Scores were added up and the sum total was interpreted as follows: <67 points: decision-making was analytically oriented, 68-78 points: decision-making was flexible and it was both analytical and intuitive depending on the situation, >78 points: decision-making was intuitively oriented. Cronbach's alpha of the shortened version was determined at a satisfactory level of 0.86 [17].

Permission to use the scale was obtained (Salanterä S, personal communication, December 11, 2020).

Job security: Job security was measured using a scale developed by Kraimer ML et al., [18]. The tool originally included 10 items measured with a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). High scores indicated a high level of job security as perceived by the respondents, while lower scores reflected a sense of job insecurity. Cronbach's α was reported at 0.90, indicating an excellent internal homogeneity for the scale [18]. In the current study, a shortened version of the scale with five items (Kraimer ML, personal communication, December 11, 2020) was used as its α coefficient was determined at 0.82 in a previous study [19]. The items were: 1) I will be able to keep my present job as long as I wish; 2) I am confident that I will be able to work for my organisation as long as I wish; 3) My job will be there as long as I want it; 4) I am secure in my job; and 5) My job is not a secure one (reverse scored). Scores ranged from 5 to 35, with higher scores indicating high levels of job security. The mild, moderate and severe levels of job security were not explained in the original article. The authors wrote them based on their judgement and to facilitate readers' understanding of the score/range levels.

Data Collection Procedure

Surveys were collected from March through June of 2021. Due to COVID-19 restrictions, data collection was performed using an anonymous questionnaire created on a secure online platform. The research team was responsible about distributing the survey form to nurses. The study link was sent to unit managers at the selected hospitals to share it with nurses. Further, word-of-mouth and personal references were also used to complete participants' recruitment process. Estimated time to complete the questionnaire was approximately 15 minutes. The online survey link was closed after responding to the last item and clicking the 'submit' icon.

STATISTICAL ANALYSIS

Collected data were analysed using SPSS (v. 26) (IBM Corp., Armonk, NY, USA). Frequency distributions were applied to determine missing data and identify data entry errors. No more than 3% of data were missing per item. The missing data were replaced with the item mean. Some variables were changed into binary categories for analysis. Descriptive statistics and central tendency measures were run to describe the sample and study variables, respectively. An independent sample t-test, Pearson's coefficient correlation, and one-way ANOVA were all used where appropriate. A multiple linear regression test was also run to determine the predictors of job security, which was the dependent variable.

RESULTS

A total of 295 nurses from the four hospitals responded to the survey, with the majority (55.3%) from the Type 4 hospital. Of the respondents, 82% were females. A majority of them were working in nursing with permanent employment (52.9%) and for more than five years (65%) [Table/Fig-1].

Respondents reported more intuitive decision-making (mean=87.85, SD=21.08, range: 33-120) and a moderate level in job security (mean=20.93, SD=7.48, range: 5-35).

No significant differences were reported in the means of the selected demographic variables and decision-making style (p -value >0.05). However, a significant difference was found between average income level and job security (p -value <0.05) [Table/Fig-2].

For the Pearson coefficient test among continuous variables, only decision-making style showed a significant, positive, and moderate relationship with job security ($r=0.450$, p -value <0.001) [Table/Fig-3]. For ANOVA analysis, no statistically significant differences were found between the means of both work ward ($F[5,294]=1.494$, $p=0.192$) and hospital types ($F[3,294]=1.181$, $p=0.317$) and job security.

Characteristics	n	(%)
Age (Years) Mean=33.43, SD=6.70, range: 22-61		
23-35	212	(73.4)
36-50	70	(24.2)
>50	7	(2.4)
Gender		
Male	53	(18.0)
Female	242	(82.0)
Level of education		
Diploma	54	(18.3)
Bachelor	222	(75.3)
Higher education	19	(6.4)
Income level		
7000 SR* or less	128	(43.4)
More than 7000 SR	167	(56.6)
Years of experience		
1-5 years	104	(35.3)
6-10 years	191	(64.7)
Employment type		
Permanent	156	(52.9)
Under contract	139	(47.1)
Work ward		
Operating room	16	(5.4)
Emergency room	33	(11.2)
Critical care unit	39	(13.2)
Surgery ward	45	(15.3)
General ward	70	(23.7)
Other departments	92	(31.2)
Hospital		
Type 1	50	(16.9)
Type 2	51	(17.3)
Type 3	31	(10.5)
Type 4	163	(55.3)

[Table/Fig-1]: Sample characteristics (N=295).

*M=Mean; The age was not provided by six participants; SD: Standard deviation; SR: Saudi riyal

Variable mean differences (t-test)	Binary categories	Decision making style (Mean±SD)	p-value	Job security (Mean±SD)	p-value
Gender	Male	86.77±22.33	0.682	21.35±7.41	0.653
	Female	88.08±20.84		20.84±7.51	
Level of education	Bachelor	88.99±19.75	0.104	21.35±7.04	0.103
	Other degrees	84.36±24.52		19.69±8.62	
Income level	7000 SR or less	88.26±20.57	0.768	19.57±6.92	0.006*
	More than 7000 SR	87.53±21.52		21.98±7.74	
Years of experience	1-5 years	86.18±20.19	0.317	21.07±7.13	0.816
	6-10 years	88.75±21.59		20.86±7.68	
Employment status	Permanent	89.28±22.10	0.215	21.67±7.41	0.072
	Under contract	86.23±19.83		20.10±7.49	

[Table/Fig-2]: Mean differences between decision making style, job security, and some demographic variables.

*p-value <0.05 for independent sample t-test

Parameters	Age	Decision-making style	Job security
Age	1		
Decision-making style	-0.059	1	
Job security	-0.109	0.450*	1

[Table/Fig-3]: Correlations between decision-making styles, job security, and age.

*p-value <0.001

All factors, including demographic factors and decision-making style, were subjected to multiple linear regression analysis to help identify predictors of job security [Table/Fig-4]. As in bivariate analyses, income level ($\beta=0.182$, $p<0.05$) and decision-making style ($\beta=0.436$, $p<0.05$) were found to have significant association with job security. The regression model was found to be significant ($F [9, 294]=10.241$, $p<0.05$, $R^2=0.244$).

Variables	Unstandardised coefficients		Standardised coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	7.830	3.669		0.034
Age	-0.099	0.075	-0.087	0.190
Gender	-0.333	1.114	-0.017	0.765
Level of education	-1.048	1.021	-0.061	0.306
Income level	2.739	0.916	0.182	0.003*
Years of experience	0.589	1.004	0.038	0.558
Employment status	-0.687	0.810	-0.046	0.397
Work ward	0.016	0.241	0.003	0.948
Hospital type	0.070	0.365	0.011	0.848
Decision making style	0.155	0.019	0.436	0.001*

[Table/Fig-4]: Multiple regression analysis for variables associated with job security. p-value <0.05

DISCUSSION

The present study was developed to evaluate the relationship between decision-making and job security among nurses working in Saudi Arabia. The findings show that nurses were intuitive in decision-making and feel secure in their work. Similar to our results, a cross-sectional study by Farčić N et al. reported high levels of clinical decision-making for nurses [20]. However, this study included 568 hospital nurses and 129 nursing students, which means the findings apply to both nurses and students, unlike our study, which included only hospital nurses. To ensure the best outcomes, decision-making should be a multifaceted approach to research, education, and practice [1]. Expert nurses can also use intuitive decision-making process to better understand difficult medical situations, provide more accurate assessment, and ensure quality care to patients [21]. Though job insecurity is a little-discussed topic [2], our findings were similar to those reported by Burke RJ and Singh P [22], who found low levels of job insecurity in their sample. Based on that, more research could improve our understanding of the factors that influence job security in nursing practice.

In bivariate analyses, there was a significant difference found between average income level and job security. A previous study in South Korea found that low income was a risk factor for a higher level of job insecurity [23]. Low-income levels have been shown to impact nurse sleep quality, [24] which in turn may lead to feelings of job dissatisfaction and insecurity. The authors findings suggested that years of experience would have a relationship with job security, yet no statistically significant relationship was found. To understand these results, we may need to consider potential factors influencing the relationship between years of experience and job insecurity. For example, nurses who live close to the workplace prefer to stay in the same place for years; a common custom in Saudi Arabia. This can also contribute to a sense of security at work. The bivariate analysis also showed that decision-making has a significant and positive relationship with job security. This is backed by previous findings that showed that being involved in decision-making can improve employees' feelings of control and help them cope with job insecurity [25].

In multivariate analysis, both income level and decision-making style remained significantly associated with job security. This is similar to the findings of Burke RJ and Singh P, [22] but opposite to findings reported by Sokhanvar M et al., [26] who found that monthly income had no significant relationship to job security. Mosadeghrad AM et al., reported moderate levels of job security among hospital nurses and attributed this to multiple issues, including inadequate income and insufficient involvement in decision-making [27]. Adequate income and the promotion of decision-making are essential factors for increasing job satisfaction, reducing insecurity, and reducing employee intent to leave the workplace [2,9]. Therefore, interventional initiatives should help nurses feel more secure in their jobs, lower their work burdens, and improve their decision-making and relationship-building skills [28]. Additionally, more research examining potential job security influences such as organisational structure and/or percentage of registered nurses is recommended.

Study implications: This study reported nurses to be more intuitive in decision-making and to have a moderate level of job security. Nursing administrations can utilise these findings to create training programs and initiatives that help nurses enhance their decision-making abilities and sense of belonging. Further, they can use highly standard guidelines to improve nurses' decision-making skills. Income level was found to correlate with job security, and an appropriate income level is vital for nurses to be more satisfied with their jobs. The pay scale for Saudi Arabian nurses should thus be evaluated and adjusted. Finally, decision-making was found to be significantly associated with job security, hence rejecting the null hypothesis. Thus, greater research into the potential challenges of this relationship is recommended.

Limitation(s)

It is important to note that the current study has certain limitations. Despite the use of a multisite methodology, the convenience sampling strategy may have added sampling bias, limiting our results to this particular sample. It is also more difficult to report cause and effect relationships in cross-sectional research than it is with longitudinal studies. Another potential problem was the study's geographical location, which makes it difficult to use the results outside of this context. Further, the study was conducted at hospitals serving the public sector; therefore, the findings may not apply to private hospitals. Additionally, no comparison was made between Saudi and non-Saudi nurses, which is significant given the potential for differences in decision-making and job security between the two groups. Therefore, in addition to Saudi nurses, future research should consider the degree of non-Saudi nurses' decision-making ability at Saudi hospitals and how this may affect their feeling of job security.

CONCLUSION(S)

In this study, decision-making was found to have a significant relationship with job security in clinical practice. Both variables were important for motivation and work productivity. Improved patient care outcomes require excellent nurse decision-making skills. Lack of job security may have negative effects on one's health, well being, and work-related attitudes and actions. Job insecurity is rarely studied in the literature and requires further research. Causes of job insecurity or poor decision-making in Saudi nursing may also be of interest for future studies.

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