



## HEALTHCARE INSURANCE ON MEDICAL ERRORS FOR HEALTH PRACTITIONERS; IMPACT ON NURSING SATISFACTION AND REDUCTION IN TURNOVER

Faisal Ibrahim Al Aaraj<sup>1</sup>, Sayed Shahbal<sup>2\*</sup>, Yahia Jaber Alhagawy<sup>3</sup>, Magbool Wali Ali Hakami<sup>4</sup>, Yahya Mousa Alhaqwi<sup>5</sup>, Yahya Abdu Ayashi<sup>6</sup>, Huda Jaber Khormi<sup>7</sup>, Wardah Mohsen Hakami<sup>8</sup>, Essa Mohammed Hagawe<sup>9</sup>, Essa Ali Washily<sup>10</sup>, Khaled Juber Haqawi<sup>11</sup>, Mousa Essa Haqawi<sup>12</sup>, Marwae Guneid Aswany<sup>13</sup>

<sup>1</sup>Sabya General Hospital

<sup>2\*</sup>Email: syedshahbal@gmail.com, ORCID: <https://orcid.org/0000-0002-5383-491X>

<sup>3</sup>Alreath General Hospital

<sup>4</sup>Jazan General Hospital

<sup>5</sup>Alraith General Hospital

<sup>6</sup>Al-Khabrayah Phc, Middle Sector, Abu-Areesh

<sup>7</sup>Western Sector Damad Phc

<sup>8</sup>Middle Sector, Al-Khashabiya Phc

<sup>9</sup>Alreath General Hospital

<sup>10</sup>Alreath General Hospital

<sup>11</sup>Alreath General Hospital

<sup>12</sup>Alreath General Hospital

<sup>13</sup>Alreath General Hospital

**\*Corresponding Author:** - Sayed Shahbal

\*Email: syedshahbal@gmail.com, ORCID: <https://orcid.org/0000-0002-5383-491X>

### Abstract

**Background:** Healthcare insurance, particularly insurance addressing medical errors, plays a pivotal role in shaping nursing satisfaction and reducing turnover within the healthcare industry. This study aims to investigate the moderating effect of medical error-based health insurance on the relationship between nurse satisfaction and turnover reduction, while also assessing the levels of nurse satisfaction and turnover attributed to healthcare insurance.

**Aim:** This study aims to investigate the moderating role of medical error-based health insurance on nurse satisfaction and turnover reduction in the Kingdom of Saudi Arabia, exploring the impact of healthcare services, particularly insurance facilities, on nurses' work experiences and organizational commitment.

**Method:** A cross-sectional survey was conducted among 400 nurses in government hospitals in the Jizan Region of Saudi Arabia. Participants provided self-reported data on nurse satisfaction, healthcare insurance, and turnover reduction. Statistical analyses, including regression and correlation, were employed to examine the relationships and moderating effects.

**Results:** The study reveals a positive association between healthcare insurance is impact on medical errors and nursing job satisfaction ( $r = 0.112$ ,  $p < 0.05$ ). Additionally, the study uncovers a moderating role for medical error-based health insurance indicating that it influences the relationship between nursing job satisfaction and the reduction in turnover. The introduction of Intent to Stay in

the Organization/Profession as a moderator enhances the explanatory power of the model, contributing to 13.4% of the variance in the reduction in turnover ( $R^2 = 0.134$ ).

**Conclusion:** Healthcare insurance, especially when tailored to address medical errors, plays a crucial role in shaping nurse satisfaction and reducing turnover. The moderating effect of such insurance policies highlights their nuanced impact on nursing outcomes. Addressing the limitations and considering specific policy attributes can further enhance the positive effects of healthcare insurance on nursing satisfaction and turnover reduction.

**Keywords:** Healthcare Insurance, Medical Errors, Nurse Satisfaction, Turnover Reduction, Moderating Effect, Healthcare Workforce, Saudi Arabia.

## INTRODUCTION

### Background

Healthcare insurance plays a crucial role in ensuring the provision of quality healthcare services and patient safety. Medical errors, defined as preventable adverse events resulting from healthcare management, have emerged as a significant concern in the healthcare industry. These errors can lead to patient harm, increased healthcare costs, and legal implications for healthcare practitioners. As a result, healthcare institutions are continuously striving to enhance patient safety and reduce medical errors by implementing various strategies. (Ibrahim Alzamel et al., 2020)

Turnover among nurses is based on identifying different problematic situations and scenarios they face in the workplace department (Pang et al., 2020; Al-Kubaisi et al., 2023). Most often, it is observed that the turnover among nurses usually focuses on the availability of the least resources, the inability to manage the work-life balance, and patient healthcare understanding (Lin et al., 2021). Reduction in turnover among nurses is based on the identification of satisfaction in their workplaces (Ibrahim Alzamel et al., 2020; Oraibi et al., 2021; Al-Kubaisi et al., 2023).

Job satisfaction among nurses is widely based on the different understanding that is associated with the number of health-related facilities and promotional factors. The satisfaction of the nurses is based on job satisfaction, work-life balance satisfaction, personal life balance satisfaction, and patient health care service satisfaction (Boamah et al., 2022). It is most only observed that this component of satisfaction you sleep on this upon the different ideologies and nurses' concerns to achieve the different paradigms in their life (Al-Kubaisi & Shahbal 2021; Labrague & de Los Santos, 2021; Batool et al., 2022; Shubayra et al., 2022).

Victimization among the nervous is a common phenomenon caused by the patient based on the different perspectives especially related to health hesitation, agitation, health decline, and physical violence (Lavoie-Tremblay et al., 2022; Alqarni et al., 2023). Therefore, the nurse is required appropriate intervention based on life insurance and medical insurance to reduce the potential threat from the patient, the healthcare environment, and personal activity (Chang et al., 2021; Shahbal et al., 2022).

The present study focused on the identification of a reduction of turnout among the nurse is that is based on their satisfaction linked to the availability of different facilities especially related to health and life insurance resulting in the proactive and highly indulged work-life scenario (Lavoie-Tremblay et al., 2022). Previously existing literature does not provide any information about the connection between the satisfaction and reduction in turnover regarding the insurance facility based on the medical and life.

## LITERATURE REVIEW

Nursing satisfaction and turnover rates are critical concerns in the healthcare industry, including in the Kingdom of Saudi Arabia (KSA). Adequate medical and life insurance coverage can play a significant role in improving nursing satisfaction and reducing turnover. This literature review aims to explore the relationship between medical and life insurance, nursing satisfaction, and turnover reduction in KSA.

Several studies have investigated the impact of medical insurance on nursing satisfaction and turnover reduction. A study conducted by Specchia et al. (2021) using systematic review. This study examined the relationship between health insurance coverage and nursing job satisfaction. The findings revealed that nurses with comprehensive medical insurance reported higher job satisfaction compared to those with limited or no coverage. The availability of medical insurance positively influenced nurses' perceptions of job security and access to healthcare services, leading to increased job satisfaction and reduced turnover intentions.

In addition to medical insurance, the provision of life insurance benefits has been identified as a factor influencing nursing satisfaction and turnover in KSA. A study by Alreshidi et al. (2021) explored the impact of life insurance on nursing turnover in a Saudi Arabian hospital. The results indicated that nurses who received life insurance benefits reported higher job satisfaction and lower turnover intentions. The presence of life insurance coverage was associated with a sense of financial security and provided nurses with peace of mind, contributing to their job satisfaction and reduced turnover rates.

Furthermore, research conducted by Albougami et al. (2020) investigated the influence of both medical and life insurance on nursing turnover in KSA. The study found that nurses who had comprehensive medical and life insurance coverage exhibited higher job satisfaction and lower turnover rates compared to those with limited or no insurance benefits. The provision of both types of insurance not only improved nurses' overall well-being but also provided them with a sense of financial protection, leading to increased job satisfaction and reduced turnover intentions.

Moreover, a study by Al Mutair et al. (2022) examined the relationship between medical and life insurance benefits and nursing satisfaction in KSA. The findings revealed that nurses with comprehensive insurance coverage reported higher levels of satisfaction with their job and overall compensation package. Adequate medical and life insurance benefits were associated with increased job security, improved access to healthcare services, and enhanced financial protection. These factors collectively contributed to higher nursing satisfaction and reduced turnover rates.

### **Rationale**

Rationale of the present study is to understand the perspective that are associated with the decrease in turnover among the nervous based on their job satisfaction with respect to the availability of healthcare services especially medical and health insurance (Boamah et al., 2022; Almutairi et al., 2022). The study focus to address the perspective that is linked to identifying the benefit nurses from their healthcare organization on the behalf of their working condition and its impact on their satisfaction that reduces turnover.

### **Aim of Study**

This study aimed to understand the moderating role of the medical error based health insurance on the nurse's satisfaction, and reduction in turnover (Lavoie-Tremblay et al., 2022). The basic aim is to understand the nurse's satisfaction with respect to the different healthcare services (i.e., medical error related health insurance) provided to them at the hospital with respect to their decrease in turnover. Moreover, the basic expectation is to understand the impact of providing facilities to the nurses that enhances satisfaction and reduces turnover.

### **Research Questions**

- What is the moderating role of medical error based health insurance on the relationship between nurse's satisfaction and reduction in turnover?
- What is the level of nursing nurse's satisfaction and reduction in turnover due to health and medical error based health insurance?

## **METHODOLOGY**

### **Research Design**

Cross sectional research, design was operationalized.

### **Study Settings**

Study was conducted in the Jizan Region nursing units of government hospitals.

### **Study Population**

All categories of nursing units and departments were considered as targeted study population.

### **Sample**

The study was conducted in government hospitals located in the Jizan Region of Saudi Arabia. The target population consists of all nurses working in these hospitals. A convenient sampling technique was employed due to the ease of access and availability of nurses in these hospitals.

#### ***Sampling Formula:***

To determine the sample size, we can use the convenient sampling formula:

$$\text{Sample Size (n)} = (Z^2 * p * q) / E^2.$$

Given:

$$Z = 1.96 \text{ (for a 95\% confidence level)}$$

$$p = 0.5 \text{ (assuming maximum variability in the population)}$$

$$q = 1 - p = 1 - 0.5 = 0.5$$

$$E = 0.05 \text{ (desired margin of error)}$$

$$\text{Sample Size (n)} = (1.96^2 * 0.5 * 0.5) / 0.05^2$$

$$\text{Sample Size (n)} = (3.8416 * 0.25) / 0.0025$$

$$\text{Sample Size (n)} = 0.9604 / 0.0025$$

$$\text{Sample Size (n)} = 384.16$$

To ensure that the sample size should not drop from required number so we assumed as 400 sample size.

### **Selection criteria**

#### ***Inclusion***

- Nurses enjoying health and life insurance.
- Nurses willing to participate in the study.
- Nurses who know Arabic and English language.
- Nurses who are working in the targeted regional hospitals.

#### ***Exclusion***

- Non-nursing employees were excluded.

### **Data Collection Method**

A survey-based questionnaire was used to collect data. Before data, collection ethical approval gained from IRB of Health Directorate of Jizan Region. After approval of IRB, an email-based application was forwarded to Health Directorate of Jizan Region as well as targeted hospital's administrations to collect data. After that, data collection started by using, implied consent and attached questionnaires. Ideally, google form based questionnaires was used. Collected data kept confidential and safe. In addition, used further for data analysis.

### **Measures**

- **Demographic information sheet.** Demographic information about their, age, education, duration of job, income, number of family members or children etc.

- **Medical Error Based Health Insurance:** A 12 items based self-developed questionnaire used to opinions related to health insurance in case of medical errors for nurses.
- **Job Satisfaction Index.** Mueller and McCloskey (1990) developed a 25 items scale in order to measure the level of job satisfaction among nurses. This scale has a 4-point response option as 1 for Very dissatisfied and 4 for Very Satisfied. This scale has excellent validity and reliability with  $\alpha = .84$ . (Mueller & McCloskey, 1990).
- **Intent to Stay in the Organization/Profession.** To measure nursing reduction in job turnover and a 4-item based modified scale of Nedd (2006) used 4-point response option as 1 for Strongly Disagree to and 4 for strongly agree.

### Proposed analysis

For the current research, to analyze the data according to the hypothesis of the study, version 26 of the Statistical Package for Social Sciences was used. To see the demographics, descriptive statistics were used. To check the Alpha reliability of the scales, reliability statics analyzed. To check the relationship among variables, the Pearson Correlation method was used, and for impact, linear regression was done. In addition, to see the directional effect moderating effect was used.

### Ethical Consideration

Before commencing the research, ethical approvals, encompassing informed consent, human rights, participant safety, and confidentiality, were obtained from the Department of Nursing's Ethical Review Board and the Jizan Region administration. The data were treated confidentially, utilized solely for research purposes, and ensured anonymity by removing all identifiers during publication.

### RESULTS

The results chapter of this study presents a comprehensive analysis of the data gathered to investigate the impact of healthcare insurance on medical errors among health practitioners, with a specific focus on its repercussions on nursing satisfaction and the reduction in turnover. In this chapter, we delve into the findings obtained through rigorous statistical analyses, drawing from a sample of 400 participants. The primary objective of this research was to ascertain the extent to which healthcare insurance coverage influences the occurrence of medical errors and subsequently affects the job satisfaction of nursing professionals, as well as the turnover rates within healthcare organizations. By employing a range of statistical techniques, including descriptive statistics, reliability analysis, correlation analysis, linear regression and moderation analysis was operationalized. We aim to unravel the intricate relationships and patterns within these variables, shedding light on their interdependencies and providing valuable insights into the past state of healthcare systems.

**Table # 1: Demographical Information of the study participants. (N=400)**

Variable	Categories	f	%
Gender	Male	172	43.0
	Female	228	57.0
Salary	4000 to 8000 SAR	14	3.5
	9000 to 12000 SAR	161	40.3
	13000 to 20000 SAR	181	45.3
	20000+SAR	44	11.0
Age	20 - 29	111	27.8
	30 - 39	245	61.3
	40 - 49	44	11.0
Educational Level	Diploma	107	26.8

	Bachelor	221	55.3
	Master	72	18.0
Experience	1 - 5	112	28.0
	6 - 10	120	30.0
	11 - 15	95	23.8
	15 and above	73	18.3
Year of Experience	Less than 10 years	198	50.3
	10 to 20 years	173	43.9
	More than 20 years	23	5.8
Hospital Department	Emergency	76	19.0
	Administration	14	3.5
	Nursing supervisor	14	3.5
	Medical-Surgical	44	11.0
	OPD	45	11.3
	Gyn, Labour & Delivery	141	35.3
	ICU	36	9.0
Hospital	King fahad hospital	29	7.3
	Sabya	14	3.5
	Altuwal General hospital	14	3.5
	Abu Arish General	157	39.3
	Samta General Hospital	85	21.3
	KFCH	30	7.5
	Jazan General Hospital	15	3.8
	Prince Mohammed bin Nasser Hospital	42	10.5

Note: *f* = frequency, % = personage

The adjusted statistical values presented here offer a comprehensive snapshot of the demographic characteristics of the study's participants. The gender distribution shows a slightly higher representation of females, accounting for 56.4% of the sample. Salary levels are diverse, with the largest group earning between 13000 to 20000 SAR (45.9%), while age distribution centers primarily on the 30-39 age group (62.2%). The educational background is varied, with 55.9% holding bachelor's degrees. Experience levels encompass a broad spectrum, with 30.5% having 6-10 years of experience, and 50.3% of participants having less than 10 years. Hospital department distribution highlights the prominent presence of professionals in Gynecology, Labor & Delivery (35.8%), and the majority of participants (39.8%) affiliating with Abu Arish General Hospital. These detailed statistical insights lay the groundwork for an in-depth exploration of how these demographic factors intersect with healthcare insurance, medical errors, nursing satisfaction, and turnover within the healthcare domain.

**Table # 2 Psychometric Properties of Scales Used in the study (N=400)**

	$\alpha$	<i>M</i>	<i>(SD)</i>	<i>Range</i>		<i>Skewness</i>		<i>Kurtosis</i>	
				<i>Actual</i>	<i>Potential</i>	<i>Stati</i>	<i>Std. E</i>	<i>Stati</i>	<i>Std. E</i>
Medical and life insurance nursing	.83	38.96	7.51	14 – 49	12 – 60	-1.585	.122	2.921	.243
Intent to Stay in the Organization	.87	82.63	5.76	75 – 94	25 – 100	.142	.122	-1.158	.243
Job satisfaction	.81	13.40	1.15	12 – 16	4 – 16	.436	.122	-.837	.243

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

Table 2 provides a comprehensive overview of the psychometric properties of the scales employed in the study, encompassing a sample size of 400 participants. These scales were meticulously assessed for reliability and statistical characteristics. The "medical and life insurance NURSING " scale, measuring medical errors, displayed high internal consistency with a Cronbach's alpha ( $\alpha$ ) of .83, a mean (M) score of 38.96 (SD = 7.51), and a score range of 14 to 49, indicating its capacity to effectively measure actual and potential medical errors. The "intent to stay in the organization" scale, evaluating nursing job satisfaction, exhibited strong reliability ( $\alpha = .87$ ), a mean score of 82.63 (SD = 5.76), and a score range from 75 to 94. Lastly, the "job satisfaction" scale, gauging insurance satisfaction, demonstrated good internal consistency ( $\alpha = .81$ ), with a mean score of 13.40 (SD = 1.15) and a score range of 12 to 16. Additionally, skewness and kurtosis values provide insights into the distribution characteristics of the scales. These psychometric properties attest to the robustness of the measurement instruments utilized in the study, laying a solid foundation for the subsequent analysis of healthcare insurance's impact on medical errors, nursing satisfaction, and turnover in the healthcare sector.

**Table 3:** Crosstab - *Level of nursing nurse's satisfaction and reduction in turnover due to health and medical error based health insurance (N = 400).*

Variable	Strongly dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
<b>Intent to stay in the organization</b>					
Strongly Disagree	52	95	40	47	7
Disagree	12	18	18	19	3
Neutral	18	18	8	7	3
Agree	12	3	7	4	3
Strongly agree	8	1	3	3	1
<b>Total</b>	<b>102</b>	<b>135</b>	<b>76</b>	<b>73</b>	<b>14</b>
<b>Job satisfaction</b>					
Strongly Disagree	79	69	54	47	2
Disagree	21	34	21	19	1
Neutral	8	8	11	7	0
Agree	3	3	6	4	1
Strongly agree	1	1	4	3	0
<b>Total</b>	<b>112</b>	<b>115</b>	<b>96</b>	<b>73</b>	<b>4</b>

The data in Table 3 provides a comprehensive view of nurses' satisfaction and its impact on turnover reduction in relation to health and medical error-based health insurance. Notably, a substantial proportion of nurses expressed dissatisfaction, with 102 nurses strongly dissatisfied with healthcare insurance on medical errors (medical and life insurance nursing ), and 112 nurses strongly dissatisfied with job satisfaction (job satisfaction). Conversely, a significant number of nurses indicated varying degrees of satisfaction, with 73 nurses expressing satisfaction in both medical and life insurance nursing and Intent to stay in the Organization. Interestingly, when it comes to intent to stay in the organization/profession, 14 nurses reported being very satisfied, suggesting a positive outlook for retention. This data underscores the importance of addressing nurses' concerns and improving healthcare insurance policies to enhance satisfaction levels and potentially reduce turnover, particularly in the context of medical error-based health insurance.

**Table # 4:** *Correlation between healthcare insurance on medical errors for health practitioners, nursing satisfaction and reduction in turnover (N = 400).*

Variables	1	2	3
Medical and life insurance nursing	-	.112*	.044
Intent to Stay in the Organization	-	-	.794**
Job satisfaction	-	-	-

Note:

\*\* = highly significant at .01

\* = Significant at .05

Table #4 displays the correlations among healthcare insurance, medical errors (Medical and Life Insurance Nursing), nursing job satisfaction (Intent to Stay in the Organization), and insurance satisfaction (job satisfaction) based on data from 400 participants. A significant positive correlation of ( $r = .112, p < .05$ ) exists between medical errors and nursing job satisfaction, indicating a slight tendency for higher medical errors to be associated with increased job satisfaction among nurses. A highly significant positive correlation of ( $r = .794, p < .01$ ) is observed between nursing job satisfaction and insurance satisfaction, indicating a strong link between the two. However, there is no significant correlation between medical errors and insurance satisfaction, with a correlation coefficient of .044. These findings offer insights into the complex relationships within the healthcare insurance landscape and their implications for medical errors, nursing satisfaction, and insurance satisfaction.

**Table # 5:** Healthcare insurance on medical errors for health practitioners as predictor variable ( $N = 400$ ).

Variables	B	Std. E	$\beta$	t	Sig.
(Constant)	27.100	5.375		5.042	.000
Intent to Stay in the Organization	.272	.107	.208	2.547	.011
Job satisfaction	-.789	.533	-.121	-1.482	.139

Table 5, a regression analysis was conducted with healthcare insurance on medical errors for health practitioners (medical and life insurance nursing) as the predictor variable, aiming to assess its influence on nursing job satisfaction and insurance satisfaction. The results reveal that medical and life insurance nursing significantly predicts intent to stay in the organization ( $\beta = 0.208, p = 0.011$ ), with a positive coefficient, suggesting that as healthcare insurance's impact on medical errors increases, nursing job satisfaction also tends to rise. However, medical and life insurance nursing does not significantly predict job satisfaction ( $\beta = -0.121, p = 0.139$ ), indicating that the effect of healthcare insurance on medical errors does not have a significant impact on insurance satisfaction. The statistical values provide insights into the relationships between these variables, emphasizing the role of healthcare insurance in shaping job satisfaction among healthcare practitioners.

**Table # 6:** The moderating role of medical error based health insurance on the relationship between nurse's satisfaction and reduction in turnover ( $N = 400$ ).

Variable	B	95% CL	SE.B	$\beta$	R <sup>2</sup>	$\Delta R^2$	
<b>Step 1</b>						112	.013
Constant	26.87	16.29	37.45	5.38			
Intent to stay in the organization	.146	.018	.274	.065	.112		
<b>Step 2</b>						134*	.018
Constant	27.10	16.53	37.66	5.37			
Intent to stay in the organization	.27	.06	.48	.10	.20		
Job satisfaction	-.78	-1.83	.25	.53	-.12		

Table 6 provides results from a moderation analysis examining the role of medical error-based health insurance in influencing the relationship between nurse satisfaction (intent to stay in the organization) and the reduction in turnover among a sample of 400 participants. In the initial step, without considering the moderation effect of medical error-based health insurance, the model shows that intent to stay in the organization has a beta coefficient (B) of 0.146 (95% confidence interval [CI]: 0.018 to 0.274), indicating that for every one-unit increase in intent to stay in the organization, there is a 0.146-unit increase in the reduction in turnover. The model explains 11.2% of the variance in the reduction in turnover ( $R^2 = 0.112$ ).

In the second step, when medical error-based health insurance (job satisfaction) is introduced as a moderator, the model shows that intent to stay in the organization still has a positive influence with a B value of 0.272 (95% CI: 0.062 to 0.481), indicating a stronger relationship with the reduction in



turnover. Job satisfaction, as a moderator, has a negative beta coefficient of -0.789 (95% CI: -1.836 to 0.258), implying that it moderates the relationship. The overall model explains 13.4% of the variance in the reduction in turnover ( $R^2 = 0.134$ ), and the introduction of job satisfaction as a moderator accounts for an additional 1.8% of the explained variance ( $\Delta R^2 = 0.018$ ).

## DISCUSSION

The research question central to this study revolved around the moderating role of medical error-based health insurance on the relationship between nurse satisfaction and reduction in turnover. Additionally, the study aimed to assess the levels of nursing satisfaction and turnover reduction attributed to health and medical error-based health insurance. The findings of this research provide valuable insights into the multifaceted impact of healthcare insurance on nurses' job satisfaction, their intent to stay in the profession, and the resultant reduction in turnover.

The study revealed that medical error-based health insurance indeed played a moderating role in shaping the relationship between nurse satisfaction and the reduction in turnover. Initially, without considering the moderating effect of medical error-based health insurance, the analysis showed that nurse satisfaction, as measured by intent to stay in the organization, had a positive association with the reduction in turnover. This result aligns with previous research indicating that satisfied nurses are more likely to remain committed to their profession and organization. Sharan et al. (2023) found that nurses with comprehensive medical and life insurance reported higher job satisfaction and lower turnover rates, supporting the connection between satisfaction and reduced turnover.

However, the introduction of medical error-based health insurance as a moderator altered this relationship. The moderating effect was notably negative, indicating that the presence of medical error-based health insurance changed the dynamics between nurse satisfaction and turnover reduction. This finding underscores the nuanced influence of insurance policies specifically designed to address medical errors on nursing outcomes. It suggests that healthcare organizations must carefully consider the design and scope of such insurance policies, as they can impact how nurses perceive their work and commitment to the profession. This insight is consistent with the research by Junior et al. (2023), which demonstrated that nurses with life insurance benefits reported higher job satisfaction and reduced turnover intentions.

Regarding the second research question concerning the levels of nursing satisfaction and reduction in turnover attributed to health and medical error-based health insurance, the study's results showed that healthcare insurance, particularly that addressing medical errors (medical and life insurance nursing), significantly influenced nursing satisfaction. Many nurses expressed varying degrees of satisfaction, indicating the crucial role of this type of insurance in shaping their perceptions of the healthcare workplace. This aligns with previous research by Arora et al. (2023), emphasizing the positive impact of comprehensive healthcare coverage on nursing job satisfaction. This study's results corroborate these findings, highlighting the link between healthcare insurance and job satisfaction.

The study also found a significant connection between nurse satisfaction (intent to stay in the organization) and the reduction in turnover, implying that content and satisfied nurses are more likely to remain committed to their profession and organization. This finding is consistent with existing literature that has repeatedly emphasized the pivotal role of job satisfaction in retaining nurses in their roles. Al Bazroun et al. (2023) noted that nurses with comprehensive medical and life insurance were more satisfied with their jobs and exhibited lower turnover rates, underscoring the importance of healthcare insurance in enhancing nurses' job satisfaction and reducing turnover.

In conclusion, this research contributes to our understanding of the complex relationship between healthcare insurance, medical errors, nursing satisfaction, and turnover reduction. The findings emphasize the significant impact of healthcare insurance, both general and medical error-based, on nursing job satisfaction and, consequently, the reduction in turnover. Moreover, the moderating effect of medical error-based health insurance adds depth to our understanding of how insurance policies can shape nursing outcomes (Noshili et al., 2023; Albhair & Bugis, 2023). These insights have practical implications for healthcare organizations and policymakers, highlighting the importance of

comprehensive insurance coverage and tailored policies to enhance nursing satisfaction and mitigate turnover, ultimately contributing to improved patient care and healthcare system stability.

### **Limitations**

It is crucial to acknowledge several limitations in this study. Firstly, the research relied on self-reported data, which may introduce response bias and limit the objectivity of the findings. Additionally, the study was conducted in a specific geographic region, which might limit the generalizability of the results to a broader healthcare context. Furthermore, the study design is cross-sectional, preventing the establishment of causal relationships. Longitudinal research would provide a more comprehensive understanding of the dynamics between healthcare insurance, nurse satisfaction, and turnover reduction. Lastly, the study did not explore the specific attributes and details of healthcare insurance policies, which could have different effects on nursing outcomes.

### **Recommendations**

Based on the findings and limitations, several recommendations can be made. Future research should employ longitudinal designs to track changes in nurse satisfaction and turnover over time in response to variations in healthcare insurance policies. Additionally, in-depth investigations into the specific components and attributes of healthcare insurance plans, including coverage for medical errors, can provide a more nuanced understanding of their impact on nursing outcomes. It is also recommended that healthcare organizations assess the comprehensiveness of their insurance offerings and consider tailoring policies to address the unique needs and concerns of their nursing workforce. Finally, efforts to enhance nurse job satisfaction through continuous education, mentorship programs, and improved working conditions should complement insurance initiatives to further reduce turnover.

### **Suggestion**

One key recommendation for healthcare organizations is to invest in comprehensive healthcare insurance packages that specifically address medical errors. This study highlights the potential moderating role of such insurance in enhancing nurse satisfaction and reducing turnover. Therefore, healthcare institutions should consider the design of their insurance policies, ensuring they provide robust coverage for medical errors, malpractice, and related issues. Additionally, organizations should engage in transparent communication with their nursing staff regarding the details and benefits of these insurance policies to ensure nurses are aware of the support available to them. Furthermore, healthcare institutions should prioritize the well-being of their nursing workforce by offering support programs, such as stress management and counseling services, to complement insurance initiatives. This holistic approach can help healthcare organizations retain experienced nursing staff, enhance patient care, and create a more stable and satisfied nursing workforce.

### **Conclusion**

This study underscores the multifaceted role of healthcare insurance, particularly medical error-based insurance, in shaping nursing satisfaction and reducing turnover within the healthcare industry. The moderating effect of such insurance policies on the relationship between nurse satisfaction and turnover reduction highlights their significance. While this study has shed light on these complexities, further research is needed to explore the specific mechanisms and attributes that underlie the observed effects. By strategically designing and implementing healthcare insurance policies and addressing the limitations identified, healthcare organizations and policymakers can foster a more satisfied and stable nursing workforce, ultimately benefiting both nurses and the quality of patient care.

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