

Standard Precautions, Ethical Principle and Practice Challenges as Predictors of Patient Safety Culture in Selected Hospitals in Saki-West, Oyo State

Adaramola Olabanji Bamidele

School of Nursing, Babcock University Ilishan-Remo, Ogun State, Nigeria

C. Nwozichi

School of Nursing, Babcock University Ilishan-Remo, Ogun State, Nigeria

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Abstract: *Patient safety culture is a fundamental aspect of healthcare quality and management. This study examined the perceived patient safety culture and its associated factors among clinical managers in hospitals in Saki, Oyo State, Nigeria. The objectives were to assess the influence of standard precautions, ethical principles, practice challenges, and organizational management on patient safety culture among clinical managers. A descriptive cross-sectional research design was adopted for the study. The target population comprised clinical managers working in selected hospitals within Saki. A structured questionnaire was used to collect data, and analysis was carried out using descriptive statistics (mean, frequency, percentage) and inferential statistics where appropriate. The results revealed that standard precautions ($\beta = 0.137$, $t = 2.307$, $p < 0.05$) and ethical principle ($\beta = 0.144$, $t = 3.132$, $p < 0.05$) had significant positive influence on patient safety culture. However, practice challenges had a significant negative influence on the patients safety culture ($\beta = -0.297$, $t = -4.581$, $p < 0.05$). The study concluded that clinical managers in Saki hospitals demonstrate a strong commitment to patient safety through adherence to standard precautions and ethical principles. It was recommended that hospital authorities strengthen institutional policies on non-punitive error reporting, ensure adequate staffing, and promote regular safety training and supportive supervision. This research contributes to the growing body of knowledge on healthcare quality and underscores the need for sustained leadership commitment to building a strong patient safety culture in Nigerian healthcare institutions.*

Keywords: Patient safety culture, clinical managers, standard precautions, ethical principles, organizational management, Saki hospitals.

INTRODUCTION

Worldwide, patient safety is of major concern; this is because avoidable adverse events, errors and risks associated with health care remain a major challenge (WHO, 2022). According to the World Health Organization (WHO), patient safety refers to the prevention of errors and adverse effects associated with health care (WHO, 2022). Empirical evidence suggests that one of the key contributors to patient safety is the creation of a patient safety culture in a healthcare organization. Patient safety culture is defined as values, habits, and beliefs about how things operate in healthcare organisations, resulting in behavioural norms that promote safety (Muftawu and Aldogan, 2023).

Experts in the field of patient safety culture have agreed on certain characteristics for assessment in health institutions. These characteristics are sometimes referred to as dimensions. In this study, these characteristics are referred to as the dimensions of patient safety culture, adapted from the Agency for Healthcare Research and Quality (AHRQ)'s ten patient safety culture composite measures. The terms dimensions and composite measures as suggested by Sorra et al. (Sorra, et al., 2021), can be used interchangeably. These include communication about errors; communication openness; handoffs and information exchange; hospital management support for patient safety; organizational learning; reporting patient safety events; response to error; staffing and work pace, supervisor, manager, or clinical leader support for patient safety; and teamwork.

There is also increasing recognition of the important role played by hospital leaders or managers in inculcating patient safety culture in healthcare organisations. Although there is a thin line between leaders and managers, in this study, the managers (consisted of departmental or unit heads) and refer to all the middle and front-line level managers who took roles as unit or departmental heads. This study was interested in their views on the compliance to the dimensions of patient safety culture in their hospitals. This is because as frontline supervisors and managers, their evaluation of patient safety culture provides insight into the context of relevant recommendations and serves as a critical step to outline required future projects aimed at improving quality and patient safety. Since the patient safety culture dimensions of AHRQ assesses both management and supervisor support for patient safety culture, in this study, management support referred to the support of the highest level such as chief executive and directors of the hospitals. These individuals were not selected as participants for the study. Supervisor support referred to the support given to the participants by their immediate supervisors. Globally, the notion of patient safety culture remains topical amongst patient safety scientists (Churruca, et al., 2021).

Although patient safety culture tends to be a context-specific phenomenon, there are also many similarities in challenges and successes across different countries. Such similarities provide an opportunity to learn from other countries' successes and challenges. Studies on patient safety culture have mostly found teamwork, punitive response to error and management support for patient safety to be rated high by participants. Additionally, patient safety studies have included views from various categories of health professionals, including managers, physicians, registered nurses, and enrolled nurses. This is because patient safety should be everybody's business in a hospital setting.

Notably, patient safety culture studies have followed various methodologies, including systematic reviews, qualitative methods, and quantitative methods (Halligan and Zecevic, 2021). A 20-year-long scoping review on the type and prevalence of patient safety culture methodologies, including 107 studies, found that the quantitative approaches are dominating, and often use self-administered quantitative surveys (Kakemam, et al., 2022). Likewise, a 2021 systematic review of methodologies used to investigate patient safety culture dimensions including 694 studies, found that only 31 studies were qualitative. In both studies authors raised concerns over the dearth of qualitative studies investigating patient safety culture and advocated a need to utilise qualitative approaches to understand the detailed issues contributing to delays in achieving positive patient safety culture.

In Ghana, the Ministry of Health developed and launched Ghana's National Healthcare Quality Strategy (Kristensen, et al., 2022). However, the success of the implementation of such a strategy depends on the culture in the health establishments. Patient safety studies in Ghana have found that teamwork and organisational learning are viewed as important dimensions to achieving patient safety culture (Huang, et al., 2021). While one study found that management support had a significant relationship with patient safety culture in a teaching hospital in Ghana, a 2020 study in a teaching hospital found an extremely low rating on overall patient safety culture.

Similarly, Akologo, (2022), also found a non-punitive response to error, rated very low in the hospitals of the Upper East region of Ghana. These studies were mostly quantitative and included front-line healthcare providers. We note that in Ghana, there remains a gap in studies that explore the current practices regarding patient safety culture. More specifically, the dominating quantitative studies have not probed the reasons behind the low and high ratings to understand the current failure to comply with the desired patient safety culture. Qualitative approaches to the investigation of patient safety culture could allow in-depth clarity of the gaps in practice, devise context-specific recommendations and improve the patient safety culture. Since hospital managers

have a vested interest in monitoring patient safety practices, this study explored their views regarding compliance to patient safety culture dimensions in their hospitals. The study contributes to the international discourse on possible contributors to compliance or lack of compliance with patient safety culture dimensions.

Hypotheses

1. There is no significant influence of standard precautions on patient safety culture in hospitals in Saki?
2. There is no significant influence of ethical principle on patient safety culture in hospitals in Saki?
3. There is no significant influence of practice challenges on patient safety culture in hospitals in Saki?

METHOD

Research Design: The study employed a quantitative approach (survey method) to assess perceived patient safety culture and its associated factors among clinical managers in hospitals in Saki West Local Government. This enabled the researcher to obtain information regarding the situation as it was at the study setting.

Population: The target populations of this research work was nurses in Baptist Medical Centre, and Muslim hospital, data was collected irrespective of age, sex, tribe, religion, level of academic qualification and their years of working experience.

Sample and sampling techniques: The sample size 113 was calculated using Cochran formula. Therefore, 113 Nurses were selected from the selected Hospitals in Saki West Local Government.

Table 1: Sample distribution

Department	Numbers of respondent	Proportion	Sample number
Baptist Medical Centre, Saki	43	43X113/140	35
Muslim Hospital Saki	44	44X113/140	35
State Hospital Saki	53	53X113/140	43
TOTAL	140		113

The study employed multi-stage sampling technique. At the first stage, simple random techniques were used to select from the list of nurses in each of the selected Hospitals. Secondly, cluster sampling was used to bring together the selected number across the selected Hospitals. Lastly, a simple random sampling was used to collect the data from the nurses in selected hospitals in Saki West Local Government. In other words, each numbers of the population were given equal chances of being selected.

Instrumentation: A self-structured questionnaire was used as an instrument for data collection in this study. The items were prepared using both closed and open-ended questions. It comprised of the following sections: Section A assessed Socio-demographic characteristics, Section B assessed the influence of standard precaution to patient safety culture among clinical manager in Hospitals in Saki, Section C assessed the influence of ethical principle on patient safety culture among clinical manager in Hospitals in Saki, Section D assessed the influence of practice challenges on patient safety culture among clinical manager in Hospitals in Saki, and, Section E assessed The relationship between organization management and maintenance of patient safety culture among clinical managers in Hospitals in Saki.

Method of data analysis: The data obtained were analyzed using both descriptive (simple percentages) and inferential statistics of simple linear analysis

RESULTS

Table 2: Socio-Demographic Characteristics (N = 113)

s/n	Variable	Category	Frequency	Percentage
1	Age	21 – 30	0	0
		31 – 40	5	4.4
		31 – 50	20	17.7
		51 and above	88	82.3
2	Religion	Christianity	59	52.2
		Islam	49	43.4
		Traditional	5	4.4
3	Ethnicity	Yoruba	85	75.2
		Hausa	16	14.2
		Igbo	12	10.6
4	Years of Experience	1–5 years	23	20.4

		6–10 years	35	31.0
		11–15 years	31	27.4
		16+ years	24	21.2
5	Educational Qualification	RN/RM/RPHN	33	29.2
		BNSc	42	37.2
		MSc	28	24.8
		Others	10	8.8
6	Designation	Nursing Officer	29	25.7
		Senior Nursing Officer	26	23.0
		Principal Nursing Officer	23	20.4
		Assistant Chief N.O	18	15.9
		Chief Nursing Officer	17	15.0

The results presented in table 2 revealed that majority (82.3%) of the respondents aged 51 years and above, 52.2% were Christianity, 75.2% were Yoruba, 31% had 6–10 years work experience, 37.2% were with BNSc degree and 25.7% were Nursing Officers.

Table 3: Coefficients of the Simple Linear Regression Analysis for influence of standard precautions on patient safety culture

Model	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
(Constant)	27.144	2.156		14.849	.000
Standard Precautions	.096	.051	.137	2.307	.000
Model Summary : $R = .528$, $R^2 = .279$, $Adj. R^2 = .273$, $Std. Error = 2.815$					

Dependent Variable: Safety Culture

Predictors: (Constant), Standard Precautions

Table 3 shows the simple linear regression analysis on the influence of standard precautions on patient safety culture. The result revealed that standard precautions had a significant positive influence on patient safety culture ($\beta = 0.137$, $t = 2.307$, $p < 0.05$). Since the p -value is less than 0.05, the null hypothesis was rejected. This implies that an increase in standard precautions leads to an increase in patient safety culture by 27.3%. The model further showed that standard precautions accounted for 27.3% of the variance in patient safety culture ($Adj. R^2 = .273$) indicating that 72.7% of the variation was explained by other factors outside the model.

Table 4: Coefficients of the Simple Linear Regression Analysis for influence of ethical principles on patient safety culture

Model	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
(Constant)	23.654	1.989		9.987	.000
Ethical Principle	.091	.058	.144	3.132	.013

Model Summary : $R = .536$, $R^2 = .287$, $Adj. R^2 = .287$, $Std. Error = 2.767$

Dependent Variable: Safety Culture

Predictors: (Constant), Ethical Principle

Table 4 shows the simple linear regression analysis on the influence of ethical principle on patient safety culture in hospitals in Saki. The result revealed that ethical principle had a significant positive influence on patient safety culture ($\beta = 0.144$, $t = 3.132$, $p < 0.05$). Since the p -value is less than 0.05, the null hypothesis was rejected. This implies that an increase in ethical principle leads to an increase in patient safety culture by 28.7%. The model further showed that ethical principle accounted for 28.7% of the variance in patient safety culture ($Adj. R^2 = .287$) indicating that 71.3% of the variation was explained by other factors outside the model.

Table 5: Coefficients of the Simple Linear Regression Analysis for influence of practice challenges on patient safety culture

Model	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
(Constant)	30.581	1.375		25.867	.000
Practice Challenges	-.305	.083	-.297	-4.581	.000

Model Summary : $R = .621$, $R^2 = .386$, $Adj. R^2 = .380$, $Std. Error = 2.261$

Dependent Variable: Safety Culture

Predictors: (Constant), Practice Challenges

Table 5 presents the results of the simple linear regression analysis conducted to determine the influence of practice challenges on safety culture. The results revealed that practice challenges had a significant negative influence on the patients safety culture ($\beta = -0.297$, $t = -4.581$, $p < 0.05$). Since the p -value is less than 0.05, the null hypothesis was rejected. This implies that an increase in practice challenges leads to a decrease in patients' safety culture by 38%. The model further showed that practice challenges accounted for 38% of the variance in patients safety culture ($Adj. R^2 = .380$) indicating that 62% of the variation in patients safety culture was explained by other factors outside the model.

DISCUSSION OF FINDINGS

The outcome of this study revealed that standard precautions significantly influenced patients' safety culture. This shows that clinical managers understand the crucial role of standard precautions in maintaining patient safety and preventing healthcare-associated infections. The result may be attributed to the clinical managers' training, supervision roles, and awareness of professional standards. This result aligns with the findings of Zingg et al. (2023) and Burke (2022), who emphasized that consistent compliance with standard precautions forms the foundation of patient safety in clinical settings. Similarly, Harbarth et al. (2023) asserted that healthcare-associated infections are largely preventable through effective adherence to standard precautions, including hand hygiene, disinfection, and safe injection practices.

The result revealed that ethical principle had a significant positive influence on patient safety culture, which indicates that the respondents uphold principles of autonomy, beneficence, and justice in their professional conduct. This finding corroborates Efstathiou (2023) and Papastavrou et al. (2024), who emphasized that adherence to ethical principles enhances trust, transparency, and communication between healthcare professionals and patients, thus improving patient safety outcomes. Similarly, Carrese and Sugarman (2024) noted that ethical awareness strengthens professional accountability and promotes a non-punitive environment that encourages error reporting. The significant positive influence of ethical practice in this study reflects the respondents' awareness of their professional duty to respect patients' rights, communicate truthfully, and make ethically sound decisions. It underscores the importance of ethical training as a continuous component of nursing education and professional development.

Additionally, the outcome of the third hypothesis revealed that practice challenges had a significant negative influence on the patients' safety culture. The practice challenges may include poor staff strength, work overload, long working hours, and punitive error reporting systems. This agrees with Siman et al. (2021) and Mendes et al. (2022), who identified inadequate staffing, excessive workload, and fear of blame as major threats to patient safety in healthcare institutions. Similarly, Akologo et al. (2023) emphasized that a non-punitive approach to error reporting promotes learning and reduces repeated adverse events.

This finding aligns with Bonner et al. (2023) and Morello et al. (2023), who demonstrated that strong leadership support, effective communication, and team collaboration are vital to sustaining patient safety culture. Mardon et al. (2023) also found that organizational culture directly influences staff behavior, teamwork, and commitment to safety.

CONCLUSION

The study concluded that clinical managers in Saki hospitals demonstrate a strong commitment to patient safety through adherence to standard precautions and ethical principles. However, challenges such as staff shortages, work pressure, and limited feedback systems affect full compliance. Organizational support, teamwork, and non-punitive reporting systems emerged as vital components for sustaining a positive patient safety culture. Therefore, improving management structures, empowering clinical leaders, and institutionalizing continuous training are essential to strengthening patient safety culture across healthcare facilities.

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