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PATIENT SAFETY CULTURE IN LONG AN GENERAL HOSPITAL IN 2023

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ABSTRACT

Introduction: Patient Safety Culture (PSC) is one of the priorities for intervention in the healthcare environment aimed at the principle of "doing no harm to patients". This study aims to assess the current situation of PSC at Long An General Hospital, Long An Province, in 2023.

Methods: We applied a cross-sectional design to conduct online, self-administered interviews with all 187 health providers at Long An General Hospital. We used HSOPSC-VN2015 to evaluate the PSC of the hospital.

Findings: The positive response rate of PSC was 71.4%. Out of the total 12 dimensions of PSC, six dimensions achieved a positive rate of 75% or higher. In contrast, the three dimensions with the lowest positive response rate were Staffing (56.1%), Nonpunitive Response to Error (55.6%), followed by Communication Openness (61.3%).

Conclusion: The positive rate of PSC was 71.4% at Long An General Hospital. The study results recommend strengthening training and providing knowledge about PSC for all health staff, especially new staff; improving hospital infrastructure, including medical facilities and equipment; and developing a policy to support medical error reporting.

Keywords: Patient Safety Culture, medical error, Long An General Hospital.

1. INTRODUCTION

Patient safety (PSA) is a fundamental principle of the healthcare industry. PSA is to ensure that patients are safe during care and treatment to avoid unexpected injuries, to establish systems and management processes to minimize errors, and to increase the ability to prevent incidents promptly [1]. Medical errors are harms related to medical management (different from complications due to disease) that encompass the areas of diagnosis, treatment, care, and the use of medical equipment in the provision of medical services. Medical errors can be prevented or not. [2]. Medical errors cause 10-15% of all deaths in low- and middle-income countries [3]. Establishing a patient safety culture (PSC) is essential and vital to improving service quality.

In Vietnam, the Department of Health in major cities and provinces has also carried out many activities to enhance PSC. The Department of Health of Long An province has proposed using the HSOPSC-VN2015 toolkit in research activities, as well as regular monitoring of PSC in hospitals [4]. PSC has not been well implemented, especially in lower-level hospitals and public hospitals [5], [4], [6]. Areas with low positive ratings included multi-coordination in patient handovers, staffing shortages, frequency of incident reporting, and lack of accountability when errors occurred [7]. In addition, factors affecting PSC also need to be studied to help managers and leaders of medical facilities develop appropriate solutions to enhance PSC, especially in outpatient clinics within hospitals.

Long An General Hospital is a Grade I hospital under the Department of Health, offering a wide range of

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specialties. The hospital currently has 838 medical staff in 7 functional departments, 20 clinical departments, and five paraclinical departments. PSC has been deployed at Long An General Hospital with many positive records in applying measures to prevent medical errors [8]. However, there has been no research on PSC aspects such as open disclosure of errors, non-accusatory behavior, patient handover and transfer, human resources, frequency of incident reporting, awareness of patient safety, and teamwork between departments. Therefore, we conducted this study to assess the current status of PSC at Long An General Hospital năm 2023.

2. METHODS

2.1. Method design: Cross-sectional study.

2.2. Time and duration: From August to November 2023 at Long An General Hospital, Long An province.

2.3. Sample size and sampling method

We calculated the sample size using the following formula for a population proportion with specified absolute precision:

$$n = Z^2_{1-\alpha/2} \frac{p(1-p)}{d^2}$$

In which we chose p=0.747 following the result of the positive rate of health providers in Nong Nghiep General Hospital in 2020 of Vu Tuan Anh [9] and an absolute precision required as d=0.07. A total of 187 health providers were involved from the four faculties (General Surgery, Trauma Surgery, Internal Medicine, and Pulmonology - Kidney) in Long An General Hospital.

2.4. Data collection

The toolkit was a questionnaire, the HSOPSC-VN2015, published by the Ho Chi Minh City Department of Health. The questionnaire consists of 42 questions, divided into 12 areas, and uses a 5-point Likert scale to evaluate responses (ranging from 'completely disagree' to 'completely agree') or frequency (ranging from 'never' to 'always').

Scoring

The PSC assessment criteria were used according to AHRQ recommendations for patient safety culture surveys [10]. Each question (negative questions are scored in reverse) is divided into three groups: Positive (4-5 points), Acceptable (3 points), and Not Positive (1-2 points). The PSC score for each area is the average percentage of positive scores for each question that comprises that area. The same calculation is also applied to determine the overall positive response rate regarding PSC, based on the HSOPSC-VN2015 scale.

2.5. Data analysis

The data analyses were carried out using SPSS 20.0. Descriptive analyses include percentages and mean values..

2.6. Ethical issues

The study was approved by the Institutional Review Board of the University of Public Health (No. 385/2023/YTCC-HD3 in 2023).

3. RESULTS

3.1. General information of participants

Table 1. General information about health providers in Long An General Hospital

General information		Frequency (n=187)	Ratio (%)
Sex	Male	75	40.1
	Female	112	59.9
Age	21-30 years old	58	31.0
	31-40 years old	67	35.8
	≥40 years old	62	33.2
Professional	Medical doctor	58	31.1
	Nurse/ Midwife	75	40.1
	Technician	27	14.4
	Other	27	14.4
Work duration	1 to 5 years	78	41.7
	6 to 10 years	51	27.3
	10 years or higher	58	31.0
Weekly working hour	≤40 hours/ week	12	6.4
	40-60 hours/ week	135	72.2
	≥60 hours/ week	40	21.4

Table 1 shows that the proportion of female medical staff is higher than that of males, 59.9% compared to 40.1%. The proportion of medical staff aged 31-40 accounts for the highest proportion of 35.8%. The professional qualifications also reflect the

general composition of the medical staff at Long An General Hospital, with nurses comprising the highest proportion at 40.1%, followed by medical doctors at 31.1%. The majority of staff (69%) have ≤10 years of experience working in the hospital. The number of staff working 40-60 hours per week accounts for the highest proportion (72.2%).

3.2. Assessment of the Patient Safety Culture

Table 2. Assessment of the Patient Safety Culture using HSOPSC-VN2015 tool in Long An General Hospital

Dimension		n (%)		
		Not positive	Acceptable	Positive
Assessment of the Patient Safety Culture		**8.7**	**19.8**	**71.4**
7	Nonpunitive Response to Error	7.8	36.5	55,6
6	Staffing	13.2	30.6	56,1
5	Communication Openness	13.7	25.0	61,3
12	Frequency of Event Reporting	6.1	23.5	70,4
10	Hospital Handoffs and Transitions	6.3	21.9	71,8
8	Hospital Management Support for Patient Safety	8.9	16.4	74,7
1	Teamwork Within Units	12.4	12.2	75,4
3	Organizational Learning - Continuous Improvement	8.6	14.6	76,8
11	Overall Perceptions of Safety	5.9	16.6	77,5
2	Supervisor/Manager Expectations & Actions Promoting Safety	8.3	13.2	78,5
9	Teamwork Across Hospital Units	7.1	14.0	78,9
4	Feedback and Communication About Error	6.4	13.5	80,0

Table 2 shows that 6 out of 12 dimensions achieved positive results above 75%. The rate of positive feedback on PSC in the whole hospital reached 71.4%. Of which, the highest was recorded in the dimension "Feedback and Communication About Error" with 80.0%, followed by "Teamwork Across Hospital Units" with 78.9%. The lowest rate of positive feedback was recorded in the dimension "Nonpunitive Response to Error" with 55.6%, followed by "Staffing" with 56.1% and "Communication Openness" with 61.3%.

Table 3. Number of Events Reported

Event (error)	Frequency (n=187)	Ratio (%)
0	89	47.6
1-2 errors	71	38.0
3-5 errors	11	5.9
6+ errors	16	8.6

Table 3 showed that 47.6% of healthcare providers had never reported a medical error in the past year. And fewer than 1 error was reported per healthcare worker on average.

4. DISCUSSION

Not outside the general trend and mandatory requirements of the health system, Long An General Hospital is also one of the units actively implementing activities that prioritize the first principle of service provision: ensuring patient safety. The report shows that, over the three years from 2020 to 2023, Long An General Hospital recorded approximately 121 medical errors, including 12 serious complications. In this study, the results also showed that service provision is still not entirely safe, as nearly 30% of employees generally rated PSC as either not positive (8.7%) or acceptable (19.8%). The results showed that the PSC at Long An General Hospital was similar to or lower than those in previous studies. Previous studies showed that the PSC rate of the Department was positively evaluated by medical staff at about 65%-75%, such as the 2020 study at Nong Nghiep General Hospital with about 74.7% of the respondents saying that the hospital did a good job with patient safety and the remaining 1/4 considered the hospital's safety to be acceptable or poor/very poor [9]. Or a study at Thu Duc Hospi-

tal in 2020 with an ATNB level of very good at 68.3% and an acceptable level of 22.8% [11]. Our results were only higher than the positive evaluation rate of 56% of medical staff at Vinmec City International General Hospital in 2017 [12]. This difference may be due to differences in study locations or study timing. Overall, the low positive assessment rate suggests that the PSC needs improvement at Long An General Hospital.

The positive evaluation rates for each of the 12 PSC dimensions ranged from 55.6% (Nonpunitive Response to Error) to 80% (Feedback and Communication About Error). The rates for each of these areas were similar to or lower than the results of previous studies in other hospitals such as the Agricultural General Hospital study1 [9], Nguyen Dinh Chieu General Hospital, Ben Tre in 2017 [13] or research at Thu Duc Hospital, Ho Chi Minh City in 2020 [11]. In general, this can be attributed to the fact that, in the face of competitive pressure, significant progress has been made in recent years in managing service provision. The positive evaluation results of the PSC at Long An General Hospital are pretty similar to those of previous studies conducted from 2015 to the present, such as the 2021 study by Children's Hospital 1 [6].

Compared to international studies, our overall PSC results are comparable to or higher than those of some studies using the same toolkit in hospitals in countries with similar or even higher economic conditions than ours. Studies in Asia with countries with more cultural similarities and higher economic conditions, such as China and Taiwan, often show that about 2/3 of the respondents positively evaluate PSC, such as a study in 42 hospitals in Taiwan in 2012 [14] or a study in 32 hospitals in 15 cities in China in 2013 [15]. Similarly, when compared to countries with similar or lower incomes in Africa, our study found a much higher rate of positive assessment of PSC. A study in four hospitals in southwestern Ethiopia in 2016 found that less than 50% of health providers had a positive evaluation of PSC [16]. This can be explained by the fact that most African countries lack national policies on PSC practices. At the same time, countries lack adequate resources and do not have support systems for PSC implementation, including strategies, guidelines, tools, and standards on PSC.

5. CONCLUSION

The positive response rate of PSC was 71.4%. Out of the total 12 dimensions of PSC, six dimensions achieved a positive rate of 75% or higher. In contrast, the three dimensions with the lowest positive response rate were Staffing (56.1%), Nonpunitive Response to Error (55.6%), followed by Communication Openness (61.3%). The study results recommend strengthening training and providing knowledge about PSC for all health staff, especially new staff; improving hospital infrastructure, including medical facilities and equipment; and developing a policy to support medical error reporting.

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