INTEGRATED EMERGENCY RESPONSE SYSTEM BY HEALTH WORKERS AT THE TELUK DALAM COMMUNITY HEALTH CENTER, TELUK DALAM DISTRICT, SOUTH NIAS REGENCY, NORTH SUMATRA PROVINCE, YEAR 2024

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ABSTRACT

The Integrated Emergency Management System (SPGDT) is a government initiative aimed at improving rapid and appropriate emergency services through the integration of healthcare services. However, its implementation in the field often encounters obstacles such as lack of socialization, coordination, and training among healthcare workers, especially at primary healthcare facilities like community health centers (Puskesmas). This study aims to analyze the implementation of the SPGDT by healthcare workers at Teluk Dalam Public Health Center, Teluk Dalam Sub-district, South Nias Regency, North Sumatra Province in 2024, as well as to identify the characteristics of the healthcare workers including age, education, work experience, training, and knowledge level. This research used a descriptive analytic design with a cross-sectional approach. A total of 33 healthcare workers were selected using total sampling. Data were collected using questionnaires and analyzed descriptively using frequency distribution. The majority of respondents held a bachelor's degree (48%), were over 35 years old (61%), had more than 1 year of work experience (79%), had participated in training less than once (55%), and had good or sufficient knowledge (76%) regarding SPGDT. The implementation of SPGDT at Teluk Dalam Public Health Center is supported by healthcare workers who mostly have mature age, sufficient work experience, and adequate knowledge. However, there remains a need to improve training to enhance the effectiveness of the integrated emergency management system.

Keywords: SPGDT, Healthcare Workers, Emergency Services, Training, Knowledge

Introduction

In an effort to improve the quality of integrated emergency services, the government issued regulations governing the implementation of emergency services within the Integrated Emergency Management System (SPGDT). This is stated in Regulation of the Minister of Health of the Republic of Indonesia Number 47 of 2018 concerning Emergency Services. Emergency services are carried out at Community Health Centers (Puskesmas) and other health facilities. If evacuation is required, the first-level health care facility that is part of the SPGDT can carry out the evacuation. (Permenkes RI, 2018). Emergency medical services (EMS) in Indonesia remain unsatisfactory due to a lack of integration and coordination between health facilities and healthcare workers. As a result, the public often feels disappointed when they need medical assistance. Although almost all cities in Indonesia have Emergency Rooms (IGDs) and various other health facilities, these services still operate independently without proper coordination. This often leads to public complaints about the inadequate quality of emergency healthcare services.

(Yudhanto, Suryoputro and Budiyanti, 2021)

Research conducted by Mochamad, Arso, and Setyaningsih (2019) revealed that many Community Health Center (Puskesmas) staff do not understand the technical aspects of program implementation because program socialization was only conducted once and was limited to drivers, while technical staff, such as doctors and nurses/midwives, had not received such socialization. Ineffective communication with Community Health Center staff led to misunderstandings in the implementation of the SPGDT program. This was due to a lack of interaction between the implementation team, management, and the health office, leading to confusion among program implementers. (Keperawatan and Kesehatan, no date)

Research conducted by Mochamad, Arso, and Setyaningsih (2019) revealed that Community Health Center (Puskesmas) staff did not understand the technical aspects of program implementation due to a lack of program socialization. Socialization was conducted only once and was limited to drivers, leaving other technical staff, such as doctors and nurses/midwives, unaware of the program. This indicates that communication between Community Health Center (Puskesmas) staff and relevant parties is ineffective, leading to confusion in the implementation of the SPGDT program.(Yudhanto, Suryoputro and Budiyanti, 2021)

Emergencies can occur anywhere and at any time, including during disasters. Due to its geological and geographical location, Indonesia faces a high risk of disasters. Geologically, Indonesia is located at the confluence of four major tectonic plates, making it vulnerable to natural disasters such as earthquakes, tsunamis, and volcanic eruptions. Furthermore, Indonesia's geographical location in the tropics, where two oceans and two continents meet, makes it vulnerable to hydrometeorological disasters such as floods, landslides, flash floods, extreme weather, extreme waves, abrasion, and drought, which can trigger forest and land fires. (Santoso, Pramono and Persada, 2019)

To prevent death and disability in emergency victims, rapid and appropriate care is essential. Providing emergency care requires good coordination between first responders and referral hospitals. Facilities, including communication and transportation, are crucial in determining the success of care. The increasing number of victims is due to suboptimal treatment. To improve the quality of emergency services, an integrated emergency response system is needed at every health facility, taking into account the capabilities and resources available at hospitals, community health centers, and clinics. (Dewi, Saputra and Daniati, 2022)

As is known, based on their service capabilities, community health centers are categorized into non-inpatient and inpatient health centers. According to Minister of Health Regulation Number 43 of 2019 concerning Community Health Centers, an inpatient community health center is a community health center whose resources have been increased to provide inpatient services, particularly for normal deliveries and other health services requiring hospitalization. This regulation also emphasizes that community health centers in rural, remote, and very remote areas far from advanced healthcare facilities can be developed into inpatient health centers. The presence of inpatient health centers in these areas is expected to improve the accessibility of healthcare services for local communities and facilitate access for residents requiring inpatient care. (Kemenkes, 2025), 2025)

Based on the preliminary survey above, the researcher is interested in taking the research title "Integrated Emergency Response System by Health Workers at the Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province in 2024".

Research Method

This research method is observational/survey, where data is collected from respondents using questionnaires without any intervention on the subjects. The research method is descriptive analytical with cross-sectional design, examining the correlation between risk factors and effects in the form of certain diseases or health conditions (Roflin 2022). The location of this research was the Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province, in 2024. This ressearch was conducted from May to June 2024.

The population of this study was 33 health workers at the Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province, in 2024.

The sample in this study was a subset of the population; the sample in this study was the entire population, with a total of 33 health workers at the Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province, in 2024.

Data Collection Method, Primary data collection is collected by researchers directly from data sources such as sample identity data (Education, Age, Length of Work and Training History) respondent data. Data collection is carried out by distributing questionnaires via form links to respondents, which are then filled out by the respondents themselves after being explained how to fill them out by the researcher. Before being used, the questionnaire has been tested on populations with similar characteristics in different locations to ensure its second validity. Secondary data of this study was taken from the target population of the North Sumatra Province health development program as well as library studies (literature), magazines and health journals related to this study.(Keperawatan and Kesehatan, 2024)

The data measurement aspect is carried out through respondents' answers to questions about the characteristics of health workers (Education, Age, Length of Work and Training History) at the Teluk Dalam Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province in 2024, Data Processing and Analysis The data processing process involves several stages, namely: Editing: re-checking the accuracy of the collected data to ensure its correctness. Coding: providing numeric or number codes to categorized data to facilitate analysis. Entry: entering collected data into a table or computer database. Cleaning: re-checking the data before and after entering it into the database to ensure there are no errors. (Rofflin, 2021)

Result

Univariate data analysis

Frequency Distribution of Integrated Emergency Response System by Health Workers at Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province in 2024 Based on Education

No	Category	frequency	Percentage
1	Diploma	3	9,0
2	Bachelor's Degree	16	48,0
3	Master's/Professional Degree	14	4,0
	Amount	**33**	**100**

Based on the results of the analysis in table 4.1 above, the majority of health workers have a bachelor's degree, namely 16 people (48%) and the minority have a diploma, namely 3 people (9.0%).

Frequency Distribution of Integrated Emergency Response System by Health Workers at Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province in 2024 Based on Age

No	Category	frequency	Percentage
1	>35 Year	20	61,0
2	<35 Year	13	39,0
	Amount	**33**	**100**

Based on the results of the analysis in table 4.2 above, the majority of health workers are > 35 years old, namely 20 people (61.0%) and the minority are aged < 35 years old, namely 13 people (39.0%).

Frequency Distribution of Integrated Emergency Response System by Health Workers at Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province in 2024 Based on Length of Service

No	Category	frequency	Percentage
1	> 1 Year	26	79,0
2	≤ 1 Year	7	21,0
	Amount	**33**	**100**

Based on the results of the analysis in table 4.3 above, the majority of health workers have worked for > 1 year, namely 26 people (79.0%), and the minority have worked for < 1 year, namely 7 people (21.0%).

Frequency Distribution of Integrated Emergency Response System by Health Workers at Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province in 2024 Based on Training History

No	Category	frequency	Percentage
1	≤1 time	18	55,0
2	>1 time	15	45,0
	Amount	**33**	**100**

Based on the results of the analysis of table 4.4 above, the majority of training history was <1 time, as many as 18 people (55.0%) and the minority had training history as many as 15 people (45.0%).

Frequency Distribution of Integrated Emergency Response System by Health Workers at Teluk Dalam Community Health Center, Teluk Dalam District, South Nias Regency, North Sumatra Province in 2024 Based on Knowledge

No	Category	frequency	Percentage
1	good/fair	25	76,0
2	not enough	8	24,0
	Amount	**33**	**100**

Based on the results of the analysis in table 4.5 above, the majority are skilled, as many as 25 people (76.0%) and the minority are unskilled, as many as 8 people (24.0%).

Discussion

Based on the results of the analysis of table 4.1 above, the majority of health workers with a Bachelor's degree are 16 people (48%) and the minority with a Diploma education are 3 people (9.0%). Based on the results of the analysis of table 4.2 above, the majority of health workers > 35 years old are 20 people (61.0%) and the minority age < 35 years old are 13 people (39.0%). Based on the results of the analysis of table 4.3 above, the majority of health workers with work experience > 1 year are 26 people (79.0%) and the minority < 1 year are 7 people (21.0%). Based on the results of the analysis of table 4.4 above, the majority of training history < 1 time are 18 people (55.0%) and the minority training history are 15 people (45.0%). Based on the results of the analysis of table 4.5 above, the majority is good/sufficient as many as 25 people (76.0%) and the minority is less as many as 8 people (24.0%).

Optimal performance by health workers, particularly midwives, will improve the quality of health services for pregnant and childbirth women. This ensures a safe pregnancy, delivery, and postpartum period, thus minimizing maternal and infant mortality. Research shows that age differences among midwives do not significantly impact outcomes. More important differences lie in length of service and experience. Education plays a crucial role in helping midwives develop their skills and knowledge, especially for those with deficiencies. Through education, midwives can receive guidance, coaching, and counseling to enhance their professional abilities. Training is an effective strategy for improving the abilities and skills of human

resources, enabling them to better carry out their duties and responsibilities (Situmorang *et al.*, 2024)

Work experience is a crucial factor in increasing employee effectiveness and productivity within a company. The longer employees work, the more experience they gain, enabling them to work more effectively and improve their output. To understand the role of work experience in improving employee performance, a literature review and analysis of previous research findings are necessary. By gaining extensive work experience, employees can enhance their skills, increase their work motivation, and achieve higher performance in carrying out their duties. (Eka *et al.*, 2024)

The ability of healthcare workers in the emergency department to perform effective triage is crucial in identifying emergency cases and providing quality care. This knowledge can also help prevent death and further disability, and the results of this study are also in line with research conducted by Lusiana (2011). The implementation of effective triage in the emergency department of Puri Indah Hospital, Jakarta is greatly influenced by the knowledge and attitudes of healthcare workers, so the relationship between these two factors is very important to note.(Juliana *et al.*, 2025)The results of the study showed that there was a significant relationship between the attitudes of ER nurses and the emergency actions they performed. Statistical analysis also showed that the behavioral determinants of nursing staff had a significant relationship with patient care in the ER, with a P-value of 0.014. This finding is also supported by the results of other studies that have been conducted by Gurning et al. (2014) The results of the analysis showed that there was a significant relationship between the attitudes of ER health workers and their

actions, with a P-value of 0.006. These attitudes are influenced by several factors, including the influence of other people who are considered important or respected, such as monitoring carried out by that person in the work environment, which can influence the actions of health workers. A person's positive attitude can influence their actions. Statistical analysis showed a significant relationship between respondents' knowledge and their actions in dealing with emergencies, with a P-value of 0.030. These results indicate that the higher the level of knowledge, the more skilled a person is in handling emergencies. Increased knowledge can be obtained through work experience, training, and access to various information sources available in the ER. In line with research by Salonen et al. (2007), work experience has a significant relationship with skills and knowledge, especially for nurses who have worked in the ER for more than five years. Those with longer work experience tend to have better triage skills compared to nurses with less work experience. A study conducted by Hicks et al. (2003) found that years of experience increased the consistency of decision-making in triage skills (r = 0.42, p = 0.004). (Pasaribu, Yun and Ridesman, 2022)

As a midwife with a degree in care provider, the researcher assumes that she can provide appropriate care in handling choking cases. Furthermore, the researcher can also act as a communicator to provide education to teams or individuals who have limited knowledge about the Integrated Emergency Management System by Health Workers. As a health worker, one must also be able to mobilize the community and health workers to participate in counseling on the Integrated Emergency Management System. As a midwife with a Decision Maker profile, she can provide intensive care in emergency situations for mothers

and children, and make referrals if necessary. Furthermore, as a leader in the room or Manager, she can carry out effective coordination in the Integrated Emergency Management System. The final profile as a midwife can also conduct research on how the Integrated Emergency Management System can run smoothly.

Conclusion and Suggestion

1. Based on the analysis of Table 4.1 above, the majority of healthcare workers have a bachelor's degree (16) and a minority have a diploma (3).
2. Based on the analysis of Table 4.2 above, the majority of healthcare workers are over 35 years old (20) and a minority are under 35 years old (13).
3. Based on the analysis of Table 4.3 above, the majority of healthcare workers have worked for over 1 year (26) and a minority have worked for less than 1 year (79).
4. Based on the analysis of Table 4.4 above, the majority have training history (18) and less than 1 year (55.0%), and the minority have training history (15) and less than 1 year (45.0%).
5. Based on the results of the analysis of table 4.5 above, the majority are good/sufficient at 25 people (76.0%) and the minority are less at 8 people (24.0%).

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