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Knowledge and Skills of School Disaster Risk Reduction Management (DRRM) Coordinators in Irosin District I: A Mixed-Methods Analysis

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ABSTRACT : Natural hazards, including earthquakes, cyclones, and climate-related events, have escalated in frequency and intensity in the 21st century posing significant global challenges. The Philippines, located along the Pacific "Ring of Fire," is highly susceptible to typhoons, earthquakes, floods, volcanic eruptions, and landslides, all of which threaten educational continuity. As a result, the Department of Education (DepEd) has implemented the Comprehensive Framework for Disaster Risk Reduction and Management (DRRM) in Basic Education to address these challenges, with school DRRM coordinators playing a critical role in disaster preparedness, response, and recovery. This study investigates the knowledge and skills of School DRRM Coordinators in Irosin District 1, Irosin, Sorsogon, focusing on DRRM modules, psychological first aid, and school-based first aid. A mixed-methods research design was employed, utilizing both quantitative and qualitative data to assess participants' knowledge and skills. A knowledge test design was used to measure the knowledge, while qualitative insights were gathered from unstructured interviews. Findings revealed that school DRRM Coordinators had varying levels of knowledge across modules. Inclusive and Child-Centered DRRM and Supplies and Logistics in Education in Emergencies were rated outstanding, while Education in Emergencies, Information Management, and Temporary Learning Space were very satisfactory. Modules such as PFA and RA 10821 were satisfactory, but Philippine Basic Education System, Conflict Sensitive Education, Alternative Delivery Modes, and Camp Coordination and Camp Management were fairly satisfactory. Modules including School-Based DRRM, DRRM-CCA Terminologies, International and National Foundations of DRRM on Basic Education, Resource Mobilization and Partnership, Contingency Planning for Education, and Introduction to Peace and Conflict did not meet expectations. The qualitative data identified challenges met that possibly caused the low scores such as (1) Lack of Initial Training and Resources; (2) Unexpected role assignments; and (3)Uncertainty and concern about the responsibility.. While, skills demonstrations showed average performance, there were challenges identified in (1) Role uncertainty; (2) Poor coordination with stakeholders like the LGU (3) Over-reliance on external support and online resources; (4) Emotional impact; (6) Training gaps in practical first aid knowledge; and (7) Some outdated DRRM resources. These findings emphasize the need for a focused training program and updated DRRM resources to enhance emergency preparedness in school settings.

Keywords - Disaster Preparedness, Disaster Risk Reduction and Management, Knowledge and Skills, School DRRM Coordinators, Training Program

I. INTRODUCTION

The 21st century has shown a notable rise in both the frequency and severity of natural hazards, including earthquakes, cyclones, and climate-related events and these events posed substantial challenges globally. The Philippines, due to its geographic location along the Pacific "Ring of Fire," is especially vulnerable to these hazards particularly typhoons, earthquakes, floods, volcanic eruptions, and landslides, which threaten the safety of the country and mostly impedes the continuity of education (Center for Excellence in Disaster Management and Humanitarian Assistance, 2015). These disasters disrupt schools, hindering children's education, and cauing severe economic consequences, particularly in low-income regions. According to Ritchie, Rosado, and Roser (2022), disasters like earthquakes and storms claim an

average of 40,000 to 50,000 lives annually, while extreme events have resulted in death tolls reaching tens or even hundreds of thousands.

To mitigate these risks, the Department of Education (DepEd) in the Philippines developed the Comprehensive Framework for Disaster Risk Reduction and Management (DRRM) in Basic Education, which focuses on three primary pillars: ensuring safe learning facilities, enhancing school disaster management, and integrating DRR in education (DepEd, 2015). School DRRM coordinators are essential in this framework, coordinating disaster preparedness, response, and recovery efforts. They play a critical role in managing communication, facilitating risk identification, and leading multi-hazard drills. DepEd Order No. 21, Series of 2015, outlines their duties, emphasizing the importance of effective pre-disaster, disaster and post-disaster coordination to minimize its impact.

The DepEd MATATAG program, as noted by Babaran (2023), focuses on optimizing learner well-being, promoting inclusive education, and creating safe learning environments. Similarly, initiatives like "THE VILLAGE INC" in Sorsogon Province aim to build community resilience and empower future generations to proactively engage in disaster preparedness (Division Memorandum No. 262, s. 2023).

In addition, a study by Estera (2023) highlighted that while teachers in Juban District reported higher awareness of DRRM measures, students had lower perceptions of their availability. The study aimed to assess the knowledge and skills of School DRRM Coordinators to inform the development of an intervention, such as a tailored training program. This initiative seeks to enhance their disaster preparedness and response capabilities, ultimately strengthening the resilience of schools and communities during crises.

Objectives of the Study

Generally, this study aimed to assess the knowledge and DRRM skills of School DRRM Coordinators, focusing on standardized DRRM modules, psychological first aid, and school-based first aid, as well as their practical disaster management skills.

II.   METHODOLOGY

This study employed a mixed-method research design to assess the knowledge and skills of School DRRM Coordinators in Irosin District 1. A total of 16 coordinators from 14 elementary schools, one integrated school, and one secondary school in Irosin District 1, Sorsogon, participated in the study. The study implemented purposeful participant selection to acquire representative knowledge about disaster risk reduction management from diverse schools of all types and sizes. The chosen methodology enabled researchers to thoroughly study how different districts implement disaster risk reduction management practices.

Data collection involved a knowledge-based test composed of objective-type questions covering standardized DRRM modules, psychological first aid, and school-based first aid. Through practical demonstration assessments researchers evaluated participants' DRRM skills by using designed evaluation rubrics. The evaluation methods helped researchers identify participant basic knowledge levels alongside their core skills and areas that required improvement. Protocol adherence to ethical standards took place when researchers obtained consent from participants and acquired approvals from relevant controlling entities.

Quantitative data were analyzed using mean percentage scores (MPS) to evaluate participants' knowledge and skills levels. Skills demonstrations were rated with a 4-point rubric, providing an objective measure of competency. Qualitative data, gathered through pre-intervention unstructured interviews, were analyzed using thematic analysis. This method identified, analyzed, and reported recurring patterns and themes, offering rich insights into the participants' experiences and perspectives regarding Disaster Risk Reduction and Management (DRRM). Thematic analysis was utilized to reveal key themes, including variability in participants' prior knowledge of DRRM concepts, and assess the need for training in psychological first aid and emergency response, as well as prove the importance of hands-on, practical exercises.

The findings were used as these highlighted the need for a targeted intervention to address these gaps. As a response, a Learning and Development Training Program was proposed, aimed at enhancing coordinators' disaster preparedness and response capabilities. This program is expected to strengthen the resilience of schools and their communities in times of crisis.

III.   RESULTS AND DISCUSSION

1) Knowledge of School DRRM Coordinators on the Standardized School Disaster Risk Reduction Management Modules, Psychological First Aid and School-based First Aid

Table 1A presents the percentage scores of the Pretest on the 17 standardized modules, psychological first aid and school-based first aid in the pretest. The data in these variable and sub-variables were gathered prior to the school DRRM training and the descriptions were based on DepEd Memorandum No. 08 s. 2015.

As shown in the table, along the Standardized Modules, Inclusive and Child-centered DRRM as well as Supplies and Logistics in Education in Emergencies, both have Percentage Scores (PS) of 90 which are described as Outstanding. Education in Emergencies (EiE) got 79, Information Management and RADaR Reporting and Temporary Learning Space (TLS)both got 78 Percentage which are all described as Very Satisfactory. While the module on RA 10821 – Rights of Children During Emergency Relief is described as Satisfactory with a percentage score of 81. Additionally, the modules on the Philippine Basic Education System, Conflict Sensitive Education, Alternative Delivery Modes, and Camp Coordination and Camp Management are described as Fairly Satisfactory with a percentage score of 79, 78, 78, 76, respectively.

Table 1. Knowledge of School DRRM Coordinators

Categories	Pretest	
	Percentage Score	**Description**
Standardized DRRM Modules		
Module 1: The Philippine Basic Education System	79	Fairly Satisfactory
Module 2: DRRM-CCA Terminologies	68	Did not meet Expectation
Module 3: International and National Foundations of DRRM on Basic Education;	61	Did not meet Expectation
Module 4: The Comprehensive Basic Education Framework	45	Did not meet Expectation
Module 5: Introduction to Peace and Conflict;	54	Did not meet Expectation
Module 6: Conflict Sensitive Education;	78	Fairly Satisfactory
Module 7: Inclusive and Child-Centered DRRM;	90	Outstanding
Module 8: Education in Emergencies (EiE)	89	Very Satisfactory
Module 9: Alternative Delivery Modes;	78	Fairly Satisfactory
Module 10: Information Management and RADaR Reporting;	88	Very Satisfactory
Module 11: School-Based DRRM;	69	Did not meet Expectation
Module 12: Camp Coordination and Camp Management;	76	Fairly Satisfactory
Module 13: RA 10821 – Rights of Children During Emergency Relief;	81	Satisfactory
Module 14: Temporary Learning Space (TLS);	85	Very Satisfactory
Module 15: Supplies and Logistics in Education in Emergencies;	90	Outstanding
Module 16: Resource Mobilization and Partnership;	59	Did not meet Expectation
Module 17: Contingency Planning for Education	59	Did not meet Expectation
Psychological First Aid (PFA)	83	Satisfactory
School-based First Aid	37	Did not meet Expectation

However, the remaining standardized modules on School-Based DRRM has PS of 69, DRRM-CCA Terminologies got 68, International and National Foundations of DRRM on Basic Education has 61, Resource Mobilization and Partnership and Contingency Planning for Education both got 59, Introduction to Peace and Conflict has 54, and The Comprehensive Basic Education Framework got a percentage score of 45 which are all described as DNME or Did not meet expectation. Furthermore, the percentage score of 83 on the pretest in Psychological First Aid (PFA) means the participants have satisfactory knowledge. While the result on school-based First Aid did not meet expectations with a percentage score of 37.

The pre-test score for PFA reflects that participants have satisfactory knowledge, though they a considerably lower pre-test score with regard to School-based First Aid, pointing to a gap in understanding. This may imply that not all school DRRM coordinators are properly trained. Perhaps this could be attributed to some limitations, such as lack of time available for teachers, noting that they may already have numerous tasks added to their daily routine. With so many teachers have to accomplish, they may fail to allocate enough time to undergo training and capacity-building. Hence, a reasons such as stress that result to burn out, mood swings and change of personality in the DRRM coordinator can be observed, often due to factors such as too many workloads and lack of specialized training. This disrupts continuity and consistency in DRRM efforts within any given school because each new coordinator would need some time to acquaint themselves with the details of the job. Ultimately, remedies to this—particularly improving their work-life balance and on time and resources spent on this type of training—can help better equip school DRRM coordinators for this crucial role in promoting safety and resilience within educational institutions.

These ideas are also supported by the study of Bello et al. (2022) who extensively explored the concept and impact of work-life balance in modern organizations. They emphasized that prioritizing work-life balance is crucial for employee well-being and job satisfaction, despite challenges like resistance from traditional structures and diverse employee preferences. However, successful work-life balance initiatives can lead to increased employee engagement, reduced burnout rates, and enhanced organizational reputation as a supportive employer.

In contrast, along the knowledge, the result of the study of Dimalanta and Salcedo (2018) on Disaster Risk Reduction and Management Capability of Coordinators in Schools Division Office of San Carlos City, Pangasinan are knowledgeable both in prevention and mitigation, preparedness, response, and rehabilitation and recovery.

Moreover, the idea of Hornbuckle (2022), supports the perceptions that pretests are non-graded assessments that determines each student's knowledge and proficiency in the subject matter that is employed to evaluate a learner's existing knowledge or comprehension of a specific subject before embarking on a learning initiative. Therefore, this approach aided the development of the learning and development training program in gaining deeper insights into participants' existing understanding of the subject matter and pinpointing areas where knowledge may be lacking.

Additionally, participants shared feedback through unstructured interviews, providing meaningful insights into their experiences. And the responses from the interview were systematically analyzed to present the qualitative data. Three key themes and patterns emerged from the participants' statements:

1. **Lack of Initial Training in School DRRM.** Multiple participants expressed that they were assigned roles or responsibilities of an SDRRM Coordinator even without prior training. Several respondents described their lack of training when they started their positions as staff members. Particularly, P3 shared that he/she was designated as SDRRM Coordinator following the death of the previous coordinator, without any prior preparation. P12 and P14 similarly stated that they assumed responsibility after their predecessor was promoted, leaving them unprepared for the role.
2. **Unexpected Role Assignment.** According to the provided data, some participants received their designations because of unexpected events like previous designates dying or being promoted, or because their former teachers left or obtained promotions. Some individuals obtained school desegregation positions because the previous teachers either passed away or moved up to other roles despite lacking knowledge about professional tasks.
3. **Uncertainty about the Responsibility.** The participants experienced stress as they felt unprepared for handling the responsibility tasks. The organization expected them to perform the duties before providing them basic training about their responsibilities, therefore making them unprepared for the scope of their tasks.

The qualitative data indicates that participants were often placed in positions of responsibility without adequate preparation or training. Their feelings of unpreparedness to fulfil these responsibilities tends to reduce both their self-assurance and their ability to perform their tasks successfully. More training and standardized transition methods should exist when assigning essential responsibility positions including emergency response leadership and disaster risk reduction management.

This is supported by the study conducted by Lopez et al. (2018), which examined disaster preparedness in schools and concluded that it was generally satisfactory. However, the authors highlighted concerns regarding non-compliance with certain issues, such as the inadequacy of training materials and the lack of training among School Disaster Risk Reduction Management Teams.

2) DRRM Skills of School DRRM Coordinators

This portion discusses the DRRM skills of school DRRM coordinators along ten (10) skills such as Camp Coordination and Camp Management, Psychological First Aid and school-based First Aid such as, Life-Threatening Bleeding, Dressings and Bandaging – Open Wounds, Splinting Upper Extremity/Lower Extremity Fractures, Airway Obstruction, Three-Person Log Roll, Immobilization – Long Spine Board (Backboard), and Burns.

Skills on Camp Coordination and Camp Management

This section focused on the coordination of camps and the management thereof. It dealt with establishing and organizing temporary shelter in camps, managing resources in a camp setting, ensuring camp residents are safe and well, coordinating efforts regarding relief between stakeholders.

As shown in Table 2A, both Groups 1 and 2 have average performances in terms of scenario accuracy, roles, and required elements, with corresponding scores of 2. However, Group 1 still has a slight advantage over camp management knowledge with a score of 3, while that of Group 2 is only 2.

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Table 2A. Skills on Camp Coordination and Camp Management

	Group 1		Group 2	
	Score	Description	Score	Description
Scenario Accuracy	2	Average	2	Average
Roles	2	Average	2	Average
Knowledge in camp management	3	Average	2	Average
Required Elements	2	Average	2	Average

It means that despite the very similar performances of both groups, Group 1 still has a relatively better notion regarding camp management. To this effect, Group 1 might have a more definite knowledge regarding camp management standards. That is important to deal with concerns in a better way where the best practices could be applied much easier, and changes are more easily adopted. Hence, Group 1 proves to excel at the challenges by processing and fine-tuning their operations within the camp to a high standard of task, proving detailed knowledge and refined problem-solving skills.

Briselli (2023) stated that understanding the kinds of domains within which one is working helps in improving on effectiveness and results. A better grasp of these specific contexts means that strategies and approaches can be developed to a more attuned and adapted appropriately, applied best practices with more finesse, and higher performance-driven standards. Keen awareness also promotes innovation, enhances problem-solving, and eventually leads to successful outcomes that are more sustainable.

After the presentation of one group, a member presented what transpired on their simulation. The key themes identified from the participants' responses were:

1. **Role Uncertainty.** Participants expressed their confusion about their responsibilities when managing the evacuation center. They were unaware of whether the school or the local government unit (LGU) should be responsible, which led to disorganization.
2. **Disorganization and Chaos.** The lack of training and orientation of the participants has resulted in the absence of clearer roles and responsibilities and has contributed to a chaotic and disorganized situation during evacuations, making it difficult for them to manage evacuees effective.
3. **Lack of Communication and Poor Coordination.** The emergency response became unclear because of lac of effective communication between the school staff and LGU.
4. **Inadequate Preparedness and Training.** Participants pointed out their insufficient training to handle evacuation tasks and it showed major shortcomings in their readiness to deal with emergencies.
5. **Overwhelmed and Underprepared Staff.** School employees experienced overwhelming responsibilities and lacked preparedness for their evacuation management tasks, which resulted in operational inefficiencies.

These themes collectively emphasize the need for clearer roles, better communication, and improved training for school staff to handle emergencies more effectively. This is supported by Oro and Benavides (2021) who examined the improvement of school-level DRRM practices in Sorsogon's Second Congressional District from 2016 to 2019. The study detailed procedures for pre-disaster simulations and planning along with disaster-time class suspensions and authority coordination and post-disaster assessment tasks and reporting for infrastructure evaluation and government agency collaboration. The recommendations aimed to improve readiness before disasters strike along with reaction effectiveness and sustained vulnerability assessments.

In addition, Herrity (2024) further supports the result of this study as his study emphasizes the importance of training, stating that it provides a clear path for enhancing knowledge and job skills, leading to better effectiveness. Although training may incur short-term costs, its long-term benefits outweigh these drawbacks. Employers are encouraged to implement training programs as they help employees acquire the skills and knowledge needed to adapt to industry developments and improve productivity. Additionally, training addresses areas identified in performance appraisals, fulfilling improvement needs, and prepares workers for greater responsibilities, boosting their sense of value within the organization.

Skills on Psychological First Aid

This section presented the relevance of PFA in a school setting. It articulated the role PFA plays in addressing the psychological and emotional needs of the learners, teaching, and other staff in the schools during and after emergencies or crises.

This describes the strengths and areas in the performance of PFA skills for both groups. Group 1 has to improve the introduction part of PFA but possesses good PFA skills, whereas they seemed reasonably capable of performing PFA in scenarios and is ready to take up actual practice. However, both groups need further training in communication and establishment of training evaluation and feedback. This enables recognition of differences

between these groups and therefore interventions to increase introductory skills in Group 1 and provide links to practical application in Group 2, thus developing a comprehensive approach to PFA in both groups.

Table 2B. Skills on Psychological First Aid

Category	Group 1		Group 2	
	Score	**Description**	**Score**	**Description**
Introduction	1	No Improvement	2	Average
Scenario	2	Average	3	Very Good
Communication skills/Use of effective communication	2	Average	2	Average
PFA Skills (Approach)	3	Very Good	2	Average

This is partially supported by the previous study of Wang et al. (2021) in relation to the effectiveness of PFA in reducing distress and enhancing self-efficacy. Their study detailed a protocol to assess the feasibility and acceptability of a locally tailored training program on PFA adapted to the local cultural and health care context, including systematic evaluations. This informed future large-scale trials or sustained training efforts to close the mental health promotion strategies implementation gap and further support employees to assist in their mental well-being management in crises.

Along PFA-relevant topics, when asked about their prior learning, and the sharing of experiences during emergency situation, several key themes emerge related to the challenges and limitations faced by teachers and school staff in providing first aid such as:

1. **Lack of Knowledge and Preparedness.** Many participants described their challenges in handling emergencies because they lacked sufficient knowledge about school-based first-aid procedures. The challenge of offering first help to students having panic attacks becomes evident for teachers because they lack proper knowledge about appropriate responses during these situations, according to P8. Participant P16 noted that the staff of their small school did not possess the necessary first aid equipment and knowledge when a student fell from a tree. They had to rely on the Municipal Disaster Risk Reduction and Management Office (MDRRMO) for assistance due to the lack of preparedness.
2. **Inadequate Resources and Training.** Participants pointed out that inadequate first aid tools and coursework training factors allowed them to perform well under emergency conditions. Participant P16 faced challenges in emergencies because their school lacked necessary first aid instruments, so they needed to summon help outside the facility. The absence of first aid knowledge within the school led P14's education institution to provide no initial help when a burn injury occurred from the school oven during laboratory time. Therefore, they required hospital transport for more medical attention.
3. **Real-Life Experiences of Handling Injuries.** The participants reported mundane wounds from their slips and other accidents that stayed manageable because of these incidents' basic severity. Participants P1, P5, and P8 reported that typical injuries with shallow wounds can be treated efficiently. The participants experienced these simple injury cases differently from critical emergencies, which proved to be more challenging due to deficient resources and information.
4. **Emergency Response and Support from External Authorities**. In cases of more serious injuries or panic attacks, participants highlighted the reliance on external authorities for assistance, such as the MDRRMO in one's experience, or the hospital in some cases when the student was burned. This points to a gap in the schools' ability to independently handle severe emergencies and underscores the need for better training and resources.
5. **Emotional and Psychological Impact.** The participants expressed their need to get help from MDRRMO and hospital personnel in serious medical situations after students receive treatment, like P14's injury incident. The schools display an inability to manage serious emergencies on their own, thereby indicating the necessity for proper first-aid training along with necessary resources.

The data suggests that a common theme among the participants is the struggle to respond effectively to emergencies due to insufficient training, lack of first aid resources, and the challenges of managing both physical and emotional aspects of students' health. The challenges were present alongside easy management of minor incidents, although severe injuries drove students to seek external medical assistance. Enhanced disaster preparedness and first aid training have become essential because schools need the necessary resources to manage emergencies better.

The result was supported by the study of Hodson (2023) that explores educational materials provided to schools in England to enhance preparedness for extreme events, which can have significant physical, emotional, and psychological impacts, particularly on children and young people. Also, Oduntan (2022) investigated early

childhood educators' emergency preparedness throughout the pandemic that adversely affected early childhood education. The evaluation system teaches how to determine if educators are prepared to tackle emergencies. An analysis of early childhood disaster education purposes encompasses a discussion of essential emergency management competencies educators require for effective crisis management. Children affected by COVID-19 receive attention, as well as the necessity of educational solutions for emergencies. An ecosystem needs development to support early childhood education during emergencies by providing uninterrupted power supply, subsidized internet access, computer-assisted learning, and training teachers to use modern educational technology.

Skills on Life-Threatening Bleeding

This portion consisted of training in first aid skills, equipped with identification and acting on life-threatening bleeding, to enable one to proactively respond to such cases with confidence and efficiency.

Table 2C. Skills on Life-Threatening Bleeding

Category	Pair 1	Pair 2	Pair 3	Pair 4	Pair 5	Pair 6	Pair 7	Pair 8
Knowledge	1 (No Improvement)	2 (Average)	2 (Average)	2 (Average)	3 (Average)	2 (Average)	2 (Average)	3 (Average)
Safety Practices	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Identifying the situation	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Performance	1 (No Improvement)	2 (Average)	2 (Average)	2 (Average)	3 (Very Good)	1 (No Improvement)	2 (Average)	2 (Average)
Empathy to Victim	3 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	2 (Average)	2 (Average)	3 (Very Good)
Language	2 (Average)	2 (Average)	3 (Very Good)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	3 (Very Good)

Table 2D shows the knowledge and performance gaps concerning life-threatening bleeding situations that underscore the need for training interventions in support of life-saving skills. Another unique finding is the expression of empathy that remains constant toward the victim.

This evidence shows that compassion is one of the key components of emergency response. Enhanced empathy and language skills are crucial in managing communication in high-stress situations. By focusing on the deficiency in knowledge through DRRM education and making use of the already acquired strengths, optimizes the response capabilities for better outcomes in the management of life-threatening bleeding situations.

The participants asserted that managing bleeding is an essential skill to school DRRM coordinators. The key themes from the qualitative data were:
1. **Essential First Aid Knowledge for School Personnel.** Some participants emphasized the critical need for school DRRM coordinators and all school personnel, to have basic first aid knowledge to respond to accidents and injuries among students.
2. **Frequent Accidents in Elementary Schools.** The data highlights that elementary schools, due to the high activity and playfulness of young children, are more prone to accidents, making first aid skills even more important in such environments.
3. **Lack of Immediate Medical Support.** The absence of a school nurse in many elementary schools, particularly in smaller ones, was pointed out as a reason why teachers and DRRM coordinators must be equipped to handle medical emergencies like heavy bleeding until professional help can be accessed.

These themes emphasize the need for practical first aid training and preparedness to effectively manage common accidents in schools. As has been previously reported in the study of Torani et al. (2019), disaster education is a pragmatic, operational, and cost-effective measure toward the management of a number of risks that come with emergencies. Evidence indicates that it is important to educate vulnerable groups on disasters. Though there are many methods to educate these groups, none is superior compared to others. However, the people trained are in a better position to protect themselves and other people during emergencies. Therefore, it is important to conceptualize and develop disaster education programs that are aimed at empowering members of the public to confront disasters effectively.

Skills on Dressings and Bandaging – Open Wounds

Table 2D provided an in-depth assessment of skills concerning Dressings and Bandaging for Open Wounds. The demonstration was done by 8 pairs. Noticeably, there were knowledge and performance deficits for Pair 1 and knowledge weakness on both Pair 1 and 4, with ratings of 1. Pair 5 went well and had a very good

rating in performance. Empathy towards the victim is strong across almost all pairs, as many have very good ratings on this one. Although, Pairs 3 and 6 used very good language during the demonstration.

Table 2D. Skills on Dressings and Bandaging – Open Wounds

	Pair 1	Pair 2	Pair 3	Pair 4	Pair 5	Pair 6	Pair 7	Pair 8
Knowledge	1 (No Improvement)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	3 (Average)
Safety Practices	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Identifying the Situation	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Performance	1 (No Improvement)	2 (Average)	2 (Average)	2 (Average)	3 (Very Good)	1 (No Improvement)	2 (Average)	2 (Average)
Empathy to Victim	3 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	2 (Average)	2 (Average)	3 (Very Good)
Language	1 (No Improvement)	2 (Average)	2 (Average)	3 (Very Good)	2 (Average)	2 (Average)	2 (Average)	3 (Very Good)

These findings underline the significance of the training intervention in covering knowledge gaps and improving performances in the management of open wounds. It may on because of previously identified strengths like empathy and language skills as a means toward achieving the best possible response from every pair. Indeed, the fact that most pairs elicited empathy for the victim indicates that first aid care is incomplete without compassion. The strengths in empathy and advanced language skills can be built on to improve communication for a much better care.

The idea is partially enlightened by the following study of Moudatso et al. (2020). Professionals who can sustain high levels of empathy elicit therapeutic change. "Empathy" has been described as the central communication skill for healthcare professionals, with emotion, cognition, and behavior dimensions. Professionals appreciate, understand patients' experience, making them feel comfortable enough to freely express themselves, hence meeting the healthcare needs adequately. This interfaces with the idea that issues of empathy belong at the very foundation of health and social care undergraduate education but should continue as a focus for professional development throughout their careers.

Skills on Splinting Upper Extremity/Lower Extremity

Table 2E compared Group 1 and Group 2 on the skills in the area of Splinting Upper Extremity/Lower Extremity Fractures, focusing on school settings.

Table 2E. Skills on Splinting Upper Extremity/Lower Extremity Fracture

Category	Group 1		Group 2	
	Score	Description	Score	Description
Knowledge	1	No Improvement	2	Average
Safety Practices	2	Average	2	Average
Identifying the situation	2	Average	2	Average
Performance	1	No Improvement	2	Average
Empathy to Victim	2	Average	2	Average
Language	2	Average	2	Average

Group 1 has significant weaknesses in knowledge and performance, scoring 1 in both. On the other hand, group 2 gives up an average performance in most categories, which proves that these are students with good bases but with ways to improve. In all groups, performance concerning questions on safety practices, identification of the situation, showing empathy to the victim, and language skills was average.

The implication from Table 2F is that there is some strong foundation which could be further refined. While these data show baseline proficiency in the skills or knowledge areas that were assessed, there has been a bit short of mastery attained.

Some participants mentioned that experiences as the school DRRM coordinator will made one realize how important first aid for fractures in schools are. The key themes from the data shared by the participants were:
1. **Importance of First Aid for Serious Injuries.** The incident of the pupil falling from a coconut tree highlights the necessity for school DRRM coordinators to have first aid knowledge, particularly in dealing with fractures and other serious injuries, to provide immediate care before professional help arrives.

2. **Anxiety and Inability to Respond in Emergencies.** The participant's experience reflects the anxiety and helplessness that can occur when school personnel are unprepared to handle emergencies. This emphasizes the need for proper training and preparedness to reduce stress and enhance response capabilities.
3. **Reliance on External Support.** The participant's decision to call the MDRRMO due to the lack of first aid knowledge illustrates the dependence on external emergency services in schools without sufficient in-house medical preparedness, further highlighting the gap in readiness.

These themes stress the importance of comprehensive first aid training for school staff to ensure effective management of serious injuries and reduce the dependency on external resources in urgent situations. Hurell (2024) has illustrated, simulation-based learning maximizes a wide variety of advantages for training. This would expose learners to realistic, firsthand experiences on different scenarios and even developments of practical skills. Moreover, the interactive attribute keeps the learner's interest and is an advantage in that aspect, since a high level of knowledge can be retained. In addition, simulations can be replicated by some style of learning, making them a cost-effective learning process in the long run while providing a training ground necessary for the enhancement of confidence competence and performance for tracking areas indicating the need for training.

Skills on Airway Obstruction

First aid for airway obstruction entailed a swift action to clear the blocked airway and the restore the breathing of a victim. In most cases, it may be helpful in saving a life from airway obstruction. Table 2F evaluates competence in Airway Obstruction management. About this skill, there was poor knowledge and performance by Pair 1 and Pair 4; each received a score of 1 for knowledge and performance. On the other hand, Pair 5 scored very good for performance, hence advanced proficiency in the management of cases of airway obstruction.

Table 2F. Skills on Airway Obstruction

Category	Pair 1	Pair 2	Pair 3	Pair 4	Pair 5	Pair 6	Pair 7	Pair 8
Knowledge	1 (No Improvement)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	3 (Average)
Safety Practices	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Identifying the Situation	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Performance	1 (No Improvement)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	1 (No Improvement)	2 (Average)	2 (Average)
Empathy to Victim	3 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	2 (Average)	2 (Average)	3 (Very Good)
Language	1 (No Improvement)	2 (Average)	3 (Very Good)	2 (Average)	3 (Very Good)	2 (Average)	2 (Average)	3 (Very Good)

Results show strength in advanced language skills. Communication and having high impact on much better care can now be enhanced. This allowed for relaying information clearer and more empathetic to the victim It further, developed a degree of trust and understanding as they communicate effectively to ensures the needs expressed by the victims were understood and attended to. More so, communications involved in responders were supportive of coordination in giving care and therefore better patient outcomes.

According to Rathore (2023), trust and communication have been the biggest building blocks of a team because it has meant improved collaboration, openness, decision-making process, and relationship. Trust sustains collaboration, sharing ideas that give way to the finer solving of issues and generation of ideas. This enhances openness such that each member is free to air their opinions, thereby opening up space for transparency and constructive feedback in their concerns. This helps in decision-making by allowing open discussions and making informed choices. This is the case because high-quality, trusting relationships will bring a more sustained, cohesive work environment where workers are more likely to help one another and collaborate on projects.

During the pre-intervention skills demonstration, some participants shared their experiences regarding first aid. The key themes from the participant's (P7) statement are:
1. **Over-Reliance on Online Resources for Emergency Situations**. The participant's use of a YouTube video to learn how to perform first aid in a choking incident highlights the growing reliance on online resources for emergency preparedness, especially when formal training is lacking.
2. **Uncertainty and Lack of Confidence in First Aid.** Preventing them on how to administer appropriate first aid appeared challenging to this participant because they lacked appropriate training to build confidence in their ability.

3. **Importance of First Aid Knowledge in Emergencies.** Although the situation remained unclear to a participant, they performed correctly and supported the student who was choking. This example shows that emergencies benefit from basic knowledge gained through self-teaching, yet skilled performance needs full formal training.

These themes emphasize the need for accessible first aid training and the potential benefits and limitations of learning from online sources in critical situations. Dasci, Sonmez, and Gokmenoglu (2022) investigated teachers' beliefs about disaster preparedness, focusing on perceived benefits, self-efficacy, challenges, severity, and susceptibility. The study found strong beliefs in disaster preparation and identified key influencing factors, including age, disaster education experience, and gender, while the place of residence had no significant impact. The findings highlight the need for targeted teacher training programs to enhance national disaster preparedness.

Skills on Three-Person Log Roll

The three-person log roll is a first aid skill used to roll an injured person onto their side or into a stretcher. In this rescue, the roller needs coordinated movements so that the injured person's head and neck are supported throughout the rolling process in order to keep the victim aligned to prevent more injury as possible.

Table 2G. Skills on Three-Person Log Roll

	Group 1		Group 2	
	Score	Description	Score	Description
Knowledge	1	No Improvement	2	Average
Safety Practices	2	Average	2	Average
Identifying the situation	2	Average	2	Average
Performance	1	No Improvement	2	Average
Empathy to Victim	2	Average	2	Average
Language	1	No Improvement	2	Average

Skill Evaluation of implementation of Three-Person Log Roll Group 1 shows that the group scores very poorly in terms of knowledge and performance overall. Similarly, the group scores 1s in both Knowledge and Performance. Group 2 The overall performance of the group is fair overall in most areas. However, group scores 3 in all areas and 2 in terms of safety procedures, recognizing the situation, empathy towards the victim and language proficiency.

This matter has become urgent in light of the findings concerning the assessment of the proficiency of the two groups in executing this essential skill of transporting patients during emergencies. The highlighted inadequacies, therefore, need to urgently be attended to through specific training programs coupled with regular practice sessions. Feedback mechanisms and simulation exercises, if incorporated, can further help in making the learning be more efficient and performance in Real Life Situations better.

Some literature including Dill's (2019) suggests that the combination of deliberate practice and field education has the power to set up interaction in learning. The participants of his study gradually built competence by allowing themselves to receive constructive feedback wholeheartedly. Deliberate practice served on its own; it satisfies the basis of lifelong learning by setting a person on the road to relentless pursuit of vital feedback toward enhancing skills throughout their professional life.

Skills on Immobilization – Long Spine Board (Backboard)

Table 2H reflected skills on immobilizing a patient's Long Spine Board (Backboard). Skills demonstration was done between Group 1 and Group 2.

Table 2H. Skills on Immobilization – Long Spine Board (Backboard)

	Group 1		Group 2	
	Score	Description	Score	Description
Knowledge	1	No Improvement	2	Average
Safety Practices	2	Average	2	Average
Identifying the situation	2	Average	2	Average
Performance	1	No Improvement	2	Average
Empathy to Victim	2	Average	2	Average
Language	1	No Improvement	2	Average

In Group 1, the members have both conceptual and performance deficiencies, as is indicated with a score of 1 for all concepts and performance indices. Group 2, however, demonstrates an average performance in most indices, with only a few lower indices. Average proficiency is observed in both groups for the aspects of safety practices, identifying the situation, empathy with the victim, and language.

This implies that the key to doing this effectively is to establish the right training and education for both the first responders and the healthcare professionals. It would be important to develop the skills of first responders and healthcare providers in the immobilization of patients on Long Spine Boards so that this could be achieved through adherence to guidelines from reputable sources and implementation of comprehensive training programs on the subject for the attainment of improved patient outcomes and reduced chances of further injury.

Based on a literature written by Milland and Al-Dhahir (2023), the assessment of patients involved in cases of blunt force trauma, healthcare professionals should be informed about the indications, contraindications, associated complications, and the correct procedures for executing spinal motion restriction. Knowledge of the indications and contraindications enhances further the management of potential complications such as pain, pressure ulcers, and respiratory compromise in the patient's health.

Skills on Burns

Burn management skills entailed assessing the severity of the burn, first aid measures, and immediate care. These skills were important in ensuring burn patients receive appropriate care and treatment for burn injuries.

Table 2I. Skills on Burns

	Pair 1	Pair 2	Pair 3	Pair 4	Pair 5	Pair 6	Pair 7	Pair 8
Knowledge	1 (No Improvement)	2 (Average)	2 (Average)	2 (Average)	3 (Average)	2 (Average)	2 (Average)	3 (Average)
Safety Practices	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Identifying the Situation	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	2 (Average)
Performance	1 (No Improvement)	2 (Average)	1 (No Improvement)	2 (Average)	3 (Very Good)	1 (No Improvement)	2 (Average)	2 (Average)
Empathy to Victim	2 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	3 (Very Good)	2 (Average)	2 (Average)	3 (Very Good)
Language	2 (Average)	2 (Average)	3 (Very Good)	2 (Average)	2 (Average)	2 (Average)	2 (Average)	3 (Very Good)

Table 2I presents an assessment of skills in the management of burns among different pairs. Pair 1 and Pair 4 presented critical failures in knowledge and performance, and hence their grades for these categories are 1. In contrast, Pair 5 showed outstanding performance and obtained very good in performance. Empathy to the victim was the strong point for most of the pairs, and many scored very good in this regard. Only Pair 6 demonstrated very good and advanced language skills, which added up to communicating effectively while giving care.

Table 2I projected findings strongly call for the enhancement of response capabilities in the management of burns. This makes it very important for participants to develop skills that are peculiar to burn care and treatment. Besides appropriately guiding management and outcome predictions, such skills would make effective communication and collaboration possible when healthcare providers treat patients with burns.

According to Schaefer and Lopez (2023), the multidisciplinary approach that composes each of the members of the burn team is very important in the optimization of care and results for patients. By integrating professionals from different specialties. This collaborative approach allows each dimension of healthcare, such as treatment, rehabilitation, and psychosocial interventions, to be very well coordinated based on the special situation and needs of the circumstances for that individual.

IV.   CONCLUSION

Based on the findings of the study, several conclusions were drawn. The school DRRM Coordinators demonstrated varying levels of knowledge across different modules. The modules on Inclusive and Child-Centered DRRM, as well as Supplies and Logistics in Education in Emergencies, were rated outstanding. Education in Emergencies, Information Management, and Temporary Learning Space were deemed very satisfactory. Modules such as PFA and RA 10821 received satisfactory ratings, while the Philippine Basic Education System, Conflict Sensitive Education, Alternative Delivery Modes, and Camp Coordination and Camp Management were rated fairly satisfactory. However, modules like School-Based DRRM, DRRM-CCA Terminologies, International and National Foundations of DRRM on Basic Education, Resource Mobilization and Partnership, Contingency Planning for Education, and Introduction to Peace and Conflict

did not meet expectations. The qualitative data revealed three key themes: (1) Lack of Initial Training; (2) Unexpected role assignments; and (3)Uncertainty and Concern About the Responsibility.

Additionally, the skills demonstration conducted by the school DRRM Coordinators, both in groups and pairs on the ten identified DRRM skills, showed an average performance. Qualitative data highlighted several challenges faced by the school DRRM coordinators during emergencies. These challenges included: (1) Lack of Initial Training and Resources; (2) Unexpected role assignments; and (3)Uncertainty and concern about the responsibility.. While, skills demonstrations showed average performance, there were challenges identified in (1) Role uncertainty; (2) Poor coordination with stakeholders like the LGU (3) Over-reliance on external support and online resources; (4) Emotional impact; (6) Training gaps in practical first aid knowledge; and (7) Some outdated DRRM resources. These findings provide valuable insights into the strengths and challenges faced by school DRRM coordinators, emphasizing the need for more targeted training and updated resources to improve preparedness for emergency situations. Based on the study, school DRRM Coordinators demonstrated varying levels of knowledge and skills, with modules like Inclusive and Child-Centered DRRM receiving high ratings, while others, such as School-Based DRRM and Contingency Planning, fell short of expectations. The findings highlight the need for targeted training, updated resources, and practical support to address key challenges like role uncertainty, outdated materials, and gaps in real-life preparedness.

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