



MANAGEMENT PRACTICES ON HUMAN-INDUCED DISASTERS OF PUBLIC SECONDARY SCHOOLS IN LAGUNA: AN INPUT FOR THE FORMULATION AND ADOPTION OF INTERVENTIONS

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ABSTRACT

This dissertation aimed to discover the human-induced disasters management practices of public secondary schools in Laguna and to identify the significant relationship of knowledge, skills, and attitude of teachers on the mitigation, preparedness, response, and recovery management practices of schools on human-induced disasters. Due to lack of previous research studies on human-induced disaster management practices, the researcher would like to nullify the hypotheses and proven that there was really a significant relationship among the knowledge, skills, and attitude of the teachers to the mitigation, preparedness, response and recovery management practices of schools. The mixed-method designs which were the descriptive survey, descriptive correlation and thematic analysis were utilized. The qualitative to quantitative or sequential exploratory mixed-method were used to provide different discoveries of this study. The data gathered were treated statistically for quantitative part. Varied statistical tools were applied for the results from the different portions of research instrument. This investigation found that the human-induced extremely happened in public secondary schools of Laguna are theft, health disasters and pollution. Its causes were lack of CCTVs, lack of facilities with regards to health disaster and lack of information for water sanitation. Expressly revealed that there was a significant relationship among the knowledge of teachers to the mitigation, preparedness, response, and recovery management practices of schools. The gathered information depended on the provision of the accessible data. It was recommended that the public schools must have enough CCTVs surrounding its jurisdiction and have more job orders that would serve as security guards. There should also be enough facilities that would cater health disasters and pollution victim with a designated teacher that would act as focal person of human-induced disaster management practices with a specified plan for action on different human-induced management practices anchored to disaster management cycle which are mitigation, preparedness, response and recovery. It was also recommended that there must be an intensive awareness campaign on the four stages of disaster management cycle with simulations to strengthen and enhance the skills of the teachers so that their attitude towards management practices on human-induced disasters would improve. Future research was suggested for intensive investigation on human-induced disasters management practices of any schools.

STATEMENT OF THE PROBLEM / RESEARCH QUESTIONS

The main purpose of this study was to determine the management practices on human-induced disasters in public secondary schools in Laguna.

Specifically, the study aimed to answer the following pertinent questions.

1. What are the human-induced disasters (armed conflict, chemical spill, health disasters, theft, trespassers, school bomb threat, school fire, vehicular accident) experienced by public secondary schools in the past five years?
2. What are the causes of human-induced disasters experienced by the public secondary schools in the past five years?
3. What is the level of knowledge, skills, and attitude of teachers on human-induced disasters?
4. What is the level of mitigation management practices of schools in human-induced disasters?
5. What is the level of preparedness management practices of schools in human-induced disasters?
6. What is the level of response management practices of schools in human-induced disasters?
7. What is the level of recovery management practices of schools in human-induced disasters?
8. Is there a significant relationship between the knowledge, skills, and attitude of teachers on human-induced disasters and mitigation management practices of schools?



9. Is there a significant relationship between the knowledge, skills, and attitude of teachers on human-induced disasters and preparedness management practices of schools?
10. Is there a significant relationship between the knowledge, skills, and attitude of teachers on human-induced disasters and response management practices of schools?
11. Is there a significant relationship between the knowledge, skills, and attitude of teachers on human-induced disasters and recovery management practices of schools?
12. What are the cases of human-induced disasters in public secondary schools in Laguna?

REVIEW OF RELATED LITERATURE AND STUDIES

According to Ehrenreich (2001), disasters affect individuals, families and communities. They are not individually divisible effects. The overwhelming impact of disasters on the individuals who make up families and communities plays a very important role in affecting families and communities. More importantly, social support systems play a very important role in protecting individuals from the effects of disasters and general stress. It weakens and weakens it and is itself a major source of stress for those who form families and communities. The disruption to families and communities can be more psychologically devastating in the short and long term than the disaster itself.

According to the study of Alam (2006), Strategies adopted by vulnerable people to cope with disaster situations have long been a topic of academic research and a sub-subject of major debates on disaster risk reduction. This ignorance may be due to the fact that disaster risk reduction efforts are so contributing, perceived by outsiders, and relentlessly driven by international approaches to aid. The increased emphasis on understanding and addressing people's coping strategies is a result of the broader people-centered approach to solving disaster problems within the broader framework of 'vulnerability reduction'. Accepted result. However, coping strategies have not yet been viewed as an issue as important as the vulnerability and capacity analysis widely disseminated by the United Nations and international NGOs. Disagreements about including community responses in disaster risk reduction discussions stem from three main conclusions: Increased frequency and impact of disasters. Increased mismatch between demand and supply of public goods. There are widely documented recognition that affected people play a key role in disaster response and recovery.

According to Flores (2010), it is important to note that different actors have distinctly different spheres of influence in the event of a disaster. Immediately after the disaster, the government's response was delayed, requiring individualized responses, and the extensive involvement of various stakeholders, including NGOs, churches, private companies, local organizations, and international aid organizations. It was found that regardless of the

context of individual survival needs in a disaster, affected communities were more likely to develop strategies to close response gaps. , as well as the creation of new agencies to deal with disasters, it has become possible to reduce the presence and number of actors who do not have the necessary experience on disaster relief. It also helped reduce the impact on communities, make the response more effective, and reduce casualties.

According to Ehrenreich (2001), There is no one universal prescription for disaster response. Disasters come in many forms. Earthquakes, hurricanes, tsunamis, etc. occur naturally. Some are man-made, such as wars and terrorist attacks. Especially like a rape or house fire, only one person or family member is directly affected. Others, like blasts and tornadoes, can affect hundreds of people and, like earthquakes and wars, can affect entire communities and countries. Personal attacks and ethnic cleansing, innumerable victims are deliberately added. Plane crashes, industrial accidents, etc. are the result of human or technical error, but not intentionally. Disasters are devastating, but they can be fairly short-lived or, as in the case of scarcity and war, can last for years. Perhaps the greatest variability in both the impact of disasters and the most appropriate responses arises from differences in the countries and cultures in which disasters occur. He has two main components to this variability. First, the level and pattern of economic development varies from country to country. Wealthy countries face disasters with abundant human and material resources, well-developed medical and psychological infrastructure, highly structured emergency planning, and efficient transportation and communication systems. increase. They are not bastions against the direct effects of disasters, but they make responding to disasters much easier. Poor countries, by contrast, lack these resources.

Second, many characteristics of poor countries make their populations more vulnerable to disasters. Substandard homes are more easily destroyed by the strong winds of a hurricane or cyclone. Poor people's homes clustered together on floodplains and unstable hills are particularly vulnerable to flooding. Deforestation destabilizes hillsides and causes flood devastation. Chronic malnutrition and poor health reduce resistance to infectious diseases in shelters and refugee camps. An unproductive, understaffed and underprepared government bureaucracy does not adequately manage relief efforts.

For these reasons, the world's poorer countries share the overwhelming burden of human suffering from disasters, even when disasters are less likely to affect poorer countries than richer ones. While some may have access to resources that make their response simpler and easier, many of the basic principles of disaster response apply worldwide. Cultural differences from one country to another, and even within a particular country, can change the course and outcome of a disaster. They are certainly important in planning disaster response. Communities in areas regularly hit by disasters (for example, floodplain villages or areas prone to frequent hurricanes) often develop traditional ways of understanding and responding to disasters. The composition of



family structures within communities and collective divisions along class, ethnicity, religion, or race can influence patterns of mutual aid (or mutual blame). Different cultural groups have different views on death and injury, health and mental health, and may respond to outside medical and mental health professionals in unexpected ways. Hostility between local communities and central authorities influences the experience of external warnings of impending disasters and the provision of external assistance. (Ehrenreich, 2001).

Disaster risk reduction in education in the Philippines aims to address the root causes of disaster risk such as: B. (i) Poorly constructed school structures; (ii) teachers' low risk knowledge and risk reduction skills; (iii) Low disaster preparedness and response skills of teachers and administrators; (iv) Lack of warning mechanisms and lack of risk assessment. Schools, where disaster damage is most conspicuous and have a large impact on children's education, were the ones that had to take measures to reduce the impact of disasters. School personnel must be able to anticipate natural and man-made disaster risks, ensure school safety before, during and after emergencies, and provide learners with continuous access to education. In light of this, direct schools to implement mitigation measures against natural disasters such as typhoons, floods, landslides and tornadoes. This includes learning about typhoons and other weather disturbances, their signs and warnings, effects and hazards, and how to protect your school. children, records and school property. Educate schoolchildren on how to prepare for tropical cyclones. Conduct regular disaster drills and simulations at schools. In addition, schools are encouraged to involve students, their families and communities in disaster preparedness. This is because it is the current method of raising awareness of risk mitigation. Regional and departmental offices are directed to oversee and provide technical support to schools in the implementation of school disaster risk reduction efforts.

According to ASEAN Inter-Parliamentary Assembly Caucus Report (2011), Disaster coordination was built up from the lowest level of government, the barangays, to the national level. Over the years, the Philippines has recognized the need to improve her PD 1566. This is because new advances have emerged, revealing the inherent weaknesses of the nation's Disaster Risk Reduction and Management Act of 2010 was enacted on May 27, 2010. The law provides a holistic, inclusive, We recognize the need for an integrated and proactive approach. Especially local communities. In addition to the Disaster Risk Reduction and Management Act, the Philippine Congress also passed Republic Act No. 9729, or "Climate Change Act of 2009". Republic Act No. 9729 aims to integrate non-traditional climate change into government policymaking by establishing national framework strategies and programs on climate change. Established the Climate Change Commission, which currently monitors and evaluates government programs and activities to mitigate and adapt to the impacts of climate change. Climate change and disaster risk reduction are closely linked, and the two laws will

enable countries to better respond to disasters caused by climate change. Decentralization of responsibility and authority for implementing disaster risk reduction measures to Local Government Units (LGUs) is one of the key features of Republic Act No. 10121. Effectively. It mandated that local governments establish Local Disaster Risk Reduction Management Offices (LDRRMOs).

In the Philippines, the government has been working for some time to integrate disaster risk reduction (DRR) into the education sector. In 2007, the Secretary of Education (DepEd) issued memorandums of understanding to Undersecretaries, Undersecretaries, Director Generals, Service/Center Directors, Unit Heads, Regional Directors, City/Department Heads of Schools, and Heads of Public and Private Schools. issued. Facilitate the mainstreaming of DRR management priorities in the school system and ensure the implementation of DRR-related programs and projects. According to the Regional Consultative Committee (RCC) Program on Disaster Management, the Program for Mainstreaming Disaster Risk Reduction into Asian Development (2011), the program has evaluated the cost-effectiveness of DRR in the education sector through planning. It is intended to raise the awareness of developers and Emphasize the success of the project activities and the need for disaster resistant design of school buildings. In joint discussions with many Education Working Group (EWG) members, DepEd indicated that they would support the initiative as long as it took the lead in integrating the DRR into the country's broader education agenda. DepEd and TWG have determined that integrating DRR topics into courses already taught is more effective than creating new courses. I felt this approach made it easier for children to understand the subject matter. In the Philippines, this DRR mainstreaming project accompanies other public school projects such as: B. Incorporate global warming and food security issues into the curriculum. According to the Child-Friendly Schools Handbook published by UNICEF (United Nations Children's Fund), millions of children mostly attend reasonably safe schools. However, most emerging market schools do not protect children from the effects of natural disasters and accidents. At a time when the environment is becoming less and less secure, scientists predict with relative certainty that climate change will increase both the severity and spread of natural disasters, so disaster-resistant schools will accept not available. In this context, Bender (2020) states that the protection of children and educational institutions is paramount.

Enrique (2013) identified that school facilities are more than flexible containers for the educational process, they are an integral part of the learning conditions. The layout and design of the facility contribute to the local experience of students, educators and her members of the community. Depending on the quality of design and management, facilities can contribute to a sense of ownership, safety and security, personalization and control, privacy, sociability, spaciousness or proximity, and more. Whenever possible, these aspects of the place experience should



be taken into account when planning, designing or managing school facilities.

A functioning school facility should accommodate a changing educational program and, at a minimum, provide a physical environment that is comfortable, safe, accessible, well-lit, well-ventilated and aesthetically pleasing. School facilities include physical structures and various building systems. B. Mechanical, Plumbing, Electrical and Power, Telecommunications, Security and Fire Systems. The facility also includes fixtures and supplies, materials and supplies, equipment and information technology, and various aspects of the building site: sports fields, playgrounds, outdoor learning areas, vehicle access and parking.

In addition, Ehrenreich (2001) argues that disasters do indeed destroy important community facilities such as schools and churches, and that their functioning is compromised due to their constant impact on those responsible for these facilities, such as teachers and priests. We have quantified that it can confuse. Destruction of school buildings, distance between schools and shelters, hidden costs and loss of important official documents limit the education of displaced students and cause many children to drop out of school. Family feuds, local elections, and violent incidents stemming from typhoons have disrupted children's education in many provinces, mainly in northern and central Luzon. In 2010, an estimated 14,000 children in Maguindanao Province had their schooling affected.

Krohne (2002) found that, entire communities are often disabled, further undermining children's sense of security and normalcy. These factors are associated with various unique issues and coping strategies such as those related to specific types of natural disasters, the need for relocation when homes and communities are devastated, and the role of families in mitigating or exacerbating trauma provide challenges and management of responses and techniques.

Bender (2020), Keeping schools safe or recovering from closures requires many considerations, but when done well can promote public health.

After a disaster, external support may be required, but it also fosters a sense of community dependency. As long as the necessities of life are supplied externally, the incentives to resume traditional labor activities diminish. In some communities that have had to deal with natural disasters such as floods on an almost regular basis, disasters and responses to them can be integrated into community rituals, belief systems, and community structures, and people can play a role in Cultural significance of disasters (Ehrenreich, 2001).

Recent disasters indifferent parts of the world have made disaster preparedness programs in schools even more important and relevant. A 2007 study evaluating disaster risk reduction in 37 public schools in Luzon found: Awareness of Disaster Management Program to make people aware of environmental

hazards, the Government of the Philippines, through the Department of Education (DepEd), conducted seminars/trainings for teachers and school administrators on disaster management. Much effort has been made in the area of disaster risk reduction, but the country still has much to improve. Continued efforts are needed to prepare schools for disasters. Obvious mitigation measures that schools must implement include: Make sure that the school building can withstand strong winds and rain. Ensure that school supplies, such as books, are protected from flooding. Educate students about contingency planning. Conduct school exercises. Track weather disturbances and advise students on upcoming typhoons. Coordinate with LGUs and DepEd regarding class suspension.

Conferring to Pacpaco (2012), the House Committee on Higher and Technical Education proposed a disaster fund for public schools to act as temporary shelters during disasters. Sonny Angara stressed the importance of providing disaster funds, enabling schools to cover electricity and water bills and clean facilities used by evacuees. What is happening today is that after the typhoon evacuees leave the school, they still have to pay for electricity, collect garbage, and clean their rooms and toilets. In some cases, there is unintentional damage, albeit minor, that is inevitable due to the plight of the shelter, such as broken chairs and misplaced books. In addition, Baldo, (2012), quantified that the Schools pay for the repair and replacement of damaged equipment and are forced to spend pittances on maintenance and other operating expenses (MOOE), but for the most part teachers put their hands in their own pockets. I have to. He said the government could help schools used as shelters during disasters by reimbursing some of the "unexpected costs" of housing displaced people. Angara said this year's budget allows him to draw "repayments" from the 7.5 billion pesos disaster fund and, if there is room, from local governments, whose annual budgets include contingencies.

For that reason, researchers have discovered that the physical condition of a school Disrupting the social condition of the school community, including student performance, requiring school leaders to feel the heartbeat of the school in times of disaster, interpersonal relationships of staff, the history of the school, and people in adjacent communities including consideration (Andren, 2003).

A study by Guevara et al. (2007), entitled Disaster Preparedness Status of Selected Public Schools. The study also described school disaster preparedness plans and identified key school staff perceptions of disaster preparedness programs (both national and local) and Department of Education disaster preparedness (DepEd). Fifty-one percent (51%) have not been used as an emergency shelter during a disaster in the last five years. A majority (95%) of major public school officials were aware of local disaster preparedness programs across the country. All respondents were aware of her DepED policy related to disasters. This study provided insight into the efforts teachers and students make during emergencies and disasters. A comprehensive School



Disaster Preparedness (Nature and Health) training platform is highly recommended for school officials, staff and students. Particular attention should be paid to comprehensive school disaster preparedness plans and vulnerability and risk assessment methods. (eg, potential emergencies/disasters) allowing to design exercises and training more specifically. It was acclaimed by Guevarra et al. (2007), that refocusing the management of school evacuation camps, as schools act as emergency shelters.

In 2010, UNICEF continued its role as co-leader of the Government's National Education Cluster with Save the Children. UNICEF helped the Ministry of Education prepare for emergencies by developing a disaster risk reduction resource handbook for distribution to schools and school districts most affected by the disaster. In the northern Philippines, about 27 typhoon-damaged early childhood environments were rebuilt, and another 500 affected environments received early childhood assistance packages. Both interventions benefited approximately 31,700 preschool children. In the conflict-affected southern Philippines, UNICEF turned to Save the Children and Community and Family Services International for repairs.

The above research is related to existing research as schools are definitely affected by disasters. These studies may help students and teachers, and school leaders, work together to solve problems of common interest and to provide and develop services that they consider important. Because there is The expertise they have developed in trying to help their communities while continuing to find ways to continue the education they need.

A learning community includes high levels of interaction, conversation, discussion, and cooperation. Many of the interactions focus the group on values, goals, and qualities so that the learning community can be self-correcting and highly adaptable to change. (Wilson and Ryder, 2000).

Much has been printed about the type of leadership needed to bring together all the elements of cultural change and guide an organization through the ups and downs of the change process, especially during natural disasters. School performance reflects the effectiveness and efficiency of school processes. Effectiveness usually refers to the achievement of school goals, and efficiency indicates whether those goals were achieved in a timely and cost-effective manner. Therefore, school leaders, with the help of staff, communities and students, should ensure that effectiveness and efficiency in providing quality education are not compromised during and after natural disasters. It is very important to be happy and coordinate.

It was noted that all the theses and dissertations discussed have some bearing to the present investigation because they dealt on coping strategies, stress and the core values of the school and its performance as well.

Younis and El-Abassy (2015) state that in a study of primary school teachers' first aid in children's school accidents, they found

that the highest proportion of school teachers did not participate in any on-the-job training increase. Therefore, it is very important to implement a guardianship education program that informs and trains school teachers. In addition, these programs must be conducted regularly by trained medical professionals. All school teachers are required to undergo disaster first aid training.

Abdella et al. (2015), conducted a study to evaluate a pediatric first aid intervention program for preprogrammed kindergarten teachers. Almost all teachers were poorly qualified. In contrast, more than half of them had satisfactory skills with statistically significant differences immediately after the program intervention and during follow-up. Teacher age and years of experience are positively correlated with teacher knowledge and first aid practice, suggesting an association between improved teacher practice and selected demographic variables are confirmed. Similarly, it was found that a recent study on the effectiveness of a disaster management training manual for secondary school teachers in Pune City. Joshi et al. (2015), conveyed the effectiveness of education in fostering performance of school teachers. Pre-test self-representation of exercise result was 7.05, while post-test self-representation of exercise result was 11.93, an increase of 69.92%, which was statistically proven.

Therefore, School safety decisions made by school officials and policy makers can affect the health of many children during a disaster. In addition, schools often host pre- and post-class activities, sponsor excursions, and provide transportation to and from homes. Emergency procedures should be considered for each of these environments. Schools tend to be large buildings with multiple classrooms, long corridors and large assembly rooms, making evacuation difficult. School construction itself is typically overseen by government or educational institutions with varying levels of expertise in building and safety regulations. School buildings are particularly vulnerable structures when poorly constructed or located in hazardous locations (Petal et. al., 2015).

METHODOLOGY

Since the study focused on the determination of management practices of public secondary schools in Laguna on human-induced disasters, the mixed-method design was the most appropriate to use which are the descriptive survey, descriptive correlation and thematic analysis.

Mixed-method design, specifically the qualitative to quantitative or the sequential exploratory mixed method was used to provide different findings of this study.

Chumney, (2015), specified that the mixed-method is research studies that combine quantitative and qualitative methods answer research questions by collecting and analyzing quantitative and qualitative data. This type of research has his two key characteristics: research question and design. Research questions provide information about what we were trying to learn about the phenomenon and the design chosen to conduct the study.



In this study, the questions were exploratory as qualitative data were collected first. Qualitative data and results were used to inform the collection of quantitative data. The qualitative and quantitative data were collected at different times but collaborated to answer the same research question.

The first research design that was used in this study was a descriptive survey intended for the respondents who answered the questions regarding human-induced disasters and its causes. A descriptive survey was used to collect data on various topics. These data are intended to determine the extent to which various conditions are obtained in these subjects. We attempt to identify the extent and distribution of social characteristics such as education and training, occupation, and place of residence, and explore how these personalities relate to specific behavioral patterns and attitudes. (Zurmuehlen, 1981).

The second research design that was used in this study was a descriptive correlation which were answered by the respondents who have experienced human-induced disasters for the past 5 years. Descriptive correlations are used to describe variables and the naturally occurring relationships between them. Similar to the experimental design, study variables were classified as independent and dependent. However, these variables are not manipulated and occur naturally.

According to Creswell (2008), Correlation study designs are used to determine and measure the degree of relationship between two or more variables or weighting groups, where researchers want to see if there is a relationship between variables or to predict outcomes will be used. This is a procedure that simply measures a subject's score on two variables without manipulating the variables to determine whether a relationship exists.

The last research design that was used in this study was a thematic analysis for the respondents who have an intensive interview to identify their management practices on human-induced disasters. Thematic analysis was the process of identifying patterns or themes in qualitative data. Braun & Clarke (2006) argue that it is the first qualitative method of learning because it provides core skills that help you perform many other types of analysis. Thematic analysis is an iterative process of moving from chaotic data to a map of the most important themes in the data. Assign a temporary code to the data and describe its contents. Find code patterns and topics from various interviews.

The respondents of this study came from the public secondary schools in the province of Laguna. These were the principals, DRRM coordinators, and teachers from schools which experienced the human-induced disasters for 5 years. Only the respondents with frequent occurrence and extreme experience of human-induced disasters will be included in the case study and will be benefited for the formulation and adoption of interventions.

The purposive sampling used the technique to obtain qualitative and quantitative research results. Targeted sampling, also called evaluative, selective or subjective sampling, was a sampling technique in which researchers relied on their own judgment when selecting populations to participate in studies. Targeted sampling is commonly used in qualitative research to identify and select information-rich cases related to phenomena of interest. The respondent-schools were the total enumeration of principal of public secondary schools of Laguna who answered the 1st survey which was the open-ended questions that were provided by the researcher. The researcher chose (1) one school-head, (1) one school DRRM coordinator, and (1) one teacher from the public secondary schools in Laguna to identify the different management practices on human-induced disasters they were implementing.

The simple random technique was used to identify the respondents to the 2nd survey. The respondents were trimmed down to those who have experienced human-induced disasters for the past five years. And the purposive or the criterion sampling was used to the respondents who have experienced the severe human-induced disasters for them to be included in a case study. Three data gathering instruments were used by the researcher in the study: survey-questionnaire, test on knowledge, skills and attitude of the respondents on human-induced disasters, management practices which were the mitigation, preparedness, response and recovery and the focus group discussion using the interview guide questions.

The 1st survey questionnaire was used to determine the different human-induced disasters in public secondary schools of Laguna and its causes. The selected respondents answered the test regarding their knowledge, skills and attitude on the human-induced disasters which was the 2nd survey questionnaire. Knowledge was being conscious of something. It was the Cognitive processing of information. It involved remembering, recognizing, understanding, applying and evaluating facts, patterns and concepts. Skills refers to the ability to physically perform an activity or task. It involved body movements, coordination, dexterity, and application of knowledge. An attitude was a way of thinking or feeling about someone or something. It was about how a person dealt with things emotionally, and was often reflected in a person's behavior. This survey questionnaire was used by the researcher to those with frequent occurrence of human-induced disasters in determining the management practices. They answered the level of mitigation management practices, preparedness management practices, response management practices, and recovery management practices in human-induced disasters. The interview guide questions consisted of the knowledge and experiences of the respondents regarding human-induced disasters management practices of public secondary schools in Laguna will be used in case study. Only those who have severe experiences on human-induced disasters were included in the case study analysis.



The level of knowledge, skills, and attitude of teachers on the human-induced disasters and its different management practices were contained the 5-point likert scale.

RESEARCH PROCEDURE

Campilla (2016), specified in his study Entitled “Disaster Risk Reduction Management Practices of School Administrators”, he turned to descriptive methods for determining and analyzing disaster risk reduction management management practices of public school administrators in Pangasinan. I was. The results of statistical analysis served as the basis for conclusions, conclusions and recommendations. The degree of disaster risk reduction management practice by school leaders was determined using a weighted average score equivalent to the appropriate explanatory value.

The following steps will be observed in the gathering of data. This study was proposed and presented to the panel of oral examiners. Upon approval, the researcher-made survey-questionnaires and interview guide questions were constructed for content-validation of assigned experts. After which, permission to conduct the study were addressed to the office of the division superintendent.

The approved letter from the superintendent office were attached to the letter that was sent to the principal of the respondent-school. The researcher personally or virtually administered the research instrument to the respondents and accomplished the distribution of the instruments properly.

This study used the 1st survey-questionnaire to identify the human-induced disasters and its causes experienced by the

principal, DRRM coordinator and teacher of public secondary schools in Laguna.

The 2nd instrument pertaining to the test on knowledge, skills and attitude were answered by the respondents who have experienced human-induced disasters for the past five years. The 3rd instrument on the four elements of disaster management cycle which are the mitigation, preparedness, response, and recovery were used by the respondents with extreme experiences on the human-induced disasters and its causes to identify the recovery management practices in public secondary schools of Laguna were used for the teachers.

Interview guide questions, which were the 4th instrument, were open-ended questions regarding the cases of human-induced disasters were answered by the teachers who have experienced severe human-induced disasters.

The results of the data were collected, tabulated, and analyzed using statistical instruments suggested by the statistician. The results were the basis for the formulation and adoption of interventions. Final revision of the manuscript was made by the researcher through the help of her adviser and was presented for scheduled final oral defense.

DATA ANALYSIS

The data that will be gathered in this study were treated statistically. Varied statistical tools were employed for the resulting data from the different parts of the research instrument as follows:

Variable	Statistical Tools
1. Consolidated responses on human-induced disasters experienced by public secondary schools in the past five years	Weighted Mean
2. Consolidated responses on the causes of human-induced disasters experienced by public schools in the past five years	Weighted Mean
3. Level of knowledge, skills, and attitude of teachers on human-induced disasters	Weighted Mean
4. Level of mitigation management practices of teachers in human-induced disasters	Weighted Mean
5. Level of preparedness management practices of teachers in human-induced disasters	Weighted Mean
6. Level of recovery management practices of teachers in human-induced disasters	Weighted Mean



- | | |
|---|---|
| 7. Level of recovery management practices
In human-induced disasters | Weighted Mean |
| 8. Significant relationship between
the knowledge, skills, and
attitude of teachers on human-
induced disasters and the
mitigation management practices
of schools | Pearson's Product Moment
Correlation |
| 9. Significant relationship between the
knowledge, skills, and attitude of
teachers on human-induced disasters
and the preparedness management
practices of schools | Pearson's Product Moment
Correlation |
| 10. Significant relationship between the
knowledge, skills, and attitude of
teachers on human-induced disasters
and the response management
practices of schools | Pearson's Product Moment
Correlation |
| 11. Significant relationship between the
knowledge, skills, and attitude of
teachers on human-induced disasters
and the recovery management
practices of schools | Pearson's Product Moment
Correlation |
| 12. Consolidated responses on the
cases of human-induced
disasters in public secondary
schools in Laguna. | Thematic Analysis |

RESULTS AND DISCUSSION

Types of Human-Induced Disasters in Public Secondary Schools
The types of human induced disasters experienced by public secondary schools in the past five years which were theft, vehicular accident, trespassers, health disasters, pollution, and school bomb threat. It was anchored to Ehrenreich (2001) which point by point that calamities can physically crush imperative community teach, such as schools and churches, or disturb their working due to the coordinate effect of the catastrophe on those capable for these teach, such as instructors and clerics. Thapa (2021) quantified that Children, regardless of their type, are the most vulnerable group based on their capacity to expect, get ready for, react to and recuperate from fiasco dangers, human-induced or caused by nature.

Causes of Human-Induced Disasters in Public Secondary Schools

The most common causes of human induced disasters were; The feeling of peer pressure, jealousy... weather condition, lack of school fences and throwing garbage inside the school fence, intent to enter the school to cause harm, dysfunctional health facilities due to COVID 19 and transmission which affected some of our

teachers, learners and their family members, improper water sanitation and waste disposal and to create an environment of panic/confusion which are commonly disasters made or performed by humans. This was related to Ehrenreich (2001), itemized that there is no one-size-fits-all prescription for disasters. Disasters come in numerous forms. Certain things like seismic tremors, typhoons, and tsunamis are common. Some are man-made, such as wars and terrorist attacks. Some, like rape and a house fire, directly affect a person or family. Others, like blasts and tornadoes, can affect hundreds of people and, like earthquakes and wars, can affect entire communities and countries. Personal attacks and ethnic cleansing, some are intentionally inflicted on the victim. Plane crashes, industrial accidents, etc. are the result of human or technical error, but not intentionally.

Level of Knowledge, Skills, and Attitude of Teachers on Human-Induced Disasters

The level of knowledge of teachers on human-induced disasters was average, based on facts; teachers were knowledgeable in recovery which was the process of regaining possession or control of something or returning the institution to normal operations and in



response which alludes to occurrence or crisis reaction to evaluate harm or affect to the location and its components. In the same way, the level of skills of teachers on human-induced disasters is average, it was proven that the teachers were skilled in doing things to prevent violence in schools. Unlike the level of attitude of teachers on human-induced disasters which is low. It implied that the teachers were knowledgeable and skilled enough to face the human-induced disasters yet their attitude regarding human-induced disasters were still needed to be developed or enhanced. This was connected to Riyadh Al-Kharj Hospital Programme (2018) that Knowledge levels were satisfactory among health workers with neutral attitudes, practices, and knowledge relevant to disaster risk reduction.

Level of Management Practices of Public Secondary Schools in human-induced disasters in terms of Mitigation, Preparedness, Response, and Recovery

The level of mitigation management practices of schools in human-induced disasters was Excellent. Generally, schools have an excellent mitigation management practice which was the presence of inventory of assets of school. It proved that teachers and principals need to continue their existing mitigation management practices and have to conduct additional training and improvement in the planning for the next years which can be included in the School Improvement Plan (SIP) regarding mitigation management practices so that the school has to be prepared on the different types of human-induced disasters that may occur. It was anchored to the study of Pinar (2017) that the teachers are considered role models for students who spend most of their time in school and have an important responsibility in disaster education. Teacher training should be included in school programs.

The level of preparedness management practices of schools in human-induced disasters was Good. It shows that the preparedness management practices of public secondary schools in human-induced disasters which is the manner of distributing emergency numbers in cases of disasters such as police department number, fire department, etc. really helps. This was anchored to the study of Guevarra (2007) recommended that Comprehensive disaster preparedness training will be provided to officers, staff and students with a focus on planning and vulnerability and risk assessment.

Level of response management practices of schools in human-induced disasters was Good. It showed that there should be constant reminder, to the people who have experienced the human-induced disaster, to maintain an overall healthy lifestyle. There should also a stress assessment to the people who have experienced the human-induced disaster; there should also be constant reminder, to the people who have experienced the human-induced disaster, to practice mindfulness. Likewise, simple lecture to teach the 4A's (avoid, alter, accept, adapt) of stress management to the people who have experienced the human-induced disaster; session for the people who have experienced the human-induced disaster, to use muscle relaxation

techniques; session for the people who have experienced the human-induced disaster, to engage in light exercises; assessment to the people who have experienced the human-induced disaster if there is a rapid, pounding heart rate, shortness of breath, tightness of throat, sweating, trembling or shaking are also needed. At the same time, there should also be conduct of an exercise session (once a week, after class) to the people who have experienced the human-induced disaster. The school clinic must have benzodiazepines for the treatment of panic attacks of the people who have experienced the human-induced disaster. Lastly, there should also be a conduct of a laugh therapy (once a week, after class) to the people who have experienced the human-induced disasters. This was anchored to the study of Hatzipapas et al. (2017), that Laughter therapy is used as an intervention to positively stimulate individuals with various forms of emotional distress. Daily exposure to laughter sessions resulted in caregivers experiencing more positive emotions, improved social relationships and coping skills, and reduced levels of anxiety, depression, and stress.

The level of recovery management of schools in human-induced disasters was Good, especially in having an improvement of coordination and communication among internal stakeholders of the institution. It shows that there should be conduct of restoration and improvement facilities, availability standard map of the school throughout the institution to facilitate the next planning and response to the human-induced disaster, conduct of post disaster assessment, and incorporation of a disaster risk reduction into the post disaster recovery plan of the institution, conduct of manual inventory operations, facilitation of the rapid restoration of a data processing system, conduct of recovery actions procedures, adaption of advances in information technology to human-induced disaster emergency recovery needs, conduct of a training program to enhance recovery from human-induced disaster. It implied that there was indeed a need for recovery management in schools as anchored in the study of McAllister (2013) recommended building fixtures or components for recovery, plans for coordinating crew equipment materials, and measurement of property loss impact.

Relationship between the Knowledge, Skills, and Attitude of Teachers on Human-Induced Disasters and Management Practices of Public Secondary Schools in terms of Mitigation, Preparedness, Response and Recovery

There was significant relationship between knowledge and mitigation management practices of schools, however, skills and attitude have shown no significant relationship in mitigation management practices of schools in human-induced disasters. It showed that the teachers were knowledgeable enough in mitigation practices on the human-induced disasters, but they are not really skilled in doing it and not all of the teachers are approving of doing it. It was anchored in the study of Mohanty (2017) declared that principals should seek to clarify how staff, students and other staff should behave and behave before, during and after a disaster.



There was a significant relationship between knowledge and preparedness management practices of schools, however, skills and attitude were not related in preparedness management practices of schools of teachers on human-induced disasters. It showed that the teachers were knowledgeable enough in preparedness practices on the human-induced disasters, but they were not really skilled in doing it and not all of the teachers are in accord of doing it. It was validated by Maduz et al., (2019) that More experienced people are more likely to seek information about disaster preparedness, but less likely to take action to prepare. It was anchored in the editorial written by Mohanty (2017) that schools are the most convenient places to spread a culture of disaster resilience in society. Therefore, the level of disaster management preparedness in schools should be raised to a higher level. School leaders must make special efforts to raise disaster awareness and build a culture of resilience and resilience. Thapa (2021) appealed that providing opportunities to participate in development events and improving children's knowledge and skills in school is not enough to improve children's resilience to disasters. Various aspects ranging from socio-economic factors to behavioral and psychological aspects are key points to prepare and respond to disaster risks with a focus on improving children's skills, abilities and capacities. Replicate the learning to do so that it can protect and recover from times of disaster.

MANAGEMENT PRACTICES ON HUMAN-INDUCED DISASTERS OF PUBLIC SECONDARY SCHOOLS IN LAGUNA

Human-induced disasters were dangerous especially if the people inside the schools are not aware and knowledgeable on how to deal with them. Berren (1985) discussed human-induced calamities and famous that casualties of human-induced calamities vary from casualties of characteristic catastrophes in terms of passionate stages, mental side effects, and social forms taking after the calamities. Two fundamental sorts of human-made catastrophes are acts of exclusion and acts of commission. Acts of exclusion result from endeavors to spare cash, assets, or time or as a result of carelessness; acts of commission result from coordinated and savage activities. Four stages that casualties of both sorts of calamities encounter are assigned as starting stun and doubt, dread, outrage or sadness, and reorganization. It has been found that the cases of human-induced disasters extremely happened in public secondary schools of Laguna are theft, health disasters, and pollution. And here are their management practices. Neumayer (2005) debates that the interface between pay imbalance and savage property wrongdoing may be fake, complementing a comparative contention in earlier investigation by the creator on the determinants of manslaughter. In differentiate, Fajnzylber, Lederman & Loayza provide seemingly strong and vigorous prove that segregation causes the next rate of manslaughter and robbery/violent robbery, indeed after controlling for country-specific settled impacts. Abdoli et.al argued in the study of Hosseinighousheh et al. (2021) that there was a noteworthy contrast between schools in relations of hardware and nearness of a wellbeing coach. They detailed that

rudimentary schools were more prepared, and they had a wellbeing coach. There's a require for occasional evaluation of security condition of schools and their preparation to confront disasters. Some measures have to be taken to create beyond any doubt of adherence to legitimate prerequisites. Jasper et al. (2012) strongly believed that in arrange to achieve all inclusive get to instruction as a right for all children, the fundamental variables of water and sanitation arrangement within the school environment and their impacts on wellbeing and instructive results must be tended to through more thorough examination, political consideration, and successful intercession.

MITIGATION

The mitigation practices of the participants' schools were; having controls on the number of outsiders and the availability of the log book for in and out of people in the school, training the teachers and students through the conduct of drills and simulations for the proper awareness, having a contingency plan with the assigned teachers once there is a human-induced disaster so that they follow their mantra which is safety first, conducting a cleanliness campaign and making sure that they disseminate facts and information regarding staying safe and secured. It was anchored to the study of McGee et al. (2021) detailed that as the COVID-19 widespread drags on, we require methodologies for reviving those schools that have remained closed and built up stochastic arrange models to ponder the dangers related with returning to in-person learning amid COVID-19 widespread and to investigate the esteem of relief measures in lessening dangers. Our models demonstrate that the chance of school flare-ups increments as community predominance increments, which auxiliary schools posture more prominent control challenges than essential schools. The models uncover that a number of measures can offer assistance significantly: partitioning understudies into numerous cohorts who go to school on an substituting premise, as often as possible testing instructors and understudies, and immunizing instructors and staff. Fundamental transmission control procedures such as cover utilize, social separating and ventilation stay basic.

There are things needed for the mitigation practices and these are; proper planning with the help of stakeholders, comprehensive training, seminars, and orientation for the teachers and students with the help of resource speakers or trainers regarding the best practices for mitigating human-induced disasters, legitimate SDRRMC Resource Center, manpower, funds, emergency contacts signage, pamphlets, first aid kit, disaster kits and clear exit map, intensive campaign of information drive in the social media for the human-induced disasters awareness of all stakeholders and enhancement of school facilities especially putting on the CCTVs. It is anchored to the recommendation of Ohia et al. (2022) that secondary school principals should hire the services of security personnel to secure school facilities which include all the equipment, buildings, and essential materials, as well as installing CCTV cameras for improved safety so as to prevent from being stolen or burgled.



Prevention is better than cure, that is the reason why there is a need to implement mitigation practices these ways are; using planning or meeting to assign teachers who will be in charge of the particular human-induced disasters, by calling the attention of all stakeholders to fully participate in the program of mitigating human-induced disasters with the help of the school personnel specifically the SDRRM Coordinator, school health officer, and Guidance Counselor, and by proper dissemination of information from school down to the community. It was anchored to the study of Izadkhah et al. (2005) that in evolving nations, teaching all levels of the society for calamity dangers isn't continuously conceivable due to need of skill and instructive materials. Consequently, one of the finest ways of publicizing mindfulness programs can be the integration of these activities into children's activities. These programs fortify versatility among communities by empowering them to resist stuns, adapt with crises when they happen and bounce back back from fiasco affect. The impact of the mitigation practices if successfully implemented, the school will be equipped and ready whenever human-induced disasters occur, it may gain the trust of the parents because it will reflect that the school is efficient even in times of human-induced disaster, and it will have a great impact to the performance of the school.

PREPAREDNESS

The preparedness practices of the participant schools were: planning with stakeholders and preparing for whatever happens brought about by human-induced disasters, hazard mapping, result and feed backing, having the alarm system, mask, alcohol, and other devices, the school clinic is always prepared for any type of disasters with the first aid team on standby, making the school safe by designating a person who controls the in and out of people in the school, giving instructions to the school personnel especially those job orders who are always on the ground, giving security to school by establishing CCTVs in different areas, and implementing the suggested innovations.

The things needed in the preparedness management practices of school are: funds, additional first aid kits, 4-way radio and go bags, cleanliness campaign disseminations to learners, parents, and other stakeholders, and experienced and well-educated Resource Speakers to share their best practices on human-induced disasters management.

It's better to be safe than sorry, that is why the schools need to implement preparedness management practices for human-induced disasters, and these are: conducting training, workshop, and information drive on what to do in case of human-induced disasters and encouraging every stakeholder to actively participate, orienting teachers or assigned personnel to do their assigned task and implement the procedures like informing the parents/guardians and assessing the damaged, injured and others, by frequent monitoring and assessment of the daily operation of the school, seeking help with the reliable source that will help in implementation and through proper coordination from school down to its community. It was validated in the study of Bellamy

et al. (2019) recommended to progress the preparing arrange, incorporate web-based conveyance, consolidation of real-world scenarios, dynamic learning works out, and interactive media. All preparing can incorporate aptitude building, information utilization, and self-care substance, and decreasing the number of trainings may cultivate taken a toll investment funds for the program. The impacts of preparedness management practices on schools are: it will lessen the disaster and human errors, it will also increase the performance of the school since it minimizes and avoids the bigger risk through this familiarization with human-induced disasters, it can help reduce accidents, and it will make a safe learning environment.

RESPONSE

The response management practices at the time of human-induced disasters in the participant schools are having a disaster team that has regular meetings and conducting clean-up drives and putting signage in different hazardous areas, having CCTV, fire extinguishers, and assigned teachers for the porch watching to every place / every floor of buildings in school, loitering is not allowed to prevent the disasters, by informing school head, guidance counselor and the committee on peace and order like policemen, conducting lectures and simulation, assessing the security guards' capacity to secure and school, identifying classroom or facilities which are vulnerable to such threat and keeping calm to do what is necessary. The response management practices after the human-induced disasters are: checking all the learners and personnel if they are safe and secured, calling the immediate help of the authorities, conducting evaluation and assessment on the damage or stolen property, it is anchored to the study of Zhou Zheng (2021) that there should be building harm appraisal for quick reaction with a profound object-based semantic alter discovery system: from natural disasters to human-induced disasters. Analyzing the problem, and looking for a possible remedy, activating the contingency plan for rehabilitation, identifying the source of threat and validating actions by securing the victim and providing stress management procedures conducted by health officer and guidance counselor making the school established institutions against human-induced disasters. Results agree with the findings of Asiyai (2012) who stated that most facilities in schools which include all the equipment, buildings, and materials are in despair and need proper maintenance.

The things needed in the management practices at the time of human-induced disasters are different signage for the students and maps for safe exit in times of trouble, equip all the stakeholders and open line and an emergency contact number of different authorities, proper training for personnel, strong warning system, and hand-held radios for better communication. The things needed in the management practices after human-induced disasters are; a quick assessment tool and checklist to determine the cost of damage when a human-induced disaster occurs, an assessment of the effectiveness of school response strategies in human-induced disasters, manpower and resources are also needed, there is a need to increase the vision on grounds and



perimeter by providing more CCTVs and Job Order personnel to secure the school campus.

The implementation of management practices is with the help of BSP/GSP and First Aid Team to respond immediately, with the active involvement of the stakeholders and giving them the necessary tasks to respond to the human-induced disasters, and with proper coordination with the internal and external stakeholders regarding the effect of the human-induced disasters and if there are necessary changes in the procedure of response strategies, make a necessary move/change to improve.

The impact of the management practices at the time of human-induced disaster is it minimizes and avoids the bigger risk of human-induced disasters, the problem will be resolved easily, and it will make a school a safe learning environment. Likewise, its impacts after the human-induced disasters are; it increases the school performance though there is a need for more training for school personnel, it will make a better emergency response, and the school management and its constituents are fully capacitated after all the response strategies are performed well. It was anchored in the study of Medina (2016) that disasters from all dangers, extending from normal disasters, human-induced calamities, impacts of climate alter to social clashes can essentially influence the healthcare framework and community. This requires a worldview move from a receptive approach to a fiasco chance administration 'all-hazards' approach. Fiasco administration could be a joint exertion of the city, state, territorial, national, multi-agencies and worldwide organizations that requires compelling communication, collaboration, and coordination.

RECOVERY

Recovery begins after the threat subsided, to bring back everything to normal and safety, here are the recovery management practices of the respondent schools; conducting therapies through psychological first aid and learning continuity plan, repairing the damages and replacing the lost property counseling guardians and instructors approximately the ordinary and irregular designs of mental reaction anticipated from children as expressed by Carvalho et al. (2020) that there's a need to prepare and bolster instructors and other staff to offer school-based mental bolster to returning understudies. Making some adjustments on the plans, through strengthening coordination with barangay officials to secure the school perimeter as well as the grounds, having clean and green projects in the surroundings and keeping everyone updated to information in solving problems in human-induced disasters. It is anchored in the study of Carvalho et al. (2020) that needs for education-focused endeavors after coronavirus widespread ought to incorporate guaranteeing that school foundation and offices are secure, that rooms are clean and disease-free, which staff are arranged to avoid the spread of illness within the occasion of a future episode. Significance of making beyond any doubt that schools are prepared with satisfactory wellbeing and cleanliness framework and checking capabilities, that understudies and staff hone standard hand

washing, that schools have get to adequate hand sanitizer, which understudies and staff are persistently screened for temperature.

The things needed in recovery management practices on human-induced disasters are; a budget for repair and replacement of damaged and lost properties, manpower and support from the stakeholders and LGU, more equipment to secure the grounds like CCTVs and hand-held radios, attend to the need for the victim as well as those having emotional distress. It is anchored to the study of Zhuo Zheng (2021) that the sudden-onset normal and man-made catastrophes speak to a danger to the security of human life and property. Fast and exact building harm evaluation utilizing bitemporal tall spatial determination inaccessible detecting pictures can rapidly and securely give with spatial conveyance data and measurements of the harm degree to help with a helpful help.

The implementation of the recovery management practices would be successful through the full cooperation of all school community including parents and other stakeholders it is anchored to the study of Carvalho et al. (2020) that there is a need to lock in guardians by capitalizing on their current association in inaccessible learning to move forward future results. Start with the evaluation process of the incident and make provisions on how to prevent it, and plan to create an emergency response and policies on human-induced disasters, providing the necessary materials and equipment, restoration of the clean and child friendly environment of the school.

The impacts of the recovery management practices are; it will help the people inside the school safe and prepared at all times by recording the recovery plans, it will protect the employees, students, and properties, and the recovery plans on human-induced disaster affect the over-all performance of the school, if plans are effective that's better, if not, there should always be a contingency recovery plans. It is anchored to the study of Carvalho et al. (2020) that instructors must engage in preparing and coaching so they can offer assistance understudies capture up, and guarantee that the school situations are secure and ensured. To address the learning misfortune, policymakers ought to consider focused on programs for quickened recuperation and utilize low-cost coaching and communication strategies to bolster instructors and lock in guardians.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Most of the human-induced disasters happened in public secondary schools in Laguna for the past five years were theft, vehicular accident, trespassers, health disasters, pollution. The most common causes of human induced disasters are; The feeling of peer pressure, jealousy... weather condition, health concerns due to COVID 19, Lack of school fences and throwing garbage inside the school fence, intent to enter the school to cause harm, dysfunctional health facilities due to COVID 19 and transmission which affected some of our teachers, learners and their family members, improper water sanitation and waste disposal and to



create an environment of panic/confusion which are commonly disasters made or performed by humans.

In level of knowledge of teachers on human-induced disasters is average, based on facts; teachers are knowledgeable in recovery which is the process of regaining possession or control of something or returning the institution to typical operations and in reaction which alludes to the response to an occurrence or crisis to evaluate the harm or affect to the location and its components. In the same way, the level of skills of teachers on human-induced disasters is average, it is proven that the teachers are skilled in doing things to prevent violence in schools. Unlike the level of attitude of teachers on human-induced disasters which is low. It implies that the teachers are knowledgeable and skilled enough to face the human-induced disasters yet their attitude regarding human-induced disasters are still needed to be developed or enhanced.

The level of mitigation management practices of schools in human-induced disasters is Excellent. Generally, schools have an excellent mitigation management practice which is the presence of inventory of assets of school. It proves that teachers and principals need to continue their existing mitigation management practices and have to conduct additional training and improvement in the planning for the next years which can be included in the School Improvement Plan (SIP) regarding mitigation management practices so that the school has to be prepared on the different types of human-induced disasters that may occur.

The level of preparedness management practices of schools in human-induced disasters is Good. It shows that the preparedness management practices of public secondary schools in human-induced disasters which is the manner of distributing emergency numbers in cases of disasters such as police department number, fire department, etc. really helps.

Level of response management practices of schools in human-induced disasters is Good. It shows that there should be constant reminder, to the people who have experienced the human-induced disaster, to maintain an overall healthy lifestyle. There should also a stress assessment to the people who have experienced the human-induced disaster; there should also be constant reminder, to the people who have experienced the human-induced disaster, to practice mindfulness. Likewise, simple lecture to teach the 4A's (avoid, alter, accept, adapt) of stress management to the people who have experienced the human-induced disaster; session for the people who have experienced the human-induced disaster, to use muscle relaxation techniques; session for the people who have experienced the human-induced disaster, to engage in light exercises; assessment to the people who have experienced the human-induced disaster if there is a rapid, beating heart rate, shortness of breath, snugness of throat, sweating, trembling or shaking are also needed. At the same time, there should also be conduct of an exercise session (once a week, after class) to the people who have experienced the human-induced

disaster. The school clinic must have benzodiazepines for the treatment of panic attacks of the people who have experienced the human-induced disaster. Lastly, there should also be a conduct of a laugh therapy (once a week, after class) to the people who have experienced the human-induced disasters.

The level of recovery management of schools in human-induced disasters is Good, especially in having an improvement of coordination and communication among internal stakeholders of the institution. It shows that there should be conduct of restoration and improvement facilities, availability standard map of the school throughout the institution to facilitate the next planning and response to the human-induced disaster, conduct of post disaster assessment, and incorporation of a disaster risk reduction into the post disaster recovery plan of the institution, conduct of manual inventory operations, facilitation of the rapid restoration of a data processing system, conduct of recovery actions procedures, adaption of advances in information technology to human-induced disaster emergency recovery needs, conduct of a training program to enhance recovery from human-induced disaster. It implied that there is indeed a need for recovery management in schools

There was a significant relationship between knowledge and mitigation management practices of schools, however, skills and attitude have shown no significant relationship in mitigation management practices of schools in human-induced disasters. It showed that the teachers are knowledgeable enough in mitigation practices on the human-induced disasters, but they are not really skilled in doing it and not all of the teachers are approving of doing it.

There was a significant relationship between knowledge and preparedness management practices of schools, however, skills and attitude are not related in preparedness management practices of schools of teachers on human-induced disasters. It shows that the teachers are knowledgeable enough in preparedness practices on the human-induced disasters, but they are not really skilled in doing it and not all of the teachers are in accord of doing it.

There was a significant relationship between knowledge and response management practices of school; however, skills and attitude are not related in response management practices of schools of teachers on human-induced disasters. It implies that the teachers have enough knowledge on the response management but they are not applying it and some of the teachers are not in favor of it.

There was a significant relationship between knowledge and recovery management practices of schools. In addition, the skills, revealed the significant relationship with the recovery management practices. Unlike attitude has shown no significant relationship in recovery management practices of teachers on human-induced disasters. It implies that the teachers are well-informed with regards to recovery management practices on the



human-induced disasters, and skilled enough in doing it. On the other hand, not all of the teachers can concord of undertaking it.

Human-induced disasters were dangerous especially if the people inside the schools are not aware and knowledgeable on how to deal with them. It has been found that the cases of human-induced disasters extremely happened in public secondary schools of Laguna are theft, health disasters, and pollution. The management practices of public secondary schools on mitigation, preparedness, response and recovery are not really implemented by the school heads. They have limited management practices available whenever human-induced disasters occur due to lack of funds and enough training. They only respond in the advent of it. In mitigation management practices, the respondent schools have controls on the number of outsiders with log book, have training for students thru drills and simulation but those are only for natural disasters. They have no legitimate SDRRMC Resource Center for human-induced disasters. There is no assigned teacher in charge on particular human-induced disasters and not all stakeholders fully participate in the program of the school with regards to human-induced disasters. In preparedness management practices, the respondent schools have planning with stakeholders and preparing for whatever happens brought about by disasters but that is only for natural-made disasters like hazard mapping, feed backing, and having an alarm system. The school clinic is always prepared for any type of disasters with the first aid team on standby. The respondent schools are also conducting training, workshop and information drive on what to do during disasters. In response management practices, the respondent schools have response disaster team that has regular meetings and conduct clean-up drives and put signage in different hazardous areas. Putting person to watch every place or every floor of the buildings in schools. Loitering is not allowed to prevent the disasters. After the disasters, the response management practices of schools are checking all the learners and personnel if safe and secured. Calling for immediate help of authorities and conducting evaluation and assessment on damage or stolen property. The recovery management practices of respondent schools are conducting therapies through psychological first aid and learning continuity plan, repairing damages and replacing the lost property. Counseling parents, and learners together with teachers. It was also found that the teachers are not really aware of the phases of disaster management cycle which are the mitigation, preparedness, response and recovery. The respondents are not also skilled on how to respond once there was a human-induced disaster. They don't know what they are going to do in case of school emergency, how to prepare for an emergency and how to improve the school after such disaster. They are also not aware of the duties and functions of a SDRRM Coordinator based on the results on the researcher-made test. The respondents also don't know how to respond once there is shooting, theft, and vehicular accidents in their school. They are not really into management of risk reduction of human-induced disasters.

The following are the conclusions drawn from the findings

1. The school heads, SDRRM Coordinators and teachers are knowledgeable on the human-induced disasters happened in public secondary schools of Laguna for the last five years are theft, vehicular accident, trespassers, health disasters, pollution, and school bomb threat. And the most common causes of human induced disasters are; The feeling of peer pressure, jealousy... weather condition, lack of school fences and throwing garbage inside the school fence, intent to enter the school to cause harm, dysfunctional health facilities due to COVID 19 and transmission which affected some of our teachers, learners and their family members, improper water sanitation and waste disposal and to create an environment of panic/confusion which are commonly disasters made or performed by humans.
2. The school heads, SDRRM Coordinators and Teachers are not skillful on how to mitigate, prepare, respond and recover properly once the human-induced disasters happened on their respective schools due to lack of enough information.
3. The schools doesn't have enough facilities with regards to health disasters.
4. Not all school have enough CCTVs to the surroundings of the school.
5. Not all schools have campaign on cleanliness with regards to water sanitation.
6. That the teachers are not really aware of the phases of disaster management cycle which are the mitigation, preparedness, response and recovery. The respondents are not also skilled on how to respond once there was a human-induced disaster. They don't know what they are going to do in case of school emergency, how to prepare for an emergency and how to improve the school after such disaster. They are also not aware of the duties and functions of a SDRRM Coordinator based on the results on the researcher-made test. The respondents also don't know how to respond once there is shooting, theft, and vehicular accidents in their school. They are not really into management of risk reduction of human-induced disasters.
7. The public secondary schools in Laguna don't have a clear management practices with regards to human-induced disasters and no specified assigned teacher for it.

Recommendation

The following are the recommendations of the study

1. That all public secondary school Heads, SDRRM Coordinators and Teachers must be knowledgeable and skillful on the human-induced disasters with the help of Resource speaker to share the best management practices on it.
2. That the public secondary schools must have enough facilities with regards to health disasters with the presence of human-induced disaster kit.



3. That all public secondary schools must have enough CCTVs to the surroundings of the school.
 4. That all public secondary schools must pay attention to have an intensive campaign about water sanitation.
 5. That all public secondary schools must have a clear management practices on human-induced disasters with a specified assign teacher to handle it.
 6. That there should be teachers' awareness campaign of the phases of disaster management cycle which are the mitigation, preparedness, response and recovery. The teachers must be skilled on how to respond once there was a human-induced disaster. They must know what they are going to do in case of school emergency, how to prepare for an emergency and how to improve the school after such disaster. They must be aware of the duties and functions of a SDRRM Coordinator. They must also know how to respond once there is shooting, theft, and vehicular accidents in their school. They must really be into management of risk reduction of human-induced disasters
 7. That there should be an intensive investigation on human-induced disasters and the future researchers must focus on different aspects which did not conversed in this study.
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