"Awareness on Climate Change and Disaster Risk Reduction Strategies in One of the Barangays in the Municipality of Lemery"

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ABSTRACT

This study aimed to determine the level of awareness on climate change and disaster risk reduction strategies. The study was conducted among fifty (50) residents of Barangay Sepanton Lemery, Iloilo. This study hypothesized that there is significant difference on the level of awareness on climate change as perceived by the residents of barangay Sepanton Lemery, Iloilo when classified according to age and educational attainment. There is significant difference on the level of awareness on risk reduction strategies in terms of before the flood and typhoon when classified according to highest educational attainment. Moreover, significant difference was noted on the level of awareness on risk reduction strategies in terms of during the flood and typhoon when classified according to age and educational attainment. However, there is no significant difference on the level of awareness on risk reduction strategies in terms of before the flood and typhoon when classified according to age. There is significant relationship between awareness on climate change and awareness on risk reduction strategies as perceived by the residents of Barangay Sepanton, Lemery, Iloilo.

A checklist questionnaire was utilized as the main data gathering instrument. The data gathered were analyzed and interpreted using the mean and standard deviation for the descriptive analysis and One-way ANOVA for the inferential analysis. The findings of the study showed that
Key words: Awareness, climate change, strategies

INTRODUCTION

Climate change is defined as the shift in climate patterns mainly caused by greenhouse gas emissions from natural systems and human activities.

Current research has failed to fully recognize how people understand climate change and disaster risk reduction strategies. Studies reveal, for instance the challenges in understanding climate change and the difficulties in incorporating disaster risk reduction strategies in the community.

Taking the earlier studies as a whole, there are still inconsistencies in the results on people's views on climate change and disaster risk reduction strategies. In particular, we have a large gap in understanding climate change and disaster risk reduction strategies as a way to find the means to transform our society towards a sustainable future.
Although we know about people's perceptions regarding climate change, there are still shortcomings about how their knowledge can be used to measure the level of awareness.

Successful climate change programs need to concentrate on climate actions that can truly decrease the amount of GreenHouse Gases (GHGs) in the atmosphere.

Statement of the Problem

This descriptive study is undertaken to determine the level on awareness of both climate change and disaster risk reduction strategies of Barangay Sepanton, Lemery, Iloilo.

Specifically, this study would like to find answer to the following questions:

1. What is the level of awareness on climate change as perceived by the residents of Barangay Sepanton Lemery, Iloilo as a whole and when classified according to age and highest educational attainment?
2. What is the level of awareness on disaster risk reduction strategies in terms of: a.) before the flood, b.) during the flood, c.) before the typhoon; and d.) during the typhoon as perceived by the residents of Sepanton, Lemery, Iloilo as a whole and when classified according to age and highest educational attainment?
3. Is there significant difference on the level of awareness on climate change as perceived by the residents of Sepanton, Lemery, Iloilo when classified according to age and highest educational attainment?
4. Is there significant difference on the level of awareness on risk reduction strategies such as: a.) before the flood, b.) during the flood, c.) before the typhoon; and d.) during the typhoon as perceived by the residents of Sepanton, Lemery, Iloilo when classified according to age and highest educational attainment?
5. Is there significant relationship between awareness on climate change and awareness on risk reduction strategies as perceived by the residents of Barangay Sepanton, Lemery, Iloilo?

THEORETICAL FRAMEWORK

This study anchored on schema theory attaching the construct of awareness to a specific item- whether an apple or a thought, or anything else- requires some method of integrating information across desperate brain areas into a single larger, brain-spanning representation. In this sense, the attention schema theory resembles many previous proposals in which consciousness depends on an integration of information, a binding of information, a brain-wide global workplace or a setting of networks into a single coherent state (Baars, 1983; Crick and Koch, 1990; Tononi, 2008; Schurger et al., 2012).

This study also anchors on norm activation model (NAM; Schwartz 1977; Schwartz and Howard 1981, in Steg,& Nordlund, 2018). It proposes that pro-environmental actions follow from the activation of personal norms, reflecting feelings of moral obligation to perform or refrain from actions. Notably, personal norms are stronger when people are aware of the environmental problems caused by their behaviour, and when they feel personally responsible for these problems and do not attribute these problems to the actions of others, industry, or the government.

Conceptual Framework

In this study, age and educational attainment are the independent variables while awareness on climate change and awareness on disaster risk reduction strategies are the dependent variables.

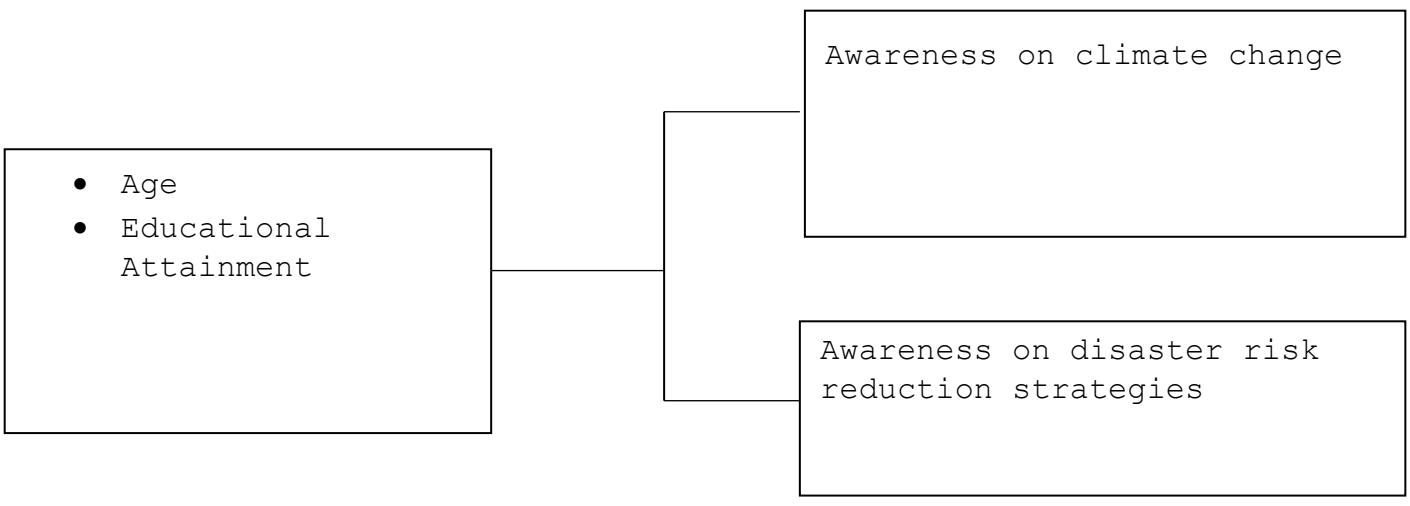


Figure 1. Paradigm of the study shows the relationship between independent variables and dependent variables.

Significance of the Study

This research would provide new perspectives in dealing climate change in the Barangay Sepanton, Lemery, Iloilo.
Specifically, this research would benefit the following:

Community. This study would contribute strategies in the community on reducing climate change as an environmental "concerns/issue".

Local Government Unit. This study would contribute in implementing practices and strategies in the whole town on reducing climate change as an environmental "concerns/issue".

Disaster Risk Reduction Management Corporation (DRRMC) Institutions. Through this research, the institutions may promote programs and advocates regarding the climate change and disaster risk reduction strategies that can help the people deal with the climate change issues.

Barangay officials. This study would contribute insights in the barangay in creating ordinances on reducing climate change as an environmental "concerns/issue".

Residents. The findings of this research encouraged the people to consider the strategies to mitigate climate change.

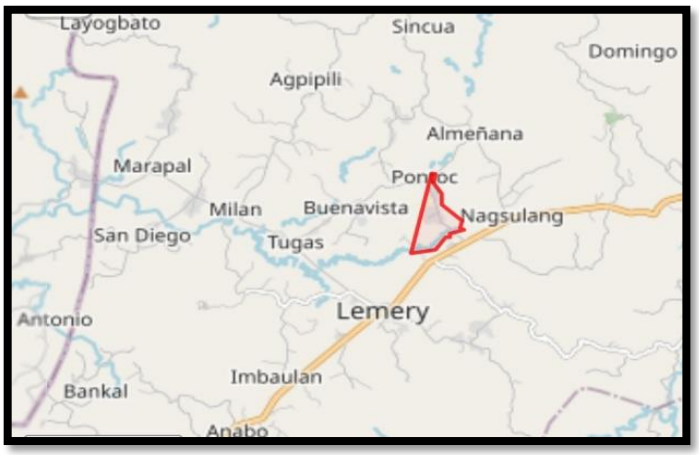
Future researchers. This study covered information involving the strategies to reduce climate change. Thus, the result of this study can be used for future discussions on the climate change and disaster risk reduction strategies in dealing other environmental issues.

Research Design

This study used the correlational method of research. Correlational research is a type of study in which relationships between variables are simply observed without any control over the setting in which those relationships occur or any manipulation by the researcher (APA Dictionary of Psychology).

The basic purpose of this study was to determine the level of awareness on climate change and disaster risk reduction strategies of the people in the Barangay Sepanton, Lemery, Iloilo. This study further aims to determine whether there is a significant relationship between awareness on climate change and awareness on disaster risk reduction strategies of the people in the Barangay SepantonLemery, Iloilo.

In this study the climate change and disaster risk reduction strategies will be determine.



Legend:

Figure 2. Locale of the Study

Respondents of the Study

The respondents of the study would be the fifty (50) randomly selected people in Barangay Sepanton Lemery, Iloilo.

Research Instrument

The instrument of this study was a researcher-made instrument. The instrument was divided into two parts. It was sequenced or arrange systematically.

Part 1. The respondents' profile which includes their age and educational attainment.

Part 2. It was questionnaire made up of 42 items about awareness on climate change and risk reduction strategies.

The instrument underwent validity by the panel of experts. Their comments, suggestions and recommendations were considered in the final draft of the instrument.

The instrument was pilot tested to the residents of Barangay Pontoc, Lemery, Iloilo. The data gathered during the pilot test was analysis for reliability. The cronbach alpha was used for reliability. Cronbach alpha is one of the tests that measures internal consistency. The instrument got α=.825 which means reliable.

The range of interval and the equivalent level are for both level of awareness on climate change and level of awareness on risk reductions strategies as follows.

1.0 – 1.80 – Not Aware at all

1.81 – 2.60 – Rarely Aware

2.61 – 3.40 – Moderately Aware

3.41 – 4.20 – Aware

4.21 – 5.00 – Very Much Aware

Data Gathering Procedure

The researcher prepared a letter of endorsement to the campus administrator to permit the researchers to go out school to conduct the study. The researchers sent letter to the Punong Barangay of Barangay Pontoc, Lemery, Iloilo asking permission to conduct a pilot. Upon the approval of the letter request, the researchers conducted the pilot test. A letter was also sent to Punong Barangay of Barangay Sepanton asking permission to conduct a study. After the approval of the letter request, the researchers personally conducted the study to the residents of barangay Sepanton, Lemery, Iloilo. The data gathered was organized and tabulated for several statistical analysis.

Data Analysis

For the data analysis, descriptive and inferential statistics would be used to analyze and interpret data.

The following would be used in this study:

Mean. This would be used to determine the level of awareness on climate change and reduction strategies of the respondents.

Standard Deviation. This tool would be used to determine the homogeneity and heterogeneity of the respondents.

For the Inferential

One-way Analysis of Variance (ANOVA). It was used to determine the significant difference on the level of awareness on climate change and risk reduction strategies when the respondents were classified according to age and highest educational attainment.

RESULT, ANALYSES DISCUSSIONS

The findings of the study were the following:

The factors affecting the preparation, distribution and retrieval of modules to NIPSC Lemery Campus faculty and students are the following:

1**.** Barriers/Restrictions;

2. Personal character;

3. Problem solving skills

4. Technological skills.

SUMMARY OF THE FINDINGS

Most of the residents of Barangay Sepanton Lemery, Iloilo perceived awareness on climate change was "Very much Aware" as a whole and when classified according to age and highest educational attainment. However, in terms of the age below 20 years old was "Aware".

Most of the residents' level of awareness on disaster risk reduction strategies in terms of before the flood, during the flood, before the typhoon, and during the typhoon as a whole and when classified according to age and highest educational attainment was "Very much aware". However, during flood, before typhoon, and during typhoon the undergraduate elementary and the age below 20 years old was "Aware".

There is significant difference on the level of awareness on climate change as perceived by the residents of barangay Sepanton Lemery, Iloilo when classified according to age and educational attainment.

There is significant difference on the level of awareness on risk reduction strategies in terms of before the flood and typhoon when classified according to highest educational attainment. Moreover, significant difference was noted on the level of awareness on risk reduction strategies in terms of during the flood and typhoon when classified according to age and educational attainment. However, there is no significant difference on the level of awareness on risk reduction strategies in terms of before the flood and typhoon when classified according to age.

There is significant relationship between awareness on climate change and awareness on risk reduction strategies as perceived by the residents of Barangay Sepanton, Lemery, Iloilo.

SUMMARY

The main purpose of this correlational study was to determine the level of awareness on climate change and disaster risk reduction strategies as perceived by the residents of Barangay Sepanton Lemery, Iloilo. Specifically, this study sought answers to the following questions.

1. What is the level of awareness on climate change as perceived by the residents of Barangay Sepanton Lemery, Iloilo as a whole and when classified according to age and highest educational attainment?
2. What is the level of awareness on disaster risk reduction strategies in terms of: a.) before the flood, b.) during the flood, c.) before the typhoon; and d.) during the typhoon as perceived by the residents of

Sepanton Lemery, Iloilo as a whole and when classified according to age and highest educational attainment?

3. Is there significant difference on the level of awareness on climate change as perceived by the residents of Sepanton Lemery, Iloilo when classified according to age and highest educational attainment?
4. Is there significant difference on the level of awareness on risk reduction strategies such as: a.) before the flood, b.) during the flood, c.) before the typhoon; and d.) during the typhoon as perceived by the residents of Sepanton Lemery, Iloilo when classified according to age and highest educational attainment?
5. Is there significant relationship between awareness on climate change and awareness on risk reduction strategies as perceived by the residents of Barangay Sepanton Lemery, Iloilo?

Conducted last February 2023, the 50 respondents of the study who were selected through random sampling were the residents of Barangay Sepanton Lemery, Iloilo.

A researcher made questionnaire-Likert Scale was used to gather data from the respondents.

The mean and standard deviation were used to describe the data gathered.

One-way ANOVA for significant Difference between variables were employed as inferential statistics. This would be used to test the difference between two group means.

The analysis of the data revealed the following findings:

1. The level of awareness on climate change as perceived by the residents of Barangay Sepanton as a whole is "Very much aware" with mean of 4.47 and standard deviation of .53. When the respondents where group according to educational attainment, the level of awareness of undergraduate elementary, elementary graduate, high school graduate and college graduate is "Very much aware" with mean of 4.29, 4.26, 4.55 and 4. 49 and standard deviation of .53, .15, .28 and .33 respectively. The result further revealed that when the respondents were group according to age, the level of awareness on climate change of below 20 years old is "Aware" with mean of 4.19 and standard deviation of 0.51. However, the level of awareness on climate change of the respondents whose age fall on 20 to 39 years old, 40 to 59 years old and 60 and above years old is "Very much aware" with mean of 4.64, 4.58 and 4.61 with standard deviation of .40, .29 and .12 respectively.
2. The level of awareness on disaster risk reduction strategy in terms of before the flood as perceived by the residents of Barangay Sepanton as a whole is "Very much aware" with mean of 4.58 and standard deviation of .42. When the respondents where group according to educational attainment, the level of awareness of undergraduate elementary, elementary graduate, high school graduate and college graduate is "Very much aware" with mean of 4.44, 4.46, 4.55 and 4. 47 and standard deviation of .40, .70, .34 and .26 respectively. The result further revealed that when the respondents were group according to age, the level of awareness on disaster risk reduction strategies in terms of before the flood by below 20 years old, 20 to 39 years old, 40 to 59 years old and 60 and above years old is "Very much aware" with mean of 4.52, 4.71, 4.39 and 4.69 with standard deviation of .39, .36, .56 and .30 respectively.
3. The level of awareness on disaster risk reduction strategies in terms of during the flood as perceived by the residents of Barangay Sepanton as a whole is "Very much aware" with mean of 4.54 and standard deviation of .65. When the respondents where group according to educational attainment, the level of awareness on disaster risk reduction strategies of undergraduate elementary is "Aware" with mean of 4.14 and standard deviation of .78. However, the level of awareness respondents with elementary graduate, high school graduate and college graduate is "Very much aware" with mean of 4.76, 4.71 and 4.88 and standard deviation of .32, .53 and .16 respectively. The result further revealed that when the respondents were group according to age, the level of awareness on disaster risk reduction strategies in terms of during the flood of below 20 years old is "Aware" with mean of 4.05 and standard deviation of 0.77. However, the level of awareness on disaster risk reduction strategies in terms of during the flood of the respondents whose age fall on 20 to 39 years old, 40 to 59 years old and 60 and above years old is "Very much aware" with mean of 4.73, 4.84 and 4.90 with standard deviation of .49, .26 and .12 respectively.

4. The level of awareness on disaster risk reduction strategies in terms of before the typhoon as perceived by the residents of Barangay Sepanton as a whole is "Very much aware" with mean of 4.33 and standard deviation of .44. When the respondents where group according to educational attainment, the level of awareness on disaster risk reduction strategies of undergraduate elementary is "Aware" with mean of 4.17 and standard deviation of .53. However, the level of awareness respondents with elementary graduate, high school graduate and college graduate is "Very much aware" with mean of 4.22, 4.30 and 4.69 and standard deviation of .35, .32 and .29 respectively. The result further revealed that when the respondents were group according to age, the level of awareness on disaster risk reduction strategies in terms of before the typhoon of below 20 years old is "Aware" with mean of 4.12 and standard deviation of 0.54. However, the level of awareness on disaster risk reduction strategies in terms of during the flood of the respondents whose age fall on 20 to 39 years old, 40 to 59 years old and 60 and above years old is "Very much aware" with mean of 4.48, 4.29 and 4.54 with standard deviation of .40, .36 and .13 respectively.
5. The level of awareness on disaster risk reduction strategies in terms of during the typhoon as perceived by the residents of Barangay Sepanton as a whole is "Aware" with mean of 4.18 and standard deviation of .51. When the respondents where group according to educational attainment, the level of awareness on disaster risk reduction strategies of undergraduate elementary is "Aware" with mean of 3.85 and standard deviation of .63. However, the level of awareness respondents with elementary graduate, high school graduate and college graduate is "Very much aware" with mean of 4.31, 4.32 and 4.47 and standard deviation of .44, .20 and .26 respectively. The result further revealed that when the respondents were group according to age, the level of awareness on disaster risk reduction strategies in terms of during the typhoon of below 20 years old is "Aware" with mean of 3.79 and standard deviation of 0.63. However, the level of awareness on disaster risk reduction strategies in terms of during the typhoon of the respondents whose age fall on 20 to 39 years old, 40 to 59 years old and 60 and above years old is "Very much aware" with mean of 4.42, 4.36 and 4.27 with standard deviation of .26, .33 and .22 respectively.
6. There is significant difference on the level of awareness on climate change as perceived by the residents of barangay Sepanton, Lemery, Iloilo when classified according to educational qualification $F(3, 46) = 4.94$, $p = .007$. Pairwise comparisons of the means using Tukey HSD revealed significant difference between undergraduate elementary and college graduate ($p = .007$). More specifically, scores in awareness on climate change of undergraduate elementary ($M = 4.29$, $SD = .53$) were significantly lower than the scores in college graduate ($M = 4.79$, $SD = .33$). Moreover, it was found out that there is significant difference of the level of awareness on climate change as perceived by respondents when group according to age $F (3, 46) = 4.27$, $p = .10$. Pairwise comparisons of the means using Tukey HSD revealed significant difference between ages below 20 years old and 20 – 39 years old ($p = .011$). More specifically, scores in aware on climate change of below 20 years old ($M = 4.19$, $SD = .51$) were significantly lower than the scores in 20- 39 years old ($M = 4.64$, $SD = .40$).
7. There is significant difference on the level of awareness on disaster risk reduction strategies in terms of before the flood as perceived by the residents of barangay Sepanton, Lemery, Iloilo when classified according to educational qualification $F(3, 46) = 3.51$, $p = .022$. Pairwise comparisons of the means using Tukey HSD revealed significant difference between undergraduate elementary and college graduate ($p = .017$). More specifically, scores in awareness on disaster risk reduction strategies in terms of before the flood of undergraduate elementary ($M = 4.44$, $SD = .40$) were significantly lower than the scores in college graduate ($M = 4.79$, $SD = .33$). However, it was found out that there no significant difference of the level of awareness on disaster risk reduction strategies in terms before the flood as perceived by respondents when group according to age $F (3, 46) = 1.51$, $p = .224$.
8. There is significant difference on the level of awareness on disaster risks strategies in terms of during flood as perceived by the residents of barangay Sepanton, Lemery, Iloilo when classified according to educational qualification $F(3, 46) = 5.07$, $p = .004$. Pairwise comparisons of the means using Tukey HSD revealed significant difference between undergraduate elementary and high graduate ($p = .007$, and a significant differences was noted between undergraduate elementary and college graduate (.006). More specifically, scores in awareness on disaster risk reduction strategies of undergraduate elementary ($M = 4.14$, $SD = .78$) were significantly lower than the scores in both high school graduate ($M = 4.71$, $SD = .53$) and college graduate ($M = 4.88$, $SD = .22$). Moreover, it was found out that there is significant difference of the level of awareness on disaster risk reduction strategies as perceived by respondents when group according to age $F (3, 46) = 7.00$, $p = .001$. Pairwise comparisons of the means using Tukey HSD revealed significant

difference between ages below 20 years old and 20 – 39 years old (p = .004). Significant difference was also noted between below 20 years old and 40- 59 years old (p = .004). There is also significant difference existed between below 20 years old and 60 years old and above (p = .001). More specifically, scores in awareness on disaster risk reduction strategies in terms of during the flood of below 20 years old (*M* = 4.05, *SD* = .78) were significantly lower than the scores in 20- 39 years old (*M* = 4.73, *SD* = .49, 40- 59 years old (*M* = 4.84, *SD* = .26), and 60 years old and above (4.90, *SD* = .17.

9. There is significant difference on the level of awareness on disaster risk reduction strategies in terms of before the typhoon as perceived by the residents of barangay Sepanton, Lemery, Iloilo when classified according to educational qualification F(3, 46) = 4.28, p = .009. Pairwise comparisons of the means using Tukey HSD revealed significant difference between undergraduate elementary and college graduate (p = .006). More specifically, scores in awareness on disaster risk reduction strategies in terms of before the typhoon of undergraduate elementary (*M* = 4.16, *SD* = .53) were significantly lower than the scores in college graduate (*M* = 4.69, *SD* = .29). However, it was found out that there no significant difference of the level of awareness on disaster risk reduction strategies in terms before the typhoon as perceived by respondents when group according to age F (3, 46) = 2.52, p = .069.
10. There is significant difference on the level of awareness on disaster risks strategies in terms of during typhoon as perceived by the residents of barangay Sepanton, Lemery, Iloilo when classified according to educational qualification F(3, 46) = 5.62, p = .002. Pairwise comparisons of the means using Tukey HSD revealed significant difference between undergraduate elementary and high graduate (p = .031), and a significant differences was noted between undergraduate elementary and college graduate (.003). More specifically, scores in awareness on disaster risk reduction strategies during typhoon of undergraduate elementary (*M* = 3.85, *SD* = .63) were significantly lower than the scores in both high school graduate (*M* = 4.32, *SD* = .20) and college graduate (*M* = 4.47, *SD* = .26). Moreover, it was found out that there is significant difference of the level of awareness on disaster risk reduction strategies in terms of during the typhoon as perceived by respondents when group according to age F (3, 46) = 6.97, p = .001. Pairwise comparisons of the means using Tukey HSD revealed significant difference between ages below 20 years old and 20 – 39 years old (p = .001). Significant difference was also noted between below 20 years old and 40- 59 years old (p = .011). More specifically, scores in awareness on disaster risk reduction strategies in terms of during the typhoon of below 20 years old (*M* = 3.79, *SD* = .63) were significantly lower than the scores of both in 20- 39 years old (*M* = 4.42, *SD* = .26 and 40- 59 years old (*M* = 4.36, *SD* = .33).
11. There is significant relationship between awareness on climate change and awareness on disaster risk reduction strategies as perceived by the residents of barangay Sepanton, Lemery, Iloilo r = .533, p=.000.

CONCLUSION

The findings of the study led to the following conclusions:

1. Most of the residents of Barangay Sepanton Lemery, Iloilo perceived awareness on climate change was “Very much Aware” as a whole and when classified according to age and highest educational attainment. However, in terms of the age below 20 years old was “Aware”.
2. Most of the residents’ level of awareness on disaster risk reduction strategies in terms of before the flood, during the flood, before the typhoon, and during the typhoon as a whole and when classified according to age and highest educational attainment was “Very much aware”. However, during flood, before typhoon, and during typhoon the undergraduate elementary and the age below 20 years old was “Aware”.
3. There is significant difference on the level of awareness on climate change as perceived by the residents of barangay Sepanton Lemery, Iloilo when classified according to age and educational attainment.
4. There is significant difference on the level of awareness on risk reduction strategies in terms of before the flood and typhoon when classified according to highest educational attainment. Moreover, significant difference was noted on the level of awareness on risk reduction strategies in terms of during the flood and typhoon when classified according to age and educational attainment. However, there is no significant difference on the level of awareness on risk reduction strategies in terms of before the flood and typhoon when classified according to age.
5. There is significant relationship between awareness on climate change and awareness on risk reduction strategies as perceived by the residents of Barangay Sepanton Lemery, Iloilo.

RECOMMENDATIONS

The following recommendations were based on the findings of the study:

1. The community should orient the people of the concerns and issues about climate change and disaster risk reduction.
2. The Local Government Unit should conduct an information disseminations or seminars on climate change and disaster risk reduction strategies to raise the level of awareness.
3. Disaster Risk Reduction Management Corporation (DRRMC) Institutions should promote programs and advocates regarding the climate change and disaster risk reduction strategies.
4. Barangay officials must be responsible enough to their obligations and focus well to their duties in implementing a plan regarding on the climate change and disaster risk reduction strategies to increase the level of awareness of the respondents.
5. The residents of the Barangay will come up with the Do's and Dont's to prevent the hazards of the calamities.
6. The future researchers may conduct similar studies using other variables like geographical location, community involvement and occupation.

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