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Impact of Typhoon Disasters on Child's Education: The Case of Students in Northern Barangays, Philippines

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Abstract:

Disasters like typhoon cause a threat to children's right to quality education. This study utilized phenomenological method in order to investigate the vulnerabilities of ten (10) Junior High School students in the Northern Barangay of Tacloban City purposely selected as participants. It employed Wa- Mbaleka model (2018) of data analysis anchored in coping mechanism theory of Lazarus and Folkman (1987) utilizing focus group discussions and questionnaires to gather data. Findings revealed that typhoon cause high absenteeism, less academic learning hours, less syllabus coverage, health reasons, shortage of food, water and difficulty in transportation resulting to student's poor academic performance. Social media, involvement in school activities and drop out from school were the identified coping mechanisms. Results of the study provide inputs for teachers and school administrators to have adaptive strategies and culture of safety through disaster education.

Keywords: Typhoon, vulnerabilities, disaster education, phenomenology

1. Introduction

In a global scale like Australia, bushfires are one of the most common natural disasters. The social disruptions coming from it has often interrupted the schooling of its children. A study has conducted to determine how the child's learning affected in the years after the disaster has concluded that children have poorer academic outcomes in some subjects compared to children in regions where bushfires have less likely occurred (Gibbs, L. et.al., 2019).

Another study in Italy about the academic impact of earthquakes, shows that there is a considerable negative effect that results from natural disasters on the academic achievements of the students. However, this does not always happen, as other educational institutions are able to manage the disruption of classes well thereby alleviating if not countering completely the negative effects on student's performance (Di Pietro, G., 2015).

In the Philippine setting as mentioned by the Asian Disaster Reduction Center (ADRC), the country is located in the Ring of Fire or Typhoon Belt. This means 20 typhoons enter the region; it is an earthquake zone with 23 active volcanoes thus with high occurrences of secondary effects like flooding and landslides. Although natural disasters come and go in the country, there is a limited literature of its effects to the victims.

'Numerous studies have been conducted on the responses to natural disasters, particularly typhoons and tsunamis in Taiwan, Sri Lanka and Thailand; however, research on Filipino population appears to be limited. The literature on natural disaster displacement and mental health consequences is sparse and specific' (Mitchell, A.L. & Chaparro, C.N., 2015).

Further, natural disasters in the Philippines, are occurring regularly especially typhoons thus disruption of classes tends to happen more often. The months of June to November, considered as the 'typhoon season' falls to opening and conduct of classes. As stated in the press release of UNICEF (2020), it expressed great concern for the children affected by the typhoons in the country. They emphasized, that vulnerable children will even be more disadvantaged and that learners whose school supplies has been swept away by flood waters would have to interrupt their schooling once again. This study provides information and awareness that despite many researches in a country prone to disaster year after year, there were few studies conducted to determine the effects and impacts of typhoon specifically on children's education.

1.1. Research Questions

This study probes the case of junior high school students affected by strong typhoons such as Haiyan' or 'Yolanda' to name one who resettled in the Northern Barangay of the city after the tragedy. This study sought to answer the following questions:

- What are the things that the students have experienced before, during and after typhoon?
- What are the challenges that the students have encountered?
- What are the impacts/effects of typhoons to the child's schooling/education?

2. Review of Related Literature

2.1. Delayed Impact of Natural Disasters to School Children

In 2016, a student posted a question in <https://socratic.org/> if natural disasters happen often and, in a reply, the answer is 'yes, essentially everyday'.

While the occurrence of natural disasters cannot accurately predict, which makes everyone a potential victim, it has become a common knowledge that it happens almost on a daily basis around the world. With each disaster, UNICEF and other non-government organizations fear that children are the most vulnerable. Yet, there is a very limited literature on its impact and effects to child's education, academic performance and achievement. One of the probable reasons is that the effects and impact is not readily or easily measured right after the occurrence of a disaster. This is true with the study conducted in Australia with how bushfires affect the child schooling and states that 'natural disasters affect children's schooling years later' (Gibbs, L. et.al., 2019). In the paper the authors have selected to track the academic performance of 24, 642 elementary-school children affected by the natural disaster over a four-period of time.

'Given the apparent delayed impacts of the fires, it will be important for future studies on the impacts of disasters on children to extend beyond three (3) years and to consider academic and cognitive impacts alongside factors related to health, social and emotional well-being. In this way, we can be more confident of capturing the longer-term impact of disasters on children's academic performance, impacts that might not be apparent the first few years after an event and we can ensure that interventions target appropriate areas to help children succeed at school and in life' (Nursery, J., 2019).

Moreover, the authors of the said paper also take into consideration the family background and circumstances of the children like the educational attainment of the parents, cultural and health factors as well as the potential influence of schools.

2.2. Possible Effects and Impact of Natural Disasters to Children

Although this study has not taken a comprehensive coverage as the above-mentioned paper, this can be the first step and open the door for other studies in the Philippines to be conducted. It is of paramount importance that such studies be made in order for educators and even the government design educational programs and interventions that could alleviate or lessen the impact and effects of typhoons to the child's schooling.

Meanwhile, on the possible impact and effects some studies suggest cognitive skills maybe affected due to trauma of the disaster experienced (Gibbs, L., 2019). Cognitive skills are those that our brain use so we will be able to think, write, reason, remember focus or pay attention. If these skills declined, that would be very disastrous because we use them to process new information, analyze and understand. It is like a skill set where every single one contributes so we will be able to do what a person would normally do. This is the same reason why UNICEF has great concern over every natural disaster that happen because at the core of it, children are always the most vulnerable ones.

In a Discussion Paper of Giorgio Di Pietro entitled 'The Academic Impact of Natural Disasters: Evidence from L'Aquila Earthquake', showed that the L'Aquila earthquake has significantly lessened the chances that a student will graduate on time. Also, women compared to men are likely to suffer more anxieties, depression and insomnia. These findings are also similar to a Master's thesis by Lois Onigbinde entitled 'The Impacts of Natural Disaster on Education Attainment: Cross-Country Evidence from Macro Data' where he concluded that natural disasters have negative influences on secondary schooling attainment of students.

Having natural disasters ravage the Philippines year after year, it is only imperative to examine the effects and impact in a child's education as it will not only deprive the child to one of its basic rights but also missed the chances of proper interventions. If the underlying effects are well understood, not only educators but also government agencies can design policies relevant to help the child cope with its vulnerabilities every time a natural disaster such as typhoon happens.

3. Theoretical Framework

This study relies on the Academic impact of natural disasters (Di Pietro, 2015), and Natural disaster affects children's schooling years later as this study is aimed on investigating the impact of typhoon to student's education; their experiences and challenges they have encountered which may one way or another affected their perception towards school after the disaster.

Moreover, it has also utilized the theories on Children's symptoms of posttraumatic stress and depression after a natural disaster (Lai et al, (2013) to identify risk factors that may have led the children to show certain behaviors especially towards their schooling.

Applying these theories in this study would us better understand how the child is affected; how it struggles after every disaster and thereby identify the proper interventions that can help the child cope with it.

4. Methodology

4.1. Research Design

This study utilized a phenomenological method to explore the students' real-life stories and their vulnerabilities in facing the challenges brought by typhoon and how they respond to those challenges. Data were gathered through questionnaires and in -depth semi-structural interview with the students. The process allowed the author to have a comprehensive exploration of the challenges, and impact of typhoon disaster on child's education. The study navigates the

experiences of students and how they cope the challenges of typhoon in their schooling. The result of the study would serve as basis for designing disaster education responsive to the needs of students.

4.2. Research Setting

The study was conducted in a selected DepEd secondary school in Region VIII located in Tacloban City, Leyte, Philippines. The researchers purposely confined the research to the said school, being the largest secondary school in the northern barangay catering Junior High School from grade 7 to Grade 10 and Senior High School, Grade 11-12, respectively.

4.3. Research Participants

The participants of the study are the selected Grade 7 students of Northern Tacloban City National High School. The study followed the protocol and ethical considerations in conducting qualitative research. Pseudonyms were used for participant's name in the transcript. Confidentiality of information gathered throughout the study would be used in this research only.

4.4. Sampling

The participants of the study were purposely selected (Patton, 2002). The study involves identifying and selecting group of students who belong to same grade and age level. They shared common experiences relative to typhoon disaster.

4.5. Research Instrument

The study utilized a researcher-made interview instrument, the interview questionnaire comprised by open minded questions to extract the responses of participants regarding their experiences, challenges and coping mechanisms brought by typhoon disasters in their education. The interview guide was first validated before it was utilized for actual use which was divided into two parts- Part 1, aimed to gather information of the participant's data such as name, age, and grade level. Part 11, was about the impact of typhoon disasters on student's education and their coping mechanism.

4.6. Data Collection Procedure

The researchers consulted experts to evaluate the instruments to be used and were pilot tested to measure the validity of the instrument. Consent form was distributed to the participants and explained to them the purpose of the study. The researchers and participants set the agreed date, time and place for the face-to-face interview. The said manner gives chance for the participants to express and expound their answers. It also allows the researchers to elicit more in-depth responses and clarifications (Lichtman, 2013). The audio-recorded interviews were transcribed by the researchers for the participants to review (Yamagata-Lynch, 2010) and proceed to qualitative data analysis using specific themes as the unit for study.

4.7. Data Analysis

The data gathered were analyzed using the model introduced by Wa-Mbaleka (2018) with the following steps: (1) prepare and organize data with the transcribed interview; (2) read transcripts once or twice; (3) develop coding manual and code of the data gathered; (4) find recurring ideas and abstract to put the codes together called categories; (5) write the interpretation of all data by organizing them into themes; (6) write a report presenting the results logically; (7) verify the findings from the research participants and make conclusion; (8) make final revisions by reviewing the manuscript to make sure it has a clear alignment with the research questions.

5. Result and Discussion

Using Wa-Mbaleka model, data collected were analyzed in response to the research questions which were grouped and synthesized into themes.

5.1. Typhoon Experiences

Most of the respondents are fearful each time a typhoon is coming. The horror of typhoon 'Haiyan' or Yolanda is still engraved in their young minds. That tragic day has always been on their minds that some of them still get teary-eyed whenever they are reminded of 'Haiyan'.

5.1.1. Theme 1. Knowing That a Typhoon Is Coming

According to psychologists, 50% of children exposed to disasters showed post-traumatic stress symptoms after experiencing it like recurring thoughts of what happened, hypervigilance, and symptoms of anxiety such as fears and worries of their safety (Lai, B., & La Greca, A., 2020).

5.1.1.1. Significant Response 1

'My family and I would prepare for evacuation to a safer place. But before we leave, we see to it that the house is okay, the switch is off and our things are well-kept. We don't want to happen what happened before during a strong typhoon like Haiyan/Yolanda.'

5.1.1.2. Significant Response 2

'Most of the time I feel so worried about everything. I worry for my family's safety; I worry about the things that we are going to lost if the typhoon gets stronger. There was a time that we thought the typhoon was not really strong that we decided to just stay at home. Then suddenly strong winds started to come and my mother panicked that my siblings and I began crying.' Because of that we always try to prepare things when a typhoon is coming and it does not matter whether it is strong or not.'

5.2. Challenges Encountered After Typhoon

Typhoon is a common occurrence in the Philippines and the physical devastation it leaves posed different challenges for everyone. The secondary effects of it are that floods and landslides hinder school children from going to school once school starts.

5.2.1. Theme 1. Difficulty of Going Back to School

Save the Children (2015) reported that no matter what size the disaster its aftermath is always a challenge to the education sector. The physical damages and destruction of homes, schools and communities are keeping the children from access to continued education.

5.2.1.1. Significant Response 1

'Everything is a mess after a strong typhoon. Things are destroyed, houses, trees even the roads are blocked due to a lot of falling trees, debris and even landslides. Instead of going back to school, we would stay at home to help clean and restore our damaged house.'

5.2.1.2. Significant Response 2

'Transportation is hard because it would take time to clear the roads especially when floods does not settle fast. Some of my classmates who live far from school would miss several days before they start coming to school since traveling is not easy.'

5.2.1.3. Significant Response 3

'Life is hard after typhoon because a lot of things are destroyed. It is hard for my parents to find money to support us. So instead of going back to school at once, I would tend to my siblings for some days so my parents would be able to work.'

5.3. Impact on Child's Education

Every time a disaster happens, getting back to our daily lives is a challenge. Restoring what was destroyed; replenishing what was lost is not an easy task. More often it is hard to be the same after experiencing a disaster. Kousky (2016) said that natural disasters can cause different harmful circumstances for children. Exposure to natural disasters can cause several emotionally negative effects to children. It can be a horrible and terrifying experience that stress can be incurred even after it had happened

5.3.1. Theme 1. Disruption of Classes

In Asia-Pacific region, countries like Nepal, Myanmar and Philippines are the most visited by natural disasters, making children regularly lose school days, resulting to some negative impact on their education (Save the Children, 2015).

5.3.1.1. Significant Response 1

'We cannot start school at once because we have to clean the room first and our teacher had to ask other people to repair our classroom that got destroyed.'

5.3.1.2. Significant Response 2

'There are a lot of school days that we miss due to typhoons. So, getting back to our lesson is really hard if the teacher will not give us pointers to study.'

5.3.1.3. Significant Response 3

'Sometimes it is really nice not to have classes, like it gives us some rest. But if we miss a lot of days of school, I find it hard to study because when class starts, there are a lot of lessons that we have missed and we need to finish them with the remaining days in school.'

5.3.2. Theme 2. Loss of School Materials

The loss of properties, home, change of neighborhood and local economies can have varying effects to children. These stressors can affect their mental health. They tend to have depression symptoms such as feeling sad and losing interest in activities (Lai, B., & La Greca, A., 2020).

5.3.2.1. Significant Response 1

'My books and notebooks got wet. So, it is very hard for me to study our lessons. I worry that I won't pass the exams that our teacher will give.'

5.3.2.2. Significant Response 2

'I tried to keep my books safely but our house got destroyed so all of my things got wet. My parents had a hard time repairing the house so I had to wait for some time before my things get replaced. I try to borrow books from my other classmates and from my teacher but a lot of students are also borrowing so it is really hard.'

5.3.2.3. Significant Response 3

'When I lost my school materials, I did not mind doing school works anymore. If I pass, I pass, if not, it's okay. I can't ask my parents to buy me again because everything is hard.'

5.3.3. Theme 3. Low Academic Performance

Extended or long periods of missed school days after a disaster is more likely to contribute to children to have poor grades or drop out of school (Lai, B., & La Greca, A., 2020).

5.3.3.1. Significant Response 1

'When class starts after typhoon, we had to study a lot of lessons to cover the days when we did not have school. I feel like we don't have enough time to cope with everything especially when a summative test falls on that month. So, most of my test results are low.'

5.3.3.2. Significant Response 2

'The workloads are so much when class starts after typhoon. I feel so lazy thinking all the work I have to finish at once. That's why I fail some of the tests.'

5.3.3.3. Significant Response 3

'When we were hit by a really strong typhoon, we lost almost everything. But thank God my family was safe. My parents had a difficult time working so I was considering of dropping out of school to find job and help my family. Thankfully my relatives helped us but some of my classmates had to stopped school not only because it was hard for their family but they have failed a lot of subjects.'

6. Conclusion

The study reveals the impact of typhoon to students' education, which hinder them to improve their academic performance, home living condition and safety. This is a big challenge to parents, teachers and school administrators to find solution, looking at the effects without compromising the basic competencies the students ought to learn and the vision for quality of education.

7. Recommendation

Result of the study would give a new perspective of the type of education we have during typhoon. Parents and community folks, should also be a part of the solution. This will give inputs to our teachers and leaders in the academe to have adaptation strategies and culture of safety through coming up disaster education in our curriculum.

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