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# Flooding disaster: The effect on the adolescents at Angoda Rahula College, Sri Lanka

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#### Abstract

Different categories of human beings have been affected due to a range of disasters in Sri Lanka. The effects of such disasters vary according to these categories, in particular, the effect on adolescents' reports as vital. However, there is a dearth of research with regard to this in Sri Lanka. The aim of this study was to investigate the effect of the flood disaster at Rahula College in May 2016 on adolescents in terms of physical, educational, economical and interpersonal relations and mental aspects. The randomly selected sample considered of flood disaster affected students of grade 10-11; 25 males and 25 females. The quantitative data was collected using a survey questionnaire. The survey data was triangulated with semi-structured interviews with teachers (10) and students (6) and analyzed using SPSS. Fact findings revealed that the effect in terms of physical, mental, educational, economical and interpersonal relations on both girls and boys was at considerable amount. The majority have been affected by post trauma stress disorder (PTSD), whilst the effect of social problems was high among females than males. The support received from friends, school teachers, social workers and Media recorded as powerful in resolving most of the problems encountered by adolescents due to flood disaster. This study is offered insights of professional counselors, about how to design counseling programs on coping skills for disaster affected adolescents.

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Keywords: Flood Disaster, Adolescents, Coping skills

### 1. Introduction

\* Corresponding author. Tel.: +94714467365 *E-mail address:* erandeniya m@yahoo.com Considering the effect of a disaster, it is made a serious catastrophe for the functioning of the community or a society, which exceeds the ability of the affected community or society to cope using their own resources. Duration of the disaster can range from an hourly disruption to days or weeks of ongoing disruption. Disasters can also impact on the community in different levels. Disasters can take many different forms such as natural and manmade or technological in nature. Flood is included under natural disasters. Deliberated the history of flood disasters in Sri Lanka, years of 2010, 2014/15, 2016 and 2017 in 21st century, there were massive damages occurred by damaging many lives as well as resources. According to the disaster management centre in Sri Lanka, a low pressure area over the Bay of Bengal caused torrential rain to fall across Sri Lanka on 14th may 2016, causing floods and landslides which affected half a million of people. As of 25th May, the death toll was 101 with 100 missing. Students of Angoda Rahula collage were also affected by the flood disaster. Different perspectives of disasters have been researched in most of the disaster affected countries. Gibbes, Mutch, Connor and Dougall (2013) conducted a research "with, by, for and about Children: lessons from disaster context" to influence on the role of children in disaster context. Sharon, Bowman and Gargi in 2016 emphasized that the necessity of disaster counselling to reduce the traumatic experiences of victims. Robert, Daniel and Kelenow (2014) revealed that the effects of chronological age of disaster victims on their responses to stress effects of natural disasters. Considering the Sri Lankan context a few researches have been carried out on different perspectives of disasters. Amarathunga, Haigh and Ingirige (2014), highlighted the process of post-disaster housing reconstruction in Sri Lanka. Gunawardhana (2007), emphasized on violence against women after the natural disaster of Tsunami in Sri Lanka. However, there appears a lack of researches conducted to identify the effect of disasters on adolescents in Sri Lanka. Thus, this study is carried out to fulfil the need of recognizing the effect of disasters on adolescents in Sri Lankan context. Furthermore, my research theme would match with the Building Resilience conference theme of 'Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction'. Hence this study might be able to justify as a significant topic to discuss in contemporary society of Sri Lanka.

#### 2. Materials and Methods

The main aim of this study was to identify the effect of physical, mental, educational, economical and interpersonal relations on the adolescents those who faced flood disaster at Rahula College in May, 2016. In addition, this study focuses on identifying how those adolescents coped up with obstacles after the flooding disaster, and who had supported to defeat those obstacles. Under the quantitative research paradigm, a case study was conducted and a questionnaire survey was used for data collection. The main sample had been screened at two levels: 1) among a total of 283 male and female students in grade 10/11, 96 students who faced the flooding disaster were selected for the first round of selection. 2) Randomly selected an equal number of male and female students from the selected group (60). However, only 50 students completed the questionnaires in a satisfactory level. This study was limited to only mid adolescents. Questionnaire was mainly divided in to five aspects, such as: physical, mental, educational, economical and interpersonal relations. Students were requested to rank the frequency of conditions occurred in above areas in under four levels, namely; not at all, infrequently, always (within one month) and continuously. In addition, three semi-structured open ended questions were also included in the student questionnaire. Moreover, six students and ten teachers were interviewed for the purpose of data triangulation. Statistical Package for Social Sciences (SPSS) was used for the purpose of data analysis. Research ethics were considered in designing and implementing every step of the research.

#### 3. Results

This research mainly intended to identify the effects of physical, mental, education and economical and interpersonal relation aspects on the flood affected adolescents. Data collected from the questionnaire survey has been presented and analysed as follows.

Table 1	Physical	difficulties	of flood	affected	adolescents.
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Statements	Not at all		Infr	equently	A	lways	Continually	
	Male	Female	Male	Female	Male	Female	Male	Female
Headache	46%	40%	4%	10%	-	-	-	-
Stomach pain	40%	36%	8%	14%	2%	-	-	-
Vomiting	40%	40%	8%	-	2%	-	-	-
Sleeping disorders	10%	12%	24%	26%	16%	10%	-	2%
Rashes/ Wounds	20%	16%	20%	28%	8%	4%	2%	2%
Fever	34%	36%	10%	10%	6%	4%	-	-
Cough/Influenza	12%	22%	20%	18%	10%	18%	-	-
Body pain	22%	36%	22%	12%	6%	2%	-	-
Fainting	42%	48%	8%	2%	-	-	-	-

According to the above data, both male and female students had been facing sleeping disorders, rashes/wounds, and cough/influenza and body pain in considerable levels. Also 70% of teachers mentioned that children suffered from fever, body pain and rashes. When conducting interviews with the students, two of them said that they suffered from fever and some patches were still remaining on their bodies. One girl mentioned that 'I didn't have rashes. But my brother was suffering from rashes due to flood disaster'.

Table 2. Mental difficulties of flood affected adolescents.

Statements	No	Not at all		Infrequently		Always		Continually	
	Male	Female	Male	Female	Male	Female	Male	Female	
Getting angry	42%	42%	0%	8%	8%	8%	-	-	
Getting irritated for little things	28%	40%	8%	6%	8%	4%	6%	6%	
Rain brings the fear of flood	0%	8%	4%	2%	8%	0%	38%	40%	
Stress	8%	26%	28%	12%	14%	10%	-	2%	
Sadness	14%	22%	20%	20%	14%	2%	2%	6%	
Feeling lost	24%	22%	14%	12%	10%	14%	2%	2%	
Loosing desire to live anymore	48%	48%	-	-	0%	2%	2%	0%	
Living with no happiness	20%	28%	18%	10%	12%	12%	-	-	

Cannot understand what to do	26%	24%	16%	16%	8%	10%	-	-
Suicidal thoughts	25%	25%	-	-	-	-	-	
Will not be able to face the life in future	44%	25%	4%	0%	2%	0%	2%	0%
Flash back of the bad experiences of flood disaster	4%	12%	18%	6%	14%	12%	14%	20%
Loneliness	44%	44%	2%	2%	2%	2%	4%	4%
Helplessness	42%	50%	6%	0%	2%	0%	-	-
Hate towards others	40%	48%	8%	2%	2%	0%	-	-

According to the third statement mentioned above, the highest percentage (78%) of the students mentioned that rain continually brings them the fear of another flood. Students' interviews also revealed the same responses. Four students mentioned that even a very little rain gives them the urge to go out of the house. 60% of teachers stated that the anxiety level of most of the children was very high. Even in such a situation, most of the students expressed positive mental states where they mentioned that they were spending the time happily, not angry and not sad. 96% of the students mentioned that they did not lose the desire to live as a result of the flood disaster. Also, all the respondent students (100%) mentioned that they did not get suicidal thoughts.

Table 3. Educational difficulties effected to adolescents

Statements	Statements Not At All		Infre	quently	Al	ways	Continually	
	Male	Female	Male	Female	Male	Female	Male	Female
Delayed the studies due to loss of books	10%	16%	4%	8%	36%	26%	-	-
Lack of interest to studies	12%	12%	6%	16%	28%	22%	4%	0%
Why should I study further?	38%	50%	4%	0%	6%	0%	2%	-
No proper place to study	22%	26%	8%	2%	16%	20%	4%	2%
Reduced the marks of monthly tests	14%	44%	22%	2%	14%	4%	-	-
Lack of resources for studies	10%	30%	8%	6%	6%	4%	-	-
Thoughts on giving up education	40%	42%	6%	4%	4%	4%	-	-
Feeling sad about absenteeism due to flooding disaster	14%	24%	20%	4%	16%	22%	-	-
Continuing studies unhappily	12%	18%	12%	10%	20%	22%	6%	0%

As revealed in data, 66% of the students had mentioned that their studies were delayed due to the loss of school books. Teacher and student interviews also proved the same situation. 90% of teachers had mentioned that studies of students were delayed due to loss of books and unstable mentality. Three students who were interviewed mentioned that not only books, all the other belongings such as foods, clothes, and pets were lost. According to the second statement under educational difficulties, most of them were not always interested in their studies. In compare with the boys, monthly test marks of girls were reduced due to the effects of flood. Further 44% of students were continuing studies unhappily. Further results revealed that the students were facing economical and interpersonal relational difficulties. 66% of students had given positive responses regarding their friends' supports. All the students who were interviewed mentioned that their friends supported them in many ways. One student mentioned that 'I am still coming to school from one of my friend's home.' Results of the study revealed that even in the difficult situation, the students were obedient to their parents. The fact that most of them had to change their residences, affected badly for the girls, since they had not even have a proper place to change their clothes, 40% of girls' responses revealed that they had not faced to any disturbances from the society. However 10% of them had to face some difficulties. There were more security problems for the girls rather than boys. 22% of girls replied that they had to face security problems infrequently or always, 26% of boys and 28% of girls responded that their relatives helped them in different ways. Besides, results of the study shows that school teachers, religious centres, media and other volunteers helped the victims to defeat the above obstacles. Teachers' interviews revealed that they had organized medical camps, counselling camps in their own capacity even though the attempts could not fully cater the needs of students.

#### 4. Discussion

The discussion analyses the physical, mental, educational, economical and interpersonal relation aspects effected to adolescents as flood disaster victims using survey and interview data presented above. Physical difficulties of victims were in a considerable level. Among them sleeping difficulties were the most affected problem. Accordingly, more than quarter 26% of the adolescents always suffered from sleeping difficulties whereas 50% of them suffered infrequently. It is possible to decide that there are some students with anxiety situations as one female student mentioned that she suffered from sleeping difficulties furthermore. 56% of students were spending time sadly and 8% of them were continually unhappy. Senarath in 2011 explained that, children who have been exposed to disasters indicates that a significant number of them experience psychological distress, anxiety and somatic complaints shortly and long-term after the disaster (as cited in Dollinger, 1986 & McFarlane, 1987). More than half of mid adolescents reported that they had suffered from cough/rashes/influenza infrequently or always. These physical difficulties might have occurred due to contaminated water. Mental states of the adolescents are very important for their development. This study revealed about 88% of adolescents have bad feelings with regard to rain. When rain comes, they think they will have to face a bad experience once again. Also they are mentally stressed because of the effects of flood disaster. According to teachers, anxiety levels of them were high. Consequently, a post-traumatic stress disorder (PTSD) situation can be identified. However, according to adolescents' responses they didn't have any suicidal thoughts. Thus, there were no any students who suffered from higher levels of depression. Also they didn't feel loneliness and most of them had not hated others. This shows that these students did not lose their self- concept and the trust on others even in the midst of a disaster. With regards to educational difficulties, this research reviled that most of the students couldn't do their studies properly due to flood disaster since they have lost their books and other belongings. However, they could recover the physical loss within few weeks with the help of teachers, friends, government agencies and media. The fact that the school teachers supported the student victims by listening to them and fulfilling their requirements shows that teachers can be major stakeholders in helping students in recovering from such disasters. Due to flood disaster all the victims had to stay in common places. According to the results of the study, this situation had mostly affected for the female. Furthermore, very little amount of the female students had to face some problems due to other victims who lived in the same place.

#### 5. Conclusion

Most of mid adolescents, both- male and female were suffered from physical difficulties in considerable levels. Although there were support in the recovery process from many parties, they were not sufficient to cope up with the needs of the situation. Therefore government agencies or other charity organizations must be more concerned to organize medical camps and conduct some awareness programs on maintaining physical health in disaster situations. This study also highlighted the importance of implementing counselling programs to develop the adolescents' coping skills and reduce their stress/ anxiety levels. Senarath in 2011 presented the importance of the therapeutic intervention to reduce the PTSD symptoms. Therefore counsellors should take their insight on how to plan short term as well as long term counselling programs. Also government agencies need to get necessary actions to place the adolescence in proper places during disaster situations, especially female adolescence. Empowering the adolescents to understand the experiences of disasters is also needed.

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