

## **A Study On Socio-Psychological Impact Of Flood On School Students With Special Reference To St. Aloysius School North Paravur**

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### **Abstract**

The state of Kerala has witnessed the worst flooding in the living memory due to excess rainfall and has marked the enormity of large scale floods in India. 13 out of 14 districts of the state remained under red alert for many days. The persistent and extreme rainfall occurred in August 2018 in Kerala affected all the aspects of human lives including socioeconomic conditions, transportation, infrastructure, agriculture, and livelihood. The Kerala flood of 2018 attracted attention from the media, scientific community, and policymaker; which is probably the worst flood in a century (The Independent, 16 August 2018). As per the preliminary estimates, the Kerala flood caused the death of more than 440 people (Gulf News, 30th August 2018) and economic damage exceeding \$3 billion (News18, 17 August 2018). The aim of the study is to understand the psychological and social impact of flood in North Paravur region- specific to school students and management of St. Aloysius School, North Paravur. This provides an analytical review of how this man-made disaster affected the mental health, routine educational process and schooling of children. Data was gathered from a survey conducted on school students- UP & High school level and through an interview with teachers and local municipal authorities.

**Keywords:** Flood, Impact, Kerala, Psychological, Social

### **Introduction**

St Aloysius School located in the heart of Paravur town, is one among the oldest institution of Ernakulam district. The recent flood affected North Paravur town drastically and have wiped away the houses and properties of many. Around 74,863 families have availed medical aid facilities in North paravur region as per TOI. North Paravur was the focus of relief and rescue operations in the district. Of the 47 rescue units of navy, 21 was deployed at various places in North Paravur. Of the 1.36 lakh food packets airdropped, 82,000 were made available in this region. All the operations, including the functioning of the in-patient wing, were resumed at the govt Taluk Hospital, Paravur. About 14,600 families have been admitted in 171 relief camps in North Paravur. North paravur taluk which was the major flood hit region has alone availed 180 crores (estimate) to recover from the damages and becomes the highest among the taluks to receive loans.

The flood battered families and Ernakulam Psychiatric society came up with 'Mental health adoption programme' spanning over a period of one and half years in one of the worst hit regions in the district. This initiative came up as a consequence towards the inference that the flood ravaged communities may develop anxiety and hopelessness as they return homes from relief camps to revamp their lives especially among children. Government has taken adequate steps in order to mitigate this trauma predominantly at public schools ie at the UP & High school students. Teachers have also cooperated with the government to implement activities which would help the children overcome the fears through many activities.

**Statement of Problem**

Kerala state of India was recently hit by the tragic Monsoon rainfall in the century.” Flood the man-made disaster” has had affected the tribe of North Paravur region psychologically and socially. This study primarily focused in screening the acuteness of depression, anxiety, nervousness among students among girls and boys of St Aloysius School North Paravur. This evaluation also gives prior priority on the impact of social factors which has contributed simultaneously towards the mental health of students. The predominant role played by social factors such as love and care for the community, mutual cooperation and friendship are also explored to understand the impact of flood particularly in the student behavior. This also analyses how far the Government initiatives within the school has influenced the students to recover from the shock of this disaster.

**Objectives**

- 1) To understand the psychological impact of flood among students of 6<sup>th</sup> to 10<sup>th</sup> standard:
  - a) UP School (Less than 13 years)
  - b) High school (13-16 years)
- 2) To understand the effectiveness of the various recovery activities undertaken by the school authorities in order to help the students overcome the shock of this disaster.
- 3) To understand how the flood impacted negatively on the educational system and academics of school students.
- 4) To understand how far the social factors affected the mental health of students post flood.

**Literature Review**

Review of literature is body of knowledge that aims to review the important aspects of current & previous knowledge. It has an ultimate objective of bringing together present literature in connection with the topic to get clear cut idea and for in depth research work in order to bridge the gap between and describe the effectiveness of disaster management initiative taken up in Kerala.

To examine the effects of flooding on the mental health of students of St.Aloysious school, North Paravur, the various sources we have reviewed are newspapers, magazines, academic literature and guidance offered by governing bodies and non-governmental authorities. The below list of selected papers describe how flood impacted the mental and psychological health of the victims.

**1) The psychological impact of exposure to floods**

The psychological disorder held in by testing the variables through a cross-sectional survey in light of socio-demographic characteristics and other psychological, social and personal factors highlights significant issue likewise distress among communities affected.

The above research paper provides inputs on the psychological stress, mental health, water health and safety issues related to floods

**2. Factors Affecting The Long Term Psychological Impact & Deterioration Of Mental Health in Flooded Households**

Pre-existing mental health, socio-economic factors and flood severity to support communities. Characteristics associated with psychological distress like post flood stressors, coping strategies, relocation and household income reported measures of stress, anxiety, depression and mental health deterioration

### 3. Societal Impacts of Flood Hazards-Oxford Research Encyclopedia of Natural Hazards

This study seeks to explore long term distribution of and relationship between different symptoms of stress and mental health in previously flooded communities.

#### Materials and methodology

Research Methodology signifies the way to efficiently solve a problem. A descriptive research methodology was adopted in order to understand the perceptive of children and how flood has impacted their academic performances. A two week study was conducted among students of age group less than 16 years residing in the flood affected areas. Purposive sampling technique was done and participants were assessed by interview technique using questionnaire. Descriptive statistics like mean score and percentages were also applied in order to understand the effectiveness of the impact.

A quantitative method of data collection was adopted in order to understand the mental health condition of students. An in house survey questionnaire method helped us understand the viewpoints of students from their perspective. Although this was time consuming, an in depth data collection method contributed an added value to our study. This Questionnaire consists of a variety of close ended, open ended, multiple choice, dichotomous and scaling questions which has helped the analyses strongly.

#### Results

Flood has created a symptom of generalized anxiety disorder GAD-7 and has significantly affected the mental health of school students. Among the participants there were many students who showed symptoms of various levels of depression and anxiety. Maximum prevalence of fear towards natural hazards was found among children less than 13 years (6<sup>th</sup> & 7<sup>th</sup> Standard). There were a minority of students whose academic performance was affected post flood. As a result of flood, few children were left homeless, who were found more mentally pressurized than other victims of flood. Most prevalent common feeling among all groups of children was the fear of insecurity. Social factors such as love and care for the community, mutual cooperation and friendship united all the victims together to solve the issues confronted during flood and post flood. Below are the positives and negatives of post flood recovery:

| Factors                     | Merits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Demerits                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Psychological impact</b> | Inculcated leadership skills<br>Increased their boldness and made them mentally strong<br>Molded their maturity to handle such situations in future.<br>Post flood recreational activities helped them recover from the shock.<br>Students were asked to share their experience and those who helped in rescuing others were acknowledged and awarded special prizes.                                                                                                                     | Developed fear, fatigue and nervousness<br>Resulted in post flood depression and anxiety<br>Unable to cope up with their academics.<br>Feel of insecurity                                                                                                                                                                                                                                            |
| <b>Social impact</b>        | Developed cooperation and helping mentality among students.<br>Students were sentimental about others life and developed an empathy for others.<br>Friendly and hostile atmosphere at flood relief camps made few students happier than their nuclear families.<br>Government sponsored Text books and notebooks which reduced their academic pressure to an extent.<br>Churches and other charity associations sponsored clothes and other amenities for students which cheered them up. | Those students who were homeless were more seen more pressurized than others.<br>There were also some people who weren't willing to cooperate.<br>Two weeks classes were disrupted.<br>Water logged classrooms were stained and woeful atmosphere disrupted their classes for few more days.<br>There was shortage of reading materials and learning performance of students was adversely affected. |

## Discussion

### 1 . Psycho- Social Impact of Flood

| Major Factors                                                                                                                         | Sub Factors                                                                              |       | Mean score   |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------|--------------|
| <b>PSYCHOLOGICAL</b><br><b>1-Never</b><br><b>3-Neutral</b><br><b>5-Always</b><br><b>(Lower the score - positive impact)</b>           | Do you feel depressed and de-motivated?                                                  | 3.24  | <b>2.836</b> |
|                                                                                                                                       | Are you anxious to perform or speak in front of classroom                                | 1.24  |              |
|                                                                                                                                       | Does heavy rain scare you                                                                | 2.973 |              |
|                                                                                                                                       | Do you day dream frequently and end up imagining scary fantasies about flood?            | 2.12  |              |
|                                                                                                                                       | Have you lost interest in Studies?                                                       | 2.36  |              |
|                                                                                                                                       | Did the family pressure created more mental pressure?                                    | 3.373 |              |
|                                                                                                                                       | Did Flood mould you to be brave                                                          | 4.426 |              |
|                                                                                                                                       | Do you think you were sleep deprived Post Flood?                                         | 2.96  |              |
| <b>SOCIAL</b><br><b>1-Highly Disagree</b><br><b>3-Neutral</b><br><b>5-Highly Agree</b><br><b>(Higher the score - positive impact)</b> | Were you supported very well by your friends?                                            | 3.706 | <b>3.533</b> |
|                                                                                                                                       | How boldly you shared your Flood experience?                                             | 3.973 |              |
|                                                                                                                                       | Do you think Flood impacted the Leadership capacity positively?                          | 3.346 |              |
|                                                                                                                                       | How far are you able to cope up with the Academics?                                      | 3.12  |              |
|                                                                                                                                       | How did you find the relief camps?                                                       | 3.546 |              |
|                                                                                                                                       | Did you feel attached with the kids at relief camps and did you enjoy playing with them? | 3.866 |              |
|                                                                                                                                       | Do you feel the recreational activities performed at school were effective?              | 3.506 |              |
|                                                                                                                                       | Are you satisfied with the adequate financial other helps received from various sources? | 3.2   |              |

Mean score says that, Post flood, a majority of students felt depressed and de-motivated but positively it neither impacted the public speaking skills nor created any stage fear for the children. About half the victims have agreed that heavy rains scares them and also created sleeplessness among children. The results states that children has not lost their interest towards studies but the family pressure has created more mental pressure for them. Keeping all these factors aside students says that flood has molded them to be more brave and courageous.

Social factors have impacted the children positively. They say their friends have cooperated and supported them moderately during the flood. This may be because 3 out of every 5 persons were affected by flood and hardly anyone could offer a helping hand to others. Flood has positively

impacted their leadership skills and also helped them cope up with their academics. Analysis states that students found the relief camps moderately comfortable and also created a bond among children. This may be because children would have felt a change from the modern nuclear families to a more friendly and happy atmosphere of joint families. The recreational activities performed at school were effective and they are decently satisfied with the adequate financial help provided.

## 2. Gender wise Impact of Psychological and Social factors

| GENDER | PSYCHOLOGICAL | SOCIAL |
|--------|---------------|--------|
| MALE   | 2.949         | 3.672  |
| FEMALE | 2.739         | 3.391  |

Psychological factors have impacted more negatively on males compared to females but sociological factors have impacted more positively on males compared to females. Moreover males had less Social impact than psychological impact. This may be due to their responsibility to support and protect their family and the expectation of society that brought immense psychological pressure for the boys. Meanwhile the advantage of being a boy has helped them cope up better with the social factors such as atmosphere at flood relief camps and the support from friends, better than girls.

## 4. Age group/ Class wise Psycho-Social Impact

| CLASS                              | PSYCHOLOGICAL | SOCIOLOGICAL |
|------------------------------------|---------------|--------------|
| 6 <sup>th</sup>                    | 3.230         | 3.889        |
| 7 <sup>th</sup> - less than 13 yrs | 3.067         | 3.278        |
| 8 <sup>th</sup> - Above 13 yrs     | 3.057         | 3.336        |
| 10 <sup>th</sup>                   | 2.13          | 3.385        |

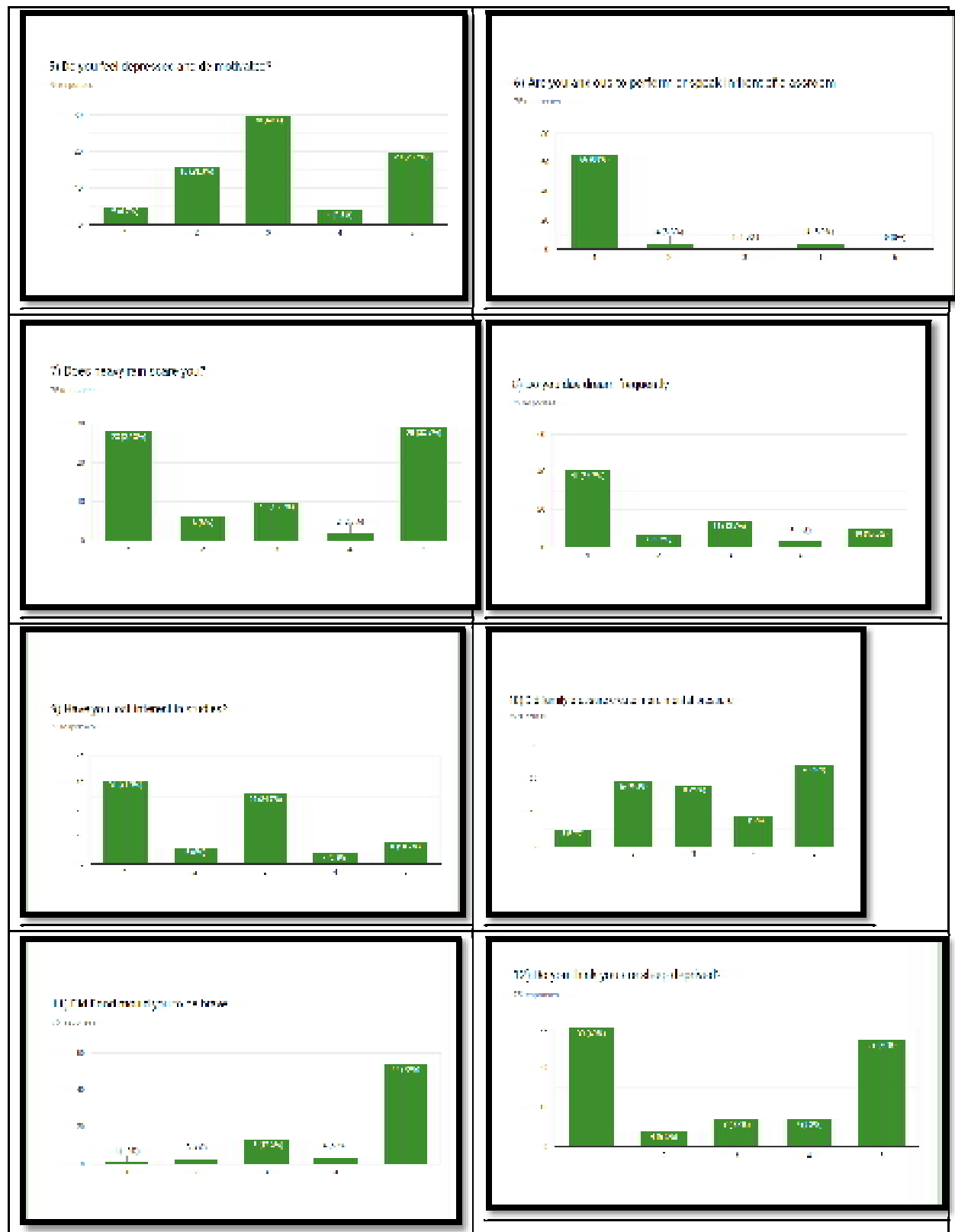
Among all age groups, Sociological factors have impacted more positively than the psychological factors. The psycho-social impact among the different class standards mean can be summarized as those students belonging to age group of above 13 yrs, shows that psychological impact post flood is least among the students of class 10<sup>th</sup> (2.13). Whereas class 6<sup>th</sup> with average of 3.889 having highest score does interpret that sociologically it shows highest positive impact level post flood as compared to other factors. The mean score says that Psychological factors have more negatively impacted those students of 6<sup>th</sup> and 7<sup>th</sup> Standard. The emotional maturity of High school students must have reduced the impact of Post flood among them.

## 5. Has Flood impacted the Academic performances of students?

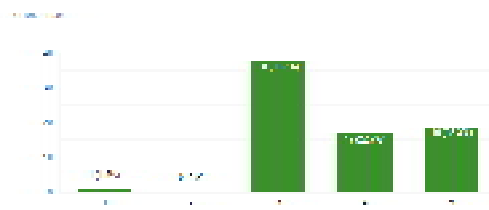
|                                              |       |       |
|----------------------------------------------|-------|-------|
| Academic performance of 6 <sup>th</sup> std  | 3.807 | 2.903 |
| Academic performance of 7 <sup>th</sup> std  | 2     |       |
| Academic performance of 8 <sup>th</sup> std  | 2.153 | 2.837 |
| Academic performance of 10 <sup>th</sup> std | 3.521 |       |

The mean score says that flood has impacted the academic performances of students neutrally to an extent. It has much affected the performances of students of High school more negatively than those of UP school. The reasons may be due to the disruption of classes, shortage of materials or due to the disturbing atmosphere at their homes.

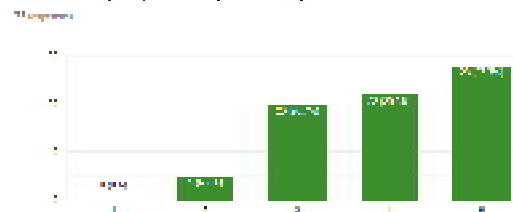
## Analysis



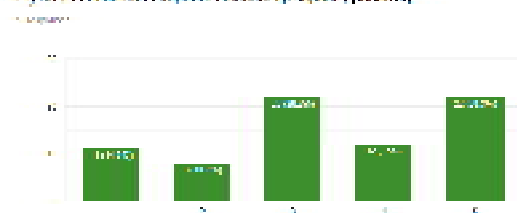
\* [Declaración de la independencia de la policía](#)



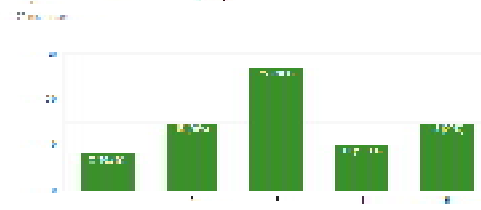
14) How likely did you allow your friend to question you?



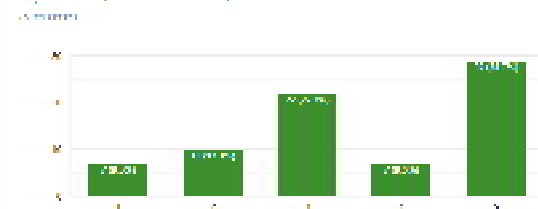
• By the end of the third trimester, important features, patterns,



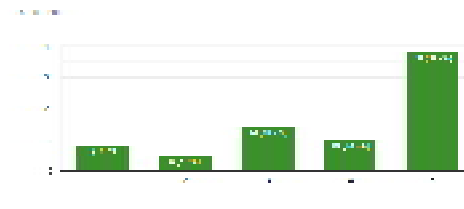
15) [Investment in the transport infrastructure](#)



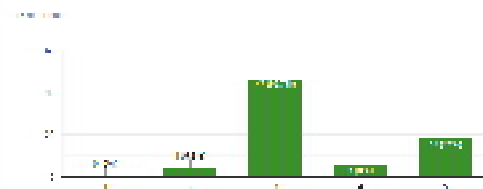
17. How did you find the sample?



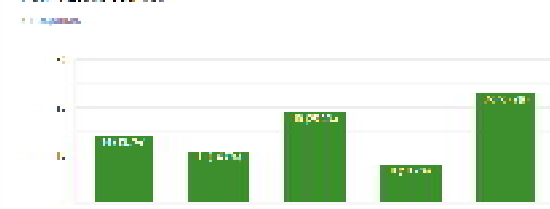
DOI: 10.1002/anie.201200000



\* Did you use three critical thinking questions to solve your problem?



20. Are you satisfied with adequate financial and other help received from various sources?



**Conclusion**

Floods caused cancellation and disruption of regular classes for almost 2 weeks, physical damage to schools, and adverse effects on teachers at home and in school. Problems in teaching such as lack of time to finish all lessons, poor motivation and concentration of students, lack of classrooms, shortage of teaching materials and difficulty in preparing lessons were encountered. Attendance and learning performance among students were moderately affected. The study recommends adaptation measures to reduce the psychological and social impact of floods to affected school children.

A significant number of students residing in flood affected areas showed signs and symptoms of depression. Government as well as school authorities took initiative to improve mental health status of the flood affected students and support them by all possible means. The results show that students were depressed anxious and moreover frequently worried. Frequent mild rains scared them and witnessed a feeling of fear in their minds. This local impact of the event has potentially created negative impacts on the mental health of students. Moreover flood left many children homeless and this mental pressure created an insecure feeling for the children. Many recreational activities suggested by the government to be performed at school level helped them spread a positive vibe among children. All together the study helped us understand the unseen impacts, which affected the psycho-socio behavior of children post flood.

**Suggestions to reduce the impact are as below:**

- 1) Individual attention needs to be provided for those of who found difficulty in coping up with the Academics.
- 2) The 'mental Health adoption programme' initiated by Ernakulam psychiatric society can be extended to Schools which would help them understand the recovery level of depression and anxiety among students.
- 3) Free counseling sessions can be provided to make them mentally strong and positive.
- 4) Classes on 'Precautions to be taken before a calamity' will help them face the calamity with more courage.

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