Achievement Motivation of High School Students in the Flood affected and Flood unaffected Areas of Malappuram District, Kerala

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Abstract

Present research is a comparative study aimed at finding the difference in achievement motivation among high school students (male and female) in the flood affected and unaffected areas of Malappuram district, Kerala state. The Null hypothesis was formed which states that, there is no significant difference in the achievement motivation among high school students (male) in the flood affected and unaffected areas of Malappuram. And also the study aimed to find the difference among female students in this area. Purposive data collection technique was applied during the research. Independent sample ‘t’ test was applied to find the difference between two groups. Result found that there is no significance between the two groups of students from flood affected and non-affected areas. Which clearly states that, if the achievement motivation is high among the students, then any other variable like flood or anything as such cannot disturb their level of achievement motivation. The study also found that the majority of the children (male and female) in the flood affected areas were seen to have high levels of achievement motivation. Regardless of the limitations, the study has paved the way for conducting more research studies under the similar circumstances taking the research gap into consideration and rectifying them in the further research studies.

Keywords: Achievement Motivation, High School students, Floods
Introduction

Natural disasters have a significant impact on the public health and well-being of populations affected. Negative health impacts can be direct (e.g., injuries) or indirect (e.g., malnutrition and increase in infectious diseases). The research conducted by Onyango and Uwase, 2017 suggested that the effects of a natural disaster include damages incurred to the health sector, water and sanitation systems and people are displaced due to homelessness. Several medical and psychological problems among the victims are major offshoots of natural disasters. Flooding events are often caused by intense rainfall over much shorter periods. Flooding events tend to occur when there is extremely high rainfall over the course of hours or days (Ritchie & Rosser, 2014).

During high school education the students will be in adolescents’ age. Adolescents’ age response to traumatic events can be influenced by various factors such as culture, developmental milestone they have reached, early exposure to trauma, available resources and preceding family problems. Nearly all children and adolescents express some kind of distress or behavioral change in the acute phase of recovery from a traumatic event (APA, 2008). These responses and behavior change do not always cause problems, it can be seen as a reflection of the adolescents’ attempt to cope with the trauma. The American Psychological Association (2008) suggested that the reactions to traumatic events displayed by children and adolescents are similar to psychological reactions and behaviours seen in a mental health setting. This could lead to the impairment or dysfunction in the adolescents’ relationship with the family, peers and education, also there is a possibility of disturbance in the day-to-day activities.

The need for achievement, was defined by Henry Murray as the need to overcome the obstacles, to excel, and to live up to a high standard, it has been studied extensively by David McClelland (1917–1998), several researches have been conducted on the differences between individuals with high and low level of need for achievement. According to McClelland’s study, the findings suggest that individuals high in the need for achievement were found more often in middle and upper socioeconomic classes than in lower socioeconomic groups. These people were more resistant to social pressures and less conforming than those who were tested low in need for achievement. Young people high in the need to achieve were more likely to attend college, earn higher grades, and be involved in college and community activities. High-need-achievement people were also more likely to cheat on examinations in certain situations. They got along better with other people and enjoyed greater physical health (McClelland, 1985; Piedmont,
From these findings, McClelland predicted that people high in achievement motivation only perform better when a challenging situation arises. The results showed that parental pressure to achieve during the first 2 years of life led to higher levels of need achievement in adulthood, whereas pressure to achieve during later childhood years were not related to a high need achievement in adulthood. McClelland concluded from this research that parental behaviors during the first 2 years of life were crucial to the formation of a high level of need achievement in adulthood (McClelland & Franz, 1992).

Although need achievement apparently is established in childhood, there are chances that it could be strengthened or weakened, by other external factors such as the expectations of teachers in schools. If these adults do not expect a high level of performance and set challenging standards, the way parents of high-need-achievement children were found to do, then they may be depriving children of an incentive to continue to achieve at a high level.

**Review of Literature**

Research has shown that natural disasters are out of human control but the consequences of natural disasters overlap with the consequences of war or combat. In both contexts, there is human suffering caused by damage to life, personal property, and infrastructure. Families are displaced and victims lose shelter. This is complicated further by immense shortages of food and drinking water. Al-Adwan and Al-Khayat (2013) studied the relationship between Posttraumatic Stress Disorder and Achievement Motivation in a sample of Iraqi students living in Jordan and it was found that the sample population suffers from shock event restoration, trying to avoid event, hyper arousal, psychological and emotional reaction, physical symptoms and weak social participation. Despite the fact that the negative event had occurred several years ago. Despite all that, these individuals showed positive signs that reinforced their post exposure events, which includes awareness of responsibilities and duties towards the family, growing fatalism, a deepened sense of justice to the case, increasing the feeling of comfort and stability, increasing respect and appreciation people have and family life became more harmonious and collaborative, a deepened sense of pride, family development of social relations etc. It was also found that there were no significant differences in PTSD among students due to the change in place of residence. A negative relationship between PTSD and achievement motivation was found, this means that the more the suffering the less is the level of achievement motivation among students. Floods as a natural disaster have caused several damages over decades and it has had significant impact on their wellbeing, relationships and mental health. These effects can endure for a long period of time.
A review of outcomes and recommendations on the effects of flooding on mental health by Stanke, et al. (2012) emphasizes on the need to reduce the mental health problems by providing effective public mental health care and clinical assistance. The individual psychosocial needs can be met through building close relationships and a handful of people require special mental health care. Also there is a chance that the major event can bring forth the mental disorders of people that were pre-existing. The results of the reviewed studies state that flood is seen to aggravate, bring about abrupt changes and kindle existing problems. The subjective experiences of the victims reflect how they perceive their situation and this has an effect on the psychosocial impact rather than the flood itself. The recovery therefore depends on how individuals adapt to situations by rebuilding communities. These distressing experiences of people are difficult to distinguish between the symptoms of other mental disorders. But also several research suggest that prevalence and incidence of mental disorders tend to increase when these disorders persist even after the flood has receded.

Nisa, Qasim and Sehar (2017) investigated the relationship between achievement motivation and psychological well-being in adolescents. The results obtained suggest that there is a significant positive correlation between achievement motivation and psychological well-being. It also signifies that educators and policy makers need to create strategies that can improve the psychological well-being of the students and motivate them towards academic achievement. Roy (2016) conducted a research focusing on the differences in achievement motivation among over achievers, normal achievers and underachievers and it points out that setting a stage for the achievement especially during these times where competition is prominent is important. It also shows a number of important factors that influence academic achievement such as intelligence, personality, interest, achievement motivation etc. The study also highlights that some individuals through great effort achieved a higher level performance that could be predicted based on their achievement motivation and some achieve lesser than they could have because of low achievement motivation level. Shastri and Veena (2013) found that the achievement motivation boys and girls differed significantly. It can be learned from the study that girls are more achievement oriented than boys.

Kaur (2016) studied the relationship between academic achievements, need for achievement and anxiety and it signifies that there is a need for achievement motivation among young individuals which needs to be inculcated from childhood. This can be possible with parental encouragement and support as well as using appropriate teaching strategies. Yazdani and Godbole (2014) suggested that achievement motivation of a student helps in understanding
the study habits which influences academic performance. The teachers and parents can develop learning strategies that can motivate the students in attaining academic success.

The psychological effect of natural calamities is studied very less, especially among young population and natural calamities effect on studies. To fill this gap the present study is aimed to study the effect of flood on achievement motivation among high school students.

**Methodology**

**Aim:** To find the difference in achievement motivation among high school students in the flood affected and unaffected areas of Malappuram district, Kerala.

**Research objectives:**

1. To find the difference in achievement motivation among male high school children in the flood affected and unaffected areas of Malappuram district, Kerala
2. To find the difference in achievement motivation among female high school children in the flood affected and unaffected areas of Malappuram district, Kerala

**Hypothesis**

*H01* - There is no significant difference in the achievement motivation among male high school students in the flood affected and unaffected areas of Malappuram district, Kerala.

*H02* - There is no significant difference in the achievement motivation among female high school students in the flood affected and unaffected areas of Malappuram district, Kerala.

**Variables**

**Independent Variables:** Natural Calamity- Flood

**Dependent Variables:** Achievement Motivation

**Operational Definition**

**Floods** are naturally occurring phenomena due to unexpected and excessive rainfall that increases the level of the water bodies causing threat to humans and livestock.

**Achievement Motivation** is the ability of an individual to manipulate, organize and accomplish goals. This enables the individual to overcome obstacles and attain a high standard.

**Research Design.** Comparative Research Design
Sample

Sample Description

The population of interest is high school students of age group 13 to 15 years in the flood affected and non-flood affected areas, Malappuram District, Kerala State.

Sample Size

The data was collected from 78 boys and 78 girls as participants (39 affected and 39 unaffected from each group), for quantitative research.

Sampling Method. Purposive Sampling

Inclusion Criteria

a) The individuals of age group 13-18 year (high-school).
b) The individuals who are residing in the flood affected regions.
c) The individuals who are attending regular schooling, state board.
d) The individuals who reside in the unaffected areas of Malappuram.
e) For comparing groups participants were from same category like age, education but the group which is not effected by the flood.

Exclusion Criteria.

a) The individuals who are below 13 years and above 18 years of age.
b) The individuals who don’t attend regular schooling.
c) The individuals who reside in the other flood affected areas other than Malappuram District.
c) The individuals residing in other flood affected areas other than Malappuram District.

Tools for Data Collection

Socio Demographic Sheet: A Socio-demographic sheet was given to each of the participants prior to administering the questionnaires. This will serve the purpose of describing the samples which includes the details regarding their age, gender, education, flood effected area or un-effected area.
Deo-Mohan Achievement Motivation Scale: The Deo-Mohan Achievement Motivation Scale (n-Ach) developed by Prathibha Deo and Asha Mohan is a 50 item scale for both boys and girls of age group 13-20 years. The reliability of the scale was checked using the Test-retest method and has a coefficient of 0.67 for boys, 0.78 for girls and for both is 0.69. The validity of the scale was determined by the concurrent method.

Procedure for Data Collection

Before collecting the data, the geographical location and the sample population were studied carefully. The tools used for collection of data will be the Deo-Mohan Achievement motivation scale, which was administered on the participants.

Procedure for Data Analysis

The data will be analyzed using the standard statistical methods of analysis. Descriptive Statistics such as Mean, Median, mode and Standard Deviation was calculated to test the significance of the variable and independent sample ‘t’-test was conducted for making comparison between the groups.

Results and Discussion

The main objective of the research study was to find the significant difference in achievement motivation among high school children (male and female) in the flood affected and unaffected areas of Malappuram. A sample of 156 high school children, eighth and ninth graders (78 males and 78 females) were selected through purposive sampling techniques from two schools from Nilambur, Malappuram District-Catholicate H.S.S, Pothukal and G.H.S.S, Munderi. The tool administered for collecting data was the Deo-Mohan Achievement Motivation Scale (n-Ach) by Mrs. Pratibha Deo and Asha Mohan.

The scale was administered to students according to the instructions given in the manual. After completing the scoring and the interpretation, the data was analyzed using the SPSS Version 22. The Shapiro-Wilk normality test was conducted for both male and female data and it was found that p value was above 0.05 and the Independent Sample t-test was done.
Hypothesis One H0: There is no significant difference in the achievement motivation among high school children (male) in the flood affected and unaffected areas of Malappuram. This hypothesis was tested by determining the mean, standard deviation and independent t-Test was used to compare the means and finding the significant difference in the achievement motivation of high school children (male) from the flood affected and unaffected areas. And it was found that there is no statistically significant difference between the groups. Therefore this null hypothesis has been failed to be rejected.

Table 1

Independent Samples ‘t’ Test comparing the Achievement Motivation of Flood Affected and Unaffected Males

<table>
<thead>
<tr>
<th>Achievement Motivation</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p(sig 2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. Affected</td>
<td>39</td>
<td>129.92</td>
<td>22.64</td>
<td>-0.953</td>
<td>0.343</td>
</tr>
<tr>
<td>F. Unaffected</td>
<td>39</td>
<td>124.56</td>
<td>20.28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1, shows the mean, standard deviation, t-value and p-value of the female samples. $t = -0.95$, $p = 0.34$ implies that there is no statistical difference in achievement motivation between both flood affected and unaffected high school children (male).

Hypothesis Two H0: There is no significant difference in the achievement motivation among high school children (female) in the affected and unaffected areas of Malappuram. This hypothesis was tested by determining the mean, standard deviation and independent t-Test was used to compare the means and finding the significant difference in the achievement motivation of high school children (male) from the flood affected and unaffected areas. And it was found that there is no statistically significant difference between the groups. Thus, this null hypothesis has been failed to be rejected.
Table 2

Independent Samples ‘t’ Test comparing the Achievement Motivation of Flood Affected and unaffected Females

<table>
<thead>
<tr>
<th>Achievement Motivation</th>
<th>Female</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p (sig 2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. Affected</td>
<td>39</td>
<td>128.3846</td>
<td>22.60</td>
<td>1.44</td>
<td>0.154</td>
<td></td>
</tr>
<tr>
<td>F. Unaffected</td>
<td>39</td>
<td>120.5385</td>
<td>25.41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2, shows the mean, standard deviation, t-value and p-value of the female samples. t = 1.44, p = 0.154 implies that there is no statistical difference in achievement motivation between both flood affected and unaffected high school children (female).

Major Findings

- No statistically significant difference in achievement motivation was found among high school children (male and female) in the flood affected and unaffected areas of Malappuram.
- The research finding suggests that the natural calamity (flood) did not affect the achievement motivation of the high school children.
- The study also implies that the majority of the children (male and female) in the flood affected areas were seen to have high levels of achievement motivation according to the mean score.
Limitations of the Study

- The study hasn't focused on certain factors such as personality type, environmental influences such as parental support, the quality of education that may influence the child's attitude towards achievement motivation. Therefore, these factors weren't taken into consideration while conducting the research.
- The time constraints limited the scope of understanding the factors affecting the level of achievement motivation of students.
- The study was limited to a particular geographical location, thereby limiting the chance of collecting the data from the appropriate type of respondents.
- The sample population of the study cannot be used as a representative of the population due to its size and thus, the research findings cannot be generalized.
- There was a gap of six months between the flooding events and the conduction of the study, there are chances that this could affect the outcome of the research.

Implications of the Study

Prior studies indicate that a natural disaster can cause psychological disturbances in people who are exposed to those events, especially adolescents. Also there are several factors that can increase the resilience of those affected. Parental care, peer and community support can have an impact on the attitudes of these adolescents towards achievement and encouragement from teachers and parents can motivate them towards achieving their goals. The study is significant in the sense that it focuses on adolescents exposed to flooding events, a population that hasn't been studied before. Although the majority of the students affected by the flood have a higher level of achievement motivation there are a few who have been scored low for achievement motivation. This study could help the educational institutions and teachers in understanding the achievement motivation level of students in similar situations and implementing effective strategies to guide students in improving their skills and motivating them towards achieving their goals. School psychologists can use interventions in case there are other psychological issues or needs arise.
Scope for future research

There are very little studies conducted on understanding the effects of natural calamities such as flood on adolescents. There is a need for researchers to study this population and investigate how certain factors such as personality type, environmental influences such as parental support, the quality of education that may influence the child's attitude towards achievement motivation. If these gaps in the research are rectified it can hold relevance in the education sector and help teachers and parents in identifying the issues and help the children overcome the obstacles.

Conclusion

In this research study, I investigated the influence of floods on the achievement motivation of high school students and made a comparison between the high school children, both males and females from the flood affected and unaffected areas of Malappuram district, Kerala state. The analysis of the data suggests that there is no statistically significant difference between both the groups in terms of achievement motivation. Previous findings suggest that natural calamities affect individuals psychologically and cause damage as severe as physical damage does. Therefore, school psychologists, educational institutions, teachers and parents need to take responsibility in addressing these issues and motivating students towards achieving their goals. These issues are not trivial and should not be ignored. Regardless of the limitations, the study has paved the way for conducting more research studies under the similar circumstances taking the research gap into consideration and rectifying them in the further research studies.

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