

## A STUDY ON ANXIETY LEVEL AMONG THE PRIMARY SCHOOL CHILDREN OF GOVERNMENT AND PRIVATE INSTITUTION IN LUCKNOW UTTAR PRADESH

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### **ABSTRACT**

*Anxiety is a subjective feeling of apprehension, tension and worry, which is thought to be relatively stable personality characteristics Spielberg (1973) suggested that Anxiety contributes to the development of hypertension. Anxiety has been directly shown to stimulate acute autonomic arousal (Rusk et al 1990) and blood pressure reactivity. Secondly responding to anxiety or anxiety provoking experiences with anger has been shown to contribute to cardiovascular diseases. Objective is:*

- To determine the anxiety level of respondents.*
- To examine the correlation between Levels of anxiety among respondents.*
- Method a total of 616 children (students between the age group of 8-11 years) and 616) parent's responses completed the scale. The entire survey population for the pilot study was of 1232 respondents. Result Provided initial support for Analysis & Interpretation and Scale Development for the Child anxiety related Disorders. Measurement invariance was established across groups using a series of tests. Chi Square test was used for establishing significance between two Schools (Government & Private). Correlations between children response scale and gender wise difference support the convergent validity of the scale. (Min score: 0, max score:20, Mean Value-5.51 Mid-Point: 6 )*

### **Anxiety Level**

- Anxious: All the score equal to or above 6*
- Non-Anxious: All the score below 6*

**Conclusions:** *Analyses supported the construct validity to check the positive and significant relationship between the dependant and independent variables. Hence it is justified to study the important dimensions as it can facilitate the differentiation of children who needs genuine help to learn effective methods to overcome anxiety or anxiety related disorders.*

**KEYWORDS:** *Anxiety, Blood Pressure, Hypertension, Obesity, Cardio-Vascular- Diseases Vulnerable Population, Prevention, Dimensions*

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### **Article History**

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## INTRODUCTION

Anxiety in children and adolescents is a growing health problem in the 21<sup>st</sup> century. Changing society, value system and life style have put pressures on every individual especially children. In the last two decades society has witnessed drastic changes and development in technology especially information and communication technology (ICT). Lifestyles of the new generation have completely changed; and children are feeling the pressures of the society and consequently beginning to manifest signs of high level of stress. Recent studies have demonstrated that there is also increasing evidence that childhood hypertension poses a significant problem that in turn contributes to early onset of adulthood hypertension, obesity, and cardiovascular diseases. **American Heart Association (2004)** stated that worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.5% of the total of all annual deaths. Hypertension affects over 50 million Americans aged 6 and above and is a recognized factor for the development of cardiovascular disease. Obesity due to stress presents a higher risk of causing many chronic conditions such as stroke, arthritis, depression and sleep disorders. **(Ells et al 2006)**. Additionally anxiety can lead to young adults developing mild to moderate intellectual disability.

**Prevalence:** Globally, the reported prevalence rates of stress related disorders among children and adolescents range from 1% to 51%. According to the WHO reports, community-based studies revealed an overall prevalence rate for anxiety related disorders, it is around 20% in several national and cultural contexts. **Indian context:** According to various studies conducted by **Institute for Health Metrics and Evaluation,(2013)** India contributes to 21% of child population in the world. One out of six children is found to be affected with an anxiety related disorder. Unfortunately a number of challenges exist for parents, teachers and public health professionals when understanding and caring for children, who exhibit symptoms of extreme anxiety. It is important to identify the anxiety level in this vulnerable group of individuals so as to develop specific and effective preventive techniques and strategies.

### Objective

Is to determine the anxiety level of respondents and to examine the correlation between Levels of anxiety among respondents.

### Justification

- Anxiety makes it difficult to control emotions.
- Anxiety can promote disease.
- Anxiety weakens the immune system. Hence it is justified to study the important dimensions as it can facilitate the differentiation of children who needs genuine help to learn effective methods to overcome anxiety or anxiety related disorders.
- **Materials & Methods:** The data for the present analysis were collected from two different types of Primary schools, namely Government and Private schools from Trans Gomti and Sas Gomti areas of Lucknow UP. A study was conducted with a sample size of 1232 respondents (616 children and 616 parents), to clarify the overall structure of the final questionnaires. The respondents were children of primary government and private schools and their parents in Lucknow, U.P.
- **Design:** Close-ended dichotomous and multiple-choice structured questionnaires were used for the benefit of data analysis: questionnaires items were developed from related research and appropriately adapted. The questionnaire

was developed both in Hindi and English and then reviewed by experts. During the survey, the researcher used questionnaire and schedule survey methods.. Non response is very low because this is filled by enumerators who are able to get answers to all questions. As a result, the information collected through schedule is relatively more accurate than that obtained through questionnaires. Researcher translated the questionnaire into Hindi also as the most preferred language for the respondent s/children of government and private primary schools to communicate, was Hindi. Researcher validated the questionnaire in Hindi with the help of language experts.

- **Data Collection:** For the data collection of children of primary schools and their parents, 1400 questionnaires were used, but the numbers of usable questionnaires, received after questionnaire and schedule methods, were 1232, which is an effective response rate of **77.0%**.

**Table 1: Sample Size Details**

Children Sample Size Details/School/Gender Wise / Age Group	
Type of School	
Government	187
Private	429
Total	616
Gender	
Boys	330
Girls	286
Total	616
Age Group wise Distribution	
8 years Old	176
9 years Old	118
10 years Old	208
11 years Old	114
Parents Sample size details	
Male	499
Female	117
Total	616

The unit of analysis was a child (students between the age group of 8-11 years) and a parent, which were **selected as observation units**. The entire survey population for the study was of **1232** respondents; they were sampled and surveyed.

**Inclusion criteria:** All the willing children with parents and teachers consent.

**Exclusion criteria:** Uncooperative children and parents and students who remains absent frequently.

## **ANALYSIS & INTERPRETATION**

### **Scale Development for the Child Anxiety Related Disorders**

The Child anxiety Related Disorders scale has 10 items based on scaling technique. They are represented on 3 point scale. The 10 items were prepared after the pilot study conducted on students and after the critical evaluation of the items before the finalization of the pilot study questionnaire. Following 10 items were included in the questionnaire-

- I feel anxious, being around kids who are rude.
- I feel anxious, being teased or hassled by other kids.
- I feel, anxious, if I am pressured to do something.

- I feel anxious, when other kids are fighting.
- I feel anxious, being left out or rejected
- I feel anxious, when I ask someone out and I am turned down.
- I feel anxious, during class test or examination.
- I feel anxious, if I am scolded.
- When I am trying to sleep, I can't stop thinking about the anxious aspects of problems.
- I try not to think about problems and to forget all about it.

### Administration & Scoring

The final questionnaires were distributed amongst the students of government and private schools in Lucknow city. The final version consists of items where a respondent has to make his/her agreement with each item on 4 point scale. All the 10 items were given score from **0 to 2**. There were 4 choices namely '**Not at All (1), A little (2), Somewhat (3) & Very (4)**'.

Not at all	A little	Somewhat	Very
1	2	3	4

- Minimum Score: 0
- Maximum Score: 20
- Mean Value: 5.5
- Mid-Point: 6

### Anxiety Level

- **Anxious:** All the score equal to or above 6
- **Non-Anxious:** All the score below 6

**Table 2: Gender Wise Distribution of Respondents**

Crosstab					
			Stress Level		Total
			Stressed	Non- Stressed.	
Gender	Boys	Count	167	163	330
		% within	50.6%	49.4%	100.0%
		% of Total	27.1%	26.5%	53.6%
	Girls	Count	169	117	286
		% within	59.1%	40.9%	100.0%
		% of Total	27.4%	19.0%	46.4%
Total		Count	336	280	616
		% within	54.5%	45.5%	100.0%
		% of Total	54.5%	45.5%	100.0%

From the above table, it can be said that out of total 616 respondents, 330 respondents were Boys and 286 respondents were Girls.

- **Out of a total of 330 boys**, 50.6% respondents were Non anxious and 49.4% respondents were Anxious
- **Out of a total of 286 girls**, 59.1% respondents were Non anxious and 40.9% respondents were Anxious.

**Table 3: Chi Square Test Significance between Two Schools**

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.397	1	.237		
Continuity Correction	1.197	1	.274		
Likelihood Ratio	1.401	1	.237		
Fisher's Exact Test				.254	.137
Linear-by-Linear Association	1.395	1	.238		
N of Valid Cases	616				

From the table it was found that asymptotic significance for Pearson Chi Square comes out to be more than 0.05, so we accept null hypothesis at 5% level of significance. Hence it can be concluded that two variables are not associated.

## STATISTICAL TOOLS USED FOR DATA ANALYSIS

### Reliability Data Analysis

Reliability investigation through Cronbach’s Alpha method that is frequently used for assessing the consistency of entire scale. Due to its heavy usage, it is generally agreed that Cronbach’s Alpha should exceed 0.60 to have reliability.

### Factor Analysis

The researcher will use exploratory factor analysis using principal component analysis with varimax rotation to reduce and to analyse the collected data of children and parents. Factor analysis is heavily used for the questionnaires for studying such topics.

### Correlation Analysis

Correlation analysis is a measure of the size and direction of the association between variables

**Table 4: Strength of Correlation Coefficient**

Range	Strength of Association
0.81-1.00	Strong
0.61-0.80	Moderate
0.41-0.60	Weak
0.21-0.40	Very weak
0.00-0.20	None

### Regression Analysis

To perform multiple regression analysis, these assumptions must be adhered to:

**Sample Size:** The sample size has to be large enough for the results of the regression analysis to be meaningful Tabachnick & Fidell, (2007). The sample size must be  $N \geq 50 + 8 * m$  for testing multiple correlations, where m is the

number of independent variables.

### Chi-Square ( $\chi^2$ ) Analysis

The symbol  $\chi^2$  used here is to denote the chi-square distribution whose value depends upon the number of degrees of freedom (d.f.). As we know, chi-square distribution is a skewed distribution particularly with smaller d.f. As the sample size and therefore the d.f. increases and becomes large,  $\chi^2$  the distribution approaches normality.

$\chi^2$  tests are nonparametric or distribution-free in nature. This means that no assumption needs to be made about the form of the original population distribution from which the samples are drawn.

The chi-square test is an important test amongst the several tests of significance developed by statisticians. This test we use to measure the differences between what is observed and what is expected according to an assumed hypothesis is called the chi-square test.

### Null Hypothesis

There is no association between the two variables.

**Results:** Provided initial support for Analysis & Interpretation and Scale Development for the Child Anxiety Related Disorders. Measurement invariance was established across groups using a series of tested tests. Chi Square test was used for establishing significance between two Schools (Government & Private). Correlations between children response scale and gender wise difference support the convergent validity of the scale. (**Mean Value-5.51 Mid-Point: 6**)

### Anxiety Level

**Anxious:** All the score equal to or above 6.

Therefore it can be said that out of total 616 respondents, 330 respondents were Boys and 286 respondents were Girls.

- **Out of total 330 boys**, 50.6% respondents were anxious and 49.4% respondents were non-anxious.
- **Out of total 286 girls**, 59.1% respondents were anxious and 40.9% respondents were non-anxious. However **Chi Square** Analysis proves that there is no association between type of school and Anxiety Level.

## DISCUSSION

The purpose of this study is to determine the relationships between, anxiety and impact, in a group of primary School children aged between 8 -11 years in selected schools at Lucknow U.P. However, no specific studies were ever carried out for primary school children at Lucknow. Anxiety related a health problem goes undetected in children when **Haveman (2004)** compared with the adult population. The presence of anxiety has been associated with high risk behaviors such as smoking, drinking and low levels of physical activity. Anxiety can lead to related depression and over eating, resulting in child hood obesity and a high risk of developing significant health problems like diabetes and asthma. Causes are multi factorial. Prevalence of anxiety is high in primary school going children. Health care services have predominantly focused on the early onset of hypertension among adulthood or adolescents, rather than on prevention or reduction of early onset on traits of anxiety among primary school going children. This study is an attempt to provide key insights into the barriers to early diagnosis and management of anxiety related diseases in a vulnerable population.

## STUDY LIMITATION

The author's research was undertaken with in one limited area, of Lucknow and not many areas were covered. Therefore it will be wise to cover a larger group in the state of Uttar Pradesh.

## CONCLUSIONS

Several developmental pathways appear to contribute to anxiety during childhood and adolescence. Environmental events through disruption in the social fabric of a child's life may trigger biological dysfunction. Antecedents of childhood anxiety can be targeted both to prevent and treat depression in this population. The process of growing up is an inescapable period of each student's life. A number of variables, such as age, years spent in school, and recent grade deterioration, poor social adjustment were found significantly associated with the increased scores in various subsets of anxiety and thus these should be addressed. In spite of the observation that scientific, advancements are not evenly distributed across various anxieties related disorders and several researches. In the above study, the author found that the prevalence of anxiety was more among students who feel, overburdened with academic schedules. The level of anxiety was higher among the participants who were not self-satisfied with their academic performance and whose parents were not satisfied. In the above study, anxiety was prevalent in participants who belong to poor families. Poverty is a multidimensional phenomenon, encompassing the inability to satisfy basic needs, lack of control over resources, lack of education and poor health. Since Anxiety level was very high, provision should be made for a natural mentoring program for the children as well as adolescents. Psychological health should be the prime concern of school authorities, and it should be integrated with school health programs. Child-centric activities including individual mental health consultation and specific problem-focused interventions as well as more general classroom programs to improve coping skills, social support, and self-esteem are required. For relieving anxious moments, yogic exercises, meditation, laughter therapy, and other recreational activities suitable for that group of students should be made part of school curriculum. Child psychologists should be recruited on permanent basis in both government and private schools. There should be counselling sessions for students and their parents.

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