



**A Study to Assess the Effectiveness of an Information Booklet in Terms of Knowledge Regarding Promotion of Mental Health Among Adolescents in Selected Higher Secondary Schools of Ahmedabad City**

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## ABSTRACT

Investigator conducted a study to assess the effectiveness of an information booklet in terms of knowledge regarding promotion of mental health among adolescents in selected higher secondary schools of Ahmedabad city. Pre-experimental research approach was used with one group pre-test post-test design. 100 Adolescent were selected by using multistage simple random sampling techniques. The pre-test was conducted using a structured knowledge questionnaire and Information Booklet. Seven days later post-test was conducted using same structured knowledge questionnaire. Most of samples 76 (76%) had poor, 24 (24%) samples had average knowledge as per their pre test knowledge test where as 25 (25%) samples had average and 75 (75%) samples had good knowledge as per their post test knowledge test. Paired 't' test was applied to compare pre-test and post-test mean and standard deviation. Knowledge of Adolescents on Promotion of Mental Health was statistically significant ( $p < 0.05$ ). There was significant association between pre-test knowledge with demographic variables such as stream of study and educational status of mother ( $p < 0.05$ ) which was statistically confirmed with chi-square test. This study demonstrated that an Information Booklet on Promotion of Mental Health is effective in improving the knowledge of Adolescents.

## KEYWORDS

*Knowledge, Promotion of mental health, Information booklet*

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## INTRODUCTION

**“Adolescence represents an inner emotional upheaval, a struggle between the eternal human wish to cling to the past and equally powerful wish to get on with the future.**

**- Louise J. Kalpan**

Adolescence is considered as a fascinating period as well as a period of great complexity that marks a vital stage in human development. Adolescence refers to a long transitional period in life between childhood and adulthood involving major biological, cognitive and social development.

World Health Organisation defines an adolescent as a person between 10-19 years of age. One in every five persons in the world is an adolescent. In India, according to National Youth Policy 2000, 21% of the population comprises of adolescents.

UNICEF report highlighted that today 1.2 billion adolescence stands at the crossroads between childhoods and the adult world and around 234 million of them live in India about one-quarter of India's population are adolescence. (UNICEF,2011)

Adolescence period is a more important things in human life because many developmental changes occurring in this period such as physical growth, new peer relationship with both sex, emotional independent of parent, intellectual skills and civil competence, socially responsible behavior pattern, and so on.



Adolescents of today are under tremendous pressure to perform well, leading to several disorders. According to a few epidemiological studies, about 50% of the students suffer from health problems of which 15-20% are recognizable mental disorders in the form of depression, anxiety, adjustment disorders, personality disorders and alcohol and drug abuse.

Adolescence is a period of great turmoil as adolescents of today are under tremendous pressure to perform well, leading to several disorders. According to recent medical researchers in India, the cases of maladjustment are 30%, psychological disorders 40% and anxiety disorders 15% to 20% in the age group of 14 to 16 years.

There are number of reasons for adolescents to feel stressed. This include problem with peers, family issues or problem with parents, school-related problems or pressures, death of a loved one, move to new home, injuries or severe illness, child abuse or sexual abuse, family or community violence and natural disaster.

According to UNICEF (2011) report it is estimate that around 20 percentage of the world's adolescence have a mental health or behavior problems.

Community-based studies in India (2007) among adults, depressive symptoms have

been evaluated to be around 61%, clinical depression around 16% to 34%, and anxiety around 7.5% to 30%.

Approximately one out of five adolescents has a diagnosable mental health disorder and nearly one third shows symptoms of depression. Warning signs are not always obvious, but more common symptoms include persistent irritability, anger, or social withdrawal, as well as major changes in appetite or sleep. Mental health disorders can disrupt school performance, harm relationships, and lead to suicide.

The latest research work showed a clear increase in stress consequences for adolescent related to experience, behavior and health (among other things, fear to fail and psychosomatic disorders). In contrast, only a few stress handling programmes are available specifically for adolescents. Adolescents of today's world are living in a world of competition and there is cut throat competition in every sphere of life.

Mental health is a key to an individual's overall health and well-being. World Health Organization defines mental health as “a state of well-being in which an individual realizes his/her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his/her community.”



Mental health promotion is the process of enhancing the capacity of individual and communities to take control over their lives and improve their mental health. World Health Organization has developed Adolescent Health and Development Programme (AHDP) in 1990, which has been developing the knowledge base, devising and testing new approaches to promote the health and development of adolescents worldwide.

According to WHO, schools and colleges are the primary environments that can foster mental health in children and adolescent. Students attending schools/colleges that promote mental well-being will have opportunities to learn skills that will help them more adoptable to the changes and stress that they will face throughout their lives.

### STATEMENT OF PROBLEM

“A study to assess the effectiveness of an information booklet in terms of knowledge regarding promotion of mental health among adolescents in selected higher secondary schools of Ahmedabad city.”

### OBJECTIVES OF THE STUDY

1. To assess the knowledge of adolescents before and after administration of an Information Booklet on promotion of mental health in selected higher secondary schools of Ahmedabad city.

2. To find out association between pre test knowledge score on promotion of mental health with selected demographic variables of adolescents in selected higher secondary schools of Ahmedabad city.

### HYPOTHESES OF THE STUDY

**H<sub>1</sub>:** The mean post test knowledge score of the adolescents after administration of an Information Booklet on promotion of mental health will be significantly higher than their mean pre test knowledge score as evident from structure knowledge questionnaire at 0.05 level of significance.

**H<sub>2</sub>:** There will be significant association between the pre test knowledge score on promotion of mental health with selected demographic variables of adolescents in selected higher secondary schools of Ahmedabad city at 0.05 level of significance.

### DELIMITATIONS OF THE STUDY

- The study will be delimited to adolescents who are willing to participate and available at the time of study.
- The study will be delimited to 100 adolescents who are studying in selected higher secondary schools of Ahmedabad city.
- The study will be delimited to adolescents who are in the age group of 16-19 years.



- The study will be delimited to adolescents who are studying in 11<sup>th</sup> and 12<sup>th</sup> standard.

### **RESEARCH APPROACH:**

Quantitative Research Approach was used in the study.

### **RESEARCH DESIGN**

Research design selected for the present study is pre experimental one group pre test post test design.

### **VARIABLES**

- **Independent Variable:** An Information Booklet on Promotion of Mental Health
- **Dependent Variable:** Knowledge of adolescents on Promotion of Mental Health

### **RESEARCH SETTING**

This study was conducted in the selected higher secondary schools of Ahmadabad city. The investigator had divided Ahmadabad in six zones (north, east, west, south, central and new west zone) out of six zone the investigator had selected one zone for pilot study From remaining 5 zones investigator have selected two school from each zone by simple random sampling using lottery method. The Selected zone for pilot study was north zone. Investigator had collected information about total no. of higher secondary schools in each zone and had

selected two school for study by simple random sampling using lottery method.

### **TARGET POPULATION**

In this study, the target population consisted of all adolescents who are studying in the selected higher secondary schools of the Ahmedabad city.

### **SAMPLE SIZE AND SAMPLING TECHNIQUE**

Sample size was 100 adolescent (16-19 years) who studying in selected higher secondary school of Ahmedabad city. Samples were selected by multi stage simple random sampling with lottery method. From Each School the investigator Selected 10 samples and taken samples from 10 schools in disproportionate way.

### **SELECTION OF TOOLS FOR DATA COLLECTION**

#### **Structured knowledge questionnaire:**

The investigator reviewing the literature pertaining to assess knowledge of adolescent, investigator had prepared knowledge questioners by using multiple choice question method for collection of data regarding promotion of mental health.

### **DEVELOPMENT OF THE TOOLS**



### **Development of Information Booklet on Promotion of Mental Health:**

Investigator developed an Information Booklet on Promotion of Mental Health by an extensive research and non-research literature and took the opinion of the experts. The contents were selected and organized in appropriate manner considering the sequence and the level of the adolescents.

### **Development of Structured Knowledge Questionnaire:**

Structure Knowledge Questionnaire tool is used to assess Knowledge on Promotion of Mental Health by using multiple choice question method.

### **DESCRIPTION OF THE TOOLS:**

The final tool consisted of following two sections:

**Section I:** This section consisted 6 items for obtaining information regarding Demographic data such as Age, Gender, Studying in, Stream of study, Educational status of father, Educational status of mother

**Section II:** Structured Knowledge Questionnaire consisted of structured multiple-choice questionnaire on Promotion of Mental Health. There were total 30 multiple choice items having one correct answer. Total items were 30 and total maximum score was 30.

### **RELIABILITY**

The reliability of structured knowledge questionnaire was determined by test retest method using Karl Pearson Correlation Coefficient Formula.

### **Karl Pearson Correlation Coefficient Formula**

$$r = \frac{\Sigma(X - \bar{X})(Y - \bar{Y})}{\sqrt{\Sigma(X - \bar{X})^2 \Sigma(Y - \bar{Y})^2}}$$

r = Reliability

X = Pre test Score

$\bar{X}$  = Pre test Mean

Y = Post test Score

$\bar{Y}$  = Post test Mean

The reliability of the Structured Knowledge Questionnaire was found 0.76 (Karl Pearson Correlation Coefficient Formula) which is more than 0.70; hence the Structured Knowledge Questionnaire was found to be reliable.

### **PROCEDURE FOR DATA COLLECTION**

Formal permission had obtained from District Education officer for collected data in the month the selected higher secondary schools of Ahmedabad city. The Investigator than taken Permission from Principal of Each Selected higher secondary school of Ahmedabad city and collected the data. The data collection procedure was started from 19<sup>th</sup> October



2015 to 7<sup>th</sup> November 2015. An informed written consent from all the participants were taken before starting the study. The investigator approached the sample individually, discussed the objectives of the study and obtained consent for participation in the study. The investigator administered pre test on 1st day and then administered Information Booklet on the same day. The post test was taken after 7 days. All samples gave good co-operation during data collection procedure and no problem was faced during data collection.

#### PLAN FOR DATA ANALYSIS

The Investigator analyzed the data in the following manner.

**Section I:** Demographic Variable analyzed by using frequency and percentage and had presented in the form of table.

**Section II:** The data from the Structured Knowledge Questionnaire before and after administration of an Information Booklet analyzed by using mean, standard deviation (SD) and paired 't'-test and had presented in the form of tables and graphs.

**Section III:** The association of pre test knowledge scores with selected demographic variables had analyzed using 'chi square' test.

#### ANALYSIS AND INTERPRETATION OF DEMOGRAPHIC VARIABLES OF THE SAMPLES

**Table 1** Frequency and percentage wise distribution of samples based on Demographic Variables such as Age, Gender, Studying in, Stream of study, Educational status of father, Educational status of mother. [N=100]

Sr. No	Demographic Variables	Frequency (f)	Percentage (%)
1.	<b>Age</b>		
	a) 16 Year	46	46%
	b) 17 Year	38	38%
	c) 18 Year	16	16%
	d) 19 Year	0	0%
2.	<b>Gender</b>		
	a) Male	55	55%
	b) Female	45	45%
3.	<b>Studying in</b>		
	a) XI std	50	50%
	b) XII std	50	50%
4.	<b>Stream of study</b>		
	a) Arts	30	30%
	b) Commerce	40	40%
	c) Science	30	30%
5.	<b>Educational status of father</b>		
	a) Illiterate	3	3%
	b) Primary	18	18%

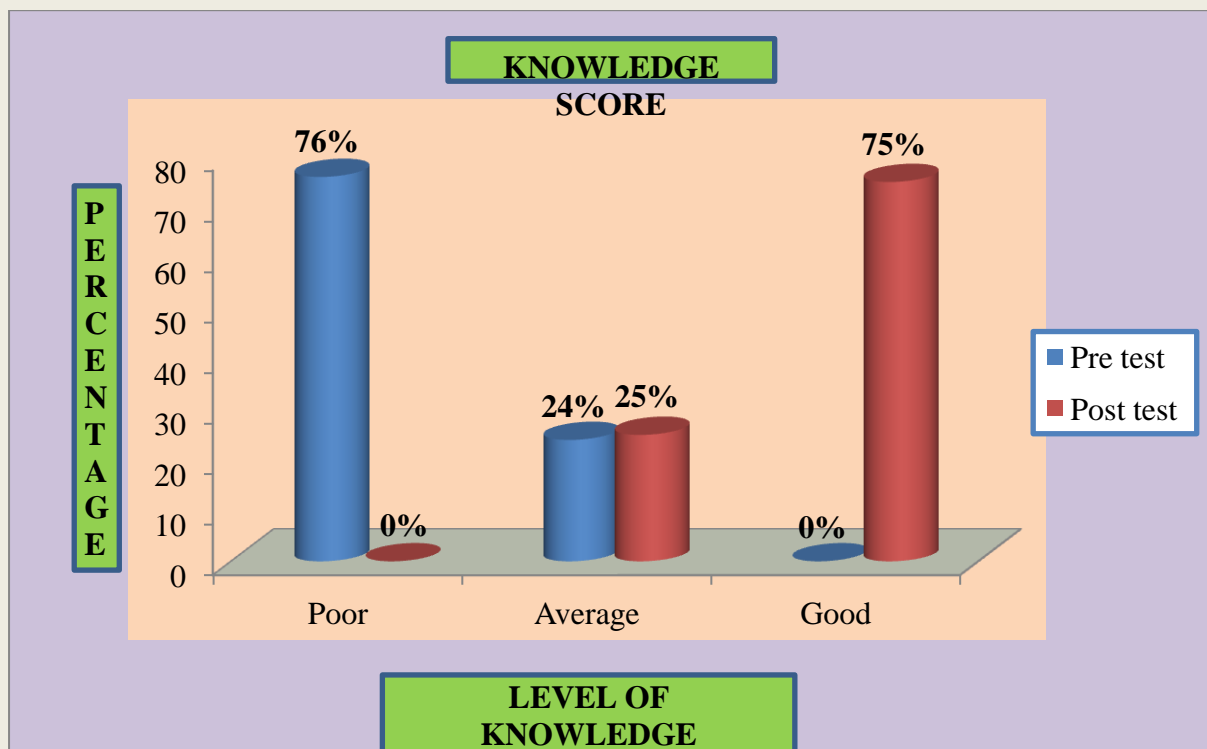


c)	Secondary	28	28%
d)	Higher secondary	28	28%
e)	Graduate	18	18%
f)	Post graduate	5	5%
<b>6. Educational status of mother</b>			
a)	Illiterate	10	10%
b)	Primary	19	19%
c)	Secondary	30	30%
d)	Higher secondary	25	25%
e)	Graduate	13	13%
f)	Post graduate	3	3%

**ANALYSIS AND INTERPRETATION OF THE DATA RELATED TO THE KNOWLEDGE OF THE SAMPLES BEFORE AND AFTER ADMINISTRATION OF AN INFORMATION BOOKLET ON PROMOTION OF MENTAL HEALTH.**

**Table 2** Frequency and percentage distribution of the knowledge scores of the samples before and after administration of an Information Booklet on promotion of mental health [N=100]

Level of knowledge	Score	Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
Poor	1 - 10	76	76%	0	0.0%
Average	11 - 20	24	24%	25	25%
Good	21 - 30	0	0	75	75%
Total		100	100%	100	100%



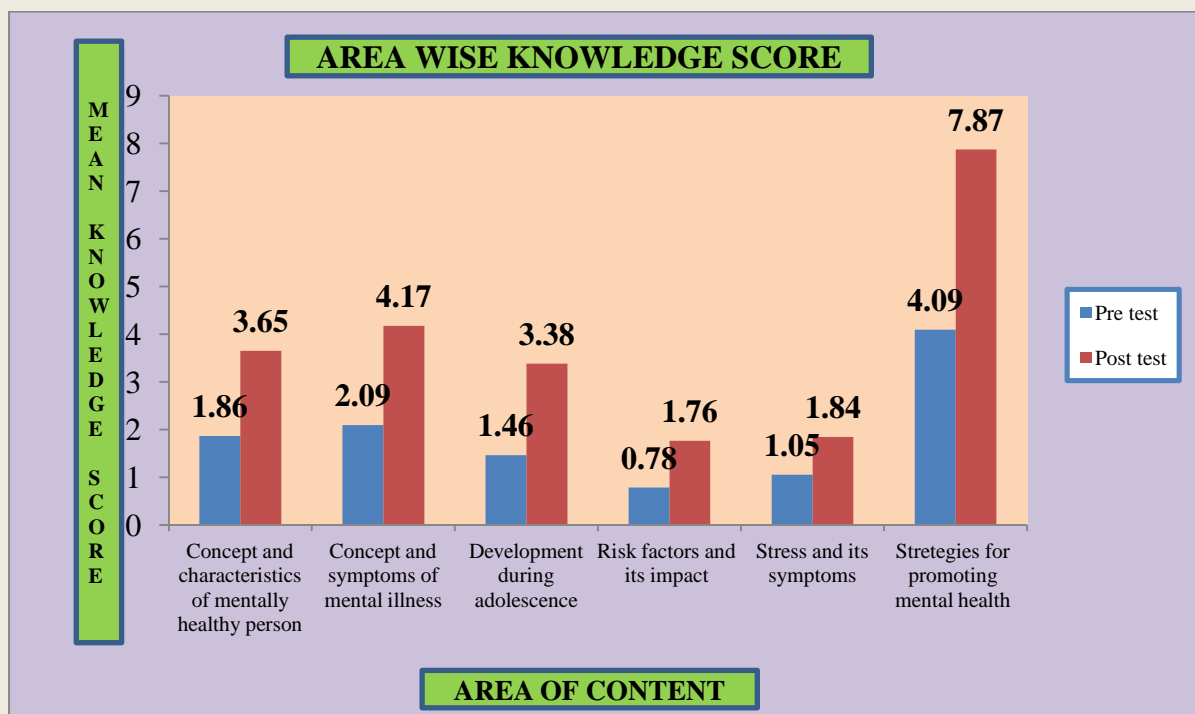
**Fig 1** Bar Graph Showing the Comparison of Pre Test and Post Test Knowledge Percentage of Samples on Promotion of Mental Health





**Table 3** Area wise mean, mean percentage, percentage gain and mean difference of pre-test and post-test knowledge of samples [N-100]

Sr. No	Area of content	Max Score	Pre-test knowledge score		Post-test knowledge Score		Percent age gain (%)	Mean difference
			Mean score	Mean %	Mean score	Mean %		
1	Concept and characteristics of mentally healthy person	5	1.86	37.20	3.65	73.00	35.80	1.79
2	Concept and symptoms of mental illness	5	2.09	41.80	4.17	83.40	41.60	2.08
3	Development during adolescence	5	1.46	29.20	3.38	67.60	38.40	1.92
4	Risk factors and its impact	3	0.78	26.00	1.76	58.67	32.67	0.98
5	Stress and its symptoms	2	1.05	52.50	1.84	92.00	39.50	0.79
6	Strategies for promoting mental health	10	4.09	40.90	7.87	78.70	37.80	3.78
Total		30	11.33	37.77	22.67	75.57	37.80	11.34

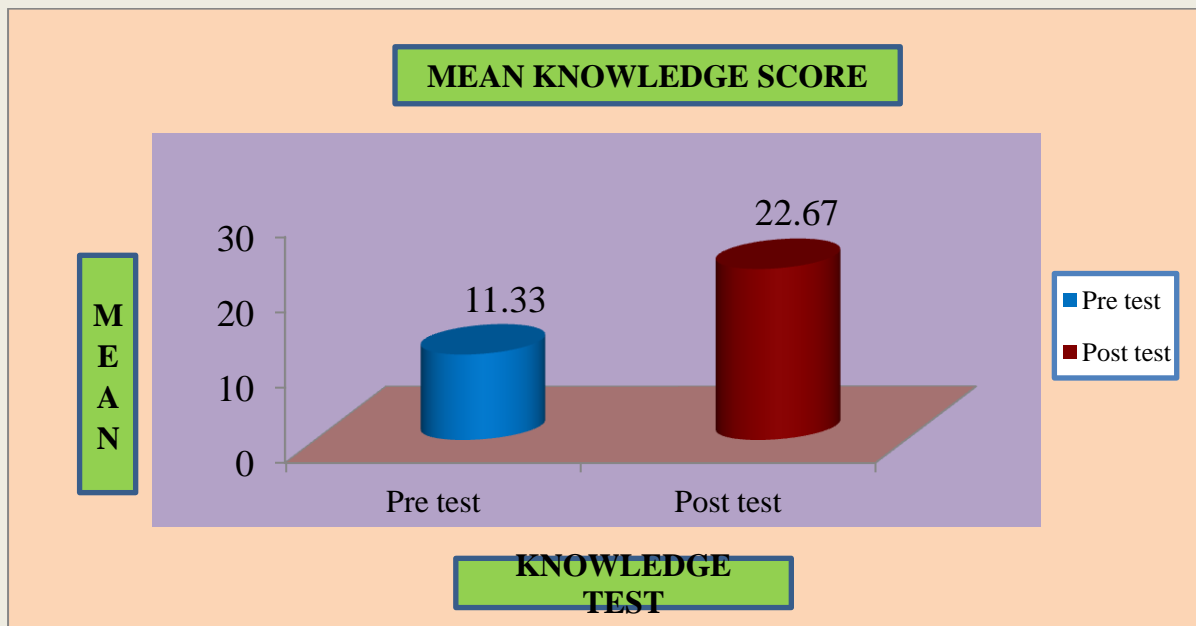


**Fig 2** Bar Graph Showing the Comparison of Area Wise Mean Score of Pre test and Post Test Knowledge Scores of Samples on Promotion of Mental Health



**Table 4** Mean, Mean difference, Standard Deviation (SD) and ‘t’ test value of the Pre-test and Post-test knowledge scores of samples. [N=100]

Knowledge test	Mean	Mean difference	SD	Calculated ‘t’ value	Table ‘t’ value	Df	Level of significance
Pre-test	11.33	11.34	3.6	30.32	1.98	99	0.05
Post-test	22.67		3.11				



**Fig 3** Graph Showing the Comparison of Mean Pre Test and Mean Post Test

**Knowledge Scores of Samples on Promotion of Mental Health ANALYSIS AND INTERPRETATION OF THE DATA RELATED TO ASSOCIATION OF PRE-TEST KNOWLEDGE SCORES WITH SELECTED DEMOGRAPHIC VARIABLES OF THE SAMPLES**

**Table 5** Association of pre-test knowledge score with selected demographic variables of samples [N=100]

Sr. No	Demographic Variables	Frequency (f)	$\chi^2$		df	Significance
			Calculated Value	Table Value		
1.	<b>Age</b>		0.64	5.99	2	Non significant
	a) 16 Year	46				
	b) 17 Year	38				
	c) 18 Year	16				
	d) 19 Year	0				
2.	<b>Gender</b>		0.32	3.84	1	Non significant
	a) Male	55				
	b) Female	45				
3.	<b>Studying in</b>		1.97	3.84	1	Non significant
	a) XI std	50				
	b) XII std	50				
4.	<b>Stream of study</b>		6.55	5.99	2	Significant
	a) Arts	30				



	b) Commerce	40				
	c) Science	30				
<b>5.</b>	<b>Educational status of father</b>		2.78	11.07	5	Non significant
	a) Illiterate	3				
	b) Primary	18				
	c) Secondary	28				
	d) Higher secondary	28				
	e) Graduate					
	f) Post graduate	18				
		5				
<b>6.</b>	<b>Educational status of mother</b>		12.79	11.07	5	Significant
	a) Illiterate	10				
	b) Primary	19				
	c) Secondary	30				
	d) Higher secondary	25				
	e) Graduate					
	f) Post graduate	13				
		3				

\*significance at 0.05 level

## MAJOR FINDINGS OF THE STUDY:

### Demographic variables of samples

As regards to age majority of the samples 46 (46%) were 16 year old. As regards to gender majority of samples 55 (55%) were male. As regards to studying in 50 (50%) samples were studying in XI Std and 50 (50%) samples were studying in XII Std. As regards to stream of study majority of samples 40 (40%) were from commerce stream. As regards to educational status of father majority of sample's father 28 (28%) had got secondary education and higher secondary education. As regards to educational status of mother majority of sample's mother 30 (30%) had got secondary education.

### Knowledge of samples regarding promotion of mental health

The mean pre-test knowledge score of samples about promotion of mental health was 11.33 whereas post-test

knowledge score was 22.67. The mean difference between Pre-test and post-test knowledge score was 11.34. It revealed that an Information Booklet was effective in increasing knowledge among samples.

### Association of pre test knowledge scores of Samples with selected demographic variables.

The findings of the study reveals that there was significant association with pre-test knowledge scores and selected demographic variables such as stream of study ( $\chi^2 = \text{calculated value } 6.55 > \text{table value } 5.99$ ); and educational status of mother ( $\chi^2 = \text{calculated value } 12.79 > \text{table value } 11.07$ ) at 0.05 level of significance. Therefore stream of study and educational status of mother were significant with knowledge of samples.



## CONCLUSIONS

The present study assessed the knowledge of adolescent regarding Promotion of Mental Health before and after administer an Information Booklet. The study results revealed that adolescents have lack of knowledge about Promotion of Mental Health before an Information Booklet and The knowledge level increased after an Information Booklet. So the study concluded that an Information Booklet is effective in improving the knowledge of samples.



## REFERENCES

### BOOKS:

- Ahuja N (2006) “A Short Text Book of Psychiatry”, 6<sup>th</sup> edition, New Delhi, JP publications. page no 145-150
- Baswanthappa B.T. (2007). “Psychiatric mental Health nursing”.3<sup>rd</sup> edition New Delhi, jaypeeBrothers. page no 255-267
- Baswanthappa B.T (2005). “Nursing research.” 2<sup>nd</sup> edition. New Delhi: Jaypee brothers. page no 321-336
- Bhatia (2006) “Essential of Psychiatry” 5<sup>th</sup> edition, New Delhi –1, GBS publication. page no 180-190
- Carola Burns N and Susan, K.G. (2007).Understanding nursing research Building and Evidence Based Practice. 4th edition, New Delhi, Elsevier, page no 198-206.
- Gail W.Stuart Michele, T.Laraia. “Principles and Practice of Psychiatric nursing” 8<sup>th</sup> edition. Published by Mosby. page no 116-121.
- Kaplan and sadock (1996) “Comprehensive Text Book of Psychiatry” Vol-2, and Wilking publication. page no 88-92
- Kumar N. (2009). “Essentials of Psychiatry.”1<sup>st</sup> edition. A.I.T.B.S Publishers, page no 78-85
- Lalitha K. (2009). “Mental Health and Psychiatric Nursing” (1st ed.). New Delhi: C.B.S. Publishers & Distributors Pvt. Ltd. page no 55-63
- Mahajan B.K. (2010). “Methods in Biostatistics for Medical Students and Research Psychiatry.” 9th edition. William and Wilkinsons publications, Hong Kong. page no 133-145
- Polit,D.F., & Beck, (2009) C.T “Essentials of Nursing Research: Appraising Evidence for Nursing Practice” 7th ed. Lippincott Williams & Wilkins, page no 29-45
- Polit D.F. and Hungler (1995)B.P “Nursing Research-principle and Methods” 4<sup>th</sup> ed. New Delhi:Philadelphia: J.B Lippincott publication. page no 78-99
- R. Sreevani, “A Guide to Mental health and psychiatric nursing”, 3<sup>rd</sup> ed, Jaypee publications. page no 22-34
- Sharma, S.K. (2013)” Nursing Research & statistics” 1<sup>st</sup> edition. New Delh,i by Elsevier. page no 145-166
- Townsend MC. “Psychiatric Mental Health Nursing” 3<sup>rd</sup> ed. Philadelphia FH Davis publishers. page no 45-67

### JOURNALS:

- Ahmad A, Khalique N, Khan Z, Amir A. Prevalence of psychosocial problems among school going male adolescents. Indian J Community Med 2007; 32 : 219.
- Antonella Gigantesco, Debora Del Re and Isabella, “A student manual for promoting mental health among high



school students” *Ann Ist Super Sanità* 2013 Vol. 49, No. 1: 86-91.

- Bansal V, Goyal S, Srivastava K. Study of prevalence of depression in adolescent students of a public school. *Ind Psychiatry J* 2009; 18 : 43-6.

- Bharath Srikala and Kumar K. V. Kishore, “Empowering adolescents with life skills education in schools” *Indian J Psychiatry*. 2010 Oct-Dec; 52(4): 344–349.

- David Knopf, M. Jane Park, & Tina Paul Mulye, *The Mental Health of Adolescents: A National Profile, 2008: National Adolescent Health Information Center (NAHIC)*.

- Dr. K. R. Bharath Kumar Reddy, “Assessment of mental health of indian adolescents studying in urban schools” *Malaysian Journal of Paediatrics and Child Health*, MJPCH-2011.

- Jiang Chao and Yang Xiaoli et al. (2014) “Prevalence of Psychiatric Disorders among Children and Adolescents in Northeast China”. *PLoS ONE* 9(10): e111223.

doi:10.1371/journal.pone.0111223.

- Kalaiyarasan M. & M. Daniel Solomon, “Mental Health Among Adolescence” *International Journal of Research in Applied, Natural and Social Sciences (IJRANSS)* Vol. 2, Issue 8, Aug 2014, 27-32 *Impact Journals*.

- Kathleen Ries Merikangas, “Epidemiology of mental disorders in children and adolescents” *Dialogues Clinical Neuroscience*. 2009 Mar; 11(1): 7–20.

- Kjersti B Tharaldsen, Edvin Bru & Ingvard Wilhelmsen, “Mindful Coping and Mental Health among Adolescents” *International Journal of Mental Health Promotion*, Volume 13, Issue 2, 2011.

- LR Anuradha, Yagnik & Vibha Sharma, “Improving Positive Mental Wellbeing among Adolescents: Current need” *Delhi Psychiatry Journal* April 2012; 15:(1) © Delhi Psychiatric Society 22.

- Mr. Hanuman R. Bishnoi, “A study to assess effectiveness of self instructional module on knowledge of parents regarding the adolescence mental health” *Sinhgad e-Journal of Nursing* Volume I, Issue I, May-June 2012.

- Nair MK, Paul MK, John R. Prevalence of depression among adolescents. *Indian J Paediatric* 2004; 71 : 523-4.

- Paul B. Naylor and Helen A, “Impact of a mental health Information Booklet on adolescents” *The British Journal of Psychiatry* Mar 2009, 194 (4) 365-370.

- Saddichha Sahoo and Christoday R. J. Khess, “Prevalence of Depression, Anxiety, and Stress Among Young Male Adults in India A Dimensional and



Categorical Diagnoses-Based Study” The Journal of Nervous and Mental Disease, December 2010.

- Sahoo S, Khess CR. Prevalence of depression, anxiety, and stress among young male adults in India: a dimensional and categorical diagnoses-based study. J Nerv Ment Dis 2010; 198 : 901.
- WHO (2005). Caring for children and adolescents with mental disorders: setting WHO directions. Geneva, World Health Organization.
- WHO (2001). The World Health Report 2001. Mental Health: New understanding, new hope. Geneva, World Health Organization.

#### **UNPUBLISHED THESIS:**

- Dr. Pallavi P. Patel and Dr. Hitesh P. Patel (2004), conducted study on “Anxiety of Adolescent pupils in relation to certain variables”.
- Dr. V. Srikanth Reddy, V. Bala Koteswari and T. Trumala Rao (2005), conducted study on “Sources of stress among Adolescents”.
- Neelakshi A.Lavakare (2005), conducted study on “Behavioral problem areas and neurotic trends in adolescent students”.
- Maya P.K. (2005), A study conducted to evaluate the effectiveness of a planned teaching programme on awareness regarding promotion of mental health

among adolescents in selected college at Mangalore.

#### **WEBSITES:**

- [www.mhww.org>stretegies](http://www.mhww.org>stretegies)
- [www.helpguide.org/articles/emotional-health/improving-emotion](http://www.helpguide.org/articles/emotional-health/improving-emotion)
- [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)
- [www.mentalhealth.org.uk](http://www.mentalhealth.org.uk)
- [www.ncbi.nlm.gov](http://www.ncbi.nlm.gov)
- [www.aihw.gov.au](http://www.aihw.gov.au)