## **Original Research Article**

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# The effectiveness of age based empowerment program on knowledge and attitude regarding risk taking behaviour and its prevention among adolescents studying in selected PU colleges of Vijayapur

Aleyamma Varghese<sup>1</sup>, Kavitha K.<sup>1</sup>, Anita Kambale<sup>1</sup>, Shrikant Desai<sup>2</sup>\*

<sup>1</sup>Department of Paediatric Nursing, BLDEAS Shri. BM Patil Institute of Nursing Sciences. Vijayapur, Karnataka, India <sup>2</sup>All India Institute Medical Sciences, Rishikesh, Uttarakhand, India

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#### \*Correspondence: Shrikant Desai.

E-mail: desai.shrikant3@gmail.com

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## **ABSTRACT**

Background: Adolescence involves personal growth. Several risk-taking behaviour occur at this vital time. A practise that is dangerous for an early teen may not be harmful for a late adolescent. This time period has various developmental features. Risky activity may be socially acceptable depending on its type, frequency, and level. Furthermore, empirical data reveals that young individuals are more prone to participate in dangerous behaviour with catastrophic and longterm repercussions.

Methods: A pre-experimental study was conducted among 120 adolescents at selected PU College of Vijaypura District, Karnataka. Study participants were selected by convenient sampling technique, and data were collected using pre-tested, structured questionnaires. The data was analysed using descriptive and inferential statistics.

Results: None of 120 individuals understood risk-taking and its prevention in the pre-test, whereas 87.5% (Sufficient knowledge) and 12.5% (Adequate knowledge) did post-test. After the post-test, attitudes were 53.3% negative and 46.7% positive, with a p<0.05% (t=62.21) and a significant threshold of 0.05. Knowledge was increased to 80.21% from difference mean pertest 3.74 to 18.7 mean post-test. The mean pretest and post-test attitude scores were 28.5 and 28.4, respectively. Difference was negligible and non-significant. Age-based empowerment programming efficacy on teenage risk-taking behaviour is 0.05. Some demographics did not affect pretest knowledge, but gender did.

Conclusions: Risk-taking is a global issue that worries individuals and communities. Adolescents are often unaware of their risky activity. Many took risks owing to poverty, lack of parental supervision, peer pressure, and enjoyment. However, competent counselling can address dangerous behaviour.

**Keywords:** Age based empowerment program, Risk taking behaviour, Adolescents

#### INTRODUCTION

Adolescence, which comes from the Latin word adolescence, which means "to grow up," is when your body and mind change. This often happens between the onset of puberty and the age of majority (age of maturity). According to the World Health Organization (WHO), an adolescent is between the ages of 10 and 19. Adolescence starts when the secondary sexual traits emerge and ends when the person has reached full bodily development and psychological maturity. Early adolescence (11-14 years), middle adolescence (15-17 years), and late adolescence (18-20 years) are the three separate sub phases of the adolescence period.1 A significant transition between childhood and maturity occurs during adolescence. It is a time of considerable physical, psychological, and behavioural changes and the formation of many adult-level habits, behaviours, and relationships in young people.<sup>2</sup>

The tendency to engage in activities that could be damaging or dangerous is referred to as risk-taking behaviour. Trim pop defines it as any consciously or unconsciously controlled behaviour with a perceived uncertainty about its outcome, and/or about its possible benefits, or costs for one's own or others' physical, economic, or psychosocial wellbeing.<sup>3</sup> Four out of five of the world's youth live in developing countries, where more than half of the population is under the age of 25, and these young people will either become the parents of the next generation or are already doing so. The health system has a crucial role to play in encouraging healthy behaviour and preventing disease during adolescence.<sup>4</sup> Adolescence is the most demanding and difficult stage of all the growth and development stages.<sup>5</sup> Around 85% of the 1.2 billion adolescents worldwide reside in underdeveloped nations. There are 190 million teenagers in India, making about 21% of the country's overall population.<sup>6</sup> Adolescent pregnancies constitute 10-15% of total pregnancies in India.7

A survey on youth and parents risk factor behaviour (YABS) among 525 secondary school adolescents with age group of 15-19 years at Slovak, divulged that there is a high prevalence of risk behavioural characters in those s with lower educational status of parents.8 A Kerala based prevalence study on tobacco use among 3000 school children with age group of 14-18 years, noted that overall, 5.53% of boys have this habit. finding noted that peer group influences were one of the reasons for initiating the habit.9 In order to limit risky behaviours, a variety of strategies have been put into place, with variable degrees of success. Increased tobacco pricing, access restrictions on alcohol, media campaigns, school-based campaigns, parenting and family programs, community-based campaigns, and multimodal campaigns are some of the approaches.10

## **Objectives**

Objectives of the study were to assess adolescents' pre-test knowledge and attitude regarding risk-taking behaviour and prevention, to assess the effectiveness of the age-based empowerment program on the knowledge and attitude of adolescents regarding risk-taking behaviour and its prevention and to find out the association between adolescents' knowledge and attitude scores with their selected socio-demographic variables.

#### **METHODS**

## Type of study, study design and location

A quantitative evaluative research approach which was a pre-experimental study was conducted at selected two PU

colleges (KCP Science PU College and RKM PU collage) of Vijayapur.

#### Study population and variables

Adolescents in the age group of 16-18 years were included. The independent variable is the Age-based empowerment program, dependent variable is the knowledge and attitude of the adolescents and Socio-demographic variables such as age, gender, religion, educational status, type of family, family income, area of living, type of recreation and source of Information etc.

#### Sample type, size and sampling technique

120 adolescents students were included and convenient sampling method was used.

#### Inclusion and exclusion criteria

Male and female adolescents who are between 16 years to 18 years old in Selected Arts and Science PU Colleges were included. Adolescents who are unwilling to participate and those with visual or hearing disabilities were excluded.

### Data collection instrument and process

Structured knowledge questionnaire to assess the knowledge and a 5-point Likert scale used to assess the attitude of risk-taking behavior and its prevention. After obtaining permission from the principal the data collection started in day 1 (pretest) the investigator selected 120 samples through convenient sampling. In order to obtain a free and true response the subjects were explained about the purpose and usefulness of the study and assurance about the confidentiality of their responses were provided. The subject's knowledge regarding risk taking behaviour and its prevention was assessed and Same day the agebased empowerment program was administered, in day 7: brainstorming Session; providing Scenarios and asking to solve the questions related to age associated risky behavior. This step is aimed to improve the attitude of adolescents related to risk taking behavior and in day 14 (post-test): The Investigator conducted the same set of adolescents evaluation and termination asking questions, reinforcing the good attempts and feedback. The respondents were co- operative and the data was thus collected and compiled for data analysis.

## Data analysis

The various categories for analyzing the numerical data based on the study's objectives are Demographic Proforma would be analyzed using frequency and percentage, mean pre-test and post-test knowledge and attitude scores would be analyzed by using mean, median, standard deviation and range, paired 't' test is used to determine the effectiveness of age-based empowerment program and the association of pretest knowledge score and demographic variables would be tested by using Chi-square test.

#### **RESULTS**

A total 120 participants included in the study. The majority 20% were in age group of 16 years, 61.7% are male, 93.3% are Hindu, 95.8% of participants studying 1<sup>st</sup> PUC class,

43.3% & 40.8% of participants' fathers and mothers are non-formally educated respectively, 74.2% fathers on daily wages, 95.8% of participants were studying in arts, 53.3% belongs to nuclear family, 58.3% are in family income slab of less than 10K, 72.5% are leaving in rural area and 27.5% of participants received information regarding risk taking behavior and its prevention from mass media (Table 1).

Table 1: Sociodemographic profile of participants (n=120).

Sample Characteristics	N (%)	Sample Characteristics	N (%)
Age		Participant study subject	
16	24 (20.0)	Arts	115 (95.8)
17	91 (75.8)	Science	3 (2.5)
18	05 (4.2)	Commerce	2 (1.7)
Gender		Family type	
Male	74 (61.7)	Nuclear	64 (53.3)
female	46 (38.3)	Single	30 (25.0)
Religion		Joint	22 (18.3)
Hindu	112 (93.3)	Extended	4 (3.3)
Muslim	03 (2.5)	Family income	
Christian	04 (3.3)	Less than 10K	70 (58.3)
Others	01 (0.8)	10-15K	34 (28.3)
Participant education status		15-20K	4 (3.3)
1 <sup>st</sup> PUC	115 (95.8)	20K above	12 (10.0)
2 <sup>nd</sup> PUC	5 (4.2)	Place of living	
Education of their father		Rural	87 (72.5)
Non- formal education	52 (43.3)	Urban	32 (26.7)
Primary	20 (16.7)	Slum	01 (0.8)
High school and secondary	35 (29.2)	Source of information	
Graduation	06 (5.0)	Mass media	33 (27.5)
Post-graduation	07 (5.8)	Through peers	14 (11.7)
Education of mother		Print media	5 (4.2)
Non-formal education	49 (40.8)	Through health care professionals	27 (22.5)
Primary	39 (32.5)	Family members	12 (10.6)
High school/secondary/graduates	30 (25.0)	Not heard from any sources	29 (24.2)
Post graduates	02 (1.7)		
Occupation of father			
Daily wages	89 (74.2)		
Government Employee	13 (10.8)		
Private Employee	03 (2.5)		
Business	15 (12.5)		

None of the participants had any information regarding risk-taking behavior and its prevention in the pre-test; however, after the post-test, 87.5% had sufficient knowledge, and 12.5% had adequate knowledge (Table 2). Participants' attitudes scored 52.5% negatively and 47.5% positively on the pretest, compared to 53.3% negatively and 46.7% positively on the posttest (Table 3). In response to an assessment of the effectiveness of knowledge and attitude of participants in Table 4 shows that the computed

p-value was <0.05% (t=62.21), with a significance level of 0.005. The difference between the mean pre-test score of 3.74 and the mean post-test score of 18.7 demonstrates how well the intervention program has improved the knowledge of adolescents. The (Table 5) presents that mean pretest attitude score was 28.5 and mean posttest attitude score 28.4 and the difference was very small not statistically significant, paired t test was used to find out the effectiveness of age-based empowerment program on

attitude of adolescence on risk taking behavior. computed t value is 0.05 level of significance (t=0.394, df=119, p=0.694).

Table 2: Frequency and percentage distribution of Pre-test and post-test knowledge score of study respondents (n=120).

		Level of knowledge				
Level of knowledge	Scores (%)	Pre tests N	%	Post tests N	%	
Inadequate	< 50	120	100	00	00	
Moderately adequate	50-75	00	00	105	87.5	
Adequate	≥75	00	00	15	12.5	
Total		120	100	120	100	

Table 3: Frequency & percentage distribution of pretest and post-test attitude of adolescents (n=120).

Attitude								
Attitude	Score	Pre	Pre					
	(%)	tests N	%	tests N	%			
Negative	< 50	64	53.3	63	52.5			
Positive	>50	56	46.7	57	47.5			
Total		120	100.0	120.0	100.0			

Pretest knowledge scores did not correlate with some demographic factors, including age, religion, education, course, mother's education, father's occupation, mother's occupation, family type, family income, place of residence, and source, but there was a significant correlation between adolescent knowledge levels and gender.

#### **DISCUSSION**

The investigator found that in pre-test, it was seen that all the study repsodents were having inadequate knowledge regarding risk taking behaviour & its prevenetion before intervention. After intervention, majority 105 (87.5%) of the study repsodents had moderately adequate knwoledge and remaining 15 (12.5%) had adequate knowledge. About attitude <50% adolescents were having negative attitude regarding risk taking behaviour and >50% of adolescents were having positive attitude about risk taking behaviour. The findings of the present study is similar to a previous study on assessment of knowledge and attitude regarding substance abuse among substance among adolescents. The findings noted out of 91 Rajasthani's 73.62% had inadequate knowledge, and none of the participant had adequate knowledge, and the knowledge score enhanced to 83.35% had adequate knowledge, 16.48% had average knowledge and none of the participant had inadequate knowledge, Majority 70% participants show negative attitude towards the drug abuse during the pre-test.<sup>11</sup> The mean pretest score was 3.74 and mean posttests core was 18.7 which is significant as p-value was 0. 0001. t=62.21, (p<0.05). It was clear that distribution of attitude of the study respondents was almost same in pre-test and posttest except one study respondent's whose negative attitude becomes positive after intervention.

Table 4: Assessment of effectiveness of knowledge and attitude of respondents (n=120).

Test	Mean	SD	SEM	Mean difference	df	T value	P value
Pre test	3.74	1.48	0.13	-	119	-62.218	<0.0001
Post test	18.74	2.26	0.20				
Post test	-	2.64098	0.241	-15.00	-	-	-

Table 5: Effectiveness of age-based empowerment program on attitude of adolescence.

Test	Mean	SD	SEM	Mean difference	df	T value	P value
Pre test	28.5	4.14	0.37		119	0.394	0.694
Post test	28.4	4.35	0.39				
r ost test	-	4.63	0.42	0.16	-	-	-

So, there is enough evidence that intervention program is effective in enhancing the knowledge of respondents. These findings are comparable to a previous study on effectiveness of structured teaching programme on assessing knowledge and attitude about substance abuse, the mean post test scores (26.90%) were higher than the mean pre test scores (12.93%) with 't' value (t=18.9425) being significant at p=0.001% level on the finding revealed that structured teaching program was highly effect in enhancing the knowledge and attitude of

adolescents regarding substance abuses.<sup>12</sup> The present study shows that there were no associations between pretests knowledge scores with selected demographic variables such as age, religion, education, course, education of mother, occupation of father, occupation of mother, family type, family income, place of living and source. But there was significant association between levels of knowledge with that gender and education of their father and there were no association between pretest. Attitude scores with all the selected demographic variables

such as age religion, education, course, education of mother, occupation of father, occupation of mother, family type, family income, place of living and source, gender and education of their father (p>0.05). These findings of the study are supported by a study conducted by Goswami to assess the effectiveness of structured teaching programme on knowledge regarding substance abuse among adolescents. Findings revealed that in relation to the knowledge of the pre -test none of the subjects had adequate knowledge, where as in post-test knowledge score revealed that majority of them had [83.35%] adequate knowledge regarding substance abuse. There is a significant association of only one demographic variable that is parental income at p>0.05. However, there was no statistically significant association between pre-test knowledge with demographic variables like age, gender, academic qualification, and parental income (p>0.05).11 Despite the favourable outcomes obtained from our investigation, it is important to acknowledge the limitations pertaining to the scoring criteria and the generalizability of the findings. A multicentre study is necessary to assess the efficacy of the ratings across several systems, as the sample was limited to an only two centres.

#### **CONCLUSION**

Risk taking behaviour is a problem that is causing serious concern to both individuals and community all over the world. The problem is prevalent among adolescents who in most cases are ignorant about the risky behaviour in their life. Many of them engaged in risk taking behaviour due to may poverty, lack of parental supervision, peer influence and pleasure. However, with effective counselling program the problems of risky behaviour be tackled. Although few studies have been conducted about risk taking behaviour of adolescents in India. There is need to do more studies about risk taking behaviour among adolescents.

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Institutional Ethics Committee

#### **REFERENCES**

1. Marlow DR, Redding BA. Paediatric Nursing. 6th ed. USA: Elsevier Publication; 2010.

- 2. Common problems occurring in adolescence. Available at: https://www.msdmanuals.com/. Accessed on 20 February 2023.
- 3. Risk-taking behaviour. Available at: https://www.google.com/biw=1366&bih=657&ei=vMIUXruAKei-3LUPzqm14Agz. Accessed on 20 February 2023.
- 4. Park K. Preventive and social medicine. 24th ed. India: Bhanot publication; 2017.
- Agarwal S. Analysing Adolescent Risk-Taking Behaviour in India. Available at: https://www. Adolescent\_Risk\_taking\_Behaviour\_in\_India\_The\_in fluence\_of\_socio\_economic\_characteristics. Accessed on 20 February 2023.
- 6. Adolscent analysis. Available at: https://data.unicef. org/topic/adolescents/overview/. Accessed on 20 February 2023.
- 7. Barua A. Effectiveness of Reproductive health education in adolescent, rural school girls of Udupi Taluk, Karnataka. JIMSA. 2010;23(4):23-9.
- Babjakova J, Vondrova D, Jurkovicova J, Samkhya M, Filova A. Risk behavioural survey in the sample of Slovak adolescents. Br Lek Listy. 2019;120(12):899-907
- 9. Jayakumary M, Binoo D, Teena T, Jayadevan S. Prevalence of Tobacco Use Among Adolescents in India. IJAR. 2012;13(11):5368-71.
- 10. Jackson CA, Henderson M, Frank JW, Haw SJ. An overview of prevention of multiple risk behaviour in adolescence and young adulthood. J Public Health. 2012;34(1):31-40.
- 11. Goswami YP, Jayalakshmi LS, Mathur DM. A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding Substance Abuse among Adolescents at Selected Nursing Colleges of Udaipur District, Rajasthan. Int J Sci Res. 2015;5(2): 2250-8.
- 12. Firdousa J, Manzoor AP, Dar NA. A study to assess the effectiveness of structured teaching programme on knowledge regarding substance abuse among adolescents in selected school of district Budgam, Jammu and Kashmir. Int J Adv Res. 2016;6(1):956-64.

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