

Effectiveness of the Comprehensive Intervention Package on the Psychological Variables among Adolescents

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ABSTRACT

The study aimed to assess the effectiveness of the comprehensive intervention package on psychological variables of adolescents. The research approach adopted for the study was quantitative evaluative approach and the research design was true experimental design. The adolescents 76 in the control and 76 in the experimental group were selected randomly and included in the study. A significant change was identified in the experimental group between the pre-test and post-test scores of psychological variables ($p < 0.001$) when compared to the control group. Assertiveness and self-esteem, peer relationship and self-esteem, self-esteem and coping showed a significant correlation ($p < 0.001$). A significant negative correlation was observed between stress and self-esteem ($r = -0.417$; $p < 0.001$). Stress and coping showed a significant correlation at $P < 0.05$. Thus education and training using comprehensive intervention package was very effective in improving assertiveness, reducing stress, enhancing coping, peer relationship and self-esteem of the adolescents.

Keywords: Adolescence, Assertiveness, Stress, Coping, peer relationship and Self-esteem.

INTRODUCTION

Major challenging issues for the adolescents' in a rapidly changing Indian society are stress in academics, bullying, violence, easy availability of alcohol and drugs, substance abuse, overcrowding, poor infrastructure and social disparities¹. Interpersonal stress, particularly stress and conflicts in relationship with the parents and peers are experienced at high levels by the adolescents². Though boys report more stress and conflicts in peer relationships than girls, stress in female adolescents is strongly associated with emotional difficulties, anxiety and depression than that of the boys³

The basic and essential skills and abilities for adaptive and positive behaviour that enables an adolescent to deal effectively with the demands of everyday life are effective communication, assertiveness, social and interpersonal relationships, coping with stress, trauma or loss and maintaining resilience, critical thinking, problem solving, decision making and self awareness⁴.

As adolescents spend much of their time in school and also in order to enhance the productive utilization of their potentials, school based education on basic skills for a healthy life need to be imparted and followed on a regular basis to help them meet the demands and challenges of life in a healthy manner.

Aim

The study aims to assess the effectiveness of the comprehensive intervention package on psychological variables among adolescents to promote physically and psychologically healthy life.

Objectives

To study the effectiveness of the comprehensive intervention package on the psychological variables among adolescents of control and experimental group.

To identify the correlation between the psychological variables.

Hypothesis

H1: The comprehensive intervention package will have a significant effect on psychological variables among adolescents of the experimental group compared to the control group.

MATERIALS & METHOD

Research approach: Quantitative evaluative approach.

Research design: True experimental design with pre-test and post test and a control group.

Setting: A selected English Medium School, Perinthalmanna, Kerala.

Inclusion and Exclusion criteria: Adolescents between the ages of 13-15 years, pursuing studies in the selected school were included in the study. Adolescents who were having any physical disabilities or who were on any psychological treatment, not willing to participate in the study and absent at the time of data collection were excluded.

Sample and sample size: 152 adolescents (76 + 76) between the ages of 13-15 years studying in 8th and 9th standard in the respective school were taken as samples for control and experimental group by randomisation. They were included after obtaining informed consent from parents and assent from the adolescents.

Variables under study: Comprehensive intervention package was the independent variable. The psychological variables such as assertiveness, stress, coping, peer relationship, and self-esteem of the adolescents were the dependent variables.

Tool for data collection: Section A included questionnaire to assess the demographic variables. And section B consisted of items to assess the psychological variables such as assertiveness, stress, coping, peer relationship and self-esteem.

Educational intervention

Training using comprehensive intervention package

was carried out in sessions of one hour in a week for the experimental group. In the first week the session included establishment of rapport, pre-testing, introduction of objectives of the comprehensive intervention package and the various concepts included in the package, group formation, mapping the sessions and activities planned. From 2nd week to 7th week education and training using comprehensive intervention package was carried out in sessions as one hour in a week for six consecutive weeks. On the eighth week offered activities to end the training programme with a post-test.

Data collection process

Step 1: Before starting the study, permission for conducting the study was obtained from the principal of the selected school, Perinthalmanna. Collected informed consent from the parents and assent from the adolescents chosen for the study.

Step 2: The 76 participants of the experimental group were divided into groups for the training sessions. Confidentiality of information was assured and the pre-test was conducted through self report. Instructions were provided and clarifications of the doubts were also done. It was followed by implementation of the first session of the training for the experimental group. Similarly the participants of the control group were seated comfortably in a room. After assuring the confidentiality of information pre-test was conducted. The participants were informed regarding the date and time of the post-test.

Step 3: Education and training using comprehensive intervention package as one session per week per group for 1 hour was carried out for the experimental group, so that the participants got enough time to practice the behaviors being taught in the sessions. After each session the date, time and venue of the next session was informed to the participants.

Step 4: Post-test was conducted on the 8th week for both the groups after seating them comfortably in a room. As per institutional ethics committee recommendation, control group and remaining students in the class who were not included in the study were given training after the post-test.

Description of adolescents, according to their demographic characteristics

Table 1. Description of adolescents, according to their demographic characteristics.

S.No	Demographic characteristics	Categories	Control group		Experimental group		χ^2 - value, df, p-value
			n(76)	%	n (76)	%	
1.	Age in years	13	25	33	21	27	0.966 df=2 p=0.617
		14	40	53	46	61	
		15	11	14	9	12	
2.	Class studying	8 th Standard	34	45	32	42	0.107 df=1 p=0.743
		9 th Standard	42	55	44	58	
3.	Gender	Male	40	53	37	49	0.237 df=1 p=0.626
		Female	36	47	39	51	
4.	Religion	Hindu	34	45	31	41	0.525 df=2 p=0.769
		Christian	20	26	24	32	
		Muslim	22	29	21	27	
5.	Father's education	Middle school	3	4	2	3	4.195 df=4 p=0.380
		High school	29	38	20	26	
		Intermediate/post high diploma	14	18	14	18	
		Graduate /post graduate	21	28	32	42	
		professional	9	12	8	11	
6.	Mother's education	Middle school	2	3	-	-	7.027 df=4 p=0.134
		High school	30	39	22	29	
		Intermediate/post high diploma	13	17	11	15	
		Graduate/post graduate	22	29	36	47	
		professional	9	12	7	9	
7.	Father's occupation	Unemployed	-	-	2	3	7.102 df=4 p=0.131
		Skilled worker	20	26	9	12	
		Clerical/shop owner/farmer	20	26	23	30	
		Semi professional	22	29	28	37	
		professional	14	18	14	18	
8.	Mother's occupation	Unemployed	39	51	46	60	11.754 df=5 p=0.038
		Semi-skilled worker	4	5	-	-	
		Skilled worker	9	12	2	3	
		Clerical/shopkeeper /farmer	5	7	2	3	
		Semi professional	10	13	16	21	
		professional	9	12	10	13	
9.	Family income	1601-4809	4	5	7	9	1.854 df=5 p=0.869
		4810-8009	7	9	9	12	
		8010-12019	9	12	8	10	
		12020-16019	14	18	11	15	
		16020-32049	25	33	27	36	
		>32050	17	22	14	18	
10.	Type of family	Nuclear	46	60	49	65	0.271 df=2 p=0.873
		Joint family	27	36	24	32	
		extended	3	4	3	4	

Cont... Table 1. Description of adolescents, according to their demographic characteristics.

11.	Family's Residential area	Urban	16	21	14	18	0.264 df=2 p=0.876
		Rural	16	21	15	20	
		Semi urban	44	58	47	62	

Table 1 revealed that with regard to the adolescents' age most of them, 53% in the control group and 61% in the experimental group were 14 years old ($\chi^2 = 0.966$ not significant). The mean age of the adolescents of both control and experimental group was 13.8 years. 55% of the adolescents in the control group, and 58% in the experimental group were studying 9th standard ($\chi^2 = 0.107$ not significant). With relation to the gender, majority of the adolescents' 53% in the control group were males and 51% in the experimental group were females ($\chi^2 = 0.237$ not significant). Most of the adolescents' were Hindus, as 45% in the control group and 41% in the experimental group ($\chi^2 = 0.525$ not significant). In relation to the father's education, it was identified that the majority, in the control group 38% had high school education whereas, 42% in the experimental group were graduate or post graduate ($\chi^2 = 4.195$ not significant). Most of the mothers' of adolescents had high school

education ie 39% in the control group and 47% in the experimental group were graduate/post graduate. ($\chi^2 = 7.027$ not significant).

With regard to the fathers' occupation majority 29% in the control group and 37% in the experimental group were semi-professionals ($\chi^2 = 7.102$ not significant). Majority of the adolescent's mother's 51% in the control group and 61% in the experimental group were unemployed ($\chi^2 = 11.754$ not significant). Family income of most of the adolescents, 33% in the control group and 36% in the experimental group were within the range of 16020 to 32050 rupees ($\chi^2 = 1.854$ not significant). 61% in the control group and 65% in the experimental group belonged to the nuclear family type ($\chi^2 = 0.271$ not significant). Majority 58% in the control group and 62% in the experimental group were residing in the semi urban area ($\chi^2 = 0.264$ not significant).

Effectiveness of comprehensive intervention package on psychological variables

Table 2: Assertiveness, stress and coping of control and experimental group in the pre-test and post-test

S.No	Parameter	Group	Mean ±SE	unpaired 't' test		paired 't' test	
				Con Vs Exp Pre-test (pre)	Con Vs Exp Post-test (post)	Control Pre Vs post	Experiment Pre Vs post
1.	Assertiveness	Con-Pre-test	54.60 ±0.9	t=0.763 p=0.447	t=5.386 p<0.001	t=0.310 p=0.757	t=-19.098 p<0.001
		Con-Post-test	54.60 ±0.9				
		Exp-Pre-test	55.50 ±0.9				
		Exp- Post-test	64.0 ±0.8				
2.	Stress	Con-Pre-test	26.0 ±0.60	t=0.605 p=0.546	t=10.551 p<0.001	t=0.869 p=0.388	t=27.028 p<0.001
		Con-Post-test	25.91 ±0.55				
		Exp-Pre-test	26.50 ±0.60				
		Exp- Post-test	18.07 ±0.50				

Cont... Table 2: Assertiveness, stress and coping of control and experimental group in the pre-test and post-test

3.	Coping	Con-Pre-test	12.68 ±0.38	t=1.884 p=0.067	t=14.105 p<0.001	t=1.434 p=0.156	t=31.970 p<0.001
		Con-Post-test	12.88 ±0.36				
		Exp-Pre-test	11.65 ±0.41				
		Exp- Post-test	21.26 ±0.48				

Comparison of mean scores of assertiveness, stress and coping before and after the intervention was represented in table 2. The assertiveness means score was 54.60 in the pre-test as compared to 54.60 in the post-test for the control group and the difference in the mean score was not statistically significant. The corresponding mean scores for the experimental group were 55.50 and 64.0 and were statistically significant (paired t = 19.098; p < 0.001). No statistically significant difference was found in the pre-test mean scores between the control and experimental group. But the post-test mean scores showed a significant difference between the groups (unpaired 't' = 5.386; p < 0.001).

The mean pre-test and post-test scores of stress in the control group were 26.0 and 25.9 respectively, and were not statistically significant. In the experimental group the mean stress pre-test and post-test scores were

26.50 and 18.09 and the difference was statistically significant (paired t = 27.028; p < 0.001). The difference in the pre-test between the control and experimental group showed no significant difference, but the post-test showed a significant difference (unpaired t = 10.551; p < 0.001).

In the control group the mean pre-test coping scores was 12.68 and 12.88 in the post-test. It was not statistically significant. It was statistically significant in the experimental group with the mean scores of 11.65 and 21.26 respectively (p < 0.001). There was no statistically significant difference in the pre-test scores between the control and experimental group, but there was a significant difference in the post-test. This indicated the effectiveness of the intervention package on assertiveness, stress and coping.

Table 3: Peer relationship and self-esteem of control and experimental group in the pre-test and post-test

S.No	Parameter	Group	Mean ±SE	unpaired 't' test		paired 't' test	
				Con Vs Exp Pre-test (pre)	Con Vs Exp Post-test (post)	Control Pre Vs post	Experiment Pre Vs post
1.	Peer relationship	Con-Pre-test	2.67 ±0.20	t=0.539 p=0.591	t=6.542 p<0.001	t=4.563 p<0.001	t=10.262 p<0.001
		Con-Post-test	2.25 ±0.15				
		Exp-Pre-test	2.53 ±0.18				
		Exp- Post-test	1.17 ±0.08				

Cont.... Table 3: peer relationship and self-esteem of control and experimental group in the pre-test and post-test

2.	Self-esteem	Con-Pre-test	18.51 ±0.38	t=0.808 p=0.421	t=8.130 p<0.001	t=0.619 p=0.538	t=26.050 p<0.001
		Con-Post-test	18.61 ±0.33				
		Exp-Pre-test	18.00 ±0.51				
		Exp- Post-test	23.22 ±0.46				

Table 3 reveals the mean scores of peer relationship of the control group in the pre-test and post-test were 2.67 and 2.25, in the experimental group it was 2.53 and 1.17 and were statistically significant at $p < 0.001$. There was no significant difference between the experimental and control group in the pre-test. But it was statistically significant at $p < 0.001$ in the post-test.

The mean scores for self-esteem in the control group, in the pre-test were 18.51 as compared to 18.61 in the post-test and the difference was not statistically significant. The corresponding mean scores for the experimental group were 18.00 and 23.22 respectively in the pre-test and post-test. The difference was statistically significant ($p < 0.001$). The difference in the pre-test between the control and experimental group was not statistically significant. The mean difference in the post-test showed statistically significant difference at $p < 0.001$. This showed that the application of comprehensive intervention package had a significant effect on peer relationship and self-esteem.

Correlation between psychological variables in the pre-test of control and experimental group

A significant correlation between the assertiveness and self-esteem in the pre-test ($r = 0.273$) and post-test ($r = 0.274$) of control group was revealed. The pre-test of the experimental group showed a significant correlation between the same ($p < 0.05$). The overall data showed a significant correlation between the two variables ($p < 0.001$).

A negative correlation between the stress and self-esteem in the pre-test ($p < 0.001$), and post-test ($p < 0.05$) of the experimental group. The overall correlation also showed a significant negative correlation between the stress and self-esteem ($r = -0.417$; $p < 0.001$).

A significant correlation was observed between the peer relationship and self-esteem in the pre-test ($p < 0.05$) and post-test ($p < 0.05$) of the experimental group. Overall data also showed a significant correlation between the peer relationship and self-esteem ($p < 0.001$).

Combining all data of control and experimental group revealed a significant correlation between the coping and self-esteem ($p < 0.001$). A correlation between stress and coping is observed in the pre-test scores of experimental group ($p < 0.05$). The results revealed no correlation between other psychological variables of control and experimental group.

DISCUSSION

Psycho social Skills based education for adolescents combining knowledge, values, attitudes and skills with particular emphasis on core life skills improve the qualities such as self-esteem, sociability, peer relationship and tolerance, competencies to manage stressful situations, to take action and generate changes, and capabilities to have the freedom to decide what to do and what not to do⁵. A package with a wide range of Interventions focussing on the basic core life skills for adolescents provided in a naturalistic setting such as school is more beneficial as a health promotion strategy⁶. Short course training programmes involving a series of sessions are more advantageous. The results of a training programme conducted as 8 sessions on life skills for the experimental group showed a significant positive increase in the self-esteem and communication skills than the students of control group not involved in the training programme⁷.

In the present study Paired ‘t’ test showed a significant difference at $p < 0.001$ for all the psychological parameters between the pre-test and post-test in the

experimental group with no significant difference between the pre-test and post-test for the control group. Thus the results revealed that the education and training using comprehensive intervention package had a significant impact on the psychological variables.

CONCLUSION

The comprehensive intervention package was found to be effective in enhancing assertive behaviour, reducing stress, promoting adoption of healthy coping strategies, and maintaining self-esteem and peer relationship.

Conflict of Interest: None

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Ethical Clearance: Obtained from Institutional Human Ethical Committee.

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