

Effectiveness of Mindfulness on the Emotional Wellbeing in Adolescents

Mr. Nikhil Ingawale¹ Dr. Sundari Apte²

¹ Clinical Instructor, BV (DU) College of Nursing, Pune ² Assistant Professor, BV (DU) College of Nursing, Pune

Abstract: *Introduction: Emotional well being relates with capabilities of the adolescent to cope with normal stress in life and work contributes to the work productively. Mindfulness training enhances and influences the psychological well being. Adolescents face many challenges in present era. They often have difficulties in coping with many advanced skills. It is recommended to strengthen this phase of emotional and mental well-being. Mindfulness based stress reduction is positively related to improved well being of an individual. The Aim of the present study was to study the effectiveness of mindfulness on the emotional well-being in adolescents.*

Material and method: Prior to the initiation of the study, Ethical approval was taken. The study employed quantitative approach and Quasi experimental design. Students from Junior colleges from Pune, Maharashtra were recruited in the study. The participants of the study fulfilled the inclusion and exclusion criteria of the study protocol. The study and the control group included 50 participants each, and the samples were selected by purposive sampling technique. The tool consisted of demographic and emotional wellbeing questionnaire. The pre-test was conducted on both the groups. The intervention was given to study group fo a period of 10 days in morning for 25-30 minutes. Whereas the control group did not receive any intervention. Results: Mindfulness intervention significantly improved the emotional well-being score in study group. 46 samples exhibited good score of emotional well being in study group and in control group it was 39. Demographic variables like gender, type of family, Number of siblings and standard showed significant association with the emotional well-being score in the study group. Whereas in control group, the no such association was found in pre test analysis. Conclusion: Mindfulness can be beneficial in reducing stress and increasing emotional well-being of adolescents.

Keywords: *Mindfulness, Emotional Wellbeing, Adolescents*

Introduction:

The world Health Organization has stated that emotional well-being is basic quality of our life. The federation for mental health has defined emotional well-being as a form of subjective well being, when individuals feel that they are coping fairly in control thier life, face challenges and take responsibility. Adolescent life is associated with many developmental phases and stress associated with day to day life (Jeba and Premraj,). The effect of mindfulness on cognitive neurodevelopment in adolescents is recommended and offers new research paradigms.

The term mindfulness is derived from Buddhist concept of ‘Sati’ which says proper skills of awareness, attention and remembering. Many reviews are present that discuss the effect sof mindfulness on physical and mental health. Rigorous studies are now targeted towards studying the effect of mindfulness on mental and neurocognitive development (Sanger and Dorjee, 2015).

Stress experienced during adolescent period results in anxiety and depressive disorders. In order to promote good mental health and development of skills, effective stress reduction technique must be practised. Assessing the efficacy of mindfulness in adult population will enable to introduce such

meditation practises in early life with special emphasis as school based programs. This will help the child to develop good mental health to cope for future stress in life (Erbe and Lohrmann, 2015). In this light, the present study was undertaken to elucidate the effect of mindfulness in adolescents studying in Junior colleges.

Materials and Methods:

The Institutional Ethics committee has approved the study protocol. The study included adolescent’s age between 16-19 years of age studying in Junior colleges from Pune, Maharashtra. The study design adopted for the study was Quasi experimental study design. The Inclusion and exclusion criteria of the study participants were as follows.

INCLUSION CRITERIA:

1. Adolescent from selected junior colleges.
2. Both Male and Female
3. Willingness to participate in study.

EXCLUSION CRITERIA:

1. Adolescent who have already attended mindfulness training.

In each group, 50 participants were enrolled in the study. Non-probability purposive sampling technique was used in the study. Demographic data was collected by addressing the demographic data questionnaire. For assessing the emotional well-being score, Emotional well-being scale by Dr. R. Portia and Dr. A. Joycilin Shermila, 2015 was used. The questionnaire was addressed at two time points before and after mindfulness intervention program in the study group and also in the control group. The tool had 26 statements which consist of both positive and negative phrases. The questionnaire is classified under the following dimensions mental health (6); emotional resilience (5); emotional health (9) and emotional happiness (6). They were graded and score as border line (0-18); poor (19-38); Average (39-58) and good (59-78). The mindfulness training program was given for a period of 10 days. It included.....

Statistical analysis:

The data was presented as mean and standard deviation. Z test and Chi square test were used. The significance was considered at 0.05 level and below.

Results:

Demographic details of the study population:

Age and gender were similar in both control and the study groups (table 1). Majority of the study participants were leaving in nuclear family 78% in control group and 68% in control group. More than 16% of the participants in the both groups had 1 or more siblings. Majority of the participants also had average family income and indicated a stable financial status of the family (Table 1).

TABLE 1: Demographic variable of study and control group

Demographic variables	Study group (N=50)	Control group (N=50)
	Percentage	Percentage
Gender		
Male	32	27
Female	18	23
Age in years		
16-17	44	43
18-19	6	7
Type of Family		
Extended	2	4

Joint	8	16	13	26
Nuclear	39	78	34	68
Single Parent	1	2	3	6
No. of Siblings				
1	30	60	27	54
2	8	16	7	14
3 and above	4	8	8	16
None	8	16	8	16
Education of Father				
Graduation	24	48	21	42
Higher Education	6	12	13	26
Illiterate	13	26	4	8
Primary	1	2	9	18
Secondary	6	12	3	6
Education of Mother				
Graduation	24	48	21	42
Higher Education	4	8	13	26
Illiterate	10	20	4	8
Primary	24	4	9	18
Secondary	10	20	3	6
Occupation of Father				
Business	16	32	21	42
Other	6	12	4	8
Service	28	56	25	50
Occupation of Mother				
Business	4	8	2	4
Housewife	40	80	39	78
Other	3	6	2	4
Service	3	6	7	14
Monthly Income				
>30000	30	60	22	44
10001-30000	19	38	19	38
5001-10000	1	2	7	14
Less than 5000	-	-	2	4

Emotional well being in pre-test:

The emotional well-being score was tested in both the groups before starting the intervention in the study group. In control group, good score of emotional well-being was found in 38 participants (76%) during pre-test. whereas 12 participants (n=24%) reported average score. In the study group (Table 2).

Thirty participants (60%) in the study group reported good emotional well being during pre-test, whereas Average emotional well-being was observed in 20 participants (n=40%) (Table 2).

Table 2: Emotional well-being level/ Score in the control and study group before intervention (pre-test)

	Control (n=50)		Study (n=50)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Average	12	24	20	40
Good	38	76	30	60
Total	50	100	50	100

Emotional well-being in post-test (after intervention):

The control group reported good emotional well-being in 39 participants (n=78%). Average emotional well-being was observed in 11 participants (n=22%) (Table 3).

Good emotional well-being was found highest in 46 participants (n=92%) in the study group during post test whereas average emotional well-being was observed in 4 participants (n=08%) (Table 3).

Table 3: Emotional well-being level in control and study group: Post test

	Control group		Study group	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Average	11	22	4	8
Good	39	78	46	92
Total	50	100	50	100

Effectiveness of intervention on emotional well being:

The pre post score comparison was done using Wilcoxon sign Rank Test in both the groups. In control group, 38 participants in pre test control group had good emotional well being and 39 participants had good emotional wellbeing in post test. Twelve participants in pre test control group had average emotional well-being and 11 participants remained at same score during post test. Pre median and post median score was same and did not vary significantly (Table 4).

The pre post score comparison in study group using Wilcoxon sign Rank Test proves that 30 participants in pre test study group had good emotional well being which increased to 46 participants in post test in study group. Twenty participants in pre test study group had Average emotional well-being which was decreased to 04 participants during post test in study group. The post median score was 64 was increased as compared to pre median score which was 62 which was significant ('p' less than 0.05) as shown in table 5

Table 4: Welling scale in control group (n=50)

Welling scale	Pre (f)	Post (f)	Median score: Pre	Median score: Post	p-value
Average	12	11	62	62	0.76
Good	38	39			
Total	50	50			

* p value considered significant 0.05 level and below.

Table 5: Welling Scale in study group (n=50)

Welling scale	Pre	Post	Median score: Pre	Median score: Post	p-value
Average	20	4	62	64	0.046
Good	30	46			
Total	50	100			

* p- value considered significant 0.05 level and below.

Association of welling scale score with the demographic variables:

In the control group, emotional well being score in pre-test did not reveal any significant association (p value more than 0.05) with variables of demography, gender, standard, types of family, number of siblings age, education of father, education of mother, occupation of father, occupation of mother and monthly income (Table 6).

In study group, association of well being score with demographic variables gender, standard, type of family and number of siblings was significant with 'p' value less than 0.05. Whereas the association was not found to be significant with demographic variables like age, education of father, education of mother, occupation of father, occupation of mother and monthly income (Table 7).

Table 6: Association of demographic variables in control group pre test (n=50)

Demographic variables	Emotional wellbeing category		df	Chi-Square value	Table value	p-value
	Average	Good				
Gender						
Male	4	28	1	2.45	3.841	0.12
Female	0	18				
Age in years						
16-17	3	41	1	0.70	3.841	0.40
18-19	1	5				
Standard						
11 th	3	23	1	0.92	3.841	0.34
12 th	1	23				
Type of Family						
Extended	0	2	3	0.49	7.815	0.92
Joint	1	7				
Nuclear	3	36				
Single Parent	0	1				
No. of Siblings						
1	1	29	3	4.60	7.815	0.20
2	1	7				
3 and above	0	4				
None	2	6				
Education of Father			4	2.45	9.488	0.65

Graduation	2	22				
Higher Education	1	5				
Illiterate	0	13				
Primary	0	1				
Secondary	1	5				
Education of Mother						
Graduation	2	22				
Higher Education	0	4	4	6.07	9.488	0.49
Illiterate	0	10				
Primary	1	1				
Secondary	1	9				
Occupation of Father						
Business	2	14	2	0.99	5.991	0.61
Other	0	6				
Service	2	26				
Occupation of Mother						
Business	0	4	3	3.24	7.815	0.36
Housewife	3	37				
Other	0	3				
Service	1	2				
Monthly Income						
>30000	2	28	2	0.32	5.991	0.85
10001-30000	2	17				
5001-10000	0	1				

Table 7: Association of demographic variables in study group pre test (n=50)

Demographic variables	Emotional wellbeing category		df	Chi-Square value	Table value	p-value
	Average	Good				
Gender						
Male	17	15				
Female	3	15	1	6.38	3.841	0.01
Age in years						
16-17	19	25				
18-19	1	5	1	1.54	3.841	0.21
Standard						
11 th	16	10	1	10.17	3.841	0.001
12 th	4	20				
Type of Family						
Extended	2	0	3	15.37	7.815	0.002

Joint	7	1				
Nuclear	10	29				
Single Parent	1	0				
No. of Siblings						
1	12	18				
2	1	7	3	8.54	7.815	0.036
3 and above	4	0				
None	3	5				
Education of Father						
Graduation	9	15				
Higher Education	3	3	4	1.94	9.488	0.747
Illiterate	5	8				
Primary	1	0				
Secondary	2	4				
Education of Mother						
Graduation	10	14				
Higher Education	1	3	4	1.31	9.488	0.858
Illiterate	5	5				
Primary	1	1				
Secondary	3	7				
Occupation of Father						
Business	8	8				
Other	3	3				
Service	9	19	2	1.63	5.991	0.440
Occupation of Mother						
Business	2	2				
Housewife	16	24	3	3.05	7.815	0.383
Other	2	1				
Service	0	3				
Monthly Income						
>30000	14	16	2	1.78	5.991	0.410
10001-30000	6	13				
5001-10000	0	1				

Discussion:

There are many evidences which relate the effect of mindfulness in emotional well-being. Mental benefits of many such programs are documented in interventional studies. Mindfulness in as opposite to mental states observed in daily life like worries, imagination, fantasies and concerns etc (Keng et al., 2011). Thus interventions like mindfulness and awareness of present moment is important which helps to stimulate cognitive diffusion and reduces anxiety level.

In the present study, mindfulness mediation program was seen to be beneficial in improving the overall

emotional well-being in adolescents. Practising the program for short period (for 10 days) was still beneficial and showed positive effect in post-test analysis. The adolescents were in age group of 16 to 19 years with both gender included and ranged from lower to middle socioeconomic class.

Similar study was carried out by Modi, (2018) in which 50 samples were included in control and experimental group. Ten sessions were conducted in this study group and within and between the groups comparisons were done. The age range in the study was 10 to 14. In this study many more scales were used like Adolescent Self-Regulatory Inventory, Rosenberg Self-esteem Scale, Ryff's Psychological Well-being scale, and Child Adolescent Mindfulness Measure were used for assessments. Self esteem, psychological well being etc were the additional parameters measured. Post intervention significant improvement in the parameters were observed which was similar to our study as against in our study we focused primarily on emotional well being score (Modi et al., 2018).

The effect of mindfulness based practices in adolescents in Asian context is under-explored (Lau and Hue, 2011). In adolescents with low academic performances, stress and depressive symptoms were improved after the mindfulness intervention program of six weeks. It was a pilot study with limited sample population but the results were encouraging and showed beneficial and feasible in adolescents at school. The study urged the need to conduct study with larger sample size and for longer duration (Lau and Hue, 2011).

The present study was carried out in limited sample size with shorter period. In order to generalize the findings of the study to other or larger population well framed interventional program must be employed. In addition more parameters like stress scale and quality of life must also be included.

The findings of the study were encouraging though in was practised for short duration. In future, well planned meditational interventional program may be beneficial in improving the emotional status in adolescents.

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