

## Effectiveness of Cognitive Behavior Therapy on Family Dynamics of Adolescents with Negative Life Event Induced Depressive Episodes

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### ABSTRACT

Adolescence is a period of rapid mental and physical growth. The college going students in this phase may face several negative life events including personal, familial and academic, where adaptation and adjustment may be necessary. If family dynamics are not proper, no mutual support is available to bounce back from negative events. To evaluate the effectiveness of CBT in improving family dynamics of adolescents who have negative life event induced Retrospective one group pre-test posttest study Adolescents aged 17 to 21 years, both male and female, who approached the counseling cell from January to June 2020, from Nagpur, Maharashtra, India. Out of 62 approached students, 50 completed the required counseling sessions. 80% of severely depressed belonged to nuclear family. 74% had moderate depressive episode, 20% had severe and 6% were on border line clinical depression. Pre CBT, 80% of severely depressed students were having bad relationship with parents whereas 41% of moderate level depressed students were having satisfactory relationship with parents. Post therapy sessions, 23.8% improved to good relationship from bad, 58.8% to good from satisfactory, and 66.7% to satisfactory from bad. There is significant difference in Pre CBT scores and post CBT BDI scores as  $p=0.000$  at 99% confidence interval. CBT is effective in improving the relationship between adolescents and their parents, thus contributing to reduction in symptoms of negative life event induced depressive episodes. It is important for mental health providers/ counselors at college premises to foster adolescent-parent relationship.

**KEY WORDS:** CBT, DEPRESSIVE EPISODES, FAMILY DYNAMICS, ADOLESCENTS.

### INTRODUCTION

Adolescence is characterized as a period of rapid physical and psychological changes. These changes typically start from the beginning of puberty to legal adulthood (Macmillan Dictionary, 2010). According to World Health

Organization, any teen between 10 and 19 is termed as an adolescent. This range of age falls within the definition of young people by WHO, those between 10 and 24 years. Moving towards becoming a mini adult, these adolescents face a lot of daily stressors. With the advances in medical science, today we have a greater knowledge about depression and its causes, but still it is difficult to predict who becomes depressed because of multiple factors associated with it (Hankin, 2012). Stressful life event is a well-established predictor of depressive symptoms (Kendler et al., 1999), like relationship issue. There is a reciprocal relationship seen between depressive symptoms and stressful life events, each induces the other (Grant et al., 2006)

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Today youngsters are moving towards more autonomy and independence (Scabini et al., 1999) still the family structure and relationship with parents play a major role in their well-being. Various studies prove the fact that close social systems like family plays a significant supportive role that acts as a moderator for stress and its impact (Shahar and Henrich, 2016). Family is nothing more than a system of interacting personalities (Lavee, 2012).

At times of stress, those with good resilience, bounce back on the normal path to improving personal and social life, at the same time concentrating on studies and career enhancement. But for some these negative life incidents cause depressive episodes and if timely help is not given, may progress into severe mental health issues. Werner's work about healthy growth of adolescents despite unfavorable developmental conditions talks about the term "resilience". According to Werner at least during sensitive periods of adolescent development, support is needed by an empathetic and caring adult (Werner, 1990). Earlier researches had found that children who constantly communicate with their parents experience greater wellbeing and closeness to both parents (Amato and Keith, 1991). Parental support is necessary for adolescents at all areas of life. Their sense of emotional safety increases when they feel loved and cared by parents. This also helps them to cope up with life stressors, thus reducing the risk of developing depression (Amato and Gilbreth, 1999).

The stressful life events faced by adolescents without good family support can have an overall impact on their physical and mental well-being, which may progress into both acute and chronic depressive symptoms, may even lead to suicide (Arria et al., 2009). Hence it is important to identify these depressive symptoms at the earliest and treat it to improve the longer-term prognosis related to the risk of developing depression (Reyes-Rodríguez et al., 2013). Out of the many therapies used by psychotherapist/mental health providers at college campus, CBT is one of them. It changes moods and behaviors, removes distorted beliefs and thoughts, teaches balanced and constructive ways to respond to stress and has life-long effects in a shorter time (Beck, 1995).

During adolescence, the conflict between parent-child becomes more prominent (Collins et al., 1997). Adolescents often report that parents are not supportive and hence are of the opinion that parents are less powerful and controlling (Goede et al., 2009). They view parental decisions on their life issues as personal decisions. These are due to adolescents' biological or cognitive maturation. Puberty related hormonal changes lead adolescents to strive not only for autonomy but also individuation from parents (Blos, 1979). CBT may help in changing these cognitions and improving the parent-adolescent relationship. This study evaluates the effectiveness of CBT in improving family dynamics and thus helps adolescents to face negative life events better and come out a winner.

**Statement:** To assess the effectiveness of cognitive behavior therapy in improving family dynamics of adolescents with negative life event induced depressive episodes.

**Aim:** The aim of the study is to assess the effectiveness of cognitive behavior therapy in improving family dynamics of adolescents with negative life event induced depressive episodes.

### Objectives

1. To study the role of family structure in negative life event induced depressive episodes among adolescent undergraduate college students.
2. To study the relationship between parents-adolescent bond and negative life event induced depressive episodes among adolescent undergraduate college students.
3. To evaluate the effectiveness of cognitive behavior therapy in improving family dynamics of adolescents with negative life event induced depressive episodes.

### Hypothesis

1. **H<sub>1</sub>:** There is significant effect of family structure in negative life event induced depressive episodes among adolescent undergraduate college students.
2. **H<sub>2</sub>:** There is significant effect of parents-adolescent bond on negative life event induced depressive episodes among adolescent undergraduate college students.
3. **H<sub>3</sub>:** CBT may improve family dynamics of adolescents with negative life event induced depressive episodes.

## METHODS

**Participants:** This interventional study used one group pretest posttest research design. Selection of participants was done as per the selection criteria. Both male and female, who approached the counseling cell during a 6 month period from January to June 2020, from Maharashtra, India were taken. Age group was 17 to 21 years. Students belonged to either joint family or nuclear family. Students belonged to intact families and were staying with their biological parents. In a total of 102 students who approached the counseling cell with negative life events, students (n=58) who did not have any depressive symptoms and were excluded from this study. Students (n=62, 35F +27M) who had negative life event induced symptoms of depressive episodes were included. But due to COVID-19 crisis and subsequent lockdown only 50 (25M +25F) completed the CBT sessions either directly or by phone and hence were included in this study. Consent was obtained from the selected institutes to use the data. The data sheet and student documents were kept confidential with access only to the supplying authority and investigators.

## MATERIAL

**Section A:** Demographic data sheet included baseline

information such as age, gender, educational status, reason for counseling, nature of stressful life event, type of family (nuclear, joint), level of relationship with parents. They were questioned on certain criteria as to whether they felt comfortable in sharing all their problems with parents or they hid their problems from parents, afraid of parents or considered parents as their friends, parental support and understanding, opposition to parental ideas about support in all areas of their life etc, to find out about the type of relationship they had with parents. Depending on how they evaluated their bond with parents, it was categorized as good, bad, okay (satisfactory).

### Section B: Beck Depression Inventory II.

It consists of items related to symptoms of depression such as hopelessness and irritability, cognitions such as guilt or feelings of being punished and also physical symptoms such as fatigue, weight loss, and lack of interest in sex (Beck, 1972). This also monitors changes over a time period, at the same time provides an objective measure to judge improvement and see the effectiveness or otherwise of treatment methods (Rupak et al., 2020). There are 21 groups of statements. Participants were asked to read each group of statements carefully and pick out the one statement in each group that best describes the way they have been feeling during the past two weeks, including present day. If they feel that several statements in the group apply to their condition, then they were asked to circle the highest number for that group. More than one statement was not to be chosen.

**Scores and Levels of Depression:** The scores of 1 to 10 is considered as normal, 11 to 16 is mild mood disturbance, 17 to 20 is borderline clinical depression, 21 to 30 is moderate depression, 31 to 40 is severe depression, and over 40 is considered as extreme depression.

**Interventional Process:** Depending on the BDI II scores, total of 4 to 10 CBT sessions were taken depending on the severity of depressive symptoms. Students with severe depressive episode needed around 8 to 10 sessions, moderate needed 6 to 7 sessions and those with borderline clinical depressive episodes needed 4 to 5 sessions. CBT principles as given by Aaron T. Beck were followed. Special emphasis was given on improving cognitions related to parents.

Importance was given in forming a trusting relationship with students. Hence warmth, genuine regard was shown and they were asked to speak openly about their problems. Encouragement was given by making empathetic statements and summarizing their thoughts. Those with bad or just satisfactory relationships with parents were asked the reasons for this thought. They were asked to speak citing various incidents as to why they thought that their parents were against them. Statements like 'I agree', 'I understand what you feel' and used to show understanding of their problems.

The current thought process which lead to depressive episodes was identified. Each dysfunctional thought and

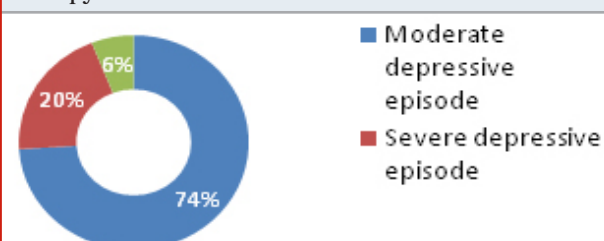
the behavior associated with it were discussed. Some students said they did not share anything with parents as they were afraid their parents would not understand or scold them. Not speaking to parents, not involving them in any decisions related to their career was the way they behaved. An attempt was made to rationalize each thought, moving towards developing equal, symmetrical, and reciprocal interactions with parents. These students were asked to express their anger and irritation toward parents rather than bottling it up, but at other times to show affection and care, value their opinions and find ways to relate to parents. Thus adaptation to situation and reorganizing their thought process was taught to them. Understanding of their own dysfunctional thoughts helped them in slowly building better relations with their parents.

Working as a team, the students were asked to decide when to meet and what to discuss. Initially though the students just followed what was said, later slowing coming out of the shell, they actively participated as their depressive symptoms improved and the bond starting developing between them and parents. Even home assignments were decided by students. During these sessions, more emphasis was given to the present condition, only at times going back to their childhood days to understand when the particular thought and behavior steamed up. The students were guided to be their own therapist. They were taught to set their own goals, identify thoughts and behaviors that were malfunctioning and change them. Even their thinking process related to their parents were viewed in a different angle. After each session, homework was given which was discussed in the next session. A mood evaluation was done before beginning the session and feedback was elicited at the end of the session. The changes in thinking regarding their parents were visible at the end of 4 to five sessions for some students. A booster session after one month of stopping therapy was taken for all students to avoid relapse.

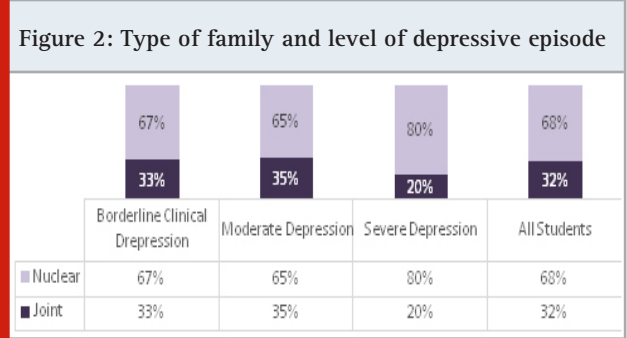
## RESULTS

**Pre-CBT:** Depressive Episodes - BDI II was given to the students to evaluate their depressive symptoms and understand the severity. It was seen that 20% of the students had severe depressive episode, 74% had moderate depressive episode and 6% had borderline depressive episode. (Fig. 1).

Figure 1: Levels of depression Pre-Cognitive Behaviour Therapy

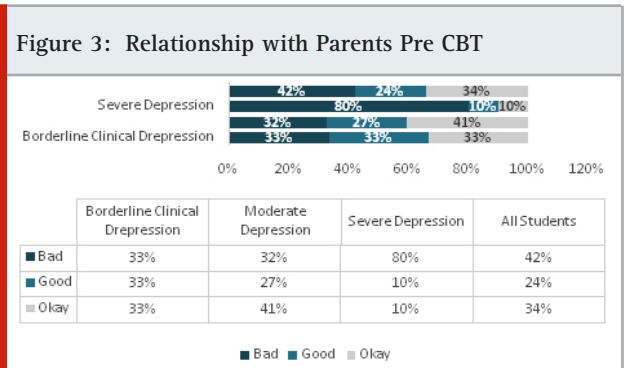


**Type of Family and level of depression:** Overall 68% of students belong to nuclear family whereas 32% belong to joint family. 80% of students with severe depressive episodes belong to nuclear family while 20% belong to joint family. Among students with moderate depressive episode 65% belonged to nuclear family and 35% to joint family whereas students with borderline clinical depression 67% belonged to nuclear family and 33% belonged to joint family. Thus the ratio is high for nuclear family among all type of depressed students (borderline, moderate and severe) and hence for among overall students also it is high. (Fig 2).



Relationship with Parents among undergraduate students Pre Vs Post CBT.

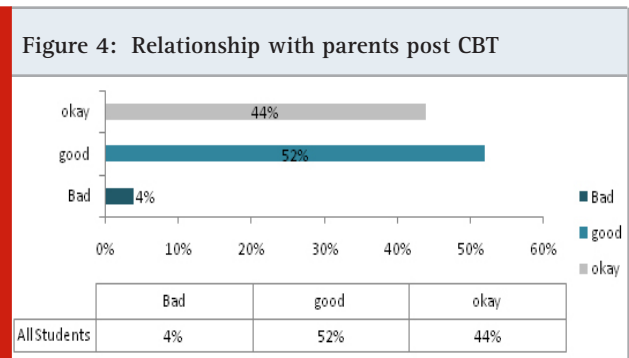
**Interpretation Pre CBT:** 80% of students with severe depressive episode had bad relationship with parents whereas 41% of students with moderate depressive episode had satisfactory relationship with parents. Relationship with parents among borderline students were evenly distributed. Among all the students 42% were having bad relationship with parents whereas 34% have satisfactory and 24% have good relationship with parents. (Fig 3).



**Interpretation Post CBT:** 52% students were having good relationship with parents whereas 44% were having satisfactory relationship. Only 4% of students were still having bad relationship with parents post therapy. (Fig 4).

**Cross tab between Pre CBT relationship and Post CBT relationship with Parents:** 23.8% of students changed their relationship with parents to good from bad, 66.7% of students changed their relationship with parents to

okay (satisfactory) from bad. 58.8% students changed their relationship with parents to good from okay (satisfactory). The remaining 4% students who were having bad relationship with parent post CBT had same relation with parents before CBT. (Table 1).



**Table 1. Relationship with parents Pre vs Post CBT**

Pre CBT Relationship with Parents	Post CBT Relationship with Parents			
	Bad	Good	Okay	
Bad	9.5%	23.8%	66.7%	
Good	0.0%	91.7%	8.3%	
Okay	0.0%	58.8%	41.2%	

**Tests of Between-Subjects Effects:** P-value for relationship with parents is less than 0.05 hence we conclude that there is significant difference between levels of relationships with parents on improvement post counseling. (Table 2).

Since p-value (0.00) < less than from 0.01 means that there is significant difference in Pre CBT scores and post CBT scores. Post scores are all within 10 which is considered as normal. This concludes that CBT is effective in improving the relationship between adolescents and their parents, thus contributing to reduction in symptoms of negative life event induced depressive episodes.

## DISCUSSION

The findings of this study support the hypothesis that there is significant effect of family structure in negative life event induced depressive episodes among undergraduate college students. The ratio of depressive episodes is higher for students belonging to nuclear family than those from joint family. Adolescents belonging to joint family have other family members to share resources and learn to adjust easily in various types of situation. Thus impulse control is learnt amongst a group of people. But adolescents from nuclear family may not have equivalent emotional support (Shafiq and Khan, 2016). A study done by Nanda et al (2005) found that joint family system has a positive impact on emotionality as the study showed greater percentage of girls were and none of the girls were found to be extremely unstable in the joint family (Ransing et al., 2018).

This study also brings out the importance of parents-adolescent bond on negative life event induced depressive episodes among adolescent undergraduates. 80% of students with severe depressive episode had bad relationship with parents. They could not communicate freely as they were afraid of parents. Their parents always scolded them and showed disapproval in their life events. The quality of family relationships is an equally important determinant of the competence as well as confidence with which these young college students face the problems arising during the major transition

from childhood to adulthood which is the phase of adolescence (Noller, 1994). The quality of primary bond is very influential on well-being and problem behavior of children (Garnefski and Diekstra, 1997; Dhobe et al., 2020). Several studies show that the attachment of children to parents has the greatest influence on emotional well-being and emotional problems (Garnefski et al., 1997). Adolescents who internalize positive and motivating messages from their parents acquire a strong foundation from where they feel capable of setting and achieving goals.

Table 2. Test of Between Subjects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig. (p-value)
Intercept	9802.574	1	9802.574	744.248	0.000
Relationship with parents	63.824	2	60.798	4.516	0.025

Table 3. Paired samples Test

Pair	PRE scores - POST scores	Paired Differences					t	P
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
					Lower	Upper		
1		23.060	4.855	0.687	21.680	24.440	33.588	0.000

Hence it can be said that family bond provides the students with love, approval and acceptance from family members through commitment, help and family support. The closeness of the family members is an important aspect in development (Ranjit et al., 2020). This aspect of parent-adolescent bond has been associated with positive psychological adjustment, which is necessary in times of negative life events (Ghogare et al., 2020). Most importantly, this study brings out the effectiveness of CBT in improving parent-adolescent bond. Cognitive behavior therapy was developed by Aaron T. Beck. Identification of distorted, negative cognition which are primarily thoughts and beliefs, seen as a feature of depression were changed through CBT. It is a short-term treatment therapy, whose primary aim was to test the reality of patient's depressed thinking.

This therapy not only helps patients to solve problems but also become behaviorally activated, so that they can identify, evaluate, and respond correctly to their depressed thinking, majorly which are negative thoughts about themselves, their surroundings and related to their future. If cognitions are corrected, the adolescents can themselves face all challenging situations boldly and move on. As adolescents age, they do not want to discuss information regarding their daily life as they consider this private, but their parents feel that this falls under their jurisdiction (Nishikant et al., 2017). A balance need

to be found between adolescents' autonomy and privacy; and parents' control and accessing information. The adolescents need to be taught to share information with parents without threatening their autonomy. Cognitive behavior therapy helps in changing negative cognitions of adolescents about their parents and thus improves their relationship with parents. Family support would help these adolescents in facing their daily stressors or major negative life events.

**Strengths and Limitations:** A new approach to improving the parent-adolescent bond using cognitive behaviour therapy was studied, which showed the effectiveness of CBT in improving the bond. College Counselors/ psychotherapist/ mental health providers working at the college campus should work up on parent-adolescent bond for achieving greater results. Improvement in this area would help the adolescents to handle issues in all areas of their life knowing that family support would always be there. Though in this study a one-sided approach was taken, parents were not called. Nowadays since parents are working and busy in their lives, some may not take it sportingly to be called by college counsellors, hence this one-way approach was tried.

Also this would breach the student's trust on college counsellors also, as some students may not want the involvement of parents. Through improving the students'

cognitions about their parents, a bond was being developed which really helped in their depressive episode. Some students were happy about the new outlook and insight which they got about their parents. CBT may not work for students who are not ready to participate in the counselling process. Also it may not work with those students who do not want to carry their work home or do home assignments. In spite of these limitations, a new approach to improving parent-adolescent bond showed significant results.

## CONCLUSION

This study brings out the importance of adolescent-parent bond in the life of adolescents in transitioning to mini-adult. A strong family support works better in overcoming the negative life events which can be viewed as a challenge by these adolescents. As depressive episodes were more in adolescents from nuclear family, the mental health providers and counsellors should work more towards strengthening this bond through improving cognitions about parents in these young adolescents' minds. Parents and adolescents should adapt effectively and reorganize behavior in response to varying interpersonal and contextual demands related to adolescence (Granic, 2005; Granic et al., 2003).

Parents need to accommodate adolescents' increasing need for autonomy and allow them to make decisions without informing parents (Branje et al., 2012). Some freedom is essential for these mini-adults, so that they can be more responsible for their actions and behaviors. But at the end of the day, they should know that they would receive unconditional support from their parents. Cognitive behaviour therapy can be widely used by mental health providers as they are helpful in changing negative and distorted cognitions, paving way for a more positive outlook. Similar studies can be done involving both parents and students for better outcome. Future studies should include a larger sample, and different cultures. Other variables like peer support, sibling support emotional intelligence etc. can be also be included for a large scale study.

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