development of adolescent social and emotional competencies. Many of the mindfulness-based interventions are used as remedial interventions in treating mental illness or developmental lags and few interventions have been designed for developmental counselling. The MBREBC intervention developed in the lines of developmental counselling and rational emotive education sessions would fill the research gap by testing usefulness of the intervention programme for positive adolescent functioning. The development of social and emotional competencies is all the more important in the context of technological advancement, increased academic pressure, unprincipled competitions, increasing peer and media influence and excessive use of social media.

5. Hypotheses

The present pilot intervention study employed two hypotheses. First, it was hypothesized that the MBREBC intervention would significantly enhance the various dimensions of social competence: school competence, team organizing competence, peer social competence, social cognition, home related social competence, socio-emotional competence, social forethought and compassion and social flexibility. Secondly it was hypothesised that the MBREBC intervention would significantly enhance the various dimensions of emotional competence: adequate depth of feeling, adequate expression and control of emotions and ability to function with emotions, ability to cope with problem emotions, and encouragement of positive emotions.

6. Method

6.1 Participants

The present study reports the outcome of the pilot intervention undertaken for the development and validation of MBREBC to enhance the psycho-social competence of adolescents. Fifty four adolescents in the age range of 16 to 18 attending pre-university college in Bangalore were selected for the present research. Eight participants were dropped out for various reasons and forty six attended the complete intervention programme. The participants were matched on two criteria: socio-economic status and academic performance. All of them were from middle or lower middle economic status and their academic performance in the previous exams was average. Among the participants 20 were males and 26 were females. Informed consent was taken from the students, the principal of the school and the coordinator of the programme.

6.2 Research Design

The research design employed in the present research was one group pre-test post-test quasi experimental design. The measures of social competence and emotional competence were administered before giving the intervention and the same were administered after the intervention as well. The data of pre-test and post test were analysed for differences using t-test for dependant sample wherever the data was normally distributed and Wilcoxon signed rank test was used for the data that were not normally distributed.

6.3 Procedure

After having explained the research study in detail informed consent was taken from the participants and the school authorities. The measures of social competence and emotional competence were given to the participants for self rating. Thirteen group counselling sessions of 60 minutes each of mindfulness based rational emotive behavioural counselling were given to the participants with individual attention to the individuals wherever necessary. The sessions started with serenity prayer and mindfulness exercise of 10 minutes each. All the sessions except the first one started with the review of the cognitive and behavioural home assignments and feedback with the help of two assistants. The objective of each session was stated and the expected learning outcome was explained by the researcher with the focus on unconditional self acceptance, other acceptance and the acceptance of one's conditions. The researcher always expressed unconditional acceptance towards the participants. The sessions usually included identifying and disputing irrational beliefs, rational emotive education, activities and rational emotive imagery. All sessions were concluded with the recap of all the major points dealt with and understanding the cognitive or behavioural assignments for the participants. All sessions had home reading assignments in the frame work of rational emotive education, with three to four questions each to be answered in the journal provided. The sessions were concluded with the serenity prayer recited by all. In the concluding session of the intervention programme the participants identified the rational and effective philosophies they already learnt. A resolution was made to continue to use mindfulness and REBC framework for their future growth and development. The measures of social competence and emotional competence were administered after the completion of the intervention programme.

6.4 Outline of MBREBC Intervention Program

Session One: Introduction to Mindfulness based REBC
Session Two: Mindfulness Training
Session Three: Teaching the basic tenets of REBC
Session Four: Teaching ABC Theory
Session Five: Learning to Dispute (D) and replace irrational Beliefs with Effective Rational Outlook (E)
Session Six: Social Competence Training I
Session Seven: Social Competence Training II
Session Eight: Social Competence Training III
Session Nine: Learning Unconditional Acceptance and Rational Emotive Imagery
Session Ten: Emotional Competence Training I
Session Eleven: Emotional Competence Training II
Session Twelve: Emotional Competence Training III
Session Thirteen: Concluding Session

6.5 Measures

6.5.1 Adolescent Social Competence Scale (ASCS): The social competence of adolescents was measured by the Adolescent Social Competence Scale (ASCS) constructed and standardized by Devassy and Raj (2012) [5]. The scale with 37 items in five-point scale in the line of Likert Scale, measures eight dimensions of adolescent social competence. The reliability of the total scale was derived at by

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Cronbach's alpha. The total split-half reliability score of the scale is .87. The measure of the intrinsic validity of the scale was calculated by taking the square root of Guttman Split-half reliability and was found to be 0.93.

6.5.2 Emotional Competence Scale (ECS): The emotional competence of the adolescents was measured using the Emotional Competence Scale developed by Sharma and Baharadwaj (1995) [28]. It consisted of 30 items on five point scale in Likert model measuring five emotional competencies. The scale has a test-retest reliability of .74 and split-half reliability of .76 and validity of scale was arrived at with factor A and C of 16 PF questionnaire and it was found to be .64 and .69.

7. Results

The normality of the data was checked for the use of appropriate statistics. The data of pre-test and post-test were analysed for differences using t-test for dependant sample wherever the data was normally distributed and Wilcoxon signed rank test was used for the data that were not normally distributed. The results of the statistical analysis are presented here.

7.1 The Effectiveness of MBREBC Intervention on Social Competence of Adolescents

Table 1(a): Post intervention and pre-intervention scores for School Competence, Peer Social Competence, Home related Competence, Socio-Emotional Competence and Social Forethought and Compassion using Wilcoxon singed rank test

Sub Scales	*Rank*	*N*	*Mean Rank*	*Sum of Ranks*	*Z*
School Competence	Negative	17	16.38	278.50	2.169*
	Positive	25	24.98	624.50	
	Ties	4			
Peer Social Competence	Negative	14	17.00	238.00	2.512*
	Positive	27	23.07	623.00	
	Ties	5			
Home Related Social competence	Negative	20	16.43	328.50	1.548
	Positive	22	26.11	574.50	
	Ties	4			
Socio-Emotional Competence	Negative	14	21.46	300.50	1.702
	Positive	27	20.76	560.50	
	Ties	5			
Social Flexibility	Negative	10	17.30	173.00	-2.710**
	Positive	27	19.63	530.00	
	Ties	9			

* $p < .05$, ** $p < .01$

Table 1 shows that the mean of negative ranks on school competence (16.38, Z=2.169, p< .05), peer social competence (17.00, Z=2.512, p< .05) and social forethought and compassion (17.30, Z=2.710, p< .05) are lower than the mean of positive ranks (24.98; 23.07; 19.63) and the mean rank difference is statistically significant. The result suggests that the scores on school competence, peer social competence and social forethought and compassion of the participants after the intervention are higher than before the treatment was applied. The MREBC intervention had a positive impact in enhancing the school competence of adolescents. However significant gain was not observed on home-related social competence and socio-emotional competence dimensions.

Table 1 (b): Post intervention and pre-intervention scores for Team Organizing Competence, Social cognition and Social Flexibility using Paired't' test

Scales	*Pre/Post Test*	*Mean*	*SD*	*SE*	*r*	*t*
Team Organizing Competence	Pre test	19.65	4.831	.712	.470**	4.333**
	Post test	22.61	4.069	.600		
Social Cognition	Pre test	10.91	2.117	.312	.557**	3.489**
	Post test	11.91	2.009	.296		
Social Flexibility	Pre test	14.20	2.455	.362	.216	.959
	Post test	14.65	2.693	.397		

** $p < .01$; N=46

The result of paired 't' test for team organizing competence (t = 4.33, p <0.01) and social cognition (t = 3.489, p <0.01) between post intervention and pre-intervention scores are significant with higher mean scores indicating that the team organizing competence has increased after the intervention program. However significant difference was not observed on social flexibility dimension of social competence (t = .959, p>0.05).

7.2 The Effectiveness of MBREBC Intervention on Emotional Competence of Adolescents

Table 2 (a): Post intervention and pre-intervention scores for Adequate Depth of Feelings, Adequate Expression and Control of Emotions, Ability to Cope with Problem Emotions, and encouragement of Positive Emotions using Paired 't' test

Dimensions		*Mean*	*SD*	*SE*	*r*	*t*
Adequate Depth of Feelings	Pre test	15.17	3.647	.538	.614**	2.635*
	Post test	16.39	3.474	.512		
Adequate Expression and Control of Emotions	Pre test	16.48	3.607	.532	.258	2.229*
	Post test	17.76	2.685	.396		
Ability to Cope with Problem Emotions	Pre test	17.85	3.502	.516	.040	2.618*
	Post test	19.65	3.240	.478		
Encouragement of Positive Emotions	Pre test	21.41	2.680	.395	.200	1.371
	Post test	22.26	3.809	.562		

* $p < .05$

The result of Paired 't' test indicate that there is a significant difference between pre-test and post test on the ability for adequate depth of feelings (t = 2.635, p <0.05), adequate expression and control of emotions (t = 2.229, p <0.05), ability to cope with problem emotions (t = 2.618, p <0.05). It shows that the mean score of adolescents post intervention is higher, indicating that the ability for adequate depth of feeling, adequate expression and control of emotions and ability to cope with problem emotions have increased after the MBREBC intervention programme. Though there was a gain in the mean score, a significant difference was not observed on encouragement of positive emotions after the intervention.

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Table 2 (b): Post intervention and pre-intervention scores for Ability to Function with Emotions using Wilcoxon singed rank test

Ability to Function with Emotions	*Rank*	*N*	*Mean Rank*	*Sum of Ranks*	*Z*
Post-test – Pre-test	Negative	14	17.18	240.50	1.892
	Positive	24	20.85	500.50	
	Ties	8			
	Total	46			

The table shows the result of Wilcoxon singed rank test for the dimension ability to function with emotions between Post intervention and pre-intervention scores. The mean of negative ranks (17.48) is lower than the mean of positive rank (20.85). However the difference in mean of positive and negative ranks is not statistically significant (Z=1.892, p>0.05) indicating that MBREBC did not have a positive impact on ability to function with emotions among adolescents.

8. Discussion and Conclusions

The quasi-experimental research was aimed at finding the impact of MBREBC on the social and emotional competence of adolescents. Two hypotheses were formulated and tested for their statistical significance. The results show that the MBREBC intervention has impacted the adolescents school competence, team organizing competence, peer social competence, social cognition, social forethought and compassion significantly. Previous research has established that positive interventions can enhance well-being and that the participants in the positive interventions with mindfulness would benefit more (Seear & Vella-brodrick, 2013) [29]. The results of the present research is also in concurrence with some of the previous studies which found that mindfulness can enhance social interest (Hilewsky, 2009) and social relations (Kanagy-Borofka, 2013) [30], [31]. Mindfulness-based interventions have been used in clinical settings to treat behavioural dysfunctions (Williams, Russell & Russell, 2008) [21]. Recent researches have established that mindfulness can positively increase the self awareness, well-being (Brown & Ryan, 2003; Keune & Forintos, 2010) [13], [32], self-care behaviours (Harris, 2010) [33], subjective well-being and ecologically responsible behaviour (Kirk & Kasser, 2005) [34]. However significant impact was not observed on home related social competence, socio-emotional competence and social flexibility dimensions of social competence after the MBREBC, though the means scores and mean ranks were higher after the intervention.

The second hypothesis formulated for the present study was to find the impact of MBREBC on the emotional competence of the adolescents. The result shows that there is statistically significant difference on the dimensions of adequate depth of feeling, adequate expression and control of emotions, and the ability to cope with positive emotions of emotional competence before and after the interventions. According to Corstophine (2006) cognitive emotional behavioural interventions have been useful in understanding the experience and expression of emotions and responding to them adaptively and rationally [35]. Mindfulness also enables one to understand ones thoughts, emotions, emotional expression and respond to them in an accepting manner instead of reacting to them. Mindfulness has been positively correlated with achievement emotion and achievement oriented self regulation (Howell, & Buro, 2011) [36]. Seeking to extended mindfulness from psychology into management, Hede (2010) advocated mindfulness practice for managers to increase their capacity to handle emotional reactivity and to reduce stress [37]. Banks & Zionts (2006) presented a mental health program which can be incorporated into class room curriculum to deal with emotional and behavioural problems with remedial and preventive objectives [38]. Rational emotional behavioural interventions have been effective in dealing with behavioural dysfunctions in children and adolescents (Gonzalez, et al., 2004) [39]. The present intervention programme could not impact the two dimensions of emotional competence: ability to function with emotions and encouragement of positive emotions significantly, though the mean of positive ranks are higher on ability to function with emotions and the mean score on encouragement of positive emotions is higher post the intervention.

9. Limitations of the Study

The intervention study was limited to a small sample and hence it may not be concluded that mindfulness based-rational emotive behavioural counselling can positively impact the adolescent psychosocial competence, though the intervention in the present study had positive impact. The results may not be also generalised to other populations. The duration of the session i.e. 60 minutes of intervention may not have been sufficient enough for the participants to be in a state of mindfulness, be aware of their own irrational thinking and then dispute the irrational beliefs to achieve rational philosophies. Some of the dimensions of social and emotional competencies were not impacted by the intervention and hence there is a need to relook into some of the modules of MBREBC intervention. It was difficult to motivate and monitor the practice of mindfulness outside the regular sessions other than that was reflected in the daily journals.

10. Implications and Recommendations for Further Studies

The study has implications for both practice and further research. The practice of MBREBC which integrates the principles of mindfulness and precepts of REBT seem to help arrive at emotive rational insight faster as both try to be present to the experience, feelings and cognitions of the present moment. The intervention can be incorporated in adolescent education and training to enhance adaptive functioning and development of various competencies among them. Further research could be done to find the impact of MBREBT on other adolescent competencies and skills. It would be desirable to make a comparative research to find the difference in the impact of mindfulness based REBC and REBC alone. The same research can be extended to other periods of the life-span and on a larger population for better generalization of the results.

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