EVALUATING THE EFFECTS OF SCHOOL-BASED MINDFULNESS TRAINING ON EARLY ADOLESCENTS’ EMOTIONAL COMPETENCE AND ADJUSTMENT

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ABSTRACT Present research paper reports the findings of a non-equivalent control group quasi-experimental study which evaluated the effects of school-based mindfulness training program on eighth grade students (n=54; experimental =28, control=26). The program was delivered in the school during the school hours. Participants from experimental and control group were assessed on self-report measures of emotional competence (EC-scale), adjustment inventory (AISS) before, after the training and at follow up (after three months). Results were analysed by mixed ANOVA across the variables. Results indicated significant improvement in the emotional competence and adjustment (Emotional, educational and overall) of experimental group as compared to control group at post and follow up assessment. No significant group difference was noted in the social adjustment. Limitations and further scope of the study is discussed.

Keywords: Mindfulness, emotional competence, adjustment, early adolescent, school-based training program.

Introduction

Early adolescence is the phase characterized by many changes occurring at physiological, neurobiological and psychological levels. These changes, compounded by the stressors of life in our high pressured, competitive social environment (Bluth & Blanton, 2014) may further lead to various psychological problems. At adolescence, the conflict among the demands of several groups is likely to be particularly acute, as increasingly autonomous children struggle to gain freedom from parents, to meet teachers’ demands for academic performance, to make and maintain friendships, and to find a place for themselves in society (Scott & Scott, 2005). This also has been reflected in the mental health studies being carried out on adolescent school children. For example, study conducted by Reddy (2011) on Indian adolescent population showed that mental health problems are common among the general adolescent population in India while emphasizing the role of early detection and effective intervention in better wholesome development of children (Reddy, 2011). Fisher (2006) suggested that anxiety, depression, and low self-esteem can negatively influence students’ school performance by disrupting their thinking and hindering their learning.

Adjustment has been found to be an important factor for better academic achievement and for effective functioning as well. Study conducted on adolescent population showed that there is significant association between adjustment and decision-making abilities (Murthy, 2013).

Mindfulness based training programs have proven to be effective in dealing with the stress and in improving health, quality of life in adult population (For example, vibe, et.al. 2017. In case of children and adolescent population, mindfulness interventions are being widely used in reducing various physical and psychological symptoms (Klingbeil et.al., 2017). Mindfulness based interventions are increasingly being incorporated in the school classrooms in order to support students’ mental health and to promote well-being of the students (Carsley, Khoury & Heath, 2017).

Mindfulness mainly refers to qualities of attention and awareness that can be cultivated and developed through meditation. Jon Kabat-Zinn (2003) defined the mindfulness as ‘the awareness that emerges through paying attention on purpose, in the present moment and non-judgementally to the unfolding experience moment by moment’ (pp. 145). Thus, as summarized by Weare (2014), ‘Learning mindfulness involves learning to pay attention and see things clearly as they are, to relate directly to experience, to step out of our habitual ways of repetitive, ruminative, and biased thinking and automatic habits, and relating the world without letting judgements and prejudices lock our view’ (pp. 1045) along with the development of attitudinal qualities of open-mindedness, curiosity, kindness, empathy, compassion and acceptance (Segal, Williams & Teasdale, 2013). It has been suggested that learning the
mindfulness skills and cultivating accompanying attitudes equip students with powerful students to transform their own minds to become more wiser, calmer, and more compassionate human beings (Weare, 2014).

Miners R (2007) conducted a study in order to assess the relationship between mindfulness and psychological well-being, social relationships and stress amongst adolescents. The major findings of the study highlighted the positive relationship between mindfulness and positive emotions, friendship expressivity and adjustment. Mindfulness was found to be negatively correlated with perceived stress, negative emotions, anxiety and depression.

Thus, developing the coping resources of adolescents is very important so as to enable them to deal with the educational and psychological problems faced during this stage. In an exploratory Study conducted by Kamath (2015) in order to study the role played by mindfulness-based program in building resilience and educational adjustment of adolescents, mindfulness-based program was found to be effective in improving academic adjustment suggesting important role mindfulness-based training can play in fostering adjustment.

The paradigm within mental-health promotion for children and young people and including work with schools, has shifted powerfully in recent years towards a focus on positive psychology, optimum mental states, and the promotion of flourishing and well-being (Huppert, 2009) However, though mindfulness-based approaches have shown to have powerful set of interventions to offer in the child and adolescent area, the research is very limited, especially in the Indian context (Kanojia, 2010). Therefore, present study aimed at developing the universal school-based mindfulness training program which can be delivered in the school setting. It also aimed at assessing its effectiveness in enhancing the emotional competence and adjustment at various levels as together they reflect the overall well-being of an individual.

Method
Research Design
This study utilized quasi experimental with waitlist control design with pre, post and follow up assessments.

Participants:
The study was conducted fifty-six school students of standard 8th from a secondary school of Aurangabad city, Maharashtra. The method of sampling that was used was convenient sampling.

Descriptions of tools:
1. Socio-Demographic and Data Sheet (SDCS) (developed for the study): This data sheet was used to obtain information about age, gender, education etc.
2. Emotional Competence Scale - EC-Scale (Sharma & Bhardwaj, 1998): The EC scale has 30 items to measure five emotional competencies where each competency measured by six items selected for the purpose. The reliability of total emotional competence was 0.76 which was determined by split half method.
3. Adjustment Inventory for School Students - AISS (Sinha & Singh, 1993) This 60-item inventory has been designed and developed to determine the students’ social, affective and educational adjustment (Narimani et al, 2011). This Inventory comprises three subscales of affective, social and educational adjustment and each subscale consists of 20 items. High score indicates maladjustment and low score indicates the individual’s good adjustment. The developers of this inventory have determined its reliability coefficient through bisection, test-retest and Kuder-Richardson which are equal to 0.95, 0.93 and 0.94, respectively.

Procedure
The study was conducted at a CBSE affiliated school from Aurangabad which agreed to provide one session per week at the same day and the same time. After the consent was derived from the school principal, participating students’ parents were provided with the written information. Parents’ consents and participants’ assents were derived. Classes were then randomly assigned to the experimental or waitlist control conditions. Participants from experimental as well as control group were measured on Emotional Competence Scale, and the Adjustment Inventory for School Children in order to get the baseline measures. Participants comprising the experimental group undertook the mindfulness-based training program during their library periods. All the sessions were conducted in their respective class in order to save the time for movement from one class to another. It took the time period of 12 weeks to complete the overall training program including the pre-test and post-test assessments.
Mindfulness based intervention:

Ten sessions mindfulness-based program was developed for this study. This program was developed after a literature review in the area of mindfulness-based interventions for the children and is in congruence with the with mindfulness-based principles identified by Thich Nath Hanh (2012) and Kabat-Zinn (1994). Course content is structured in order to provide a format for students to cultivate skills of mindfulness and thereby develop their personal meditation practices as well as use the mindfulness skills in their everyday lives. Training and practice in different forms of mindfulness meditation such as mindful sitting, mindful eating, mindful walking, mindful listening and body scan meditation and homework assignments were used as primary ways of teaching mindfulness to the children. Along with the development of awareness aspect, development of positive mental states such as kindness, compassion has been highlighted by many research studies. Thus, development of these mental states has also been the focus of last three sessions in the training.

The session themes were as follows: 1) Introduction to mindful listening, 2) Mindfulness of breath, 3) Mindfulness of bodily sensations, 4) mindfulness of bodily movements, 5) Mindfulness of thoughts, 6) Mindfulness of emotions, 7) Developing stability and peace, 8) Watering the helpful seeds: Interbeing and gratitude, 9) Loving-kindness, and 10) Final reflections and disclosure.

Statistical analysis

Data was analysed with the statistical package for the social sciences 21 (IBM SPSS 21). Series of Two-factor mixed ANOVAs was conducted in order to assess the difference between the control group and experimental group on the dependent variables across the time periods. Group (experimental, wait list control) served as between subjects’ factor and time (Pre, post and follow up) served as within subjects’ factor.

Results

<table>
<thead>
<tr>
<th>Time</th>
<th>Outcome variables</th>
<th>Experimental (N = 28)</th>
<th>Control (N = 26)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>Emotional Competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>EC</td>
<td>51.14</td>
<td>6.41</td>
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<tr>
<td></td>
<td>Emotional Adjustment</td>
<td>9.28</td>
<td>2.15</td>
</tr>
<tr>
<td></td>
<td>Social Adjustment</td>
<td>6.07</td>
<td>2.47</td>
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<tr>
<td></td>
<td>Educational Adjustment</td>
<td>6.89</td>
<td>3.13</td>
</tr>
<tr>
<td></td>
<td>Overall Adjustment</td>
<td>22.14</td>
<td>6.04</td>
</tr>
<tr>
<td>Post-Test</td>
<td>EC</td>
<td>56.64</td>
<td>4.99</td>
</tr>
<tr>
<td></td>
<td>Emotional Adjustment</td>
<td>5.81</td>
<td>1.51</td>
</tr>
<tr>
<td></td>
<td>Social Adjustment</td>
<td>5.0</td>
<td>1.61</td>
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<tr>
<td></td>
<td>Educational Adjustment</td>
<td>4.71</td>
<td>1.71</td>
</tr>
<tr>
<td></td>
<td>Overall Adjustment</td>
<td>15.60</td>
<td>3.99</td>
</tr>
<tr>
<td>Follow up</td>
<td>EC</td>
<td>55.89</td>
<td>5.25</td>
</tr>
<tr>
<td></td>
<td>Emotional Adjustment</td>
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<tr>
<td></td>
<td>Social Adjustment</td>
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<td></td>
<td>Educational Adjustment</td>
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<td>1.71</td>
</tr>
<tr>
<td></td>
<td>Overall Adjustment</td>
<td>14.92</td>
<td>3.39</td>
</tr>
</tbody>
</table>

Two-factors Mixed ANOVA Results:

*Emotional Competence*

Result showed a significant main effect for group, $F(1, 52) = 7.80$, $p<.05$. The results of simple effects tests indicated significant increase in the Emotional competence of experimental group as compared to control group at post-test, $t(52) = 4.64$, $p<.05$ and at follow up $t(52) = 4.04$, $p<.05$.

*Overall adjustment*

Result showed a significant main effect for group, $F(1, 52) = 5.19$, $p<.05$. The results of simple effects tests indicated significant improvement in overall adjustment of experimental group as compared to control group at post-test, $t(52) = -3.88$, $p<.05$ and at follow up $t(52) = -4.38$, $p<.05$.  

2682   IJRAR - International Journal of Research and Analytical Reviews   Research Paper
Emotional Adjustment

Result showed significant main effect for group, $F(1, 52) = 15.87, p<.001$. The results of simple effects tests indicated significant improvement in emotional adjustment in case of experimental group as compared to control group at post-test, $t(52) = -2.59, p<.05$ and at follow up $t(52) = -2.93, p<.05$.

Social Adjustment

Result did not show a significant main effect for group, $F(1, 52) = 3.84, p>.05$.

Educational Adjustment

Result showed a significant main effect for group, $F(1, 52) = 8.73, p<.001$. The results of simple effects tests indicated significant increase in the educational adjustment of experimental group as compared to control group at post-test, $t(52) = -3.96, p<.05$ and at follow up $t(52) = -4.45, p<.05$.

Discussion

Present study assessed the effects of school-based mindfulness training program on eight grade students’ emotional competence and adjustment, namely emotional, social, educational and overall adjustment. The basic mindfulness practices involved in the training program learning to become aware, acting with awareness, integrating mindfulness in daily life and cultivating positive mental states. It also served to elicit a better understanding of influences of mindfulness-based training within the context of school setting.

Results indicated that there was significant improvement in the emotional competence of experimental group at post-test and follow-up in comparison to control group, which refers to set of skills that can be developed, nurtured and applied to many types of emotion – related situations (Lau and Wu, 2012). These skills are necessary for navigating demands of the immediate social context and has been conceptualized as construct for positive youth development. Finding is consistent with the earlier research done in the area (e.g. Schonert- Reich and Kimberly 2010; Kang, Gruber, and Gray, 2013; and Maloney, et.al. 2016). Kaunhoven and Dorjee (2017) have provided the integrative neurocognitive framework while explaining the role of mindfulness in improving self-regulation and emotional competence. It suggests that mindfulness training modulates volitional self-regulatory processes such as orienting attention and executive attention as well as bottom-up self-regulatory processes, including mind wandering. Results also indicate that there was improvement in emotional adjustment of participants from experimental group. Process model of mindful positive emotion regulation developed by Garland et.al. (2015) proposes that mindfulness introduces flexibility in the generation of cognitive appraisals by enhancing interoceptive attention. This, in turn expands the scope of cognition to facilitate reappraisal of adversity and savouring of positive experience. This process deepens the capacity for meaning-making and leads to greater engagement with life. This may explain the role of mindfulness training in enhanced emotional adjustment and well-being as well.

Present study also aimed at assessing effects of mindfulness-based training program on early adolescents’ adjustment levels. No significant difference was noted in case of social adjustment of the groups. However, there was increase in the level of social adjustment of experimental group at post assessment than pre-assessment. Significant improvement was noted in participants of experimental group as compared to control group in the educational and overall adjustment. This also provide the preliminary support for the argument that mindfulness-based training helps in the positive development of early adolescent school children by improving their emotional competence and by fostering better adjustment.

Conclusion

This study provides the initial level of evidence regarding the feasibility of conducting the mindfulness-based study in school setting and also provides some optimistic findings regarding the role of mindfulness training in improving the emotional competence of early adolescents and eventually fostering adjustment by improving emotional, educational and overall adjustment. However, these findings are based on very small sample size and thus the generalizability of the study is limited. Future studies may involve larger sample size and population with diverse developmental stages. Also, in the present study variables were measured on the self-report measures, studies involving observation measures from parents and teachers as well as with qualitative data will shed more light on the processes involved in the change.

References:


