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Effectiveness of Social and Emotional Learning in Improving the Subjective Well-Being of Higher Secondary School Students

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Abstract

The present study examined the effectiveness of Social and Emotional Learning in improving the subjective well-being of higher secondary school students. The study adopted a single-group pre-test–post-test design. The sample consisted of 45 higher secondary school students from Thiruvananthapuram district in Kerala, selected through multistage cluster sampling. The tool used for data collection was a Subjective Well-Being Scale consisting of 24 items under three components, namely life satisfaction, positive affect, and negative affect. After the administration of the pre-test, the students were exposed to a short-term, structured Social and Emotional Learning intervention conducted through classroom-based activities such as guided discussion, role play, group sharing, reflective exercises, emotional identification tasks, empathy-building activities, and problem-solving situations. On completion of the intervention, the post-test was administered using the same scale. The collected data were analysed using EDUSTAT. Mean, Standard Deviation, paired-samples t test, and Subin's E effect size were used for analysis. The findings revealed significant improvement in total subjective well-being and in all its components. The effect size analysis also indicated strong to very strong improvement. The study concluded that Social and Emotional Learning was effective in improving the subjective well-being of higher secondary school students.

Key Words

Social and Emotional Learning, Subjective Well-Being, Higher Secondary School Students

Introduction

Education at the higher secondary stage is expected to contribute not only to intellectual development but also to the healthy emotional and social development of learners. Adolescence is a unique and formative period marked by rapid physical, emotional, and social change, and these transitions can increase vulnerability to psychological difficulty if adequate support is not available. The World Health Organization has noted that one in seven adolescents aged 10 to 19 years experiences a mental disorder globally, highlighting the need

for strong preventive and promotive efforts during this stage of life (World Health Organization, 2025).

Subjective well-being has emerged as an important construct in understanding how individuals evaluate and experience their lives. It is generally viewed as comprising a cognitive component, namely life satisfaction, and two affective components, namely positive affect and negative affect (Diener, 1984). In educational settings, subjective well-being is especially important because it reflects the extent to which students experience their lives in a positive, satisfying, and emotionally balanced manner. A student with higher subjective well-being is more likely to approach learning with hope, energy, and emotional stability, whereas lower subjective well-being may be associated with dissatisfaction, distress, and difficulty in adjustment.

Within the school context, one of the most promising approaches for promoting student well-being is Social and Emotional Learning. The Collaborative for Academic, Social, and Emotional Learning (CASEL) describes SEL as an educational process through which learners acquire and apply the knowledge, skills, and attitudes needed to understand and manage emotions, establish positive relationships, and make responsible decisions (Collaborative for Academic, Social, and Emotional Learning [CASEL], n.d.). Since subjective well-being is closely linked with how students understand themselves, regulate emotions, relate to others, and respond to everyday challenges, SEL provides a meaningful intervention framework for improving student well-being in classroom settings.

Background of the Study

The growing attention given to the emotional and psychological condition of adolescents has increased the educational importance of well-being-oriented interventions. In the Indian context, concerns regarding student well-being have become increasingly visible. UNICEF India has reported that notable proportions of young people and students experience anxiety, extreme emotions, and mood swings, thereby indicating the need for stronger school-based support systems for adolescent well-being (UNICEF India, n.d.). Such observations suggest that the school cannot remain confined to academic instruction alone, but must also support the healthy emotional development of learners.

The relevance of Social and Emotional Learning as an intervention strategy has been supported by a substantial body of research. A contemporary meta-analysis by Cipriano et al. (2023), covering 424 studies from 53 countries and involving 575,361 students, reported that universal school-based SEL interventions were associated with significant improvements in student skills, attitudes, behaviours, and school climate. This evidence suggests that SEL is not merely a theoretical ideal but a practical school-based strategy with measurable educational and developmental benefits. Since higher secondary school students are at a stage where identity formation, peer relationships, emotional fluctuation, and future-related concerns become especially prominent, an SEL-based intervention may reasonably be expected to support their well-being in a meaningful manner.

The present study was conceived against this background. It proceeded from the view that subjective well-being among higher secondary school students can be improved through planned educational experiences rather than being left to chance alone. Social and Emotional Learning was selected as the intervention strategy because its core competencies are closely aligned with the dimensions of healthy adolescent functioning. By helping students become more self-aware, emotionally regulated, socially sensitive, interpersonally competent, and responsible in decision-making, SEL may improve life satisfaction, strengthen positive affect, and reduce negative affect. Therefore, the study sought to examine the effectiveness of a

structured SEL intervention in improving the subjective well-being of higher secondary school students in the school setting.

Research Questions

1. Is Social and Emotional Learning effective in improving the subjective well-being of higher secondary school students?
2. Is Social and Emotional Learning effective in improving life satisfaction, positive affect, and negative affect among higher secondary school students?

Research Objectives

1. To find out the effectiveness of Social and Emotional Learning in improving the subjective well-being of higher secondary school students.
2. To find out the effectiveness of Social and Emotional Learning in improving life satisfaction, positive affect, and negative affect among higher secondary school students.

Hypotheses

Research hypotheses

1. Social and Emotional Learning is effective in improving the subjective well-being of higher secondary school students.
2. Social and Emotional Learning is effective in improving life satisfaction, positive affect, and negative affect among higher secondary school students.

Hypotheses in null form for statistical testing purpose

H₀₁: There is no significant difference between the mean pre-test and post-test scores of subjective well-being among higher secondary school students.

H₀₂: There is no significant difference between the mean pre-test and post-test scores of life satisfaction, positive affect, and negative affect among higher secondary school students.

Methodology

The present study adopted a single-group pre-test–post-test design in order to examine the effectiveness of Social and Emotional Learning in improving the subjective well-being of higher secondary school students. In this design, the same group of students was assessed before the administration of the intervention and again after the completion of the intervention. The design was considered suitable for the study as it enabled the assessment of change in subjective well-being and its components following the implementation of the Social and Emotional Learning programme.

The study was conducted among higher secondary school students in Thiruvananthapuram district of Kerala. The sample of the study consisted of 45 higher secondary school students selected through multistage cluster sampling. At the initial stage, the required area in Thiruvananthapuram district was identified. At the next stage, a higher secondary school was selected from the identified area. Thereafter, one intact cluster of higher secondary school students was selected, and all the students in the selected cluster were included in the sample for the study.

The tool used for data collection was the Subjective Well-Being Scale prepared for the study. The scale consisted of 24 items distributed under three components, namely life satisfaction, positive affect, and negative affect, with 8 items under each component. The items were

arranged in a five-point Likert-type format. For scoring the scale, the positively worded items were scored directly, whereas the negatively worded items were reverse-scored. Accordingly, all the items under the negative affect component and Item 8 under the life satisfaction component were reverse-coded. Hence, higher scores on each component as well as on the total scale indicated a higher level of subjective well-being.

The intervention employed in the study was Social and Emotional Learning. The Social and Emotional Learning intervention was implemented as a short-term, structured classroom programme for the 45 higher secondary school students selected for the study. Following the administration of the pre-test, the students underwent a series of planned SEL sessions in the classroom setting. Each session was designed to develop one or more of the core competencies of Social and Emotional Learning, namely self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. The intervention sessions consisted of guided discussions, role play, group sharing, reflective exercises, emotional identification tasks, stress-management techniques, empathy-building activities, and problem-solving situations connected with the day-to-day experiences of adolescents. The investigator functioned as the facilitator and provided opportunities for active participation, self-expression, cooperation, and reflection throughout the intervention period. On completion of the intervention, the post-test was administered using the same Subjective Well-Being Scale to determine the effectiveness of the intervention in improving subjective well-being and its components, namely life satisfaction, positive affect, and negative affect, among the higher secondary school students.

The procedure of the study was carried out in three phases. In the first phase, the pre-test was administered to the selected students in order to assess their initial level of subjective well-being. In the second phase, the Social and Emotional Learning intervention was administered through a series of structured classroom sessions. In the third phase, after the completion of the intervention, the post-test was administered to the same group using the same Subjective Well-Being Scale. The pre-test and post-test scores thus obtained formed the basis for the analysis of the effectiveness of the intervention.

The data collected through the administration of the Subjective Well-Being Scale were analysed using EDUSTAT. For the analysis of the data, Mean and Standard Deviation were computed to describe the pre-test and post-test scores. The significance of the difference between the pre-test and post-test mean scores was tested by using the paired-samples t test. In addition to testing the statistical significance of the difference, the magnitude of the intervention effect was estimated by using Subin's E effect size (Subin, 2024). Subin's E was computed for total subjective well-being as well as for its components in order to determine the strength of the effect of the Social and Emotional Learning intervention among higher secondary school students.

Data Analysis and Interpretation

The data collected from 45 higher secondary school students were analysed using Mean, Standard Deviation, paired-samples t test, and Subin's E effect size in order to examine the effectiveness of Social and Emotional Learning on subjective well-being and its components.

Analysis of the effectiveness of Social and Emotional Learning on subjective well-being

H₀₁: There is no significant difference between the mean pre-test and post-test scores of subjective well-being among higher secondary school students.

Table 1

Pre-test and post-test scores of subjective well-being among higher secondary school students

Variable	N	Mean	SD	Mean Difference	t (df = 44)	p value
Pre-test Subjective Well-Being	45	62.98	6.49			
Post-test Subjective Well-Being	45	86.44	6.01	23.47	70.53	< 0.001

The mean post-test score of subjective well-being (86.44) is higher than the mean pre-test score (62.98). The obtained t value of 70.53 is significant at the 0.01 level. Hence, the null hypothesis is rejected. This shows that Social and Emotional Learning was effective in improving the subjective well-being of higher secondary school students.

Analysis of the effectiveness of Social and Emotional Learning on the components of subjective well-being

H₀₂: There is no significant difference between the mean pre-test and post-test scores of life satisfaction, positive affect, and negative affect among higher secondary school students.

Table 2

Pre-test and post-test scores of the components of subjective well-being among higher secondary school students

Component	N	Pre-test Mean	Pre-test SD	Post-test Mean	Post-test SD	Mean Difference	t (df = 44)	p value
Life Satisfaction	45	21.53	2.18	27.96	1.69	6.42	45.77	< 0.001
Positive Affect	45	20.02	2.11	28.53	1.96	8.51	72.56	< 0.001
Negative Affect	45	21.42	2.26	29.96	2.40	8.53	64.00	< 0.001

The mean post-test scores of all the components of subjective well-being are higher than their corresponding mean pre-test scores. The obtained t values for life satisfaction, positive affect, and negative affect are 45.77, 72.56, and 64.00 respectively, and all the values are significant at the 0.01 level. Hence, the null hypothesis is rejected in all the three cases. Since the items under the negative affect component were reverse-scored, the increase in the post-test mean score of negative affect indicates a reduction in negative affect and thereby an improvement in subjective well-being. This shows that Social and Emotional Learning was effective in improving life satisfaction, positive affect, and negative affect among higher secondary school students.

Subin's E Effect Size

In addition to examining the statistical significance of the difference between the pre-test and post-test scores, the magnitude of the intervention effect was also estimated in the present study by using Subin's E. Subin's E is a heterogeneity-adjusted bounded gain effect size

specifically developed for repeated-assessments research. It is particularly appropriate for paired pre-test–post-test designs, as it takes into account not only the mean gain between two assessments but also the reference spread of the scores, the small-sample correction, and the heterogeneity in individual gain scores. The value of Subin’s E ranges from -1 to +1, thereby providing a bounded estimate of effect magnitude. For practical interpretation, the absolute values of Subin’s E may be classified as follows: 0.00 to 0.49 indicating limited effect, 0.50 to 0.64 indicating modest effect, 0.65 to 0.79 indicating substantial effect, 0.80 to 0.89 indicating strong effect, and 0.90 to 1.00 indicating very strong effect (Subin, 2024). Therefore, in the present study, Subin’s E was calculated in order to determine the magnitude of the effect of the Social and Emotional Learning intervention on subjective well-being and its components among higher secondary school students.

Table 3
Interpretation of Subin’s E effect size

Absolute value of Subin’s E	Interpretation
0.00 to 0.49	Limited effect
0.50 to 0.64	Modest effect
0.65 to 0.79	Substantial effect
0.80 to 0.89	Strong effect
0.90 to 1.00	Very strong effect

Table 3 shows the interpretation guide for Subin’s E effect size. Based on this guide, the obtained effect size values may be interpreted as limited, modest, substantial, strong, or very strong depending on the magnitude of the intervention effect.

Table 4
Subin’s E effect size of Social and Emotional Learning on subjective well-being among higher secondary school students

Variable	Subin’s E	Magnitude of Effect
Subjective Well-Being	0.899	Strong

Table 4 shows that the obtained Subin’s E value for total subjective well-being is 0.899. This indicates a strong effect of Social and Emotional Learning on the subjective well-being of higher secondary school students. Thus, the intervention produced a high magnitude of improvement in total subjective well-being.

Table 5
Subin’s E effect size of Social and Emotional Learning on the components of subjective well-being among higher secondary school students

Component	Subin’s E	Magnitude of Effect
Life Satisfaction	0.873	Strong
Positive Affect	0.907	Very strong

Negative Affect	0.894	Strong
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Table 5 shows the effect size of Social and Emotional Learning on the components of subjective well-being. The obtained Subin's E value for life satisfaction is 0.873, which indicates a strong effect. The obtained Subin's E value for positive affect is 0.907, which indicates a very strong effect. The obtained Subin's E value for negative affect is 0.894, which indicates a strong effect. Thus, the intervention produced a high magnitude of improvement in all the components of subjective well-being, with the highest effect observed in positive affect.

Table 6

Summary of hypothesis testing related to subjective well-being

Hypothesis	Variable	t value	p value	Decision on null hypothesis	Conclusion
H ₀₁	Subjective Well-Being	70.53	< 0.001	Rejected	Social and Emotional Learning was effective in improving subjective well-being
H ₀₂	Life Satisfaction	45.77	< 0.001	Rejected	Social and Emotional Learning was effective in improving life satisfaction
H ₀₂	Positive Affect	72.56	< 0.001	Rejected	Social and Emotional Learning was effective in improving positive affect
H ₀₂	Negative Affect	64.00	< 0.001	Rejected	Social and Emotional Learning was effective in improving negative affect

Table 6 shows that all the obtained t values are significant. Therefore, both the null hypotheses are rejected. The results clearly indicate that Social and Emotional Learning was effective in improving overall subjective well-being as well as its components among higher secondary school students.

Discussion of the Results

The results of the study revealed that the Social and Emotional Learning intervention brought about a marked improvement in the subjective well-being of higher secondary school students. The comparison of the pre-test and post-test scores showed a substantial increase in the mean score of subjective well-being after the intervention. The obtained t value was found to be statistically significant, indicating that the difference between the pre-test and post-test scores was not due to chance. This finding showed that the intervention was effective in improving the overall subjective well-being of the students. The effect size calculated through Subin's E was also found to be strong, which further confirmed that the magnitude of improvement produced by the intervention was high.

The improvement in total subjective well-being may be understood in the light of the nature of the Social and Emotional Learning intervention. The intervention was not limited to the mere transmission of information, but was designed as an active classroom programme that engaged students in reflection, emotional understanding, cooperation, self-expression, and interpersonal interaction. Such experiences are closely related to the development of positive emotional states, healthier attitudes towards self and others, and a more balanced response to day-to-day situations. Since subjective well-being is influenced by how students think, feel, and relate to their environment, an intervention focusing on these dimensions could reasonably be expected to bring about improvement in overall well-being.

The results relating to life satisfaction also showed significant improvement after the intervention. The post-test mean of life satisfaction was clearly higher than the pre-test mean, and the obtained t value indicated that the gain was statistically significant. The Subin's E value showed a strong effect. This suggests that the Social and Emotional Learning sessions helped students to view their daily life, relationships, and personal experiences in a more positive and satisfying manner. Activities that encouraged self-awareness, reflection, and constructive thinking may have contributed to a more favourable evaluation of life among the students.

A significant improvement was also found in positive affect. The post-test mean score of positive affect was considerably higher than the pre-test mean, and the obtained t value showed that the difference was statistically significant. The effect size for positive affect was found to be very strong, which indicated that the intervention had its greatest impact on this component. This finding may be attributed to the interactive and participatory nature of the SEL sessions. Activities such as guided discussion, group sharing, empathy-building tasks, and cooperative classroom experiences may have increased feelings of happiness, enthusiasm, confidence, and emotional comfort among the students.

The results also indicated significant improvement in negative affect. Since the items under the negative affect component were reverse-scored, the higher post-test mean score reflects a reduction in negative affect when compared with the pre-test score, and the difference was found to be statistically significant. The Subin's E value indicated a strong effect. This showed that the intervention was effective in reducing undesirable emotional tendencies and in helping students manage emotional strain more positively. The inclusion of stress-management techniques, emotional identification tasks, reflective exercises, and problem-solving situations may have enabled the students to regulate negative feelings more effectively.

When the findings are considered together, it becomes evident that the Social and Emotional Learning intervention had a comprehensive influence on subjective well-being. It contributed not only to the enhancement of positive dimensions such as life satisfaction and positive affect, but also to the favourable modification of negative affect. Another important feature of the results is the consistency between statistical significance and effect size. The paired-samples t test established that the observed gains were statistically significant, while Subin's E showed that these gains were also substantial in magnitude. This strengthens the credibility of the results and indicates that the intervention was not only statistically effective but also educationally meaningful in improving the well-being of higher secondary school students.

Implications of the Study

The findings of the present study have important implications for school education, particularly at the higher secondary level. The significant improvement observed in subjective well-being and its components shows that student well-being can be strengthened

through planned educational intervention. This suggests that well-being need not be viewed only as a personal or family matter, but also as an educational outcome that can be developed within the school setting. The study indicates that schools can play an active role in promoting healthier emotional and psychological functioning among adolescents through structured classroom-based programmes such as Social and Emotional Learning.

The study has clear implications for classroom practice. Since the intervention was effective in improving life satisfaction, positive affect, and negative affect, teachers may be encouraged to incorporate Social and Emotional Learning experiences into their regular teaching process. Activities such as guided discussion, reflective exercises, role play, group interaction, empathy-building tasks, and problem-solving situations may help students to become more emotionally aware, socially responsible, and psychologically balanced. The findings thus suggest that classroom instruction should not be confined only to academic achievement, but should also give due importance to the emotional and social development of students.

The results of the study also have implications for curriculum planning. The effectiveness of the Social and Emotional Learning intervention suggests that components related to self-awareness, self-management, social awareness, relationship skills, and responsible decision-making may be systematically integrated into the school curriculum. Such integration would contribute to the balanced development of students by combining academic learning with emotional and social growth. The findings therefore support the view that curriculum at the higher secondary stage should include opportunities for the development of subjective well-being as an essential aspect of education.

The study has implications for school administration and educational policy as well. School authorities may consider the organisation of structured well-being programmes for adolescents in order to address the emotional challenges commonly experienced at the higher secondary level. As students in this stage often face academic stress, peer pressure, identity-related concerns, and uncertainty regarding the future, interventions such as Social and Emotional Learning can serve as preventive and promotive measures. The findings suggest that school systems may benefit from giving institutional support to such programmes through timetable provision, teacher orientation, and the creation of a supportive classroom climate.

Another important implication of the study relates to teacher preparation and professional development. Since the investigator acted as the facilitator in the present study and the intervention proved effective, it may be inferred that teachers can also be trained to implement similar programmes within school settings. Pre-service and in-service teacher education programmes may therefore include training in Social and Emotional Learning strategies, adolescent emotional development, classroom interaction techniques, and student well-being promotion. Such preparation would help teachers to respond more effectively to the emotional and social needs of students in addition to their academic needs.

The study also has implications for guidance and counselling services in schools. The significant improvement in negative affect indicates that structured interventions can help students manage emotional discomfort and develop healthier coping responses. This suggests that counsellors, guidance personnel, and school mental health workers may use Social and Emotional Learning principles as part of preventive and developmental guidance programmes. Overall, the findings support the relevance of school-based well-being interventions for strengthening emotional resilience and promoting healthier adjustment among higher secondary school students.

Conclusion

The study concluded that Social and Emotional Learning was effective in improving the subjective well-being of higher secondary school students. The intervention produced significant improvement in total subjective well-being as well as in its components, namely life satisfaction, positive affect, and negative affect. The comparison of the pre-test and post-test scores showed clear positive change after the implementation of the intervention, and the effect size analysis further indicated that the magnitude of the improvement was strong to very strong. These findings show that a structured classroom-based Social and Emotional Learning programme can serve as a meaningful educational strategy for promoting the emotional well-being of adolescents. Therefore, the study affirms the educational value of integrating Social and Emotional Learning into the higher secondary school setting for the healthy and balanced development of students.

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