

Research Article

Life Skills Intervention for Behavioural Change among Students of a Government High School in Karnataka

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A B S T R A C T

Adolescence is a transitional phase with physical, social and psychological changes. With the influence of rapid societal changes, it has become difficult for teachers and parents to manage adolescents. A government school in Karnataka had approached to provide behavioural intervention session for their students. A tailor-made life skills intervention aimed at bringing behavioural changes among students was designed. Our objective was to assess the effectiveness of a four-day life skills intervention on change in behaviour among students of a government high school in Karnataka. A semi-structured Pre- and post-test self-administered questionnaire which included a Strengths and Difficulties Questionnaire was administered to participants. This tailor-made intervention for adolescents in a school showed significant improvement in emotional symptoms ($p=0.002$) following the intervention. The intervention was provided to 137 students. It was observed that out of 17 (21%) participants who reported to have borderline symptoms for strengths and difficulties, 13 (76%) participants improved after training. Out of 7 (8.7%) participants who reported to have abnormal symptoms for strengths and difficulties during pre-test, about 5 (71%) participants improved post-training. There was improvement in all other domains of strengths and difficulties namely conduct problem, hyperactivity, peer relationship and prosocial behaviour scales, although not statistically significant. The total strengths and difficulties score decreased overall. Individually strengths and difficulties showed movement more towards the normal end rather than the abnormal end of the spectrum of strengths and difficulties scores. The result of this tailor-made intervention program has implications for adolescents from similar socio-economic background as well as adaptation of this intervention among adolescents in different situations.

Keywords: Adolescents, Life Skills Intervention, Strengths

Introduction

Adolescence (10 to 19 years) is a phase of rapid growth and development during which physical, psychological and behavioural changes occur.¹ There are more than 1.2 billion adolescents worldwide. They stand at the crossroads between childhood and the adulthood. About 21% of Indian population and 18% of Karnataka state's population are adolescents.² It is a period of preparation for undertaking familial, social, cultural and economic responsibilities in adulthood.

Health status of an adolescent determines the health status in his/ her adulthood. The health needs of an adolescent can be categorised into three: physical, psychological and social. Mental health issues, infectious diseases, violence, unintentional injuries, malnutrition and substance use are major health issues faced by adolescents.³ Psychological and social problems include issues related to behaviour and also that they face in school. These are more common during adolescence than at any other time of childhood.

Professional intervention needs to evaluate individuals when misbehaviour becomes severe and frequent particularly depression, anxiety, gang membership, violence, substance use, hyperactive behaviour etc. Significant signs include regular use of substance, attack/ assault in peer group, absenteeism, theft, under performance at school, running away from home, serious injuries or use of weapons.⁴

To create a positive environment to decrease mental health problems in youth, the Department of Youth Empowerment and Sports (DYES) in collaboration with Department of Epidemiology, Centre for Public Health (CPH) NIMHANS has launched an adolescent and youth focused mental health promotion program titled 'Yuva Spandana' and a complimentary program called 'Life Skills training and counselling services program' to bring positive changes in lives of youth in Karnataka.

Yuva Spandana is a program for bridging the gap between youth, their families and ever changing society in order to enable smooth transition of youth from childhood to adulthood by providing behavioural, mental and psychological support services. Life skills training is an efficacious tool for empowering the youth to act responsibly, take initiative and take control.⁵

It is known that life skills training imparts knowledge and develops attitudes and skills that support adoption of healthy behaviours.⁶ The training program on life skills provide a range of ten skills for life, brings about the desired transformation in them and in the society. Although adolescence is generally considered healthy period in life, several important health and social behaviour problems either start or peak during these years (e.g., substance use).

Both these programs Yuva Spandana and Life skills training act as tools of group intervention for children and adults (parents and teachers of the school) in addressing adolescent psychological and social problems such as impulsivity, hyperactivity, anxiety, boredom, vandalism, bullying, running away, theft etc. The training builds upon the social learning theory and on what we know of how youth learn from their environment, from observing how others behave and what consequences arise from behaviour.

As part of the Yuva Spandana and life skills intervention a specific intervention for adolescents was planned to be implemented among class 10 students of a school reported to have difficulties in coping up with society and within the family. This paper reports the effect of a tailor-made life skills intervention on strengths and difficulties of the participants.

Materials and Methods

The study was conducted at Public High School, in a district at Karnataka from 13th September 2017 to 16th September 2017. All 137 students of class 10 who participated in Life Skills and Yuva Spandana sensitisation program consented to participate and were included in the study.

Teachers of the school were contacted to identify the intervention needs to facilitate development of an appropriate tailor-made intervention package. This intervention helped us to understand the social circumstance of students as well. The students were hailing from low income communities and majority of them had to support their family along with their schooling. There were behaviour issues, absenteeism, lack of interest in studies, aggressiveness, unhealthy peer relationships, hyperactivity, etc. Considering the identified needs and age of the participants, the intervention needed to focus on the skills which helps in changing the behaviour of students and mobilize them to seek support when needed through Yuva Spandana.

It was decided to have six out of ten life skill domains⁷ namely, self-awareness, empathy, effective communication, interpersonal relationships, coping with stress and coping with emotions. The entire training program was decided to be conducted through experiential learning. This approach involves 4 components namely Activity (an activity is given to participants to have an experience of the skill), Reflective observation (participant's opinion on the experience of the activity and learning is known by the facilitator), Abstract conceptualization (concept is delivered to the participants uniting their responses and experience of the activity), and Delivery tips (application of the experience and take home message is given to the participants on a given concept).

The 4-day module consisted of 2 days intervention for the

students, one day of support/guidance was provided and on the last day parent-teacher intervention was held.

Study Instrument and Data Collection

All subjects who participated were given a pre-test questionnaire before the intervention. A post-test questionnaire was provided immediately post intervention. A semi structured self-administered pen and paper questionnaire was used to collect data for the study. The project staff trained in questionnaire administration facilitated data collection in case the respondent had any clarifications. The questionnaire was in Kannada (local language). Pre-test questionnaire had 7 sections, and post-test questionnaire had 5 sections as there would be no changes in sections such as family information, peer group and social capital within the duration of training. The sections were sociodemographic information, family information, peer group and social capital, strengths and difficulties questionnaire, screening questions related to substance use, injuries, self-harm behaviour, usage of mobile phones and media related information.

The strengths and difficulties questionnaire is a 25-item questionnaire developed by Robert N Goodman⁸ consisting of 5 domains namely emotional symptoms, conduct problem scale, prosocial behaviour, hyperactivity and peer problem scale. This is a validated instrument used in multiple settings with a Cronbach's alpha for the subscales ranging from 0.44 to 0.71. Considering the similarity in age and need of the participants Strengths and Difficulties Questionnaire (SDQ) was utilized.

Statistical Analysis

We performed descriptive analysis along with Wilcoxon signed rank test to compare strengths and difficulties score before and after training.

Result

Table 1. Sociodemographic characteristics of participants

Sections		Number	%
Gender	Boys	99	72.3
	Girls	38	27.7
Religion	Hindu	104	75.9
	Others	33	24.1
Age	Mean±SD	14.81±0.88	
Number of family members	Median (IQR)	5 (1)	

There were 137 participants, with majority (72.3%) being boys with a mean age of 14.81±0.88 years (Table 1).

Table 2. Peer characteristics of participants

Section		No.	%
Habits of participants	Smoking	3	2.2
	Smokeless Tobacco Products	2	1.5
	Alcohol Consumption	3	2.2
	Usage of drugs	2	1.5
	Sniffing	3	2.2
Number of friends	Median (IQR)	10 (16)	
Activities with friends	Study	100	73
	Passing time	108	78.8
	Going to a movie	47	34.3
	Eating out	74	54
	Others	18	13.1
Number of friends who could help Financially	Nobody	28	20.4
	1 or 2	81	59.1
	3 or 4	14	10.2
	>=5	14	10.2
Number of friends who could provide shelter	Yes	88	64.2
	No	31	22.6
	Don't know	18	13.1
Habits of friends	Smoking	04	2.9
	Smokeless Tobacco products	02	1.5
	Alcohol consumption	02	1.5
	Usage of drugs	01	0.7
Other activities with friends	Crime	09	6.6
	Gang activities	25	18.2
	Commenting	21	15.3
	Strikes	17	12.4
Ever been to jail (Friends)	Yes	06	4.4
	No	131	95.6
Ever been to jail (Self)	No	137	100
Part of any group/ Organization	Yes	27	19.7
	No	110	80.3
Usage of mobile phone	Yes	12	8.8
	No	125	91.2

*Percentage total do not add up to hundred since multiple responses were possible.

The participants had a median of 10 friends, overall. Majority of them opined that they study (73%), simply pass time (78%) and go out to eat (54%) with friends. About one-third of them even go to movies with friends (34.3%). About 20.4% (28) of the participants do not seek any financial help from their friends/peer and about 10.2% (14) of the participants seek financial help from more than their 5 friends/peers. About 2.2% (3) of participants have the habit of smoking, consuming alcohol and sniffing drugs. Approximately 3% (4) of their friends have the habit of smoking and only 0.7% (1) of their peers use drugs. About one fifth (19.7%) of them are part of a group/organization and majority (91.2%) of them do not use mobile phones (Table 2).

A decrease in total scores of strengths and difficulties after training was observed. This was not statistically significant ($p < 0.256$). Among all the sub-scales, significant difference

was observed in Emotional Symptoms Scale ($p < 0.002$) immediately post training. Scores of all other domains of strengths and difficulties showed a decrease but was not statistically significant (Table 3).

About 30% of the participants had either borderline (21.25%) or abnormal (8.75%) strengths and difficulties before training. Among them 13 participants in the borderline group (76%) improved and showed normal strengths and difficulties, while one of them deteriorated and showed abnormal strengths and difficulties. Majority (~85%) of those who had abnormal strengths and difficulties improved to borderline (14.28%) and normal (71.42%) strengths and difficulties post training. About a quarter of participants who were normal pre-training deteriorated to borderline (16.07%) and abnormal (7.14%) strengths and difficulties after training (Table 4).

Table 3. Comparison of strength and difficulties score before and after training

Strength and difficulty	N	Mean±SD	Median (IQR)	p-value
Emotional Symptoms Scale (Pre-test)	109	4.21±2.19	4 (2)	0.002*
Emotional Symptoms Scale (Post-test)	109	3.52±1.88	3 (2)	
Conduct Problem Scale (Pre-test)	111	3.08±2.16	2 (3)	0.108
Conduct Problem Scale (Post-test)	111	2.73±1.77	3 (3)	
Hyperactivity Scale (Pre-test)	108	3.09±1.73	3 (2)	0.567
Hyperactivity Scale (Post-test)	108	2.94±1.74	3 (2)	
Peer Problem Scale (Pre-test)	111	3.10±1.46	3 (2)	0.701
Peer Problem Scale (Post-test)	111	3.06±1.85	3 (2)	
Prosocial Scale (Pre-test)	115	8.65±1.57	9 (2)	0.547
Prosocial Scale (Post-test)	115	8.64±1.60	9 (2)	
Total (Pre-test)	80	12.70±4.79	13 (7)	0.256
Total (Post-test)	80	12.19±4.94	11 (7)	

*p-value for Wilcoxon signed rank test.

Table 4. Pre and Post intervention strengths and difficulties score among participants

Total Strengths and Difficulties Score					
		Post-Test			Total
		Normal	Borderline	Abnormal	
Pre-Test	Normal	43 (76.78)**	9 (16.07)***	4 (7.142)***	56 (70)
	Borderline	13 (76.47)*	3 (17.64)**	1 (5.882)***	17 (21.25)
	Abnormal	5 (71.42)*	1 (14.28)*	1 (14.28)**	7 (8.75)
	Total	61 (76.25)	13 (16.25)	6 (7.5)	80 (100)

*Participants who have shown improvement after training.

**Participants who have remained in the same category.

***Participants who have shown deterioration after training.

Table 5. Changes in scores of all 5 domains of strengths and difficulties across participants

Pre-test	Post-test			
	Normal	Borderline	Abnormal	Total
Emotional Symptoms Scale (N=109)				
Normal	67 (82.71)**	9 (11.11)***	5 (6.172)***	81 (74.31)
Borderline	12 (85.71)*	2 (14.28)**	0 (0)***	14 (12.84)
Abnormal	11 (78.57)*	0 (0)*	3 (21.42)**	14 (12.84)
Total	90 (82.56)	11 (10.09)	8 (7.339)	109 (100)
Conduct Problem Scale (N=111)				
Normal	53 (76.81)**	10 (14.49)***	6 (8.695)***	69 (62.16)
Borderline	9 (64.28)*	2 (14.28)**	3 (21.42)***	14 (12.61)
Abnormal	14 (50)*	2 (7.142)*	12 (42.85)**	28 (25.22)
Total	76 (68.46)	14 (12.61)	21 (18.91)	111 (100)
Hyperactivity Scale (N=108)				
Normal	8 (50)**	4 (25)***	4 (25)***	16 (14.81)
Borderline	90 (100)*	0 (0)**	0 (0)***	90 (83.33)
Abnormal	2 (100)*	0 (0)*	0 (0)**	2 (1.851)
Total	100 (92.59)	4 (3.703)	4 (3.703)	108 (100)
Peer Problem Scale (N=111)				
Normal	46 (68.65)**	15 (22.38)***	6 (8.955)***	67 (60.36)
Borderline	18 (46.15)*	18 (46.15)**	3 (7.692)***	39 (35.13)
Abnormal	1 (20)*	4 (80)*	0 (0)**	5 (4.504)
Total	65 (58.55)	37 (33.33)	9 (8.108)	111 (100)
Prosocial Scale (N=118)				
Normal	108 (98.18)	2 (1.818)***	0 (0)***	110 (93.22)
Borderline	1 (50)*	0 (0)**	1 (50)***	2 (1.694)
Abnormal	3 (50)*	3 (50)*	0 (0)**	6 (5.084)
Total	112 (94.9)	5 (4.237)	1 (0.847)	118 (100)

*Participants who have shown improvement after training.

**Participants who have remained in the same category.

***Participants who have shown deterioration after training

About 28 (25.6%) participants had either borderline or abnormal emotional symptoms before training, 23 (82%) among them improved and showed normal emotional symptoms after training. Among 81 (74.31%) participants who showed normal emotional symptoms before training 14 (17.3%) of them deteriorated and showed borderline or abnormal emotional symptoms post training. About 42 (37.83%) participants had either borderline or abnormal conduct problems before training, 25 (59.5%) among them improved post-training. About 92 (85.18%) participants had either borderline or abnormal hyperactivity before training, all of them improved after training. About half of those who were not hyperactive (normal) pre-training, deteriorated and showed borderline or abnormal hyperactivity post-training. About 44 (39.63%) participants had borderline

or abnormal peer problems before training. Among them 23 (52.2%) participants improved and were found to be normal. Among 67 (60.36%) participants of those who were normal with respect to peer problem scale before training, 24 (35.8%) of them deteriorated and showed either borderline or abnormal peer problems. About 8 (6.77%) who had either borderline or abnormal score in prosocial scale before training, 7 (87.5%) of them improved and showed normal and borderline prosocial scores. Among 112 (94.86%) who had normal scores before training 3 (2.67%) of them deteriorated to borderline and abnormal prosocial score (Table 5).

Discussion

This tailor-made intervention for adolescents in a school

showed significant improvement in emotional symptoms following the intervention. There was improvement in all other domains of strengths and difficulties namely conduct problem scale, hyperactivity, peer relationship and prosocial behaviour scales, although not statistically significant. The total strengths and difficulties score decreased overall. However, individually strengths and difficulties showed movement more towards the normal end rather than the abnormal end of the spectrum of strengths and difficulties scores.

These results of our study might hint towards the fact that such interventions might significantly affect the emotional symptoms first and then the other domains of strengths and difficulties over time. This change is also known to be affected by surrounding environment like stimulus within the family, school environment and society with which adolescents interact.^{9,10} This intervention is mainly focused on attitudinal change. The approach employed is facilitation and experiential learning. It is known that through this approach, the learning is likely to be retained even after the training period.¹¹ The intervention also included the sensitization among parents and teachers. This is likely to influence improvement in strengths and difficulties of the participants over time by providing an enabling environment at school and home. However, this requires a follow-up assessment focused on the effect of such enabling environment. Given the time constraints and expert opinion, follow-up assessments were not made in this study. However, there is evidence of repeat interventions improving strengths and difficulties as well as life skills to promote a healthy and productive life among different population groups.¹²

This study is unique since it is tailor-made based on the needs of the participants. This was based on stake holder consultation involving mainly teachers. It would have been better, if students and their parents were also involved in developing this intervention. This was not possible due to lack of time and feasibility of inviting parents for stakeholder discussion. Teachers being closely associated with the students, they would have a more global understanding of the different issues amongst children rather than an individualistic understanding, which the parents and students might provide. However, the importance of such individualistic perspectives cannot be ignored. The results of the study can be generalised only to these students since it was based on their needs. We utilized Wilcoxon signed rank test, which is a non-parametric test. Assessment of normality of data failed and hence Wilcoxon signed rank test was employed. The assessment of the effect of this intervention utilized strengths and difficulties questionnaire which is a standardised time tested scale to assess strengths and difficulties in both clinical and community settings.¹³

Adolescence is a period known to shape up education, career as well as their future mental health. This is because, the risk factors associated with mental health problems like substance use, difficulties in life,¹⁴ stress associated with performance, expectations, peer influences begin during this phase. Our intervention can be seen as a mental health promotion intervention to facilitate healthy and productive future of adolescents. Support provision for those in need should also be part of any health promotion intervention. Those participants who expressed the need for support during the intervention were handled through the program Yuva Spandana. The first contact was done within the school premises and follow-up was organized within the Yuva Spandana Kendra situated in the district. This will help in provision of both immediate and long term support.

Teachers and parents are known to be effective mental health support providers. They can be guidance providers or lay counsellors for any issue the students might have. This intervention could have been more comprehensive if the parents and teachers were included in the intervention along with the students. This helps in providing an enabling environment for students both at home and school and help them improve their strengths and difficulties.

Within the study there were individuals who showed deterioration of strengths and difficulties scores in different domains. It is likely that, during the pre-test the students might not have been introspective enough in responding to these scales appropriately. This could introduce some amount of social desirability. After undergoing the intervention, they might have been more introspective and serious in responding to the scale. This might also be the case with those subjects who improved. This kind of response from the participants is difficult to quantify. However, the improvement could be much stronger in this scenario and probably provide a significant improvement in other domains of strengths and difficulties.

The intervention was for a short duration and was based on only the inputs provided by teachers about the students rather than a hands-on experience of the student behaviour. As there was no follow-up assessment, we recommend that, in future, such group intervention programs focus on a follow-up assessment. This will assess sustainability of the change in behaviour over time and provide inputs / feedback about the intervention to make necessary modifications for such interventions. We also recommend the assessment of association between substance use, usage of mobile phones and strengths and difficulties. This helps in understanding the results of this intervention better.

The results of this tailor-made intervention program have implications for adolescents from similar socio-economic background as well as adaptation of this intervention among adolescents in different situations.

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Conflict of Interest: None

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