© Journal of the Indian Academy of Applied Psychology
Jan 2024, Vol. 50, No. 1, 218-227

Effect of Educational Intervention for Adolescents on Awareness about Attitude towards Addiction and Sexuality

Shamangi Deshpande, Prerna Karulkar and Anagha Lavalekar
Jnana Prabodhini's Institute of Psychology, Pune

Adolescence is an important phase of life. It brings ample opportunities for development in skills, abilities, independence, and discovering self-identity but there are many associated threats. Drug abuse and risky sexual practices are the major disconcerting risks among adolescents. These issues have an impact on all aspects of their lives. This study was designed to find out the impact on the level of awareness by psycho-educating adolescents about the ill effects of addiction and risks encountered in sexual and reproductive health. Adolescents from various schools in Pune city aged 13-16 years were provided in depth educational intervention and were tested before and after the intervention on pre-designed tests. A total of 4005 adolescents and 210 trainers participated in the study. The data was compiled in excel and data analysis was done in SPSS. Results showed a significant improvement in the knowledge of sexuality issues and gender sensitivity ($t = 20.85$ at $p = 0.00$), myths, and misconceptions about addiction ($t = 3.86$ at $p = 0.00$) was seen. A positive change is noticed in emotional regulation tendencies ($t = 7.09$ at $p = 0.00$) after the educational intervention. As compared to males, females have shown improvement in understanding sexuality issues and emotional regulation but in awareness about addiction, no significant difference was noticed in both. The problems of addiction and unhealthy sexual practices can be controlled by effective psycho-education awareness programs. Such preventive interventions should be aimed at younger age groups, focusing on before the usual age of initiation.

Keywords: Adolescence, Sexuality education, Addiction

Adolescence is a period of experimentation, investigation, identity formation, risk-taking, and proclamation of independence in everyone's life. The incidence of drug abuse in children and adolescents is higher than in the general population. In India, by the time they reach adolescence, they are already exposed to various stresses such as competition in the fields of education and employment, along with changing roles in the family and society, new-found responsibilities, altering identity, growing physically, evolving mentally and emotionally (Agarwal et al., 2013).

Adolescence is a particularly dynamic period of brain development and psychiatric vulnerabilities. During this transitional phase, adolescents achieve developmental milestones like independence and new close relationships. Due to rapid physiological development during puberty, there is fast growth which can affect cognitive reasoning, emotional regulation, and risk-taking behavior (Stockings et al., 2016).

Social isolation, boredom, and early life stress also contribute to adolescents' substance abuse behavior (Wegner & Flisher, 2009). In addition to these, some other factors like sensation seeking, social rebelliousness, low self-esteem, childhood trauma, genetic predisposition, and personality disorder also add to substance abuse.

During this period, due to peer pressure and the easy availability of drugs, adolescents fall prey to drug abuse, especially those easily available drugs such as cannabis, tobacco, and alcohol. They become dependent before they

even realize it. Males are more susceptible to substance abuse, this may be due to exposure and peer pressure whereas females have societal restrictions (Qadri et al.,2013).

A whole lot of problems like academic difficulties, health-related issues (including mental health), poor relationships, violence, accidents, involvement with the justice system, and risky, unsafe sexual practices leading to HIV/AIDS can also follow addiction (Sahu & Sahu, 2012).

In India, a survey has revealed that most addiction patients fall prey to these substances in adolescence, before the age of 15 years. There is a profound lack of awareness programs about drug abuse in schools; there is no substance abuse policy in India. Apart from alcohol, cannabis, and opioids, children abuse other commonly available substances too such as cough syrups, pain relief ointments, glue, paint, gasoline, and cleaning fluids. There are very few health centres that deal with child substance abuse problems.

Besides drug addiction, Internet addiction and unsafe sexual practices are also prevalent among today's adolescents and youth. Experimentation with sexual behaviours is one of the main issues at this age. These behaviours adversely affect their future health outcomes, increasing their chances of contracting sexually transmitted infections (STIs) and discontinuing school due to unplanned pregnancies (Walcott et al.,2008).

Thus, it has been observed globally that there is an increasing need to impart sexuality education in the early adolescent years. There's also a pressing need to develop a gender-sensitive attitude in youth for helping them become balanced and physically, and mentally healthy individuals. Sex education, which is more precisely called sexuality education, is the process of acquiring information and forming attitudes and beliefs about sex, sexual identity, relationships, and intimacy that are age-appropriate and culture-sensitive. Sex education is also about developing young people's skills so that they make informed choices about their behaviour and can act confidently on these choices (Wahba, 2020).

In India, studies conducted revealed the lack of knowledge and awareness among adolescent girls and boys about sexuality and sexually transmitted diseases (Kalkute et al.,2015; McManus & Dhar,2008).

In India, there is not only a dearth of such programs but due to cultural constraints, parents and family members hesitate to talk to children about these issues. The adolescents try to find out about the changes from peers or other unreliable sources like the internet, where they get access to all kinds of information that is not appropriate for them.

In this context, the right attitude must be developed so that the locus of control shifts from external to internal. Sexuality and gender issues are highly linked with substance abuse and media addiction. Many sexual offenses are the aftermath of substance abuse including domestic violence. Peer pressure is a key element in distorting concepts regarding sexuality and gender which is also linked with the so-called challenging (risk-driven) behavior of falling prey to substance abuse. Internet addiction is the spread of pornographic, distorted imagery regarding sexual aspects and is also closely linked to the consumption of addictive substances. Thus, to work toward this anti-addiction of adolescents and youths as a final goal, a multi-pronged approach is required including an awareness campaign and building a sustainable ecosystem.

Along with sexuality education and awareness about addiction, social-emotional learning is also incorporated currently to improve the overall knowledge experience of adolescence. Social-emotional learning is the process where one can understand one's feelings and can respond accordingly (Payton et al., 2008). Social-emotional learning can also be defined as social competence which has a direct relation to the psychological well-being of adolescents (Holopainen et al., 2012). Social-

emotional learning skills help adolescents to improve their social skills, and relationships and understand their feelings. The five skills are:-

1. Self- Consciousness: understanding one's feelings.
2. Self-Management: management of feelings and self-motivation.
3. Social Awareness: having empathy for others, and recognizing differences.
4. Skills to Establish Relationships: Establishing cooperative relationships and helping others in need.
5. Making responsible decisions: an ability to take decisions considering all the factors (CASEL,2003).

Along with regular school education, programs about sexuality, addiction, and social-emotional skills are required. An experimental intervention study done to shape attitudes toward sexuality and gender sensitization for youth in Pune has shown a positive change in the attitude of the youth and adolescents (Lavalekar,2014). The knowledge from the evolving programs about sexuality education along with the newly developed prevention of addiction programs has paved the path for the present study.

There is also a lack of any kind of counseling or awareness among adolescents to prevent them from consumption of drugs and unhealthy sexual practices. Many organizations, movements, and government programs have been working toward finding a long-term solution to this issue. Some of the private organizations working for the prevention of addiction and providing sexuality education to the children of different strata are Salaam Bombay Foundation, Muskaan Foundation, Nada India Foundation, and Gunjan Organization for community development. The Ministry for Social Justice and Empowerment had also launched Nasha Mukt Bharat Abhiyaan in 272 vulnerable districts. According to the Ministry of Social Justice and Empowerment, there are more than 60 million drug users out of which a large number are from the age group 10 to 17 years.

There is a need to scale up these interventions to cover major segments of school-going adolescents. We can involve popular celebrities, government leaders, social activists, sportspersons, and mass leaders to become brand ambassadors for the initiative and effectively reach a wider section of the target audience. An efficient ecosystem that would create awareness and an environment against the consumption of tobacco, drugs, and alcohol is found to be missing in Pune city. The present study is a step in this direction, to create awareness and guide the adolescent population.

The objectives of this study was

1. to create awareness about the ill effects of addictions through psycho-education focusing on self-control and self-regulation among adolescents in Pune city.
2. to empower the teachers and volunteers through a training program by building their mentoring potential to implement this psycho-education program in schools/ communities to reach the above-mentioned goal.

Method

In the present study, a Pretest-Posttest Quasi-Experimental design was used. Independent Variable: Training for imparting sexuality education and changing attitudes toward addiction.

Dependent variables:

1. Adolescents' knowledge of sexuality
2. Adolescents' knowledge, awareness, and attitude about addiction
3. Adolescents' emotional regulation tendencies

Sample

The sample was incidental. It consisted of 4005 adolescents(males-1448, females-2557) from 8th and 9th standard from government-aided and private schools in Pune city for whom 22 intervention sessions were carried out by trained teachers and volunteers in the year 2019-20.

Tools used for baseline and impact assessment were:

1. My Knowledge, My Health Test (MKMH): This test refers to information about sexuality issues. It includes scientific information related to anatomy, physiology, myths, misconceptions related to sexuality, medical and health issues, and lastly evil practices in sexuality with Cronbach Alpha0.90 and total of 30 items.

2. Myths and Misconceptions about Addiction Test (MMAT): This test measures the adolescents' knowledge, awareness, myths, and misconceptions related to addiction and attitudes about addiction with a reliability of 0.79 and a validity of 0.9. It has 30 total items.

3. What is in Mind Test (WIMT): This is an open-ended test that measures adolescents' self-regulation tendencies with factors like attitudes towards locus of control, assertiveness, delay in gratification, and frustration tolerance. All these tests were constructed at Jnana Prabodhini's Institute of Psychology.

Procedure:

Step 1: Identification and capacity building of probable trainers: Two layers of trainers were involved in this intervention

1. Master trainers: This was a group of 25 experienced subject experts with in-depth knowledge and at least 15 years of experience in the field of sexuality education, gender sensitization, and adolescent mental health.

2. Field trainers: They were self-enrolled aspirant participants who were finally selected based on their willingness to commit the required time and exposure to previous working with children of the desired age group. It consisted of the school teachers, volunteers from NGOs, and individual volunteers.

Step 2: The training of Field trainers: This was three days of extensive training with a standardized content manual, focused group discussion, videos, role plays, stories, paper-pencil tasks, presentation, group games, and discussed activities to be done in the class and expected queries from the students.

Content of the training: The training covered a multitude of topics ranging from personality-individual sexuality to media and soft skills, all relating to the main topic of anti-addiction motive. Comprehensive and standardized lesson notes and manuals were developed on each topic to be used by the trainees.

Step 3: School Intervention: Government-aided and private schools in Pune city were identified and approached by trainers. A total of 22 school sessions (35 minutes each) including the pre and post-testing were conducted for 8th or 9thstandard students in these schools. The trainers followed the lesson notes meticulously. They also kept a log book of their sessions in which highlights of each session were jotted down for reference.

Results

The data was cleaned and SPSS version 23 was used for data analysis.

The descriptive statistics for both pre and post-test are given below.

Table I: Descriptive Statistics Pre and Post-test (raw scores)

Total Scores	Type	N	Mean	SD	Skewness	Kurtosis
MKMH*	Pre	4262	19.20	4.08	-0.42	-0.09
	Post	4005	20.89	4.36	-0.42	-0.27
MMAT**	Pre	4522	44.79	7.68	-0.80	1.03
	Post	446	45.12	7.76	-0.80	0.01
WIMT***	Pre	755	17.22	6.91	-0.11	-0.93
	Post	618	20.36	6.39	-.077	-0.03

*My Knowledge, My Health test (MKMH), **Myths and Misconceptions about Addiction Test (MMAT), ***What is in the Mind (WIMT)

In the Pretest of MKMH, the mean is 19.20 (4.08) indicating a slight positive skewness while in the post-test, the mean has slightly increased to 20.89(4.36).

The mean on MMAT is 44.79 (7.68) with positive skewness. In the post-test, the mean is 45.12 (7.76) with the same skewness.

On WIMT, the pre-test mean is 17.22(6.91) the data here seems to be scattered. In the post-test however, the mean has increased to 20.36(6.39)

Inferential Statistics: The Intervention Effect

The impact of the training was inferred from the pre-post comparison of the scores on all three tests – MKMH, MMAT, and WMIT respectively.

The table indicates the significant positive effect of the intervention for all variables. In MKMH, Paired t test indicated a significant rise in the adolescents in the knowledge and attitude about sexuality and gender issues as correlates of addiction(t= 20.85, p=0.00). In MMAT also, similar results are seen indicating positive change in the myths and misconceptions about issue of addiction and t test results showed a significant improvement in participants after the intervention (t=3.86, p= 0.00). In WIMT, significant improvement is observed as well (t=7.09,p=0.00). This shows the positive effect of the intervention on adolescents on all the variables under study.

To ascertain the change, effect size analysis was also carried out for all three tools. It was found that for MKMH, Cohen's d was moderate (0.581), while for MMAT (0.321) and WMIT (0.39) the effect size was small. However the impact of the program is clearly seen, that is encouraging.

Gende -wise Analysis:

As large number of girls and boys underwent the training, it was imperative to see the gender difference in the gain scores. The scores are as given below.

The above table illustrates the gain analysis for gender comparison. Girls have gained significantly more in the tests MKMH and WIMT. The sample being quite large, small differences are also seen significant. However, Girls were more curious and attentive during the sessions. In MMAT, there is no significant difference between the gains of boys and girls. Negligible effect size is observed for all three tools in the said analysis. It shows that the gain was almost same for both the genders.

Range of Improvement as a group

To see how many of the adolescents have really gained through the program, the percentage of students falling in three slabs namely, Zero change, Positive change and inappropriate change with respect to the pre-post gain on all three tools was calculated. The following figures show this distribution.

Table II: Paired samples 't-test'

	Paired samples 't-test'						
Area	N		Mean	SD	Mean Difference	t	p value
MKMH*	2933	Pre	18.98	4.10	1.70	20.85	0.00
		Post	20.71	4.31			
MMAT**	251	Pre	43.71	7.42	1.71	3.86	0.00
		Post	45.42	7.63			
WIMT***	491	Pre	17.14	6.96	1.91	7.09	0.00
		Post	19.05	6.89			

*My Knowledge, My Health test (MKMH), **Myths and Misconceptions about Addiction Test (MMAT), ***What is in the Mind (WIMT)

Table III: Gender comparisons: Gain score (Post-Pre):

Gender Comparison -Gain Scores analysis (Raw)							
Areas	Gender	N	Mean	SD	Mean Difference	t	p value
MHMK	Female	1828	1.94	4.25	0.6	3.25	0.00
	Male	1125	1.39	4.71			
MMAT	Female	106	1.86	7.46	0.3	0.28	.78
	Male	145	1.61	6.74			
WIMT	Female	291	2.70	5.92	1.94	3.57	0.00
	Male	200	0.77	5.89			

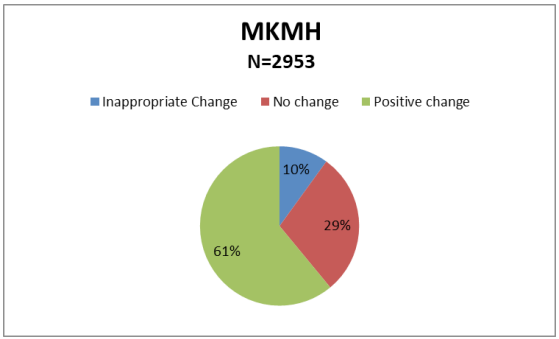

Fig. 1 Percent Analysis -- MKMH

In the knowledge about sexuality and gender issues, 61% of the sample has shown a positive change in their level of awareness regarding knowledge & attitude about sexuality issues, and gender sensitivity. Some of them have taken a leap of more than 20 scores as compared to their pre-test, only 10% showing inappropriate and 29% with negligible or no change. The distribution for those showing 61% positive change is depicted in the following chart to show the increase in the scores.

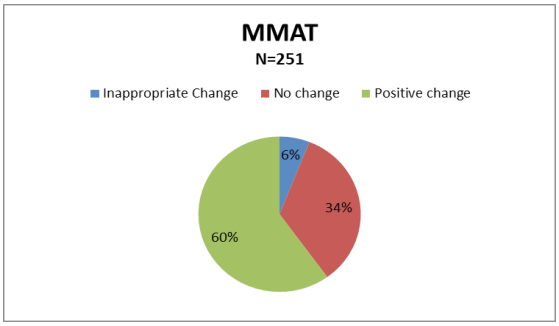

Fig. 2 Percent Analysis -- MMAT

Regarding the myths and misconceptions about addiction, 60% adolescents have shown a positive change in their attitude towards misconceptions about addiction, with only 6% showing inappropriate and 34 % with negligible or no change. The following graph denotes the distribution of those 60% positive change in the attitude towards myths and misconceptions about addiction.

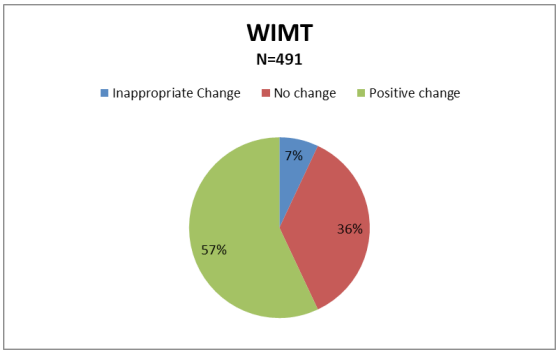

Fig. 3 Percent Analysis -- WIMT

In spite of Self-control being the hardest of all to facilitate significant change as a result of the training, 57% of adolescents have shown a positive change in their expression of assertiveness, level of frustration tolerance, delay in gratification, and locus of control as factors included in WIMT, while 7% show inappropriate changes and 36% fall in category of negligible or no change. The distribution of those 57% positive change is as shown score wise in the following chart.

Discussion

Adolescence is the age of exploration that makes adolescents vulnerable to many vices like substance abuse and associated problems and this affects their complete life (Divya et al., 2018). It has been noticed that the best way to reduce or stop substance abuse problems is through prevention. Such prevention programs should include families, schools, and immediate communities. The media should also play a responsible part and not venerate alcohol and drug use (Ravisankar et al.,2018). This project aimed to develop awareness among adolescents about responsible sexual behavior and attitude toward gender equality along with awareness about the ill effects of all sorts of addictions.

There are many studies stating the importance of sexuality education and addiction but there are intervention programs in the Indian context to address this problem are few in number. This study reports a significant effect of the intervention on the adolescents in the areas mentioned above. Earlier studies also support these results. In a study done in Pune, improvement in knowledge and change in attitude regarding growing up changes in adolescents were seen after the educational intervention (Deshmukh et al., 2014; Lavalekar, 2014).

A study done with adolescents in the Mumbai slum area highlighted similar results (Padhyegurjar et al.,2012). Intervention studies done in rural areas with adolescents have shown significant improvement in the knowledge about pregnancy, conception, and contraception (Sharma et al., 2009). Lack of knowledge about HIV, teenage pregnancy, and menstrual problems were noticed in a study done on urban adolescent girls (Madaan et al.,2014). A review study of many intervention programs revealed that school-based sexuality education positively influences adolescents to develop their knowledge, attitude, and behavior related to sexual and reproductive health outcomes (Vincent & Krishnakumar, 2022). In the present study, females/girls scored more than males/ boys on the pre-test of My Knowledge, My Health. This may be due to the time of puberty, as girls attain it early and mature faster and there is a possibility that conversation between mothers and daughters adds to the basic knowledge about menstruation and other pubertal changes during this time.

Some previous intervention programs were seen to be effective in creating awareness and prevention of alcohol and drug addiction in adolescents. (Carney et al.,2016; Sharma & Branscum, 2013; Lemstra et al., 2010; Porath-Waller et al., 2010). A meta-analyses on substance use prevention and treatment also suggest that interactive programs like cognitive behavioral or motivational enhancement have yielded beneficial effects (Tripodi et al.,2010). Nowadays, new methods of intervention like online and mobile phone counseling interventions to reduce substance use in adolescents are also used because they allow users to manage the pace of intervention, guarantee privacy, and have extensive reach at a low cost (Jiloha, 2017). A longitudinal study about computer-delivered, parent involvement in substance abuse prevention programs among adolescent girls was seen to be effective in the prevention of substance abuse in adolescent girls (Schinke et al.,2009). The model evolved during the present study also seems to have proved its significance.

In gender wise analysis for the present study, it was found that the girls have gained more than the boys on My Knowledge My Health. This can be attributed to the girls' better previous knowledge about anatomy and awareness about menstrual issues leading to more openness and interest. Receptivity in boys is generally seen low in such issues (Lavalekar, 2014).

In this test, few questions are about gender sensitization. After the intervention, girls show the change in attitude towards eradicating the gender stereotypes more than boys. In previous studies also it was noticed that girls gain better in such intervention programs (Lavalekar, 2014). One more possible explanation is that most of

the facilitators were women thus girls were more attentive and comfortable sharing these issues with them.

In the present study, no significant difference was observed between males and females in the gain-score analysis for the Myths and Misconception about Addiction, which implies that both males and females grasped equally well during the intervention. This could be because this test was more about factual information about addiction and hence, related more to the cognitive domain. In 'What is in the Mind' test, it was found that the girls have gained more than the boys. This may be due to the reason that girls have higher emotional maturity and self-control at this age than boys due to their different upbringing at home and influence of the society (Singh et al.,2013). In this test, items focused on aspects like assertiveness, delay in gratification and locus of control. Some studies show that delay in gratification is negatively related to substance abuse, and academic achievement (Herndon et al.,2015; Wulfert et al.,2002) which also supports the findings of the present study.

The percentage of students across the positive change, no change and inappropriate change categories also gives the idea about the overall impact of the program. A significant positive change of 61%, 60%, 57% in MKMH, MMAT and WIMT is encouraging. Inappropriate change and no change were also seen in the results. However this can be attributed to recurrent absenteeism and disinterest in the students due to unknown reasons. In MKMH, Some questions were fact based and some were opinion based. So in opinion based questions, it was possible that in pre-test students have over rated or have given desirable answers which later after intervention became more rational and honest. Similar observations were seen in an intervention on gratitude training for adolescents (Salve, 2019, p.55).

Feedbacks of the participants indicate that the methods like an open discussion, role plays, thought-provoking activities, and factual inputs were more effective than lecturing and mere information sharing in intervention sessions.

In India, addiction and sexuality issues are stigmatized, making it difficult for parents and teachers to talk about it. Hence, a group of trained volunteers could reach them and raise their awareness more effectively and efficiently and the students could ask doubts freely without the fear of getting judged. The responses of the students were highly positive and the trainers could influence their thoughts leading to a significant positive change.

Conclusion

It was found in the study that after the intervention, significant improvement was observed in the awareness about reproductive health issues and gender sensitization among adolescents. Also, significant improvement was observed in awareness about the need of addiction abstinence for the same group. Overall improvement was observed in emotional (self) control as measured through the open-ended test for the same group. The study had few limitations like the program was held for urban adolescents of Pune city and did not involve parents.

Implications of such program will be that such awareness programs can be scaled up across different groups /communities. Such comprehensive attitudinal change programmes can be integrated with educational curriculum to make long lasting impact on adolescent lives.

Through these educational interventions about addiction and sexuality, the ill effects of drugs, alcohol, media and unhealthy sexual practices, teenage pregnancy, and HIV can be explained. These initiatives will lead to an increase in the awareness of adolescents and a consequent decrease in vices while growing up. They can thus become productive members of society and realize their full potential.

References

Agarwal, M., Nischal, A., Agarwal, A., Verma, J., & Dhanasekaran, S. (2013). Substance abuse in children and adolescents in India. *Journal of Indian Association for Child and Adolescent Mental Health-ISSN 0973-1342, 9*(3), 62-79.

Botvin, G. J., Baker, E., Dusenbury, L., Tortu, S., & Botvin, E. M. (1990). Preventing adolescent drug abuse through a multimodal cognitive-behavioral approach: results of a 3-year study. *Journal of consulting and clinical psychology, 58*(4), 437.

Carney, T., Myers, B. J., Louw, J., & Okwundu, C. I. (2016). Brief school-based interventions and behavioural outcomes for substance-using adolescents. *Cochrane database of systematic reviews,* (1).

Collaborative for the Advancement of Social and Emotional Learning. (2003). Safe and sound: An educational leader's guide to evidence-based social and emotional learning (SEL) programs. ERIC Clearinghouse.

Deshmukh Vaishali, R., Kulkarni Aditi, A., & Apte Sarang, S. (2014). knowledge and attitude about growing up changes: An intervention study. *Pediatric on call journal, 54*, 65-70.

Divya, T., Radhakrishnan, G., & Anu Chithra, S. (2018). The level of awareness and attitude on ill-effects of substance abuse among adolescent students in selected high schools at Belgaum district, *India. health, 10*, 14.

Herndon, J. S., Bembenutty, H., & Gill, M. G. (2015). The role of delay of gratification, substance abuse, and violent behavior on academic achievement of disciplinary alternative middle school students. *Personality and Individual Differences, 86,* 44-49.

Holopainen, L., Lappalainen, K., Junttila, N., & Savolainen, H. (2012). The role of social competence in the psychological well-being of adolescents in secondary education. *Scandinavian Journal of Educational Research, 56*(2), 199-212.

Jiloha, R. C. (2017). Prevention, early intervention, and harm reduction of substance use in adolescents. *Indian journal of psychiatry, 59*(1), 111.

Kalkute, J. R., Chitnis, U. B., Mamulwar, M. S., Bhawalkar, J. S., Dhone, A. B., & Pandage, A. C. (2015). A study to assess the knowledge about sexual health among male students of junior colleges of an urban area. *Medical Journal of Dr. DY Patil University, 8*(1), 5.

Lavalekar, A. (2014). Youth, sexuality and reproductive health education. *Journal of Psychosocial Research, 9*(1), 109.

Lemstra, M., Bennett, N., Nannapaneni, U., Neudorf, C., Warren, L., Kershaw, T., & Scott, C. (2010). A systematic review of school-based marijuana and alcohol prevention programs targeting adolescents aged 10–15. *Addiction Research & Theory, 18*(1), 84-96.

Madaan, M., Agrawal, S., Puri, M., Meena, J., Kaur, H., & Trivedi, S. S. (2014). Health profile of urban adolescent girls from India. *International journal of adolescent medicine and health, 26*(2), 233-237.

McManus, A., & Dhar, L. (2008). Study of knowledge, perception and attitude of adolescent girls towards STIs/HIV, safer sex and sex education:(a cross sectional survey of urban adolescent school girls in South Delhi, India). *BMC women's health, 8*(1), 1-6.

Padhyegurjar, M. S., Padhyegurjar, S. B., & Adsul, B. K. (2012). Assessment of felt needs and effect of health education intervention on knowledge regarding reproductive health of school students in a slum in Mumbai. *National Journal of Community Medicine, 3*(02), 221-226.

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., & Pachan, M. (2008). The Positive Impact of Social and Emotional Learning for Kindergarten to Eighth-Grade Students: Findings from Three Scientific Reviews. Technical Report. Collaborative for Academic, Social, and Emotional Learning (NJ1).

Porath-Waller, A. J., Beasley, E., & Beirness, D. J. (2010). A meta-analytic review of school-based prevention for cannabis use. *Health Education & Behavior, 37*(5), 709-723.

Qadri, S., Goel, R. K. D., Singh, J., Ahluwalia, S., Pathak, R., & Bashir, H. (2013). Prevalence and pattern of substance abuse among school childern in nothern India: A rapid assesment study.

Ravisankar, P., Rao, P. R., Babu, P. S., Srikanth, D., Reddy, C. V., Deepthi, O. V., & Divya, G. (2018). The latest statistical report of the global synthetic drugs. *Indian Journal of Research in Pharmacy and Biotechnology, 6*(2), 59-64.

Sahu, K. K., & Sahu, S. (2012). Substance abuse causes and consequences. *Bangabasi Academic Journal, 9*(12), 52-59.

Salve, S. (2019). The Effect of Gratitude Intervention on Dispositional Gratitude Authenticity and Emotional Intelligence for Late Adolescents(Doctoral Dissertation, Savitribai Phule Pune University) Shodhganga

Schinke, S. P., Fang, L., & Cole, K. C. (2009). Computer-delivered, parent-involvement intervention to prevent substance use among

adolescent girls. *Preventive medicine, 49*(5), 429-435.

Sharma, M., & Branscum, P. (2013). School-based drug abuse prevention programs in high school students. *Journal of Alcohol and Drug Education, 57*(3), 51-65.

Sharma, S., Nagar, S., & Chopra, G. (2009). Health awareness of rural adolescent girls: an intervention study. *Journal of Social Sciences, 21*(2), 99-104.

Singh, R., Pant, K., & Valentina, L. (2013). Gender on social and emotional maturity of senior school adolescents: A case study of Pantnagar. *Studies on Home and Community Science, 7*(1), 1-6.

Stockings, E., Hall, W. D., Lynskey, M., Morley, K. I., Reavley, N., Strang, J. & Degenhardt, L. (2016). Prevention, early intervention, harm reduction, and treatment of substance use in young people. *The Lancet Psychiatry, 3*(3), 280-296.

Tripodi, S. J., Bender, K., Litschge, C., & Vaughn, M. G. (2010). Interventions for reducing adolescent alcohol abuse: a meta-analytic review. *Archives of pediatrics & adolescent medicine, 164*(1), 85-91.

Vincent, R., & Krishnakumar, K. (2022). School-Based Interventions for Promoting Sexual and Reproductive Health of Adolescents in India: A Review. Journal of Psychosexual Health, 26318318221089621.

Wahba, M. M.(2020) Sexuality Education; Needed but Disputable?. *eLS, 1*, 613-622.

Walcott, C. M., Meyers, A. B., & Landau, S. (2008). Adolescent sexual risk behaviors and school-based sexually transmitted infection/HIV prevention. *Psychology in the Schools, 45*(1), 39-51.

Wegner, L., & Flisher, A. J. (2009). Leisure boredom and adolescent risk behavior: A systematic literature review. *Journal of Child and Adolescent Mental Health, 21*(1), 1-28.

Wulfert, E., Block, J. A., Santa Ana, E., Rodriguez, M. L., & Colsman, M. (2002). Delay of gratification: Impulsive choices and problem behaviors in early and late adolescence. *Journal of personality, 70*(4), 533-552.

Acknowledgement: We would like to extend our sincere thanks to all the volunteers, trainers, participants, teachers, Principals of the various schools for participating in the study and Tarachand Ramnath Seva Trust for funding the project.

Shamangi Deshpande, Program Director, Jnana Prabodhini's Institute of Psychology. Email id- shamangi.deshpande@jnanaprabodhini.org

Prerna Karulkar, Assistant Professor, Jnana Prabodhini's Institute of Psychology, Email id- prernak23@gmail.com

Anagha Lavalekar, Ph.D., Director and Associate Professor, Jnana Prabodhini's Institute of Psychology, Email id- anagha.lavalekar@jnanaprabodhini.org