ORIGINAL RESEARCH PAPER
Volume - 11 | Issue - 11 | November - 2022 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

IMPACT OF LIFE SKILLS INTERVENTION IN FIRST YEAR MEDICAL UNDERGRADUATES IN A TERTIARY MEDICAL COLLEGE IN SOUTH INDIA

Psychiatry

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ABSTRACT

Background: Adolescence is a period of realization of numerous hopes, dreams and aspirations but as they face the hard realities of day-to-day life they are discouraged and disappointed leading to emotional and psychological disturbances. Medical students especially in the first academic year are faced with various challenges both professionally and personally. Life skills training tend to modify some if not all of the behaviors thereby ensuring better coping while increasing medical students' self-esteem **Aims:** To assess the impact of life skills intervention in first year MBBS students. **Materials and Methods:** Using a Pre posttest study design in 127 medical students were surveyed using Life skills scale. **Results:** Majority of the medical undergraduates showed significant improvement life skills post intervention. Gender wise both male and female students showed statistically significant increase in life skills scores after life skills training. **Conclusion:** Society, family and educational institutes in particular share enormous responsibility of guiding and supporting the youth as they venture into an unpredictable and demanding world. Life skills intervention paves the way of accomplishing the task of empowering and equipping the youth in fulfilling their goals.

KEYWORDS

adolescents, medical students, Life skills,Medical education

INTRODUCTION

The World Health Organization has defined life skills as, "the abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life".[1] Adaptive means the flexibility to adjust to different situations and Positive behavior refers to a encouraging outlook and finding of a "way out" in difficult situations.[2] UNICEF has defined life skills as "a behavior change or behavior development approach designed to address a balance of three areas: knowledge, attitude and skills". In other words, it helps translate knowledge, attitude and values into actual abilities.[3] It is the ability that can be imbibed and improved through constant practice. Life skills education and training through identifying individual capacities helps building on these skills to meet the requirements of daily life.[4] Life skills enable youth to accomplish over all wellbeing and develop competence in facing realities of life. Life skills empower young people to take action in promoting their health and positive social relationships.[5]

Student life is marked with various challenges that test their intellectual and mental faculties. They need to balance the expectations of family, teachers and society with their personal needs and ambitions. With these complexities of life leading further to confusions and dilemmas, they often find themselves at the crossroads of life.[6] Life skills help to improve a person's sense of self as an individual and member of a family, community and society.[7] Effective life skills intervention influences a person's outlook of themselves and others and improves self-esteem and self-confidence. Learning and enhancement of life skills is a continuous process and can extend throughout the individual's lifetime. Implementation of life skills in simple daily tasks can help person deal with complex life situations as well with ease.[8] Life skills training is effective in dealing with various adolescent specific problems like substance abuse, violence, bullying, conflict resolution, education, career guidance, risk behaviors. In present era Life skills education is a beacon of light for youth to achieve their goals and maximize on their opportunities in an ever-changing world. Life skills is a boon to children and adolescents specifically the significance of life skills in medical education and training cannot be overemphasized as medical students face wide array of difficulties on multiple levels resulting in stress, burnout and psychological issues.[9,10,11] As Life skills training at school and college levels is at the initial phase in India not much has been done in educating medical undergraduates in Life skills. Hence the present study aims to assess effectiveness of life skills intervention in medical undergraduates.

MATERIALS AND METHODS

This is a cross-sectional descriptive study conducted at a Tertiary medical college. Convenience sampling technique was used. Participants included the first year M.B.B.S students. Students were prior notified of the study and were motivated to participate, with the understanding that the study was of voluntary nature. With prior permission from Principal was taken to interact with students for data collection. Directions to fill the questionnaire and rating scale were given verbally. The purpose of the study was explained, those who were willing to participate in the study were distributed hard copy of the questionnaire and scale along with the informed consent and the responses were collected. All participants were assured of confidentiality of the data provided. Maximum participation was encouraged by emphasizing that the questionnaire was anonymous and would not be revealed to parents or faculty. Students took 30-40 minutes to complete the questionnaire. The completed questionnaires were collected for data analysis.

Pre-Posttest study design was adapted for this study. First year MBBS Students had to undergo Foundation course as per the new competency based undergraduate curriculum rolled out by MCI. Foundation Course is of one-month duration at the beginning of the MBBS course that will sensitize the fresh medical student with the required knowledge and skills that will assist him/her in acclimatizing to the new professional environment. It includes key topics of stress management, interpersonal skills and communication skills which are integral components of life skills. One week of 1 hour /day schedule was allotted for life skills training as part of the foundation course designed by the medical education unit of the medical college. Pretest was taken before the implementation of the intervention. Life skills training included combination of lectures, role plays, educational games, group tasks, Brain storming, group discussions and other activities. Posttest was taken at the end of one week training.

Those participants who gave written informed consent were included in the study. Incomplete questionnaire was excluded. Approval of Institutional Ethics Committee was sought before initiation of the study.

Instruments used:

1) Life skills Scale (LSS)

Life skills scale used in the current study was developed by Vranda [12] which has 115 questions scored with 5-point scale to assess each question. The scale classifies those who score less than 397 has having low life skills and between 398 and 437 as moderate life skills and who score 438 and above as possessing high life skills. The internal co-efficient alpha for overall scale been .94. The test-retest reliability co-efficient ranges from .7 to .95 and overall reliability co-efficient was 0.96.

The questionnaire contained items related to all the ten life skills: Decision Making (10 Items), Problem Solving (13 Items), Empathy (12 Items), Self-awareness (10 Items), Communication Skills (10 Items), Interpersonal Relationships Skills (18 Items), Coping with Emotions (9 Items), Coping with Stress (9 Items), Creative Thinking Skills (14 Items), Critical Thinking Skills (10 Items). Each item was scored into five different levels: Never (N), Rarely (R), Sometimes (S),

Usually (U), Always (A).

These life skills are classified into three categories which are- Cognitive skills, social skills and Coping skills.

Cognitive Skills - These are thinking skills which include thinking processes used to solve problems through critical thinking and creative thinking.

1) Creative Thinking - It is an ability to bring about something new and valuable more than breaking away from old pattern. It helps to look beyond direct experiences and to respond adaptively and with flexibility to the day-to-day situations.
2) Critical Thinking - It is an ability to draw sound conclusions based on facts and observations, to analyze carefully and evaluate the information in an objective manner. It helps us to recognize and assess factors that influence our attitudes and behaviors and those of others.
3) Decision Making-It is the ability to follow the process of choosing appropriate alternate course of action. It focuses not only on the decision-making process but also on the assessment of the future consequences of the choices made.
4) Problem Solving- enables us to deal constructively with problems in our lives. Significant problems that are not resolved can cause stress and damage the physical health.

Social Skills

1) Communication Skill -It is an ability to make exchange of information between two or more persons in such a way that it creates understanding between and among them. It means that we are able to express ourselves, verbally and non-verbally in ways that are appropriate to our culture and situation.
2) Interpersonal Relationships - It is an ability to maintain good relationship with the other members of the society. Help us to relate in positive ways to the people with whom we interact which includes family, friends, acquaintance and strangers.
3) Self Awareness - It is the ability to understand oneself. It includes the recognition of ourselves, and our character, strengths, weaknesses, desires, and dislikes. Developing self awareness can help us recognize when we are stressed. Self-awareness is closely associated with the concept of self-esteem.
4) Empathy - It is ability to understand another person's (his or her) emotions and feelings. It is the ability to imagine what life is like for another person, even if that person's situation is not familiar to you. Empathy can help improve our social interactions.

Coping Skills – These skills are related to adjustment of the individual as per needs of the society. If the person is not able to adjust himself with others then it will affect him/ her.

1) Coping with Stress -It is an ability to recognize source of stress in own life and cope with behavior appropriate to the situation. It concerns recognizing the sources of stress in our lives, how it affects us and acting in ways that help control our levels of stress, either by taking actions to reduce the source of the stress or by learning how to relax.
2) Coping with Emotions -It is ability to manage one's own emotions and understand others emotions. It involves recognizing emotions in ourselves and others, being aware of how emotions influence behavior, and being able to respond to the emotions appropriately.

2) **Socio demographic questionnaire -** includes details of gender and age.

RESULTS

Total of 127 first year MBBS students participated in study. Female students comprised of 68 (53.54%) and Male students accounted for 59 (46.46%). Majority of the participants belonged to the age group of 17-18 yrs. (N= 69, 54.33%) followed by 19-20 yrs. age group (N= 58, 45.67%) Table-1.

In the pre-test high proportion of the students had low life skills (68.50%) and only 14.96% demonstrated high life skills as shown in Table-2. In the Pre-test results majority of male students and those in the 19-20 yrs. age group showed low life skills which were statistically significant as shown in Table-3. Where as in the Post-test 56 of 127 students (44.09%) had high life skills and moderate life skills was found in 42 (33.07%) seen in Table-4. The total scores of Pre and Post test results had a Mean- 358.9 and standard deviation - 69.30 for Pre-test and Mean- 448.24 and standard deviation- 95.88 for Posttest which was statistically significant implicating that significant improvement in life skills of medical students was achieved with life skills training. When gender was compared to the Pre and Post total scores it was observed both males and females had showed higher scores Post training indicating higher life skills which were statistically significant.

When individual subscales of life skills were compared Pre and posttest statistically significant results were found in Decision making, Problem solving, Empathy, self-awareness, Inter personal skills, coping with Emotions, Creative thinking and critical thinking seen inTable-5. Females did better in Decision making, problem solving, Empathy, Self-awareness, Inter personal relationships, coping with Emotions, Creative thinking and critical thinking posttest which was statistically significant. Males acquired better Decision making, problem solving, Empathy, Self-awareness, Inter personal relationships, coping with Emotions, Creative thinking and critical thinking skills posttest which was statistically significant which was similar to their female counter parts as shown in Table-6. Both male and female medical students didn't score statistically significant improvement in communication skills and coping with stress subscales post life skills intervention.

DISCUSSION

The current study was conducted in a medical college in a rural area recruiting 127 first year MBBS students who had freshly joined the college. Pretest and Posttest study design was used for life skills intervention in the first month of first year MBBS course. The present study observed significant improvement in total scores of life skills with majority of the medical students showing moderate to high levels of life skills post intervention. Both genders of medical students showed similar patterns of high scores post intervention. When the ten individual dimensions were considered, medical undergraduates demonstrated significant change in levels of life skills acquisition across almost all of the subscales except for communication and coping with stress subscales post intervention. A study using pre post design with life skills intervention was conducted in medical college in Chennai, India in first year MBBS.[13] This study echoes the findings in our study with significant improvement in mean scores of all subscales of life skills post intervention.

In contrast to this study, the current study didn't show significant change in the communication and coping with stress skills post intervention. A study done in fourth year medical students focusing only on improving communication skills using Calgary–Cambridge patient interview model showed significant improvement in communication post training.[14] They also concluded that the fourth-year medical students had a positive attitude toward learning communication skills because of their contact with patients in clinical postings which made them understand the importance of good communication skills. In this context it is understandable that in the current study communication skills of medical students didn't show significant change post intervention as first year medical undergraduates hadn't yet perceived the relevance of communication skills in their medical training.[15] Another study assessing the life skills of adolescents [16] observed that both male and females did poorly on coping with stress dimension score of life skills which resembles the finding in the current study. This study also showed highly significant association between parents' education and socio-economic status and the global scores of life skills. However, the present study didn't compare these factors with life skills. Future research is indicated to include not just parents' education and socioeconomic factors but also other parameters that can affect life skills in adolescents so as to gain a better understanding of the factors and challenges on the personal, academic and social front of the adolescents which influences their life skills.

Study done on medical students in a University in Iran[17] demonstrated that students had low levels of life skills with life skills being better in male students when compared to female students. This study also observed that students had low communication and Inter personal skills. The gender differences observed in this study are in contrast to the pretest findings in the current study where male students showed low life skills.

Adolescence is considered a critical phase in one's life. Behavioral patterns formed during this stage of life can have long lasting impact on the person's entire future.[18] Life skills education could be a platform to modify these behaviors where these skills are taught, practiced and reinforced.[19] Life skills education has been implemented to address

specific target problematic behavior's in youth such as at-risk behaviors, mental , sexual and reproductive health.[20] Our study focused on impact of life skills intervention in medical undergraduates , without any focus on change in these specific behaviors which can be considered as a limitation of this study. Also, the study was conducted in single medical college hence results cannot be generalized. Future research needs to evaluate the impact of life skills education both cross-sectional and prospectively with special emphasis on influence of life skills training on clinical skills acquisition and doctor patient relationship.

CONCLUSION

The traditional view in India in ancient times is to view teacher-students as guru-chela where the emphasis and responsibility of the teacher is not just on education and knowledge but on personality development of the student.[21] Somewhere down the lane the focus drifted entirely on impartation of knowledge. Besides this with globalization and urbanization leading to the breakdown of joint family's youth nowadays are deprived of these age-old support systems.[22] Lack of life skills in a fast-changing world significantly influences their future. It is of utmost importance to view life skills not as addition but as an integral part of education. Hence the need for educating students from an early age starting in schools continuing to colleges through various class room and extracurricular activities. [23] The educational programs focusing on improving life skills should also take into consideration the cultural aspects before implementation. As parents and teachers have significant role to play in the acquisition of life skills [24,25,26] attempts can be made in incorporating their support in the planning of future educational programs.

Table 1- Socio demographic variables of medical undergraduates

Demographic variable		Frequency (N)	Percentage (%)
Gender	Female	68	53.54
	Male	59	46.46
	Total	127	100.00
Age	17-18 yrs	69	54.33
	19-20 yrs	58	45.67
	Total	127	100.00

Table 2- Pre & Posttest Life skills scores of medical undergraduates

Test Scores		Frequency(N)	Percentage (%)
Pretest total score	<397	87	68.50
	398-437	21	16.54
	>438	19	14.96
	Total	127	100.00
Posttest total score	<397	29	22.83
	398-437	42	33.07
	>438	56	44.09
	Total	127	100.00

Table 3 – Comparison of Pretest Life skills scores with socio demographic variables

Demographic variable		Pretest total score				P value
		<397	398-437	>438	Total	
Gender	Female	39 (44.83%)	15 (71.43%)	14 (73.68%)	68 (53.54%)	0.015 *
	Male	48 (55.17%)	6 (28.57%)	5 (26.32%)	59 (46.46%)	
	Total	87 (100.00%)	21 (100.00%)	19 (100.00%)	127 (100.00%)	
Age	17-18 yrs	40 (45.98%)	14 (66.67%)	15 (78.95%)	69 (54.33%)	0.060
	19-20 yrs	47 (54.02%)	7 (33.33%)	4 (21.05%)	58 (45.67%)	
	Total	87 (100.00%)	21 (100.00%)	19 (100.00%)	127 (100.00%)	

Table 4 – Comparison of Posttest Life skills scores with socio demographic variables

Demographic variable		Posttest total score				P value
		<397	398-437	>438	Total	
Gender	Female	10 (34.48%)	24 (57.14%)	34 (60.71%)	68 (53.54%)	0.015 *
	Male	19 (65.52%)	18 (42.86%)	22 (39.29%)	59 (46.46%)	
	Total	29 (100.00%)	42 (100.00%)	56 (100.00%)	127 (100.00%)	
Age	17-18 yrs	11 (37.93%)	24 (57.14%)	34 (60.71%)	69 (54.33%)	0.123
	19-20 yrs	18 (62.07%)	18 (42.86%)	22 (39.29%)	58 (45.67%)	
	Total	29 (100.00%)	42 (100.00%)	56 (100.00%)	127 (100.00%)	

Table 5- Pre post scores of 10 dimensions of Life skills

Subscales	Pre test scores		Post test scores		P value
	Mean	SD	Mean	SD	
Decision making	28.58	7.20	36.06	6.46	0.000*
Problem solving	38.85	10.44	49.61	8.22	0.000*
Empathy	37.01	10.75	48.03	6.87	0.000*
Self-Awareness	34.77	6.09	40.40	5.77	0.000*
Communication skills	37.14	8.64	36.56	4.96	0.513
Interpersonal skills	47.64	17.46	68.30	15.61	0.000*
Coping emotions	30.55	7.11	33.69	5.06	0.000*
Coping stress	33.25	6.71	32.40	5.69	0.321
Creative thinking	39.93	13.35	50.72	8.11	0.000*
Critical thinking	31.66	6.53	36.11	9.27	0.000*

Table 6- Comparison of gender with the 10 dimensions of Life skills

Subscales	Female					Male				
	Pre test scores		Post test scores		P value	Pre test scores		Post test scores		P value
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Decision making	29.42	7.06	36.35	5.46	0.000*	27.61	7.30	35.72	7.48	0.000*
Problem solving	40.17	10.52	50.27	8.18	0.000*	37.32	10.21	48.84	8.26	0.000*
Empathy	38.98	11.12	49.48	6.23	0.000*	37.74	9.91	46.37	7.24	0.000*
Self-Awareness	36.16	5.84	40.32	5.99	0.000*	33.16	6.03	40.49	5.55	0.000*
Communication skills	37.86	8.28	37.35	4.83	0.642	36.32	9.03	35.66	5.00	0.646
Interpersonal skills	49.04	17.99	72.26	12.38	0.000*	46.03	16.84	63.74	17.69	0.000*
Coping emotions	31.52	8.06	34.30	4.05	0.014*	29.42	5.69	32.98	5.98	0.005*
Coping stress	33.61	6.08	33.14	5.16	0.664	32.84	7.40	31.55	6.19	0.348
Creative thinking	41.57	13.91	51.54	6.66	0.000*	38.05	12.53	49.77	9.49	0.000*
Critical thinking	32.60	6.16	36.16	4.87	0.001*	30.57	6.82	36.06	5.14	0.000*

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