Knowledge of Adolescents Regarding the Factors Contributing to Mental Health at a Selected Nursing College in Indore

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ABSTRACT

Background: Mental health is simultaneous success at working, loving, creating with the capacity for nature and flexible resolution of conflicts between instincts, conscience and reality (American Psychiatric Association, 2001).**Materials and Methods.** The main objectives of the study were to assess the knowledge of adolescents regarding the factors contributing to mental health in a selected college and to compare the knowledge of adolescents on factors contributing to mental health with their selected demographic data. A cross sectional descriptive study was conducted on 100 college students between 17 to 21 years of age group, selected by stratified random sampling to assess their knowledge regarding factors contributing to mental health by using close ended questionnaire at Index Nursing College , Indore. **Results :** Observation shows that highest percentage (32%) of the college students were in the age group of 21 year and above of, majority (60%) of them were female students, almost all (90%) of them were from nuclear family, highest percentage (42%) of them were belongs to income group of Rs. 1251 and above, highest percentage (53%) of them were from urban area, majority (63%) of them were Hindus and majority (64%) of them received information from mass media. The total mean knowledge score of college students was 12.37±4.53 which is 56.23% of maximum obtainable score which revealing average knowledge, whereas highest mean score (1.42±0.62) which is 71% of maximum score on verbatim for relaxation revealing good knowledge & lowest mean score (3.63±1.91) which is 51.86% of maximum score on nutrition for mental health revealed average knowledge. Association of demographic variables with the knowledge score shows that significant association was found between knowledge scores & age and class in which studying, whereas no significant association was found between knowledge score and sex, type of family, per month per capita income, residence, religion and source of information. **Conclusion:** From the findings of the present study it can be concluded that, the knowledge of students regarding factors contributing mental was good on regarding to relaxation. Over all mean, SD and mean score revealed that students having average knowledge regarding factors contributing mental health. The knowledge scores of the students when compared with selected demographic variables revealed significant association was found on age and class in which studying.
Keywords: Knowledge, Adolescents, Mental Health, Adolescent, Factors contributing to mental health

1. INTRODUCTION

The World Health Organization (WHO) defines adolescents as individuals, that are in their second decade of life and face internal conflicts or situations that can compromise directly their mental health(WHO 2012).The adolescence is a time which shows great change and it starts at the age of 11-12 years and ends between 18-21 and shows individualities and think of future. The ego at this stage has the capacity to select and integrate talents, aptitude and skills. On the other hand the adolescent during the stage of identity formation is to suffer more deeply than ever before or even again from a confusion of roles. This stage can cause one to feel isolated, empty, anxious and indecisive (Hall, C.S.2002 and Morrison, M. 1998).

There are different definitions of mental health, it is assumed that the concept is wider than the absence of mental disorders. It is the ability to manage its own life and the emotions within a wide range of variations without losing the value of what is real and precious (WHO 2002,2012).

Therefore, adolescents mental health issues is represent important public health challenges worldwide, so preventive measures can help to avoid the development and the risk factors progression faced by adolescents. (Fundo das. 2011).

According WHO report 2018 , Worldwide, it is estimated that 10–20% of adolescents experience mental health conditions, yet these remain underdiagnosed and undertreated. Signs of poor mental health can be overlooked for a number of reasons, such as a lack of knowledge or awareness about mental health among health workers, or stigma preventing them from seeking help(WHO 2018).

The risk factors for mental health are widely known and include physical abuse and sexual during childhood; school, family and community violence: poverty, social exclusion and educational disadvantage. Psychiatry disorders, parent's drug abuse and conjugal violence also increase the risks for adolescents as the exposition to social alterations and psychological distress that accompany armed conflicts, natural disasters and other humanitarian crises. The stigma driven to the adolescent with mental disorders and the human rights violations that are subjected to, amplifies the adverse consequences (Brasil Ministério 2010, UNICEF; 2011and Benetti SPC 2007).

The nursing role in mental health is extremely important. The nurse becomes the change agent when he/she breaks with the historical medical model practice that disciplines the subject and communities and do not listen or give value to the subject-citizen in its psychosocial needs(Oliveira AGB, 2003)

The most common mental illnesses in adolescents are anxiety, attention,mood, and behavior disorders(American Psychiatric Association 2013).

The two approaches are additional and generate important knowledge for the clinical practice. Both designs require research experience, methodological robustness in the research development besides the knowledge for the scientific development(Mynayo MCS, 1993).

This study aims to contribute with the planning and implementation of Knowledge of Adolescents Regarding the Factors Contributing to Mental Health at a Selected Nursing College in Indore.

2. MATERIALS AND METHODS

A descriptive design with cross sectional survey approach was selected as a research design and approach for the study. The Setting of the Study was in Index Nursing College, Indore.The population for the study were all the students who are in between the age group of 17 to 21 years of Nursing College. The samples for the study were the students, A total of hundred students who were of between the age group of 17 to 21 years, studying in Index Nursing College in Indore, were the sample for the study. Stratified random sampling technique which is a probability sampling was used to select the sample for the study.

3. RESULTS

The data are organized and presented in the following four sections.

Section-I

Percentage wise distribution of college students according to their demographic variables.

Distribution of college students according to their age group shows that highest percentage (32%) of them were in the age group of 21 years & above and lowest percentage (11%) were in the age group of 17 years, More or less similar percentage (14% & 17%) of the students were in the age group of 18 years & 19 year respectively. whereas 26% of them were in the age group of 20 years. It is observed that as the age in years increases percentage of student's increases.
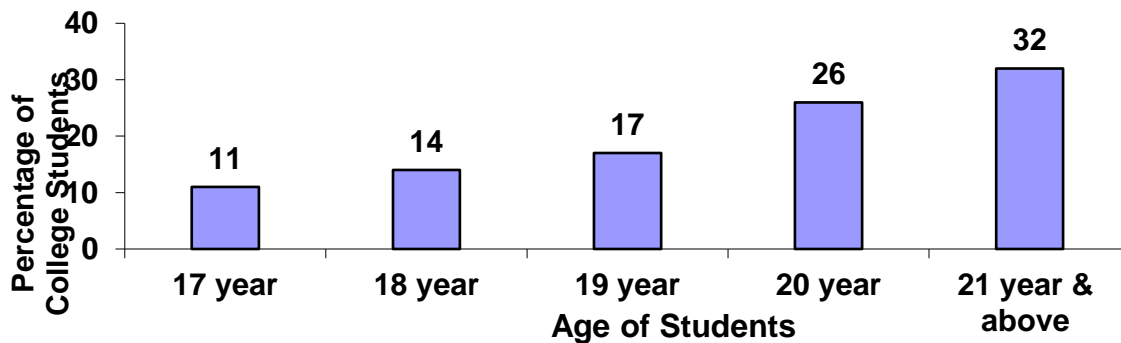

Fig. 3.1 Bar diagram showing distribution of college students according to their age group.

Section-II

Area wise analyses on knowledge of college students regarding factors contributing mental health

Table 3.1: Factor wise mean, SD and mean percentage of knowledge score of college students regarding mental health

S. N.	Factors	Max. Score	Knowledge		
			Mean	SD	Mean %
1.	Knowledge of mental health and its development.	4	2.28	1.24	57.00
2.	Nutrition for mental health.	7	3.63	1.91	51.86
3.	Stress management skill.	3	1.67	0.91	55.66
4.	Understanding limitations	3	1.66	0.93	55.33
5.	Relaxation.	2	1.42	0.62	71.00
6.	Participation in social activities.	3	1.71	0.97	57.00
	Total	22	12.37	4.53	56.23

Factor wise mean, SD and mean percentage of knowledge scores of college students regarding mental health shows that over all mean score regarding factors contributing mental health was 12.37±4.53 which is 56.23% of the maximum score. Among each area of knowledge item, the highest mean score (1.42±0.62) which is 71% of maximum score was obtained in the area of relaxation & the lowest mean score 3.63±1.91 which is 51.86% of maximum score was obtained for nutrition for mental health. The mean score for meaning of mental health & its development was 2.28±1.24 which is 57% of maximum score, for stress management was 1.67±0.91 which is 55.66% of maximum score, for understanding limitation was 1.66±0.93 which is 55.33% of maximum score and for social activities 1.71±0.97 which is 57% of maximum score.

Section-III

Item wise analysis on correct response of college student's knowledge regarding factors contributing mental health

Table 3.2 : Item wise analysis of correct response of college students regarding knowledge of mental health & its development

S.N.	Item	Correct response	
		No. of correct responses	%
1	Mental health is the state of Emotional stability	55	55
2	An individual needs Healthy environment For mental health	60	60
3	Adolescence is a transitional age which needs to accept the change	54	54
4	Adolescents mental health is depends on their psychosocial development	59	59

Item wise analysis of correct responses regarding knowledge of mental health & its development the majority (60%) of college students correctly responded for the item "an individual needs healthy environment for mental health", 59% of college students correctly responded for the item "mental health of an adolescent is depends on their psychosocial development". 55% of college students responded correctly for the item "mental health is the state of emotional stability". whereas 54% of college students responded correctly for the item "adolescence is a transitional age which needs to accept the change". It seems students had knowledge for all item related to meaning and development of mental health.

Table 3.3: Item wise analysis of correct response of college students regarding nutrition for mental health

S.N	Item	Correct response	
		No. of correct responses	%
1.	Vitamin which enhances memory is Vitamin B_6	44	44
2.	Biotin prevents depression and promotes mental health.	48	48
3.	Calcium stabilizes neuron and promotes mental health.	58	58
4.	Skipping food and taking fast food by means of beauty conscious and adaptation of western culture lead to effect on mental health	53	53
5.	Conscious about adequate diet for better mental health	52	52
6.	Balanced diet is required for Normal functioning of brain cells	64	64
7.	Essential nutrients in adequate amount for proper development of brain	44	44

Item wise analysis of correct response of college students regarding nutrition for mental health shows that majority (64%) of college students responded correctly for the item "Balanced diet is required for Normal functioning of brain cells" and lowest percentage (44%) of college students responded correctly for the items "Vitamin which enhances memory is Vitamin B_6" and "Essential nutrients in adequate amount for proper development of brain" whereas between 50-60% of students responded correctly for the items "Calcium stabilize neuron and promotes mental health" (58%), "the vitamin which prevents depression for adolescents and promotes mental health is Biotin" (48%), "skipping food and taking fast food by means of beauty conscious and adaptation of western culture lead to effect on mental health" (53%) and "conscious about adequate diet for better mental health" (52%). It seems that students knew about items related to nutrition for mental health.

Table 3.4: Item wise analysis of correct response of college students regarding to relaxation

S. N.	Item	Correct response	
		No. of correct responses	%
1.	Ventilating feelings helps to avoid accumulation of stress	73	73
2.	When tense Share feelings with friends	69	69

Item wise analysis of correct response of college students regarding to relaxation shows that most (73%) of the college students correctly responded for the item "Ventilating feelings helps to avoid accumulation of stress" Whereas 69% of students correctly responded for the item "When tense Share feelings with friends". It seems that students had knowledge regarding to relaxation.

Table 3.5 : Item wise analysis of correct response of college students regarding Participation in social activities

S. N.	Item	Correct response	
		No. of correct responses	%
1.	Sports are essential because it helps to be mentally healthy	57	57
2.	While in group, an individual can participate in recreational activities	65	65
3.	Group activities help in being mentally healthy	49	49

Item wise analysis of correct response of college students regarding "contribution of participation in social activities in mental health" shows that majority (65%) of college students correctly responded for the item "While in group, an individual can participate in Recreational activities" and lowest percentage (49%) of students responded correctly for the item "group activities help in being mentally healthy" Whereas 57% of students correctly responded for the items "sports are essential because it helps to be mentally healthy". It seems students knew for all item related to participation in group activities

Section-IV

Level of knowledge of college students regarding factors contributing mental health

Table 3.6 : Level of knowledge of college students regarding factors contributing mental health.

S. N.	Level of knowledge	No.	Percentage
1.	Very poor (0-20)	7	7
2.	Poor (21-40)	14	14
3.	Average (41-60)	34	34
4.	Good (61-80)	41	41
5.	Excellent (81-100)	4	4
	Total	100	100

Percentage wise distribution of knowledge score shows that 41 college students (41%) scored between 60-80 which shows good knowledge towards factors contributing mental health. Only 4 students (4%) score 80-100 having excellent knowledge. Most of the remaining students (34) that means 34% scored between 40-60 having average knowledge. Only 14 students (14%) students scored between 24-40 that shows poor knowledge and 7 students (7%) students scored 0-20 having very poor knowledge regarding factors contributing mental health.Here, It can be interpreted that highest percentage (41%) of the college students had good knowledge regarding factors contributing mental health.

Section-V

Comparison of knowledge of college students regarding factors contributing mental health with their demographic variables.

Table 3.7 : Comparison of mean, SD and mean percentage of knowledge score of college students regarding factors contributing mental health with regard to age.

S.N.	Age in years	No. of respondents	Mean	SD	Mean%
1.	17.	11	8.27	4.58	37.59
2.	18	14	12.64	4.25	57.45
3.	19	17	11.65	4.62	52.95
4.	20	26	12.62	3.83	57.36
5.	21 & above	32	13.84	4.46	62.91
Total		100	12.37	4.53	56.23

Age wise distribution of mean, SD and mean percentage of knowledge score of college students shows that the highest mean score (13.84 ± 4.46) which is 62.91% of total score was obtained by the college students in the age group of 21 year & above and the lowest mean score (8.27 ± 4.58) which is 37.59% of total score was for the students in age of 17 year. The mean score 12.64 ± 4.25 which is 57.45% of total score was for the students in the age of 18 year, mean score 11.65 ± 4.62 which was 52.95% of total score obtained by the students in age group of 19 year. Mean score 12.62 ± 3.83 which was 57.36% of total score for the students in age group of 20 year. Hence it can be interpreted that as age increases knowledge also increases.

Table 3.8 : Comparison of mean, SD and mean percentage of knowledge score of college students regarding factors contributing mental health with regard to class.

S.N.	Class	No. of respondents	Mean	SD	Mean%
1.	I year	25	10.12	4.28	46.00
2.	II year	25	12.64	4.43	57.45
3.	III year	25	12.56	4.60	57.09
4.	IV year	25	14.16	4.12	64.36
Total		100	12.37	4.53	56.23

Class wise distribution of mean, SD and mean percentage of knowledge score of college students shows that the highest mean score (14.16 ± 4.12) which is 64.36% of total score was obtained by the college students in the IV year and the lowest mean score (10.12 ± 4.28) which is 46% of total score was for the students of I year. The mean score 12.64 ± 4.43 which is 57.45% of total score was for the students II year and almost similar mean score (12. 56 ± 4.60) which was 57.09% of total score obtained by the students in III year.

Hence it can be interpreted that students studying in IV year having more knowledge.

Table 3.9 : Comparison of mean, SD and mean percentage of knowledge score of college students regarding factors contributing mental health with regard to religion.

S.N.	Religion	No. of respondents	Mean	SD	Mean%
1.	Hindu	63	12.59	4.63	57.23
2.	Muslim	11	11.45	5.00	52.04
3.	Christian	26	12.23	4.22	55.59
Total		100	12.37	4.53	56.23

Religion wise distribution of mean, SD and mean percentage of knowledge score of college students shows that the highest mean score (12.59 ± 4.63) which is 57.23% of total score was obtained by the college students were Hindu and almost similar mean score (12. 23 ± 4.22) which was 55.59% of total score . obtained by the students were Christian. The lowest mean score (11.45 ± 5.00) which is 52.04% of total score was for the students were Muslim.

Hence it can be interpreted that students of all religion having average knowledge

Section-VI

Association between knowledge score and demographic variables of the college students

Table 3.10. : Association between knowledge score and demographic variables of the college students.

S.N.	variables	df	χ^2 values	Level of significance
1.	Age	1	6.64	Significant
2.	Sex	1	0.09	Not significant
3.	Class	1	4.88	Significant
4.	Type of family	1	0.54	Not significant
5.	Family income	1	2.09	Not significant
6.	Residence	1	0.31	Not significant
7.	Religion	1	0.39	Not significant
8.	Source of information	1	3.32	Not significant

(P< 0.05. Significant)   (Table value=3.84)

Association between knowledge score and demographic variable of college students revealed that there is significant association between knowledge score when compare to their age and class. Hence it can be interpreted that difference in mean score related to these demographic variables were true difference not by chance.

4. DISCUSSION

Demographic characteristics of the sample

Highest (32%) of the college students were in the age group of 21 year & above whereas lowest percentages (11%) were in the age group of 17 years.. It may be due to the minimum age of admission in professional courses is 17 years.

Majority (60%) of the college students were female when compared to male (40%). Singh M. (2004) also found parallel the findings of present study reported that female students are more in educational institutions compared to male.

Almost all (90%) of college students according to their type of family were from nuclear family and 10% were from joint family. It is concurrent to the findings by Lachowski S. et. al., (2007), who reported that the traditional joint family has been breaking down because of the process of modernization.

Highest percentages (53%) of college students were from urban area and 47% were from rural area. It is supported by the report of ministry of environment & Earsl F. (2001) that the process of urbanization in India since beginning of last century reveals a steady increase in the size of its urban population.

Assessment knowledge of college students regarding factors contributing mental health.

Area wise comparison of mean, SD and mean percentage of knowledge scores of college students regarding factors contributing mental health.

Overall mean knowledge score reveals that the mean score was 12.37 ± 4.53 which is 56.23% of the maximum score revealing average knowledge. However, area wise comparison of mean knowledge score shows that out of six areas related to knowledge on factors contributing mental health, the highest mean score (1.42 ± 0.62) which is 71% of maximum score on importance of relaxation revealing good knowledge & minimum mean score (3.63 ± 1.91) which is 51.86% of maximum obtainable score obtained for nutrition for mental health which reveals average knowledge. It is contradictory with the study conducted by Cook L. J. (2007) reported that adolescents have less knowledge about mental health.

Nutrition for mental health

Item wise knowledge of college students regarding nutrition for mental health shows that majority (64%) of college students knew about the item "balance diet is required for normal functioning of brain cells" whereas in other items students having average knowledge such "vitamin which enhances memory is vitamin B_6" (44%), "biotin prevents depression and promoted mental health" (48%), "calcium stabilizes neuron and promotes mental health" (58%), "skipping food and taking fast food by means of beauty conscious and adaptation of western culture lead to effect on mental health" (53%), "conscious about adequate diet for better mental health" (52%) and "essential nutrients in adequate amount for proper development of brain" (44%).

Stress management skills

Item wise knowledge of college students regarding stress management skill shows that majority (62%) of college students knew about the item "a mentally healthy person makes decision according to situation during problem" and had knowledge about the items "mental relaxation is obtained through adequate sleep" (56%), and "the meditation reduce stress" (49%). It is contradictory to the study by Garfinkel B. (2000) reported that adolescent must learn & practice coping skill, which they lack, to get them through an immediate problem.

Verbatism for relaxation

Item wise knowledge of college students regarding to relaxation shows that college students knew about the

item "ventilating feelings helps to avoids accumulation of stress" (73%) and "when tense share feelings with friends" (69%).

Participation in social activities

Item wise knowledge of college students regarding participation in social activities shows that college students knew about the item "while in group, an individual can participate in recreational activities" (65%) and average knowledge about items "sports are essential because it helps to be mentally healthy" (57%), and "group activities help in being mentally healthy" (49%).

Comparison of the knowledge scores of college students with demographic variables

Comparison between the mean, SD and mean percentage of scores with the age group of college students shows that the students in the age group of 21 year and above had the highest mean score (13.84 ± 4.46) which is 62.91% of total score that revealed good knowledge and lowest mean score (8.27± 4.58) which is 37.59% of total score was obtained by the students age group of 17 years.

Conclusion

From the findings of the present study it can be concluded that, most of the college students were 21 year & above of age, majority of them were female, most of them were from nuclear family, most of them were belonging from high socio-economic status, when assessed on the basis of monthly income, most of the students were Hindus. Most of the students received information from mass media. The knowledge of students regarding factors contributing mental was good for relaxation. Over all mean, SD and mean score revealed that students having average knowledge regarding factors contributing mental health.

The knowledge scores of the students when compared with selected demographic variables revealed significant association was found on age and class in which studying.

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