



## Original Research Article

# KAP study on mental health and reproductive illness among college girls in Madurai, Tamil Nadu

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## ABSTRACT

**Background:** The period of adolescence and youth is a transition period between childhood and adulthood. This phase is vulnerable for several health issues ranging from reproductive, psychosocial and mental disorders. Among various disorders, mental disorders form a fulcrum which determines the quality of life and well-being during their adult life. Studies have proven that it is essential to create awareness among these adolescents and youth regarding early signs of mental illnesses. This study was conducted to compare the level of knowledge, attitude and practices related to mental health and illness among girls' college and college with co-education system.

**Materials and Methods:** This cross sectional study was carried out among one college with co-education where 149 girls participated and one girls' college where 112 girls participated. A structured interview schedule was used to obtain information regarding knowledge, attitude and practices pertaining to mental illness. Data was entered and analyzed using SPSS. A p value <0.05 was considered statistically significant.

**Results:** Friends were the major source of information for the co-education students while internet formed the major source of information for the girls' college students. Majority of the girls in girls' college felt that mental illness is caused due to environmental problems (74.1%) while among co-education students, it was due to spirits (35.6%), (p<0.0001). While 31.5% of the girls of co-ed colleges felt that self harm was normal, only 18.7% among girls' college felt that self harm was normal.

**Conclusion:** Our study indicates that students of girls' college were better informed and aware of mental illness compared to the girls studying in co-education system. There is a need for target based awareness on mental health and also regarding approaches to abnormalities of the mental states for a healthier adulthood among girls.

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## 1. Introduction

The period of adolescence is a period of transition between childhood and adulthood characterized by physical, physiological and psychological changes. As a result, there is growth spurt, puberty and mental maturity. The period of adolescence is vulnerable to certain health problems including sexual abuse and teenage pregnancies, reproductive tract infections, substance abuse and mental health issues including suicidal tendencies. Although both genders are equally vulnerable to most of the adolescent

health problems, it is essential to focus issues pertaining to adolescent girls because they are future mothers and they are responsible for a healthy household and healthy family.

Social economically girls represent a vulnerable group because of various factors. In India girls continue to face the wrath of improper family planning which include care of the younger siblings, early marriages and teenage pregnancies. In addition, lack of accessibility and availability of health information and need based health care makes them increasingly vulnerable to various social issues. Although the mortality rates are lowest in adolescent age group, the vulnerability to health problems remains high in the age groups. The common health problem affecting

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the adolescent girls include nutritional disorders, mental disorders, and reproductive health problems including menstrual problems.

It is important to note that current social and economic development of the country has witnessed wide range of changes in the mental and emotional constitution in all the age groups, especially among the adolescents. The important reasons for this are change in the cultural value complimented with increasing economic stress and dwindling family support. These changes affect the mental health of the adolescents; more so the girls making them succumb to problems sexual and substance abuse.<sup>1–3</sup> According to UNESCO statistics, sexually transmitted disease is a major health problem among adolescents and youth which has an higher incidence among girls compared to boys.<sup>4</sup>

The vulnerability of any social health issue is highly dependent on the level of awareness among the target population. There is increased risk for mental health problems, when there is lack of knowledge and awareness regarding the specific health issues. It is essential to evaluate the level of knowledge and also the attitude towards mental health, sexual and reproductive health and also substance abuse in order to identify the focal areas which increase the vulnerability of these girls to the mental health problems. Several organisations including WHO, UNFPA, IPA, and UNESCO are striving to create this awareness among the adolescent girls in order to bring out a healthier tomorrow with sound quality of life and well being.<sup>5</sup>

## 2. Objectives

This study was carried out to compare the level of knowledge, attitude and practices regarding mental health between girls studying in women's college versus Co-education (Co-ed) system.

## 3. Materials and Methods

### 3.1. Study setting and participants

This cross-sectional study was carried out among the adolescent girls studying in Colleges in Madurai city. All the co-ed and women's colleges in the city were contacted for permission and permission was obtained to carry out the study in one women's College and one co-ed college. All the girls in the each of the colleges participated in this study. The study was carried out for the period of two months. A total of 149 girls from the co-ed college and 112 girls from the Women's College participated in the study.

### 3.2. Selection criteria

Girls  $\leq 19$  years of age were included in the study.

### 3.3. Ethical approval and informed concern

Approval was obtained from the institutional ethics committee prior to the commencement of the study. Each participant was explained in detail about the study and informed consent was obtained prior to the data collection.

### 3.4. Data collection tools

A structured interview schedule was use to obtain information regarding the background characteristics including father's occupation, source of information and details regarding the mental health pertaining to knowledge, attitude and practices relating to mental health, signs of depression, causes of mental illnesses and type of care to be given mental illnesses.

### 3.5. Data analysis

Data was entered and analysed using SPSS version 20. Chi square test was used to compare the responses between the women's college and co education college participants. A p value  $< 0.05$  was considered statistically significant.

## 4. Results

Both the groups were comparable with respect to their demographic characteristics. Majority of the participants in this study were less than 19 years of age in both a groups. Majority of the participant's fathers professionals by the occupation (42.9% in women's college and 51.7% in Co-education College). (Table 1)

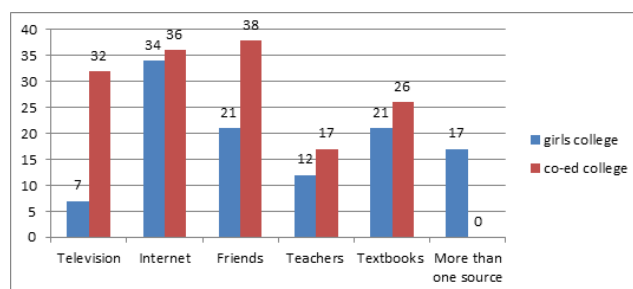


Fig. 1: Source of information regarding mental health

In our study majority of the participants studying in women's college cited internet as a major source of information regarding mental health while majority of the participants from co Education College cited friends as key source of information. (Figure 1)

While majority of the participants both the age groups equally felt that loosing temper for no apparent reasons was abnormal, there was a difference in the level of awareness regarding the cause of mental illnesses between the groups. Majority of the participants studying in the women's college reported that environmental problems are major cause for mental illness (74.1%), participants from co-ed colleges

**Table 1:** Personal characteristics of the participants

S. No	Characteristic	Type of college			
		Women college		Co-education	
		Frequency N(112)	Percentage (%)	Frequency N(149)	Percentage (%)
1	<b>Age (in years)</b>				
	<19	59	52.7	100	65.8
	>19	53	47.3	49	32.2
2	<b>Socio economic status</b>				
	Professional	48	42.9	77	51.7
	Semi professional	11	9.8	28	18.8
	Clerical	27	24.1	17	11.4
	Skilled worker	16	14.3	18	12.1
	Semi skilled worker	2	1.8	4	2.7
	Unskilled worker	3	2.7	3	2.0
	Unemployed	5	4.4	2	1.3
3	<b>Medicine during severe pain</b>				
	Yes	47	42.0	58	38.9
	No	65	58.0	91	61.1
4	<b>Irritable in premenstrual period</b>				
	Yes	85	75.9	50	33.6
	No	27	24.1	99	66.4

felt that mental illness was caused by spirits (35.6%), with regards to the knowledge level regarding the science of depression, in the women's college group majority of the participants observed that loss of sleep is a major sign of depression (31.3%). similar finding were observed among participants from co-education college (32.9%). Awareness regarding body shaming was present in 52.7% girls participated studying in women's college. (Table 2)

The attitude towards health seeking pattern for mental illness showed that majority of the participants in the co-ed group did not feel that help should be sought when a person is unable to control the temper (61.1%). Counselling was an important remedial measure for depression, as reported by 69.6% of the participants in Women's college as against 26.8% in the co-ed group. (Table 3).

Practice of substance abuse was present among the friends of 53.8% of the participants in co-ed group, compared to 49.1% of the women's college group. The type of substances abused commonly was drugs in the co education groups (43.2%). (Table 4)

A comparison between both a groups with respect to various aspects of knowledge, attitude and practices regarding mental health was carried out (Table 5) It was observed that awareness regarding HIV was increasingly prevalent among women's college participants compared to co-education participants (p value < 0.0001). Similarly, the need for seeking help for temper control was increasingly reported among participants in women's college (76.8%) compared to participants in co education college (38.9%) the observed different was statistically significant (P value < 0.0001). There was also a significant different between both groups with regards to eliciting the signs of depression. (p

value < 0.0001)

## 5. Discussion

Mental illnesses are an important and emerging health hazard in recent times with increasing morbidity and mortality in the younger age groups. It is pertinent to address this issue at the younger age in order to prevent complications during adulthood. Since recently, India has a witnessed drastic cultural change across all regions and South India is not an exception. There has been a significant change in the scenario of work culture, change in the family composition and exposure to various media which has influenced the thinking and behaviour among youngsters, especially adolescents.

In the emerging digital age, the human interface is drastically coming down, resulting in weakening of relationships within family and outside family, thereby resulting in several mental health risks among the adolescents. There are increasing the incidences of depression, suspense abuse, sexual abuse and suicidal rates among the adolescents and youth of today and this has been largely attributed to the withering of the family bonding and relationship with friends and family at large.

Although both the groups came from similar socio economic background, there was a drastic difference with respect to the knowledge attitude and practices regarding mental health and illnesses between them. The source of information is predominantly based on internet for participants who were studying in women's college while the source of information was friends among those co-education college students. While majority of the women's

**Table 2:** Knowledge regarding mental health and well being among the participants

S. No	Characteristic	Type of college			
		Women college		Co-education	
		Frequency N(112)	Percentage (%)	Frequency N(149)	Percentage (%)
1	<b>Losing temper for no apparent reasons</b>				
	Normal	40	35.7	60	40.3
	Abnormal	72	64.3	89	59.7
2	<b>Causes of Mental illness</b>				
	Caused by spirits	9	8.0	53	35.6
	Heredity	5	4.5	45	30.2
	Environmental problems	83	74.1	41	27.5
	Karma	12	10.7	10	6.7
	Caused by spirits and environmental problems	1	0.9	-	-
	Heredity and environmental problems	2	1.8	-	-
3	<b>Signs of depression</b>				
	Loss of sleep	35	31.3	49	32.9
	Loss of appetite	3	2.7	37	24.8
	Excessive eating	5	4.5	26	17.4
	Isolation	26	23.1	27	18.1
	Lack of self care	24	21.4	10	6.8
	More than one sign	17	15.2		
4	<b>Self harm</b>				
	Normal	21	18.7	47	31.5
	Abnormal	33	29.5	44	29.6
	Needs help of Psychiatrist	54	48.2	58	38.9
	Abnormal and needs help of psychiatrist	4	3.6		
5	<b>Noticed this behavior in your friends</b>				
	Withdraw after failure of love affair	41	36.6	43	28.9
	Absence to class following it	43	38.4	50	33.5
	Suicidal tendency after that	16	14.3	56	37.6
	Withdrawal and school absenteeism	3	2.7		
	All the three	5	4.5		
	Withdrawal and suicidal tendency	3	2.7		
	School absenteeism and suicidal tendency	1	0.8		
6	<b>Awareness regarding body shaming</b>				
	Yes	59	52.7	56	37.5
	No	53	47.3	93	62.5

college students had adequate knowledge regarding mental illness in terms of cause of mental illness and science of depression, self harm and awareness regarding body shaming, it was considerably lacking in the other group.

Girls studying in the women's college showed better attitude towards caring for the mentally ill. Moreover increased prevalence of substance abuse, especially drugs was highly prevalent in co-education college compared to the women's college. Similarly bullying was also highly prevalent in the co-education college. There was a statistically significant difference in the knowledge

regarding the signs of depression, causes of mental illness, causes of HIV infection and HPV vaccine between both the groups. The awareness regarding HIV and HPV vaccine was higher among the girls studying in women's college. (p value < 0.05).

With regards to knowledge level on mental illness, signs of depression and self-harm were one of the key criteria taken into consideration. In our study we observed that, isolation was said to be an important sign of depression among 23.1 percent of girls in women's college and 18.1 percent of girls studying in co-education system. In a study

**Table 3:** Attitude towards mental illness

S. No	Characteristic	Type of college			
		Women college		Co-education	
		Frequency N(112)	Percentage (%)	Frequency N(149)	Percentage (%)
1	<b>Should care be sought for those who are unable to control their temper?</b>				
	Yes	86	76.8	58	38.9
	No	26	23.2	91	61.1
2	<b>What should be done if your friends have signs of depression?</b>				
	Left alone	15	13.4	40	26.8
	Needs counseling	78	69.6	39	26.2
	Taken for shopping	14	12.5	38	25.5
	Taken to a movie	5	4.5	32	21.5
3	<b>Whom to approach for mental problems?</b>				
	Psychologist	87	77.7	66	44.3
	Fortune teller	12	10.7	38	25.5
	Spiritual guru	10	8.9	45	30.2
	Psychologist and fortune teller	2	1.8		
	Fortune teller and spiritual guru	1	0.9		

**Table 4:** Practices related to mental illness

S. No	Characteristic	Type of college			
		Women college		Co-education	
		Frequency N(112)	Percentage (%)	Frequency N(149)	Percentage (%)
1	<b>Presence of substance abuse among friends</b>				
	Yes	55	49.1	95	63.8
	No	57	50.9	54	36.2
2	<b>Types of substances abused</b>				
	Drugs	3	5.5	41	43.2
	Alcohol	11	20.0	29	30.5
	If any	41	74.5	25	26.3
3	<b>Undergone body shaming</b>				
	Yes	24	21.4	38	25.5
	No	88	78.6	111	74.5
4	<b>Bullying in college</b>				
	Yes	20	17.9	51	34.2
	No	92	82.1	98	65.8

done in Karnataka by Saraf G et al., isolation was said to be the most important terminology for depression in 29% of the participants which was similar to our study.<sup>6</sup> As far as self-harm was concerned, majority of our participants observed that self-harm required help from psychiatrist, while 31.5% of the girls studying in the co-education college felt that self-harm was normal. In the study done by Saraf G et al., self-harm was identified to be of abnormal in 63% of the participants, which is similar to our study.<sup>6</sup>

The impact of mental illness among adolescence is reflected by the magnitude of substance abuse and sexual abuse. This indirectly results in an increased incidence of sexually transmitted infections and diseases including HIV and cervical cancer among women. Our study aimed to estimate the level of knowledge regarding HIV and HPV

vaccines. In our study, we observed that, the awareness regarding HIV and HPV was higher among participants studying in women's college (94.6%) compared to the participants from the co-education college. This association was statistically significant (P value < 0.05). In a study done by Vaidakis D et al., the knowledge regarding HPV vaccine was 43% in their study, which was higher compared to our estimates.<sup>7</sup> This reflects that the overall knowledge regarding HIV and HPV vaccines is substantially lower in the study population. In a study done by Sing A et al. the awareness on HIV was 35% in rural area of Gujarat which was similar to our study findings.<sup>8</sup>

**Table 5:** Comparison between the girls college and co-ed college students

S. No	Parameter	Girls' college	Co-ed college	Chi sq	P value
1	<b>Irritable during menstrual period</b>				
	Present	85(75.9)	50(33.6)		
	Absent	27(24.1)	99(66.4)	5.6	0.018
2	<b>Source of information</b>				
	Television	11(9.8)	32(21.5)		
	Internet	43(38.4)	36(24.2)		
	Friends	21(18.8)	38(25.5)	11.3	0.023
	Teachers	16(14.3)	17(11.4)		
	Textbook	21(18.8)	26(17.4)		
3	<b>Awareness of HIV</b>				
	Yes	106(94.6)	90(60.4)	40.0	0.0001
	No	6(5.4)	59(39.6)		
4	<b>Awareness of HPV Vaccine</b>				
	Yes	60(53.6)	60(40.3)	4.5	0.033
	No	52(46.4)	89(59.7)		
5	<b>Seeking help for temper control</b>				
	Yes	86(76.8)	58(38.9)		
	No	26(23.2)	91(61.1)	37.0	0.0001
6	<b>Cause of mental illness</b>				
	Caused by spirits	10(8.9)	53(35.6)		
	Heredity	7(6.3)	45(30.2)		
	Environmental problems	83(74.1)	41(27.5)		
	Karma	12(10.7)	10(6.7)	67.6	0.0001
7	<b>Signs of depression</b>				
	Loss of sleep	51(45.5)	49(32.9)		
	Loss of appetite	3(2.7)	37(24.8)		
	Excessive eating	6(5.4)	26(17.4)		
	Isolating themselves	26(23.2)	27(18.1)		
	Not taking care of themselves	24(21.4)	10(6.7)		
	All	2(1.8)	0(0.0)	44.8	0.0001

## 6. Conclusion

The findings of our study confirm the need for providing a scientific knowledge regarding HIV AIDS, HPV and mental health among the adolescent girls. From our study we observed that the knowledge levels were fairly higher among girls studying in women's college, probably due to increased access of internet and social media. The interaction among the peers is stronger in this group and there is a lack of inhibition to gain knowledge regarding mental and sexual health issues which has increased their ability to gather information on the same. In contrast among co-education colleges it has been observed that the awareness and the attitude are for poorer compare to their counterparts in women's college. The reason has not been explored so far but it appears that the interaction is limited in this group, and in addition there could have been restrictions/ hesitation in obtaining the information. However it is to be emphasized that the participants in the co-education college are for more vulnerable and susceptible to sexual abuse, substance abuse and abnormal social behaviours. Therefore the need for an awareness and change in attitude and perception regarding mental and

sexual health is warranted in this group.

## 7. Source of Funding

None.

## 8. Conflict of Interest

The author(s) declare(s) that there is no conflict of interest regarding the publication of this article.

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