

# A Survey on Stigma Related to Mental Health, and Prevalence of Depressive Symptoms among Private and Government Senior Secondary School Girls in Delhi

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## ABSTRACT

**Background :** Studies all around the world report the prevalence of depression to be higher in women. Thus, this study aims to assess the prevalence of depressive symptoms, and to understand the knowledge and awareness about mental health and the related stigma among 11<sup>th</sup> and 12<sup>th</sup> standard school girls in Delhi.

**Method :** To assess the prevalence of depressive symptoms, the CES-D Scale was used, and a short questionnaire was constructed to explore the factors related to stigma around mental health issues. The sample consisted of 146 girls from all-girls schools- one private and one government. The permissions were sought from institutional heads. The data collection took place through an online form, wherein consent from all participants was taken; and to ensure the confidentiality of the students, no identifying detail was asked.

**Results :** The prevalence of depressive symptoms came out to be 65.07% among the students; the private and government schools differed significantly on the prevalence of depressive symptoms. The knowledge and awareness about mental health came out to be varied and multifaceted, and the related stigma was reported to be high in our society.

**Conclusion :** The prevalence of depressive symptoms was high among adolescent school going girls. There needs to be more awareness and knowledge generation in this age group for better mental health care; and at school levels, plans could be made to include parents to help reduce the stigma around mental health issues.

**Key Words :** Depressive symptoms, Adolescent girls, Senior secondary school students, Mental health, Stigma

## INTRODUCTION

Common mental health disorders include depression, generalised anxiety disorder (GAD), panic disorder, phobias, social anxiety disorder, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD) (NCCMH, 2011). Depression and anxiety show a high degree of comorbidity, have similar epidemiological profiles and respond to similar treatments (Buttorff *et al.*, 2012). India accounts for one-fifth of the world's adolescents (Nair *et al.*, 2017), and mental health stigma is a problem all around the world (Maunder and White, 2019). Prevalence of depression is higher in women as

compared to in men (Albert, 2015). Hence, the study focused on only girl students. Also, the sociological challenges faced by a girl child/adolescent in our society, led the study to be targeted towards the girl sample.

### Depression in Adolescents:

Depressive symptoms have been on a rise worldwide and its sources are multiple (Thapar *et al.*, 2012), and, today, even social media use contributes to elevation of depression among adolescents (Dhir *et al.*, 2018). A meta-analysis estimated the prevalence of major depressive disorder among adolescents aged 13-18 years to be 5.6 per cent (Costello, Erkanli, and Angold, 2006).

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The onset of depression during adolescence predisposes to lifetime recurrence of depressive episodes, particularly in women (Lewis *et al.*, 2017). As per the National Mental Health Survey of India (2015–2016), the prevalence of psychiatric disorders among adolescents (13–17 years) is reported around 7.3%. Studies have been carried out in various parts of India to study the level of depressive symptoms in school students. Kumar *et al.* (2018) found the prevalence of depression to be 47.9%, mostly moderate depression and more in females of late adolescent age group in Delhi schools. Study conducted in Udupi Karnataka found similar results- 40% prevalence of depression, and that it was higher in adolescent girls (Verma, Rao, Andrews, and Binu, 2019). Study from Chandigarh showed that a significant proportion of school going adolescents suffered from depression (Singh, Gupta, and Grover, 2017). A cross-sectional study carried out in a district of Northern India found the prevalence of depression to be 39.7% among school going adolescent girls (age 10-19 years) (Shukla *et al.*, 2019). Study done in an urban area of Bihar, India, for prevalence of depression among school going adolescents found the prevalence of depression to be 49.2%, wherein the prevalence of severe depression was 7.7%; the overall prevalence of depression was significantly higher among girls (55.1%) than boys (45.8%) (Jha *et al.*, 2017). A review of Indian studies found that available data suggests that the point prevalence of depression/affective disorders ranges 3%–68% in school-based studies (Grover, Raju, Sharma, and Shah, 2019).

### **Mental Health and Stigma:**

Mental health is an integral and essential component of health. The WHO constitution states: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. An important implication of this definition is that mental health is more than just the absence of mental disorders or disabilities. Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community (World Health Organisation, 2018). This gives a very holistic definition for health, of which mental health is a big part. As there is increasing use of social media among Gen Z, it has become an effective medium to spread awareness among internet users about various campaigns, awareness about mental health related problems have

also been on a rise because of this (Saha *et al.*, 2019). In addition to this, from time to time we see celebrities coming up and talk about their journeys with mental health problems, which again starts the topic of mental health, its awareness, and the stigma that is related to it in our society. Despite there being various sources for people to get to know about mental health problems, there is still a stigma attached to it, and it affects help seeking behaviour of people suffering from mental health related problems. There is also a lack of knowledge among health care workers due to which signs of poor mental health are overlooked (Nebhinani and Jain, 2019). There have been multiple studies in and out of India which indicate that there is lack of awareness and the existence of stigma when it comes to mental health related problems (Vadageri, 2020; WHO, 2018). In an epidemiological survey of mental health in adolescent school children of Gujarat, it was found that girls have more emotional problems and that rural children have more mental health issues; it concluded that at least one in eight adolescents in the study was at risk of mental health problems (Nair *et al.*, 2017). Findings from a mental health literacy survey from an urban slum setting in India showed that the majority of the young women felt friends and parents were sources of help, and that stigma and lack of awareness were the reasons for not considering professional help (Saraf *et al.*, 2018).

### **Objectives:**

1. To study and compare the prevalence of depressive symptoms in private and government school school girls (age 15–18 years).
2. To know whether there's a difference in the depressive symptoms among private and government school girls (11<sup>th</sup> and 12<sup>th</sup> standard).
3. To understand and compare the knowledge and awareness of private and government school girls about mental health and the stigma related to it.

## **METHODOLOGY**

### **Design:**

The present study is a cross-sectional study, aiming to assess the prevalence of depressive symptoms, and to understand the knowledge and awareness of mental health, and stigma related to it among senior secondary school girls in Delhi, India. The sample is collected through convenience sampling, and it is from two all-girls schools (one private and one government). To assess the

depressive symptoms, the CES-D scale is used; and for understanding the knowledge and awareness about mental health and stigma, a short questionnaire, consisting objective and subjective questions, is constructed. The scale and the questionnaire were made into a google form link with a consent form at the start stating the purpose of the study for the participants and informing that confidentiality would be maintained.

### **Ethical considerations:**

Permissions were sought from the principals and the respective class teachers of the selected schools. Consent from all participants was taken, and no identifying feature was asked for. Strict confidentiality was maintained.

### **Sample:**

The data were collected using convenience sampling. The sample consisted of 146 school girls (11<sup>th</sup> and 12<sup>th</sup> standard), aged 15-18 years, of which 70 were from a private school and 76 were from a government school (students from section A were taken because the education system policy puts English medium students in Section A of every batch; and so, the medium of instruction for the study could be controlled).

**Table 1 : Demographics of the Data**

Data characteristics		N (%)	Mean (SD)
Sex	Female	146(100)	
Age (in years)	15	28(19.2)	16.25(.81)
	16	61(41.8)	
	17	50(34.2)	
	18	7(4.8)	
School Type	Private	70(47.9)	
	Government	76(52.1)	
Standard	11th	80(54.8)	
	12th	66(45.2)	
Education of Parent(s)	School	65(44.5)	
	Graduation	61(41.8)	
	Higher	13(8.9)	
	No Education	7(4.8)	
Parent(s)	Working	137(93.8)	
	Not Working	9(6.2)	

### **Tool:**

#### **Center for Epidemiological Studies-Depression (CES-D) Scale:**

It was developed specifically to identify depression

in the general population (Radloff, 1977), and is now used as a screener for depression in primary care settings (American Psychological Association, 2020). Initial testing of the CES-D was done with people of different economic and racial backgrounds. There are 20 items, scored on a 4-point scale, which measure major dimensions of depression experienced in the past week. (*i.e.*, rarely, some, occasionally, and most or all of the time). The items are compatible with criteria for depression given in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). A score of 16 or above suggests a high level of depressive symptoms. This questionnaire has been extensively validated, standardized, used in different settings and is renowned in the field of psychiatric epidemiology (Nezu, Nezu, McClure, and Zwick, 2002). The CES-D can be used for children as young as 6 and through older adulthood. It has been tested across gender and cultural populations and maintains consistent validity and reliability. The scale takes about 20 minutes to administer, including scoring. The internal consistency (Cronbach's Alpha) of the scale for the present study is .872.

### **Short Open-ended Questionnaire:**

1. What do you understand by mental health? (Comment)
2. How would you rate your present mental health state on the scale of 1 - 10? (1= very poor, 10= very good)
3. In a situation where your family member or you yourself is in need of mental health service, will you go for it? Options- yes/no
4. Who do you go to for mental health related problems? (You can choose more than one option)  
Options- counsellors, psychologists/therapists, psychiatrists, all of the above
5. If you are facing mental health related problems, with whom will you share the information? (You can choose more than one option) Options- Family, friends, teachers, school counsellor
6. Do you think that people in general have awareness about mental health related issues? Options- yes/no
7. Have you ever sought help for mental health related issues for yourself?  
Options- yes/no
8. In your opinion, is there a stigma around mental health problems in our society? Options- yes/no (Support

your answer).

#### **Procedure:**

The hard copy of the form was submitted to the schools, and permission was granted to the researcher to go ahead with the study. The google form link was then circulated among the school girls by the class teachers (who read the consent forms for the purpose of the study) of classes 11<sup>th</sup> and 12<sup>th</sup> of the selected schools. The authorities were briefed about the study and so were the participants through the consent form, and the researcher's contact information was provided for debriefing purposes. The data were collected in the month of September, 2020.

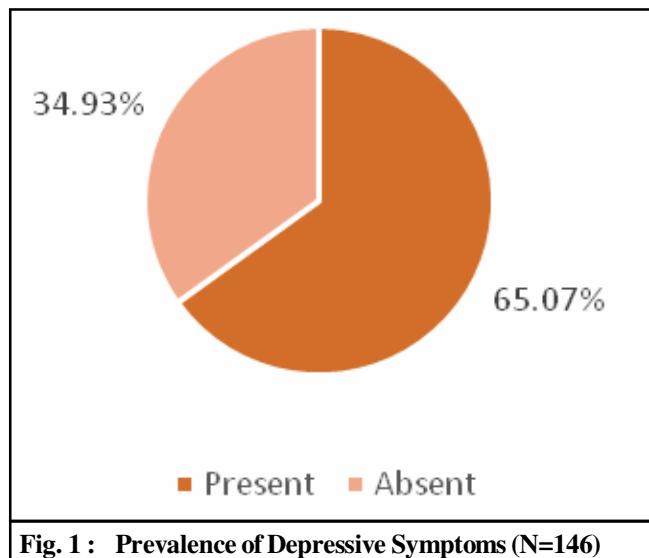
#### **Method of analysis:**

The IBM SPSS version 21 was run for analysis of data. Internal consistency of the scale was analysed for the sample, descriptive statistics for frequencies and percentages, and Independent Samples t-test was run to see whether there's a difference in depressive symptoms among school girls of private and government schools. To interpret the qualitative data (text), themes were derived from the text and then were quantified using the research tool- content analysis.

## **RESULTS AND DISCUSSION**

The prevalence of depressive symptoms in school girls (N=146) is 65.07% (Table 2). The prevalence of depressive symptoms in private school girls is 68.57%, and in government school girls it is 61.84%.

The mean (SD) for private and government school girls is 25.24 (12.13) and 21.18 (10.49), respectively. The independent samples t-test show that there is a significant difference [ $t(144)=2.166$ ,  $p=.032$ ] in the elevated depressive symptoms among the girls of private and government schools (Table 3).



**Fig. 1 : Prevalence of Depressive Symptoms (N=146)**

#### **Understanding of mental health:**

Mental health is understood as the "mental state" being satisfied and stable by most participants (26.02%). Next comes "psychological well-being" and "emotional health or positive emotions", both of which comprise 17.5% of the answers given by the participants. Then comes the response "mind's health" by 10.9% of the participants. The aspect of "thinking/ thought process" is mentioned by 9.5% of the participants. "Handling stress" is another response that's mentioned by the participants (8.2%). Other dimensions of mental health as understood by participants are- "suffering from mental illness (depression, loneliness) affects mental health", "not think bad things", "relate to others", "choosing well", "physically fit", "adjust in the surroundings", "deal with uncertainties/ changes", and "ability to be aware and living life".

Differences in the understanding of mental health by the participants of private and government schools are seen. The aspect of "suffering affects mental health" is mentioned the most (22.3%) by the participants of

**Table 2: Prevalence of Depressive Symptoms in senior secondary school girls**

Depressive Symptoms	Total No. of Cases (%)	No. of cases in private school (%)	No. of cases in government school (%)
Absent	51 (34.93)	22 (31.43)	29 (38.16)
Present	95 (65.07)	48 (68.57)	47 (61.84)

**Table 3: Difference among private and government school girls on depressive symptoms**

School Type	n (N=146)	Mean	Standard Deviation	t-test	df
Private	70	25.24	12.13	2.166 (.032) *	144
Government	76	21.18	10.49		

\*Significant at 0.05 level of significance (2-tailed)

Themes	Private School Participants (%)	Government School Participants(%)
Mind's health	7.1	14
Handling stress	8.5	7.8
Thinking bad things	2.8	5.2
Emotional health	25.7	23.6
(Happiness and positive emotions)		
Relate to others	12.8	7.8
Physical Fitness	4.2	5.2
Suffering affects mental health	4.2	22.3
Psychological well-being	22.8	10.5
Thinking/Thought process	12.8	6.5
Mental state/condition (satisfied/stable)	25.7	13.1
Adapt to change	7.1	6.5
Able to live in reality	5.7	9.2

government school, they used more words related to disorders such as, depression, loneliness, and anxiety, as compared to the participants of private school (4.2%). Whereas “mental state/condition being stable or satisfied” is mentioned the most (25.7%) followed by “psychological well-being” (22.8%), by private school participants in comparison to participants (13.1% and 10.5%) of government school for the two aspects, respectively. Next, a difference is noticed in the aspect of “mind’s health or ‘mann’ (as answered by 3 participants of government school)”, it’s mentioned more by the participants of government (14%) in comparison to private school participants (7%). Lastly, a few participants of private school see mental health as “peace in life”, “acceptance of reality”, and “having a good social media handle”.

#### Perception of stigma related to mental health problems in society:

The participants expressed whether there is a stigma related to problems of mental health in our society, and most participants (69.17%) think that yes, there is a stigma in our society. Not all participants supported their answers with a comment. However, those who did, their responses helped derive various themes (Table 5) around stigma present in our society towards mental health

Themes	Private school participants (%)	Government school participants (%)
Taboo (shameful, bad thing, negative attitude)	21.4	13.1
‘Big’ issue in society	10	10.5
Not serious	11.4	3
Attention seeking (tantrums)	5	2
Name calling/mocking (words like psycho, mad, stupid, not fit, insane and crazy)	11.4	6
Worldwide problem	2.8	6.5
Lack of awareness	11.4	6.5
Discrimination (less opportunities) and hate	10	5.2
Hesitance in seeking help	7.1	3.9
Conditions like poor housing, poverty and unemployment-adds to stigma	-	5.2

problems. Most participants (17.1%) mentioned that mental health problems are a taboo; next, that it is a ‘big’ issue in our society (10.2%); and that there’s name calling (8.9%) and lack of knowledge (8.9%) in our society whenever mental health problems come up.

The comparison between participants of private and government schools show that a greater percentage of participants think that there is a stigma related to mental health problems in society, *i.e.*, 75. 71% and 63.15% participants of private and government school, respectively. The comments received with regards to the presence of stigma related to mental health problems from participants of both the schools are similar. The only difference that could be gathered was the last theme that talks about the conditions that add on to the stigma, by a few participants (5.2%) of government school when, in comparison, there’s no mention of the theme by the participants of private school (Table 5).

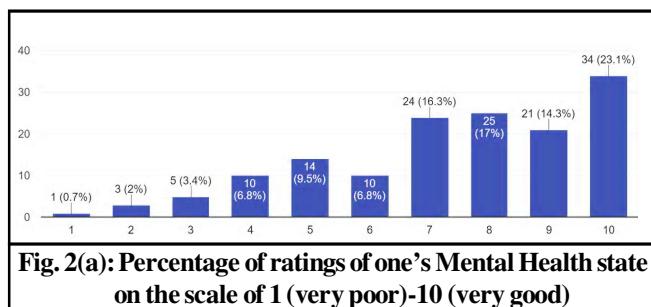
The percentage of participants who said that there’s no stigma is less in both schools, *i.e.*, 24.3% and 36% participants of private and government school, respectively. The reasons given by the participants of both the schools are similar and are along the lines- “that there is awareness and help available for mental health issues”, “there are hospitals that people can go to”, “I will help”, “I will advise my neighbours”, and that “there’s

no shame, one can go for help".

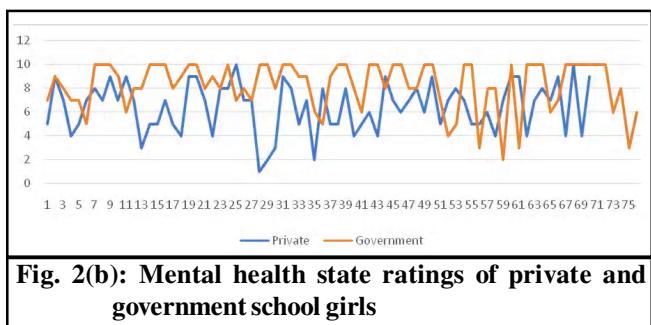
#### Rating of mental health state:

Fig. 2(a) shows mental health rating of the total sample, and the score 10 is given by most participants (23.1%). High percentage (77.6) of participants lie in the upper bracket of the rating scale, *i.e.* relatively good mental health state. While some cases (22.4%) lie in the 1-5 bracket, *i.e.* poor mental health state.

Fig. 2(b) depicts the mental health state ratings given by participants of private and government schools. We see that the participants of government school have given better ratings of their mental health state than their counterparts in private school. This result corresponds to the previous findings with regards to the prevalence of depressive symptoms in participants of private school being higher (Table 2).



**Fig. 2(a): Percentage of ratings of one's Mental Health state on the scale of 1 (very poor)-10 (very good)**

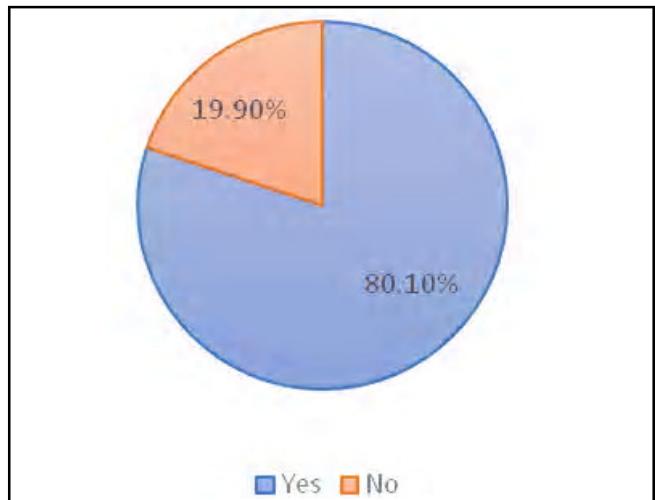


**Fig. 2(b): Mental health state ratings of private and government school girls**

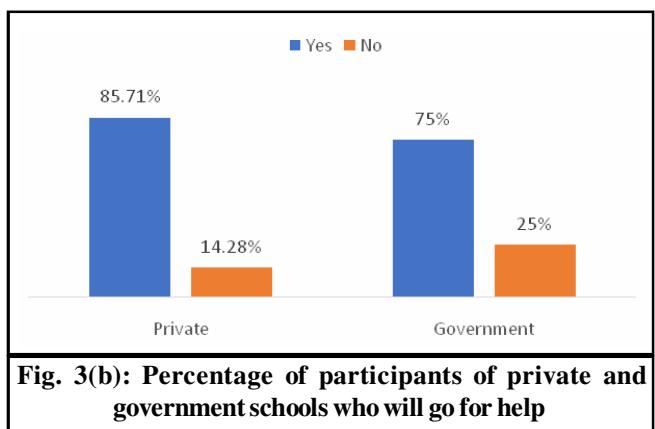
#### Help seeking behaviour when facing mental health related problems:

Fig. 3(a) shows that 80.1% of the participants would be willing to seek help when faced with mental health related problems, whereas 19.9% of the participants will not seek help.

Fig. 3(b) shows that 85.71% of the private school participants and 75% of the government school participants would seek help when faced with mental



**Fig. 3(a): Percentage of participants who will go for help**



**Fig. 3(b): Percentage of participants of private and government schools who will go for help**

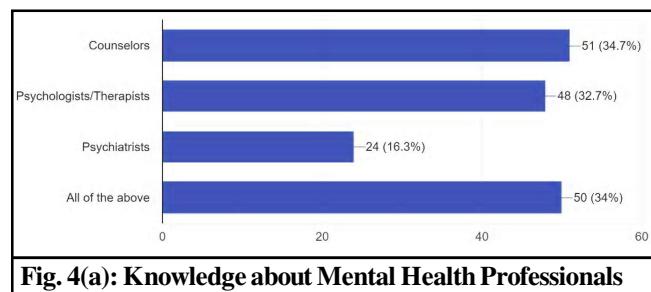
health related problems. On the other hand, 14.28% and 25% participants of private and government school, respectively, would not seek help for mental health related problems. The help seeking behaviour is, thus, more in participants of private school.

#### Knowledge about mental health professionals:

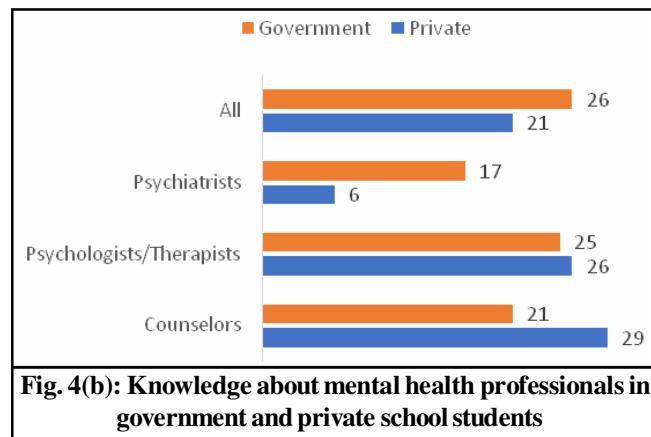
Fig. 4(a) shows knowledge among the participants about mental health professionals. There's equal percentage (34%) of responses for the options "counsellors" and "all of the above", then comes "Psychologists/Therapists" (32.7%), and lastly "Psychiatrists" (16.3%). This depicts that besides the knowledge being present about all of them being mental health professionals, counsellors are generally known to be mental health service providers.

Fig. 4(b) shows that a greater number of responses with the option "all of the above" are given by participants

of government school (26) as compared to participants of private school (21). The option “psychiatrists” received more responses from participants of government school (17) as compared to participants of private school (6), and overall received the least number of responses from participants of both the schools as compared to the other options. The option “Psychologists/Therapists” received almost the same number of responses from private (26) and government (25) school participants. And lastly, the option “counselors” received a greater number of responses from participants of private school participants (29) than government school (21).



**Fig. 4(a): Knowledge about Mental Health Professionals**



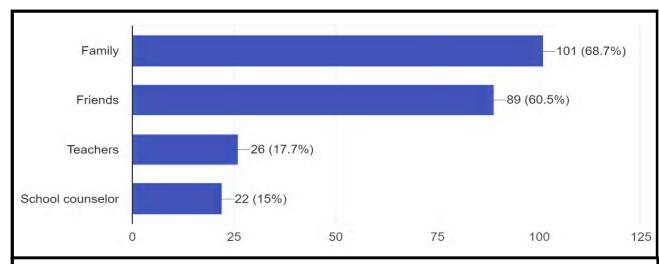
**Fig. 4(b): Knowledge about mental health professionals in government and private school students**

### Sharing of information related to mental health problems:

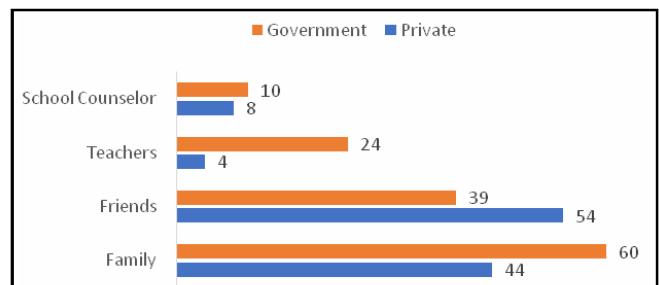
Fig. 5(a) shows that most (68.7%) participants would share information about their mental health problems with their family. Next comes friends (60.5%), followed by teachers (17.7%), and, lastly, comes the school counsellor (15%).

Fig. 5(b) shows that ‘family’ responses are more in number from the government school participants (60) as compared to private school participants (44), and is the most preferred option for the participants of government school. On the other hand, more private school

participants (54) would share the information about their mental health problems with their friends than the participants of government school (39), and ‘friends’ is the most preferred option for private school participants. ‘Teachers’ got more responses from government school participants (24) than private school participants (4), and is the least preferred option for the participants of private school. Lastly, ‘school counsellor’ received almost the same number of responses from participants of government (10) and private (8) schools, and is the least preferred option by the participants of government school.



**Fig. 5(a): Percentage representing with whom will the participants share information about their mental health related problems**



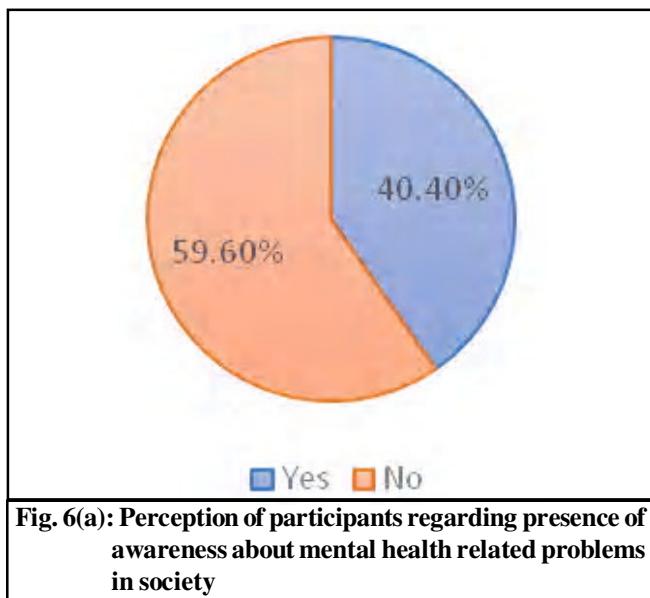
**Fig. 5(b): With whom participants of government and private schools will share the information about mental health related problems**

### Perception of awareness present in society about mental health related problems:

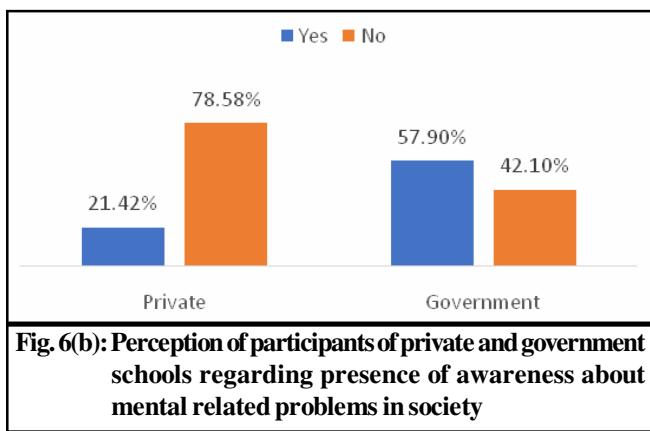
Fig. 6(a) shows the perception of participants regarding awareness of mental health related problems in the society, and it indicates that for the most part (59.6%) there’s no awareness in the general population, and that lesser number of participants (40.40%) think that there is awareness in the society about mental health related problems.

Fig. 6(b) shows that most private school participants (78.58%) think that there’s no presence of awareness about mental health related problems in society, and only

a small part (21.42%) thinks that it is present. On the other hand, more participants (57.9%) of government school think that there is awareness about mental health related problems in the society, and, relatively, less participants (42.1%) think that there is no awareness.



**Fig. 6(a): Perception of participants regarding presence of awareness about mental health related problems in society**



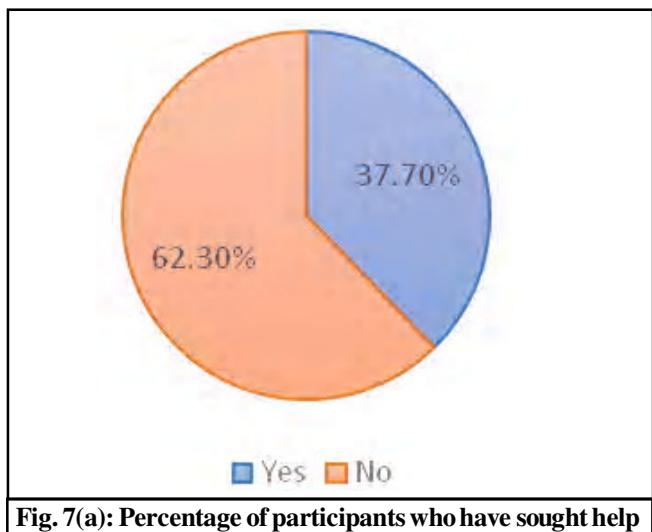
**Fig. 6(b): Perception of participants of private and government schools regarding presence of awareness about mental related problems in society**

#### Help sought when faced with mental health related problems:

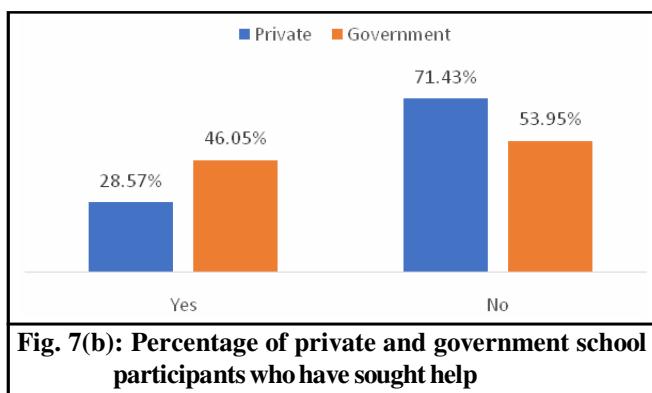
Fig. 7(a) depicts the percentage of participants who've sought help when faced with mental health related problems, i.e. 37.70%, and that 62.30% haven't sought help which makes the majority of the sample.

Fig. 7(b) depicts that fewer participants (28.57%) of private school have sought help, and a large part (71.43%) hasn't sought help. On the other hand, for the participants of government school, though less in number than the participants who haven't sought help (53.95%),

the number of participants who have sought help is greater (46.05%) than the number of private school participants who have sought help.



**Fig. 7(a): Percentage of participants who have sought help**



**Fig. 7(b): Percentage of private and government school participants who have sought help**

#### Discussion:

The present study was conducted to assess the prevalence of depressive symptoms in senior secondary school girls; further, the study aimed to understand and compare the knowledge and awareness about mental health and the related stigma among the school girls of private and government schools. The findings of the study show that prevalence of depressive symptoms among the senior secondary school girls is high (Table 2). Participants were girls and some previous studies have demonstrated depression being higher among school going adolescent girls. It has been corroborated by a study conducted in Raipur city (Verma *et al.*, 2014) for assessment of magnitude of depression among 12<sup>th</sup> graders in which depression was found to be more in females as compared to in males. The reasons for

prevalence of depression being higher among adolescent girls could be family pressure to perform well, more academic pressure in higher classes, especially due to board examination (Bhasin *et al.*, 2010). There could be reasons involving emotional problems, poor relationship with family, and peer pressure (Verma *et al.*, 2014). In the adolescence stage there are dramatic increases in cognitive ability and reasoning capacity, this increased capacity to reflect on the developing self and the future is thought to play a role in the possibility of experiencing depressed mood (Malhotra and Sahoo, 2018). Adolescent depression is more closely tied to female hormonal changes which suggests that depression is directly linked to pubertal changes in hormone–brain relations (Angold *et al.*, 1999). However, hormonal changes alone rarely produce the behavioural or neural signs of depression, and are more likely to contribute by sensitising the brain to the harmful effects of stress (Soares and Zitek, 2008).

The prevalence of depressive symptoms was found to be higher among participants of private school than their counterparts in government school (Table 2). Reason for the difference could be the trend for students of 11<sup>th</sup> and 12<sup>th</sup> standards to take additional coaching classes, this holds true more for students of private school as they come from, relatively, a higher socio-economic background in our country. In a study (Bharucha, 2018), every single school student who was interviewed was found to be taking tuitions for regular studies and 40% of these school students took coaching classes for courses outside the purview of regular studies. Students do not have time for themselves, and, thus, there is an increase in symptoms of depression as it's seen that hobbies act as protection against depression. Zare *et al.* (2018) also noted stress to be higher in private school students than in public school students of RHTC area catered by private medical college in south India.

Mental Health Day is celebrated on the 10<sup>th</sup> of October, and there are various awareness campaigns on social media and in higher education institutions, but these campaigns are not highly prevalent in schools. Although school policies have been changing with respect to concerns for students' mental health, the question arises - do the students have the right information about what mental health is and what its problems entail? The present study demonstrates the themes around mental health as understood by the participants, and it's seen how the meaning of mental health is inaccurate and/or not wholly known. Mental health literacy (MHL) is particularly

important during adolescence and early adulthood which are considered as the peak period for the onset of mental disorders; and limited MHL creates barriers to help seeking behaviour (Saraf *et al.*, 2018). In a study by Vadageri (2020), similar themes around mental health emerged, such as, free from tension, mentally fit and fine, psychological condition of a person, happy person, physically healthy; it was concluded that perception of mental health was similar in adolescent participants of private and government school, and that interventions are needed to create awareness about mental health among school students. Lam (2014) found that an inadequate mental health literacy level is significantly associated with moderate to severe levels of depression among Chinese adolescents. A study in Assam (Harikrishnan *et al.*, 2017), concluded that schools should periodically screen adolescents for mental health related issues. This need for screening shows that girls have high rates of depression. Lack of knowledge of symptoms and stigmatisation associated with mental health problems causes negative attitude towards help-seeking. In our findings, the majority of the participants have reported to believe the stigma around mental health to be present in our societies. People with mental illness report frequently encountering negative attitudes and experiencing discrimination in many different domains, including from friends and family, in intimate relationships, in employment, housing, and education, and when dealing with law enforcement and health professionals (Lasalvia *et al.*, 2013; Jorm, 2000). Stigma and discrimination in relation to mental illnesses have been described as having worse consequences than the conditions themselves (Farrelly *et al.*, 2015; Clement *et al.*, 2015) and that for specific target groups, such as students, social-contact-based interventions usually achieve short-term attitudinal improvements (Thornicroft *et al.*, 2016).

### **Conclusion:**

According to this study, the prevalence of depressive symptoms is high in adolescent school girls in Delhi. There's a lack of awareness and knowledge about mental health related problems in society, and, thus, there's a lot of stigma. There's an urgent need to identify higher rates of depressive symptoms in school going adolescents, and work at a structural level to counter these issues.

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