

Assessment of Mental Health Problems of Adolescent School Going Children: A Comparative Study between English & Bengali Medium Students

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ABSTRACT

Aim: *The study was conducted to find out prevalence of mental health problems among Indian adolescent school going children aged 12-16 years and to compare the mental health status of male and female students attending English and Bengali medium schools. Method:* *The study was conducted in two English and two Bengali medium schools. The self report version of SDQ was administered to 296 (167 male+129 female) students of English medium and 271(129 male+142 female) students of Bengali medium schools. Result:* *A total of 9.2% students reported very high score or abnormal rating with another 6% in borderline scoring high. Among them 10.8% of the males rated very high with 6.4% as high and 9.4% of the females scored very high with 5.5% as high. Prevalence rate among English medium students was higher with 12.2% scoring very high or abnormal rating as against 5.9% of Bengali medium. Mental health problem was found more in male students than female. Conclusion:* *Mental health problems among adolescent school children are common. Identification of the problem and addressing their mental health needs are crucial for proper development of their potential and personality.*

Key words: Mental health; SDQ; Adolescent; Behavior; Emotional; Hyperactive; Peer problem; Prosaically

INTRODUCTION:

The mental and behavioural problems of children studying in schools have become a serious concern for educators, parents, psychologists and society as well. It is felt that behavioural problems of school going children come in the way of teaching learning process and the children's own learning. In most cases these problems of children are neither identified properly nor addressed and at times the extent of these problems and their overall impact on the child's development becomes serious. Abnormal activities of the children like misbehavior, extreme violence, substance abuse, anti social activities, suicide etc. quite often become headlines of news papers, magazines and topics of seminars.

According to WHO Mental Health is "A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stress of life, can work productively and fruitfully, and is able to make contribution to his or her community." As such mental health refers to maintenance of successful mental activities like- maintenance of relationship, maintenance of productive daily activities, and maintenance of the ability to adapt to change and cope with stress. Briefly Mental Health can be defined as how a person thinks, feels, acts



when faced with life situation. It is a state of balance between the individual and surrounding world, a state of harmony between oneself and others, a coexistence between the realities of the self and people, and that of the environment (Sartorius 1983). In the World Health Report WHO has said that concepts of mental health include subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependence, and self-actualization of one's intellectual and emotional potential, among others (WHO 2001). Thus, Mental Health is a balanced development of individual's personality and emotional attitudes which enable him to live harmoniously with his society (Arumugam et al. 2013) as mental health is very crucial for overall wellbeing of individual, society and country as well.

Adolescent school going children pass through a period of physical, psychological, emotional and personality change which generally bring about stress and emotional and behavioural problems in their life. This is the time when children make difficult school and life transition. Many adolescent school going children suffer from mental health problems that interfere their normal development and daily life activities which amounts to lower education achievements, substance abuse, violence, depression, anxiety, suicide etc. Poor mental health causes many other diseases in young generation. World Health Organization estimated that mental and behavioural disorders account for about 12% of the global burden of diseases. In India the burden of mental and behavioural disorders ranged from 9.5 to 102 per 1000 population (Venkateshiva Reddy B et al. 2013).

In India it is often seen that people are less aware about mental health and its related problems. They are not concerned unless it becomes a major problem requiring medical treatment. These problems are required to be identified at the developmental stage for proper

intervention. A few epidemiological studies have been carried out in different parts of the country in different socio-cultural environment. But it is felt that data so gathered are not adequate to generalize the problem for the whole country. Mental disorders are seen to vary across time, within the same population at the same time. This dynamic nature of the psychiatric illness impacts its planning, funding and healthcare delivery (Venkateshiva Reddy B et al. 2013). As such it is necessary that many more epidemiological studies are conducted in different parts of the country at different time in same or different socio-cultural settings and particularly among adolescent school going children to formulate a proper mental health policy and program me.

REVIEW OF RELATED LITERATURE:

Mental Health means realistic awareness and assessment of self, clarity of thought process, awareness regarding one's own emotions and effective ways of expressing them, healthy social relations and interactions and ability to face problems in day to day living (Chatterjee D 2007). As such mental health affects a person's thought process, emotions and behavior. A sound mental health is very important for shaping up a balanced personality at the formative stage particularly in adolescent school going children because this is a stage when they grow physically, psychologically, emotionally and intellectually.

Mental disorders account for a large proportion of disease burden in young people in all societies (Patel V et al. 2007). According to an estimate of the World Health Organization, mental and behavioral disorders account for about 12% of the global burden of diseases (WHO 2001). In a study conducted in AIIMS it is estimated that in India the burden of mental and behavioural disorders ranged from 9.5 to 102 per 1000 population (Venkateshiva Reddy et al. 2013). Mental Health related problems are



becoming a serious global concern. In a research report published by WHO stated that nearly one in five children will have an emotional / behavioural disorder at some time during their youth regardless of where they live or how well to do they are (Hendren R. et al. 1994) while World Health Organization estimated that one person in every four will be effected by a mental disorder at some stage of life and mental disorders represent four of the ten leading causes of disability worldwide (WHO 2001).

Mostly it is observed that mental health related problems begin during the age of 12 – 24 years. In a research paper published in the Lancet it is stated that according to selected studies of prevalence of mental disorders in young people by different countries in the children of 4-17 years are Australia- 14%, Brazil-13%, Netherlands - 8%, India - 13%, South Africa- 15%, UK -12%, USA - 21% (Patel V. et al. 2007).

In India several research studies were made to find out prevalence of mental disorder in adolescent children both Community based and School based. In a review study it was recorded that the total prevalence rates ranged from 3.23% to 36.50% in 23 school based studies conducted over a period from 1978 to 2002 (Purnima Bhola et al. 2002). A study was conducted in Bangalore in 2005 and documented a rate of 12.5% as the burden of mental disorder among 4-16 year children (Srinath S et al. 2005), Whereas in Kerala a study documented the prevalence of mental disorder in children to be 9.4% (Hackett R et al. 1999). A Pune based study revealed that the overall life time prevalence of mental disorders to be nearly 5% (Deswal BS et al. 2012). In a systematic study and meta analysis conducted in 2014 the following school based studies were included (Malhotra s et al. 2014).

Haryana (rural)	-	5-12 yrs	-	20.7%	(Jocloha et al. 1981)
Tamil Nadu (urban)	-	8-12 yrs	-	33.7%	(Devi Sigamani 1990)
W.B (rural)	-	8-10 yrs	-	23.0%	(Mehta 1991)
W.B (rural)	-	8-10 yrs	-	33.33%	(Banerjee 1997)
Punjab (urban)	-	9-11 yrs	-	45.6%	(Gupta 2001)
Chandigarh (urban)	-	4-11 yrs	-	6.33%	(Malhotra 2002)
Punjab (urban)	-	10-15 yrs	-	20.2%	(Bansal 2011)

In another study it is recorded that 10.36% of 11 to 16 years old children had an abnormal SDQ Score and suggested that they were likely to suffer from some degree of mental health issues considering mental health issues are common among general adolescent population in India (Reddy BK et al. 2011). A survey was conducted in eight secondary schools in Kolkata in the years 1998 to 2000 which revealed that 23.8% of children were suffering from mental health problems (Chatterjee P et al. 2007).

AIMS & OBJECTIVES:

The study was conducted with the following aims and objectives:

- To find out prevalence of mental health related problems of the adolescent school going children of the age group of 12 to 16years.
- To find out the relationship of mental health problems with gender and medium of their study.

METHOD AND PROCEDURE:

The present study is a cross sectional survey among the school going adolescents using Strength & Difficulty Questionnaire (SDQ)

(Goodman 1997) obtaining necessary permission from the heads of respective schools. The survey was conducted in two English and two Bengali medium schools of urban Kolkata.

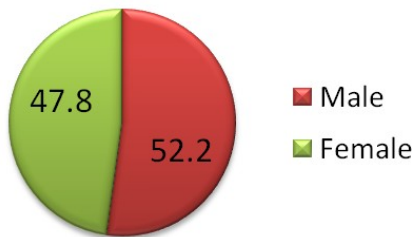
Sample: The study sample consisted of a total number of 567 (296 male and 271 female) high school going children studying in class

VIII and IX in the age group of 12-16 years. Out of which 296 students study in English medium schools and 271 study in Bengali medium schools. The detail of age, medium and gender wise distribution of the students under study is given in Table 1 and Figure 1 below:

Table 1 : Age wise distribution of tudents

Age	English Medium			Bengali Medium			English + Bengali Medium		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
12 Y	1	3	4	22	49	71	23	52	75
13 Y	38	47	85	53	63	116	91	110	201
14 Y	91	56	147	39	79	63	130	85	215
15 Y	36	19	55	13	1	14	49	20	69
16 Y	1	4	5	2	-	2	3	4	7
Total	167	129	296	129	142	271	296	271	567

Figure 1 : Gender distribution



Tool: The Strength and Difficulty Questionnaire(SDQ) was used to collect data as it is simple and user-friendly tool to predict both emotional and behavioural problems. SDQ is a brief mental health questionnaire measuring 25 attributes, some positives and some negatives (Goodman 1997). These are further grouped into 5 subscales of 5 items each generating scores for emotional and behavioural problems indicating emotional, conduct, hyperactivity, peer problems and pro-social behavior. The scores for each subscale/category ranges from 0-10 and adding these except pro-social behavior the total difficulty score is generated(Table 2).

Table 2: Value of SDQ Scoring:

	Close to average	Slightly raised/(lowered*)	High/(Low*)	Very High/ (Very Low*)
Total difficulties score	0-13	14-16	17-19	20-40
Emotional problem score	0-3	4	5-6	7-10
Conduct problem score	0-2	3,4	5	6-10
Hyperactivity score	0-5	6,7	8	9,10
Peer Problems score	0-2	3	4	5-10
Prosocial score	8-10	7	6	0-5

*only for prosocial score.

Note: *Close to average and Slightly raised may be considered as Normal, High as Border Line with risk to have mental health problems and Very High as definite and severe mental health problems requiring intervention.*

The SDQ has been shown to be of acceptable reliability and validity, performing at least as well as Rutter Questionnaire and Child Behaviour Check list (Goodman & Scott 1999 as quoted by Hussein, S.A. 2010). Research by Kessler et al. has shown that the brief version of the SDQ is a reliable and valid instrument for screening psychiatric disorder in adolescent (Pastor, N.P. et al. 2012). The original English version of SDQ is translated in 60 different languages of different countries and is widely used by the scholars, psychologists and clinician across the world.

ANALYSIS & RESULT:

The study was conducted on a total 567 students out of which 296 (52.2%) were male and 271 (47.8%) were female. Out of these students 296 (52.2%) were from English medium schools and 271 (47.8%) from Bengali medium schools.

Out of the total 567 students under study, 52 students (9.2%) showed Very High SDQ score in total difficulty, which means they fall under abnormal category. This suggests that they will have some sort of mental health problem in coping with problems of daily life. Another 6% of the total students scored High in the SDQ scoring and are in the border line. Among the male students 10.8% have scored very high which is more than the female students who were 9.4% under this category. Table 3 shows the scores in detail.

Table 3 : Difficulty level as per SDQ score (%):

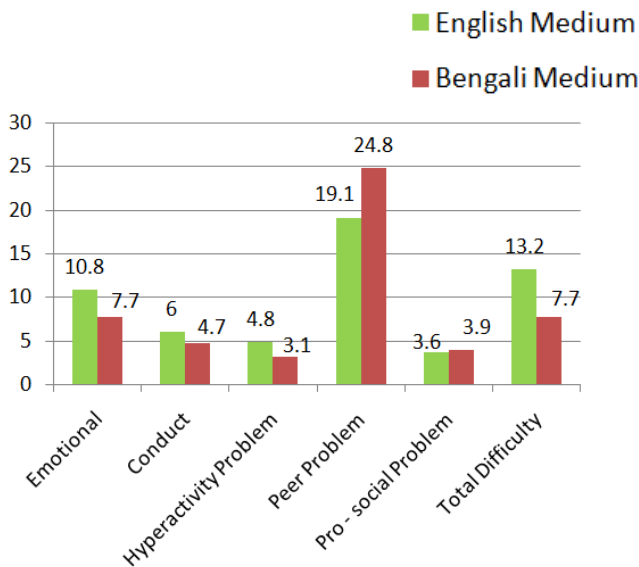
Sub Scale	Difficulty Level	English Medium%			Bengali Medium%			English + Bengali Medium%		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Emotional Problem	Close to Average	62.9	58.9	61.1	79.1	81	80.1	69.9	70.5	70.2
	Rised/Lowered	17.3	11.6	14.9	7	9.2	8.1	12.8	10.3	11.6
	High/Low	9	11.6	10.1	6.2	3.5	4.8	7.8	7.4	7.6
	Very High/Very low	10.8	17.9	13.9	7.7	6.3	7	9.5	11.8	10.6
Conduct Problem	Close to Average	70	76	72.6	82.9	85.9	84.5	75.7	81.2	78.3
	Rised/Lowered	16.2	8.5	12.8	7.7	8.5	8.1	12.5	8.5	10.6
	High/Low	7.8	8.5	8.1	4.7	1.4	3	6.4	4.8	5.6
	Very High/Very low	6	7	6.5	4.7	4.2	4.4	5.4	5.5	5.5
Hyperactivity Problem	Close to Average	78.4	77.5	78	86	86.6	86.3	81.8	82.3	82
	Rised/Lowered	10.8	7	9.2	7	9.2	8.1	9.1	8.1	8.6
	High/Low	6	5.4	5.7	3.9	2.1	3	5.1	3.7	4.4
	Very High/Very low	4.8	10.1	7.1	3.1	2.1	2.6	4	5.9	5
Peer Problem	Close to Average	52.1	58.9	55.1	31	49.3	40.6	42.9	53.9	48.1
	Rised/Lowered	19.8	10.8	15.9	16.3	22.5	19.6	18.2	17	17.6
	High/Low	9	16.3	12.1	27.9	14.8	21	17.2	15.5	16.4
	Very High/Very low	19.1	14	16.9	24.8	13.4	18.8	21.7	13.6	17.8
Pro - social Problem	Close to Average	83.2	83.7	83.5	78.3	83.8	81.2	81.1	83.8	82.4
	Rised/Lowered	8.4	8.5	8.4	13.2	8.5	10.7	10.5	8.5	9.5
	High/Low	4.8	6.2	5.4	4.6	4.9	4.8	4.7	5.5	5.1
	Very High/Very low	3.6	1.6	2.7	3.9	2.8	3.3	3.7	2.2	3
Total Difficulty	Close to Average	61.7	66.7	63.9	76	81.7	79	67.9	74.5	71.1
	Rised/Lowered	20.3	15.5	18.2	7.8	9.9	8.9	14.9	12.6	13.7
	High/Low	4.8	7	5.7	8.5	4.2	6.2	6.4	5.5	6
	Very High/Very low	13.2	10.8	12.2	7.7	4.2	5.9	10.8	9.4	9.2

Among the male students attending English medium schools, 13.2% showed very high SDQ score and another 4.8% fall in borderline with high score in total difficulty level, whereas 7.7% male students studying in Bengali medium schools fall under very high score with another 8.5% as high score. Considering the subscales it is found that peer problem score is the highest among male and female students both in the case of English and Bengali medium. 19.1% English medium male students were rated as very high with another 9% as high and 24.8% Bengali medium male students had very high score with another 7.9% as high score. Emotional problem followed with a score of 10.8% English medium male students as very high with 9% as high and 7.7% of Bengali medium male students as very high with 6.2% as high. In conduct problem 6%

English medium males were rated very high with 7.8% high and in Bengali medium males 4.7% scored very high with another 4.7% as high score.

Figure 2a : Comparison between English & Bengali Medium Male students

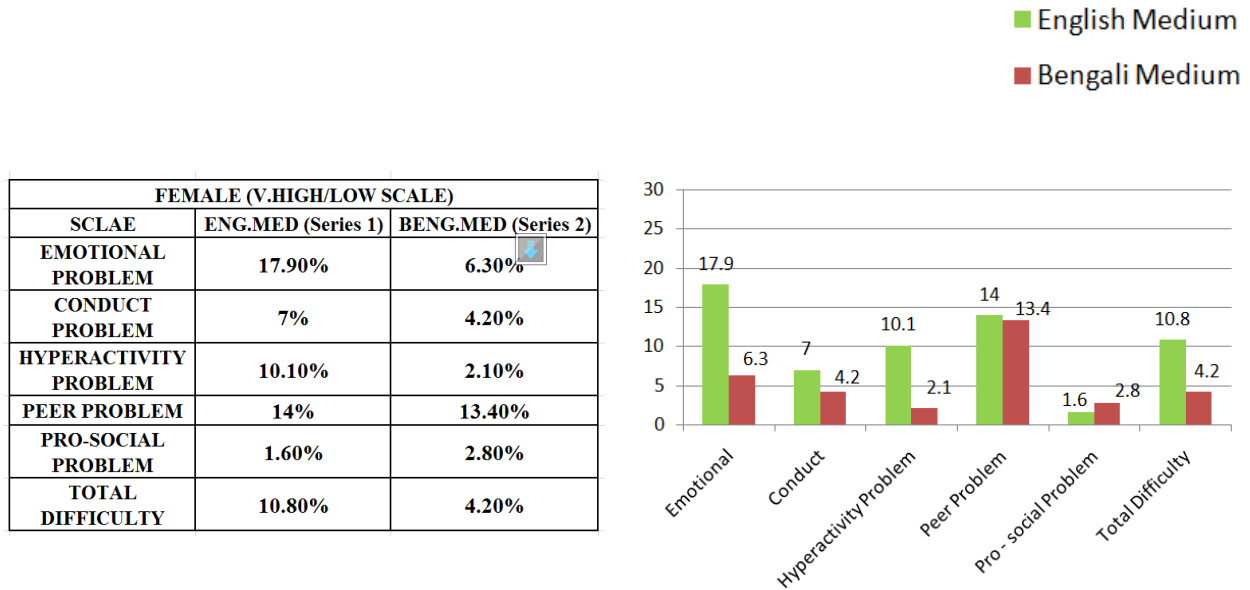
MALE (V.HIGH/LOW SCALE)		
SCALE	ENG.MED (Series 1)	BENG.MED (Series 2)
EMOTIONAL PROBLEM	10.80%	7.70%
CONDUCT PROBLEM	6%	4.70%
HYPERACTIVITY PROBLEM	4.80%	3.10%
PEER PROBLEM	19.10%	24.80%
PRO-SOCIAL PROBLEM	3.60%	3.90%
TOTAL DIFFICULTY	13.20%	7.70%



Among the female students attending English medium schools, 10.8% scored very high and another 7.0% fall in the borderline

with high score in total difficulty level, whereas 4.2% Bengali medium female students fall under very high score with another 4.2% as high score. In the subscales it is found that peer problem score is the highest among the female students also both in the case of English and Bengali medium. 14.0% English medium female students were rated as very high with another 16.3% as high and 13.4% Bengali medium female students had very high score with another 14.8% as high score. Emotional problem followed with a score of 17.9% English medium female students as very high with 11.6% as high and 6.3% of Bengali medium female students as very high with 3.5% as high. In conduct problem 7.0% English medium females were rated very high with 8.5% high and in Bengali medium males 4.2% scored very high with another 1.4% as high score.

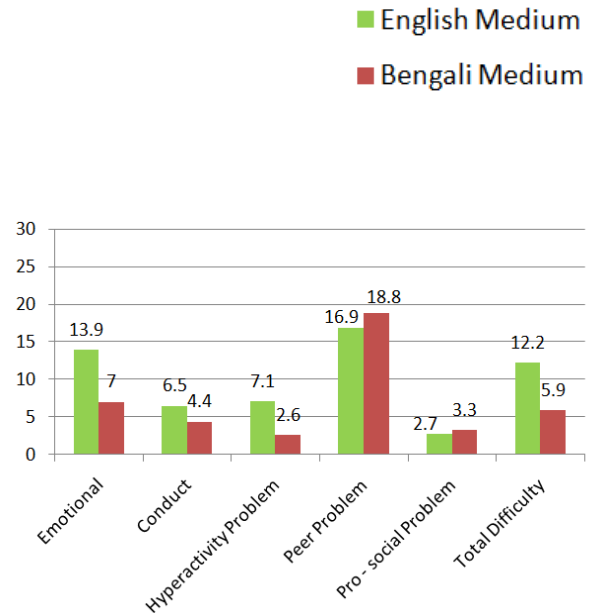
Figure 2b : Comparison between English & Bengali Medium Female students



Putting male and female students of both English and Bengali medium together it is found that 12.2% among the students of English medium had a very high or abnormal scores in total difficulty or mental health problem with another 5.7% showed high score and they are in the border line while 5.9% Bengali medium students showed very high score with another 6.2% as high score. Figure 3c gives the detail about it.

Figure 2c : Comparison between Total of English & Bengali Medium students

MALE + FEMALE (V.HIGH/LOW SCALE)		
SCLAE	ENG.MED (Series 1)	BENG.MED (Series 2)
EMOTIONAL PROBLEM	13.90%	7%
CONDUCT PROBLEM	6.50%	4.40%
HYPERACTIVITY PROBLEM	7.10%	2.60%
PEER PROBLEM	16.9	18.8
PRO-SOCIAL PROBLEM	2.70%	3.30%
TOTAL DIFFICULTY	12.20%	5.90%



DISCUSSION:

The main objective of the study was to provide a generalized assessment of mental health status of Indian school going adolescents aged 12-16 years and to provide a comparative status between male and female students studying in English and Bengali medium schools. The present study showed that 9.2% of the total participants under study had a very high SDQ score indicating abnormal status who would suffer from degree of mental health related problems in some part of their life with another 6% having high score indicating at risk in the border line. This rate is lower than 23.8% of a study made in Kolkata from 1998-2000 (Chatterjee, P. et al. 2007), 10.36% in urban Bangalore (Reddy, B.K. et al. 2011), 14.4% of Chennai (Seenivasan, P. et al. 2014) and 13% of national level (Patel, V. et al. 2007). The SDQ ratings of 12.2% of English medium was reasonably higher than the Bengali medium 5.9%. Abnormal SDQ rating was found more in male than female

students of both English and Bengali medium schools. Score in peer problem was the highest among both English and Bengali medium children followed by emotional problem. The study was conducted based on the response on SDQ questionnaire by the students themselves and there may be some inaccuracy in the result. Some of the students were absent. Some of them or all of them might have some sort of emotional and behavioural problems which were not taken into consideration in the present study. This study was conducted in schools located in urban area and almost in similar societal environment and the location and environment of the students living is not known. Moreover this study did not consider the students of rural area or from various socio-economic background and as a consequence the prevalence rates indicated in the study can not claim accurate generalization of prevalence rate of mental health status of Indian adolescents.

CONCLUSION:

A sound mental health is a requirement for wholesome development of the citizens. Mental health problems are found to be very common in Indian adolescents. The study showed that the prevalence rate is comparable to the rate exists in other parts of the country. It demands an early detection and suitable intervention to prevent the children from the risk of suffering from mental health related problems in their life. Indian society does not have proper awareness regarding mental health care and the schools do not have proper programme and facilities for management of mental health of the students. The study suggests that schools should arrange training of the teachers to identify the students who have mental health problems and make some management technique for creating awareness and early intervention to address the problems. With increasing rate of mental illness the government should make an appropriate policy for educational institutions for promotion and management of mental health. From data collection and analysis it can be said that SDQ is simple, short, user friendly and useful questionnaire for initial and practical screening of mental health profile of adolescents.

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