RESEARCH ARTICLE

IMPACT OF INTELLIGENCE ON MENTAL HEALTH OF ADOLESCENTS AMONG SELECTED GOVERNMENT AND AIDED SCHOOLS

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ABSTRACT

WHO (2001) identifies adolescence as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19 years. (WHO 2014) The main objective of the study was to assess the impact of intelligence on mental health of adolescent students. Survey method of research approach was used for the present study. The population selected for the present study comprised of adolescents studying in Government/Aided Hindi medium intermediate schools and a total of six schools were selected. Sampling technique selected for the present study was Non-Probability convenient sampling and total sample size was 300 adolescents. The tool used for data collection was Mental Health Battery (MHB) by Singh and Gupta (1978) and General Mental Ability Test by Jalota (1982). The major findings of the study revealed that approximately 41.33% adolescents had good mental health; 35.66% had average mental health, and 8.0% adolescents had poor mental health. The findings also revealed that Mental health was positively and significantly related to intelligence which means that higher the intelligence, better the mental health of adolescents.

INTRODUCTION

According to 2011 census data, there are 253 million adolescents in the age group 10-19 years, which comprises little more than one-fifth of India's total population. This age group comprises of individuals in transient phase of life requiring nutrition, education, counseling and guidance to ensure their development into healthy adults. (WHO 2014) Adolescence marks the developmental transition from childhood to adulthood, a time when many important social, economic, biological, and demographic events set the stage for adult life. The nature and quality of young people's future lives, as well as a country's future social and economic development, depend largely on how well adolescents navigate this transition. In India, myriad social, economic, and health factors may undermine the ability of adolescents to lead full and productive lives. This is of particular concern given the sheer number of young people in India—an estimated 31% (358 mn) of national population is aged between 10-24 years and almost 22% comprise of 10- 19 year olds (242 mn) (Office of the Registrar General and Census Commissioner of India 2006). It is well recognized that India's ability to achieve the Millennium Development Goals and to achieve its population stabilization goals will depend on the investment made in its young people (UNICEF 2013).

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Government of India has recognized the importance of influencing health seeking behavior of adolescents. The health situation of this age group is a key determinant of India's overall health, mortality, morbidity and population growth scenario. Therefore, investments in adolescent reproductive and sexual health will yield dividends in terms of delaying age at marriage, reducing incidence of teenage pregnancy, meeting unmet contraception need, reducing the maternal mortality, reducing STI incidence and reducing HIV prevalence. It will also help India realize its demographic dividends, as healthy adolescents are important resource for economy (IIPS and Macro International 2007). Adolescents depend on their families, their communities, schools, health services and their workplaces to learn a wide range of important skills that can help them to cope with the pressures they face and make the transition from childhood to adulthood successfully. Parents, members of the community, service providers, and social institutions have the responsibility to both promote adolescent development and adjustment and to intervene effectively when problems arise (UNICEF 2013).

Need for the Study

In modern times with rapid advancement in all walks of life, problems have also multiplied in that proportion. (Delongie A M 2005) Our society is becoming increasingly more and more materialistic.

Mental pressure is increasing day-by–day. Stress and frustration are occurring in almost all the spheres of their lives leading to development of poor personality. The influence of emotional intelligence on behavioral problem in Malaysian secondary school students showed that high school students who show lower levels of emotional intelligence have higher scores on stress, depression and somatic complaints. (Liau *et al* 2003) There is a relationship between emotional intelligence and mental health**.** (Mathews *et al* 2004) It was also supported by the study relationship between early-life I.Q. and the risk of subsequent psychiatric disorder in adulthood which shows that I.Q. scores were inversely related to risk of psychiatric illness. (Batty and Mortensen 2005). The findings of the study thus in this era with specific reference to adolescents will help the parents in becoming more aware of the importance of their concern, approval, encouragement and affective relationship in achieving mental health of their wards which play a very important role in their day-to-day life. The findings of the study will also help us to know regarding association of mental health of adolescents with their intelligence. It will also equip the nurses, guidance workers, counselors and teachers with certain empirically tested facts to handle problems of adolescent students.

Problem Statement

"A descriptive study to assess the Impact of intelligence on Mental Health of Adolescents among Selected Government and Aided Schools"

Objectives

- To study the mental health of adolescents.
- To study the level of intelligence of adolescents.
- To find out the association of mental health of adolescents with their intelligence.

METHODOLOGY

The present study was conducted in Government managed / Aided Hindi medium intermediate schools using survey method of research. Non- Probability convenient sampling technique was selected. A total of six schools were selected and 50 students were taken from each school. The total sample size was 300. The tools used for data collection were Mental Health Battery (MHB) by Singh and Gupta (1978) for assessment of mental health of adolescents and General Mental Ability Test by Jalota (1982) for assessing the level of intelligence of adolescents. Authoritative permission was taken from the Manager/Principal of the concerned intermediate schools. Purpose and nature of the study was explained to the students and were also oriented regarding the various tools which will be used by the investigators. Students were assured regarding confidentiality of the provided data. A written consent was taken from the participants. The investigator himself collected the data from different schools

RESULTS

The first objective of the study was to study the mental health of adolescents and to study this objective the data is presented in terms of frequency and percentage which is given in Table 1.

Table 1. Frequency and Percentage Distribution of Mental Health Scores of Adolescents

Class Interval of Mental Health Scores	Frequency	%
121-130	2	0.66
111-120	3	1.00
101-110	6	2.00
91-100	23	7.66
81-90	46	15.33
71-80	78	26.00
61-70	64	21.33
51-60	43	14.33
41-50	16	5.33
31-40	8	2.66
21-30	6	2.00
11-20	5	1.66
Total	300	100.00

Mean= 69.73; Median= 79.97; Mode = 71.69; SD= 21.29
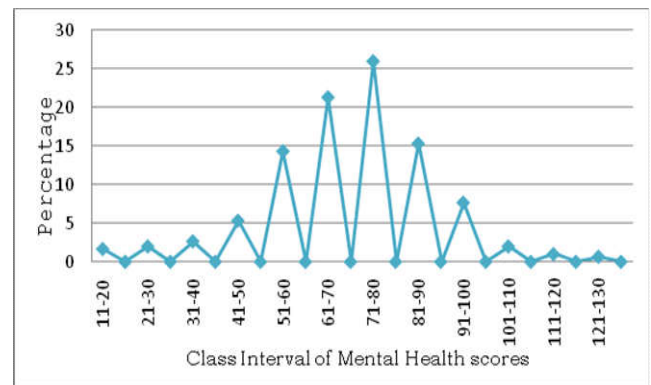

Fig. 1. Distribution of Mental Health Scores of Adolescents

Table 1 shows that 34 out of 300 adolescents (11.33%) had mental health scores 91 & above, having excellent mental health; 124 out of 300 adolescents (41.33%) had mental health scores between 70 to 89, having good mental health; 107 out of 300 adolescents (35.66%) had mental health scores between 50 to 69, having average mental health; 24 out of 300 adolescents (8.0%) had mental health scores between 30 to 49, having poor mental health, and 11 out of 300 adolescents (3.66%) have mental health scores below 29, having very poor mental health. The second objective of the study was to study the level of intelligence and to study this objective the data is presented in terms of frequency and percentage.

Table 2. Frequency and Percentage distribution of Intelligence scores of Adolescents

Class Interval of Intelligence scores	Frequency	%
88 & above	4	1.33
78-87	8	2.66
68-77	15	5.00
59-67	31	10.33
48-58	91	30.33
39-47	93	31.00
29-38	46	15.33
19-28	9	3.00
0-18	3	1.00
Total	300	100.00

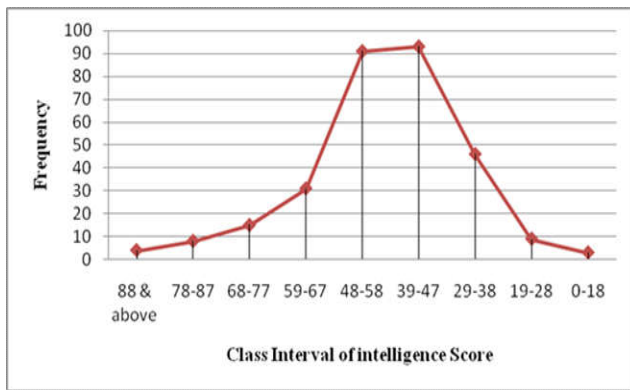Mean= 41.6; Median= 50.78; Mode = 31.40; SD= 13.895;

Fig. 2: Distribution of Intelligence scores of Adolescents

Table 2 shows that 4 out of 300 adolescents (1.33%) had intelligence scores 88 & above which means that they were having excellent intelligence; 8 out of 300 adolescents (2.66%) had intelligence scores 78 to 87 which means that they were having very super intelligence; 15 out of 300 adolescents (5.00%) had intelligence scores 68 to 77 which means that they were having superior intelligence; 31 out of 300 adolescents (10.33%) had intelligence scores 59 to 67 which means that they were having bright intelligence; 91 out of 300 adolescents (30.33%) had intelligence scores 48 to 58 which means that they were having average intelligence; 93 out of 300 adolescents (31.0%) had intelligence scores 39 to 47 which means that they were having low intelligence; 46 out of 300 adolescents (15.33%) had intelligence scores 29 to 38 which means that they were having dull intelligence; 9 out of 300 adolescents (3.0%) had intelligence scores 19 to 28 which means that they were having very dull intelligence, and 3 out of 300 adolescents (1.0%) had intelligence scores 0 to 18 which means that they were having poor intelligence. ,The third objective of the study was to find out the association of mental health of adolescents with their intelligence which is explained as:

Table 3. Correlation Matrix of Mental Health of Adolescents' and Intelligence

(N=300)

Variables	Mental Health	Intelligence
Mental health	1	0.164**
Intelligence		1

** $p < 0.01$; * $p < 0.05$

Table 3 indicated that there was positive and significant relationship of mental health of adolescents with intelligence (r=0.164; p<0.01). Mental health is positively and significantly related to intelligence which means that higher the intelligence, better the mental health of adolescents.

DISCUSSION

Mental health of adolescents is positively and significantly related to their intelligence which means that higher the intelligence, better the mental health of adolescents. Similar studies have been conducted and results have revealed that Children with low I.Q. group are at the highest risk for poor self-concept. (Buelow *et al.*, 2003) I.Q. was inversely related to psychiatric illness, mental health and increased risk of schizophrenia, adult depression and anxiety (Batty and Mortensen, 2005; Mortensen *et al.*, 2005; Knutson *et al.*,

2008; Karestan and Terrie, 2009; Glaser *et al.*, 2009; Catharine *et al.*, 2010). In some studies it has been found that higher intelligence scores were associated with lower depression scores, better mental health (Kumar *et al.*, 2007; Gale and Batty, 2009; Gupta and Kumar, 2010). Mental health is significant related to intelligence (Perlmutter and Nyguist, 1990; Simonton and Song, 2009; Shabani and Hassan, 2010). The high mental health status group and low mental health status group differed significantly from one another (Abraham, 1985). Thus it may be stated in a nutshell that mental health vis-à-vis other cognitive and non-cognitive variables across different population groups including adolescents has been extensively studied, though the empirical evidence does not provide a satisfactory answer to its occurrence and consequences. The focus on mental health has emerged as a key area of research in guidance and counseling, and the present study is a humble endeavor in this direction.

Conclusion

The nurse needs to educate the adolescents as well as the parents. One of the best ways to educate the parents about the adolescents is through parents' groups. The nurse can provide information in the group and through mutual experiences and searching for solutions in a supportive environment can be extremely helpful to the parents. The parents can be educated to be self reliant.

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