

Mental Health of Bright and Dull Adolescents

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Abstract

The study was undertaken to study the personality characteristics of bright and dull adolescents of class 10th students' belonging to Batamaloo zone of District Srinagar (Kashmir). The sample of the study comprised of 100 bright and 100 dull adolescents. These bright and dull adolescents had been identified through Raven's Advanced Progressive Matrices (IQ test). The data was collected by employing Mental Health Battery by A.K.Singh and Alpana Sen Gupta to all 100 bright and 100 dull adolescents. The data was analysed through t-test. Line Graph and Bar Diagram were plotted to make the results transparent. The results show that the two groups (bright and dull adolescents) differ significantly on all dimensions of mental health battery except Emotional Stability (E.S.) dimension of mental health battery, which reveal that bright adolescents are over all adjusted, autonomous, possess independence and self-determination in thinking, secure, possess stronger self-concept and are more intelligent while as dull adolescents are not over all adjusted, lack autonomy, are insecure, possess weaker self concept and are less intelligent. Bright and dull adolescents also differ significantly on total mental health.

Key Words: Mental Health, Bright Adolescents, Dull Adolescents

INTRODUCTION

Mental health describes either a level of cognitive or emotional well being or an absence of a mental disorder. The W.H.O defines mental health as "a state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can productively and fruitfully and is able to make a contribution to his or her community. In the mid-19th Century-William Sweetzer was the first to clearly define the term "mental hygiene". Issac Ray one of the thirteen founders of American Psychiatric Association further defined mental hygiene as an art to preserve the mind against incidents and influences which inhibit or destroy its energy, quality or development. At the beginning of the 20th Century Clifford Beers founded the National Committee for Mental Hygiene and opened the first outpatient mental health clinic in the United States. "A mind that found itself" by Prof Beer's published in 1908 is one of the first important contribution in the field of mental health. In the words of Johns, Sutton and Webster, mental health is a positive but relative quality of life. However a group of mental hygienists meeting at the third White House Conference on Child Health and protection in 1929 attempted to formulate the concept of mental health as "Mental Health may be defined as the adjustment of individual to themselves and the world at large with a maximum of effectiveness, satisfaction, cheerfulness and socially considerate behavior and the ability of facing and accepting the realities of life. The highest degree of mental health might, therefore be described as that which permits an individual to realize the greatest success which his capabilities will permit with a maximum of satisfaction to himself and the social order and a minimum of friction and tension. This implies a stage of such well being that the individual is not conscious of unsatisfied tension; does not show socially inadequate or objectionable behavior and maintains himself intellectually and emotionally in any environment under any circumstance." This definition emphasis a standard of positive mental health. Coleman defined mental health as "the ability to balance feeling, desires, ambitions and ideas in one's daily living to face and accept the realities of life. It is the habits of work and attitude towards people and things that bring maximum satisfaction and happiness to the individual." While Brown explains the term mental health as "Such abilities as

of making decisions of assuming responsibilities in accordance with one's capacities, of finding satisfaction, success and happiness in the accomplishment of everyday tasks, of living effectively with other and of showing socially considerate behavior." Quite simply, mental health refers to a person's health of mind.

Sharma (1978) studied a comparative study of the self concept of high and low achievement and intelligence groups of students of class tenth in urban schools of Barielly and reported that self-concept shared high positive and significant relationship with achievement and intelligence. Boys were found to be superior to girls in all areas of self-concept. Gaudry and Spielberger (1971) compared the effects of anxiety and intelligence on a simple learning task and found that the high-IQ subjects performed better than low-IQ subjects. Pyle, W.H. (1915) studied the mental differences between bright and not so bright (on the basis of school work success) pupils of different ages and schools using group tests. The results indicated a possibility of determining mental differences between the bright and the dull pupils, using simple group tests. Kefauver, G.N. (1928) studied the relative influence of fatigue on pupils with different levels of mentality found that, the influence of fatigue upon the speed of work was approximately the same for the brighter as for the duller pupils, but the accuracy of the brighter group was more influenced than that of the duller. The influence of fatigue can be partially removed by the introduction of a challenging stimulus. Kolstoe, O.P. (1954) studied comparison of mental abilities of bright and dull children of comparable mental ages and found that a group of bright children and a group of dull children, approximately equivalent in mental age, showed few differences in scores on subtests. Superiority of the dull group on certain tests appears to be related to advantages of curriculum or experience rather than to qualitative differences in basic intellectual pattern. Rhode, *et al.*, (1969) studied the visual evoked response and found that dull children demonstrated essentially no hemispheric differences between the amplitude of the right and left central responses. The bright subject had right central responses from the late components of the left scalp. This finding was consistent at several stimulus intensities. Differences between the bright and dull children did not appear to be simply a process of maturational process. Joshi, M. (1988) studied the effect of test anxiety and intelligence on the performance of high school students in a segment of science, following programmed instruction in linear and branching styles, and found that the achievement of students with high intelligence and low test anxiety was significantly better than the students with low intelligence and high test anxiety. Reddy and Ramar (1995) studied effectiveness of computer assisted instruction in teaching science to slow learners and found that there was significant difference between the post test mean scores of control group slow learners taught through traditional lecture method and the experimental group slow learners taught through C.A.I. Further, the achievement of experimental group slow learners was higher than the achievement of control group slow learners.. Reddy and Ramar (1997) studied the effectiveness of multimedia based modular approach in teaching English to slow learners and found that there was significant difference between the post-test mean scores of control group slow learners taught through traditional lecture method and experimental group slow learners taught through multimedia based modular approach. Further, the achievement of experimental group slow learners was higher than the achievement of control group slow learners. Vock, *et al.* (2013) studied vocational interests of intellectually gifted and highly achieving young adults and found that Gifted participants reported stronger investigative and realistic interests, but lower social interests than less intelligent participants. Highly achieving participants reported higher investigative and (in wave 2) higher artistic interests. Beyond a strong gender effect, Intelligence and school achievement each contribute substantially to the prediction of vocational interests. Tannir, A. and Anies-Al-Hroub (2013) studied effects of character education on the self esteem of intellectually able and less able elementary students in Kuwait and the results revealed that the intellectually able students who received character education showed a higher self-esteem rating than the intellectually less able. The character education program had benefited the intellectually able more than the intellectually less able students.

From the above review it can be seen that, no or few studies have been conducted mental health of bright and dull adolescents. So the investigators are interested in studying the mental health of bright and dull adolescents

OBJECTIVES

The following objectives were formulated for the present investigation:

1. To study the mental health of bright and dull adolescents.
2. To compare bright and dull adolescents on mental health.

HYPOTHESES

Keeping in view the objectives of the present study the following hypotheses were set up for testing:

1. Bright and dull adolescents differ significantly on mental health. (factor wise)
2. Bright and dull adolescents differ significantly on mental health (composite score)

OPERATIONAL DEFINITION OF VARIABLES

1. Mental Health

For the present study, Mental Health refers to the scores obtained by the subjects on A.K. Singh and Alpana Sen Gupta.

2. Bright Adolescents

For the present study, Bright Adolescents are those who fall above 75th percentile on the Raven's Progressive Matrices (I.Q. test).

3. Dull Adolescents

For the present study, Dull Adolescents are those who fall 25th percentile or below on the Raven's Progressive Matrices (I.Q. test).

METHODOLOGY AND PROCEDURE

Selection of the Sample

Initial Sample

All the 10th class students who were studying in various Government High and Higher Secondary Schools of Batamaloo zone (N=400) were selected as initial sample of the present study. Private schools were not considered as sample units because the students studying in these schools decidedly come from varying socioeconomic status i.e., high and middle while as students studying in Government schools came from somewhat similar socioeconomic status (i.e., low). As socioeconomic status (SES) is one measure of child's environment, and is determined by factors such as family income and the parents' level of education and occupation. Many researchers have found the socioeconomic status of children to be strongly correlated with both performance and intelligence scores (Molfese, Modglin and Molfese, 2003). Keeping this thing into consideration, students only from Government High and Higher Secondary Schools were taken as sampling unit (initial sample). Sex was not considered as major issue as many researchers have found, no sex difference in Intelligence. Jim Flynn and Lilia Rossi-Case (2011) found that men and women achieved roughly equal scores on Raven's Progressive Matrices after reviewing recent standardization samples in five modernized nations. Haier et al., found (2004) in a study that "Men and Women apparently achieve similar IQ results with different

brain regions, suggesting that there is no singular underlying neuroanatomical structure to general intelligence and that different types of brain designs manifest equivalent intellectual performance.” Therefore both male and female subjects were taken as sample. The choice of the 10th class subjects was based on the rationale that the students of this age group are mature enough to take decision by themselves.

Final Sample

A non-verbal mental measurement test-Ravens Advanced Progressive Matrices (1962) was administered to all the 400 sample subjects in different sittings, after building a rapport with the subjects and the concerned principals and teachers of respective schools. The subjects scoring 75th percentile or above on Raven’s Progressive Matrices (I.Q. test) were termed as bright adolescents (N=100) and the subjects scoring 25th percentile or below on Raven’s Progressive Matrices (I.Q. test) were termed as dull adolescents (N = 100).

TOOLS USED

The following tools were used in order to collect the required data:

- 1) Raven’s Advanced Progressive Matrices (1962) for the measurement of intelligence.
- 2) Mental Health Battery by Dr. A. K. Singh and Alpana Sen Gupta for the measurement of mental health.

ANALYSIS OF DATA

Various statistical methods including Mean, S.D. and ‘t’- test were used to analyze the data and draw inferences.

Table 1: Significance of the mean difference between Bright (N=100) and Dull (N=100) adolescents on six dimensions and total or composite score of mental health battery

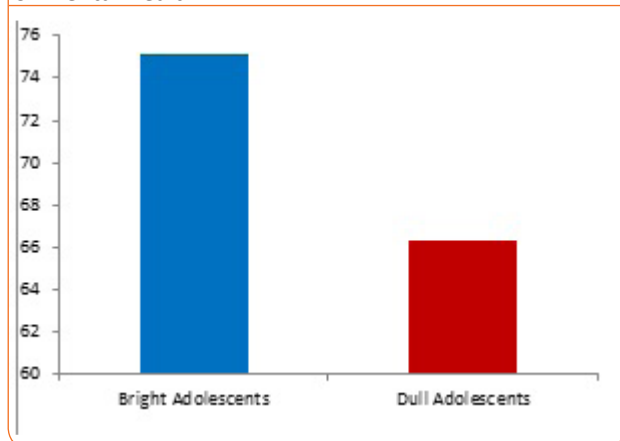
Dimensions	Group	N		σ	‘t’	Level of Significance
Emotional Stability (ES)	Bright Adolescents	100	7.25	2.30	1.28	N.S.
	Dull Adolescents	100	6.87	1.87		
Overall Adjustment (OA)	Bright Adolescents	100	24.15	3.65	2.31	*
	Dull Adolescents	100	22.91	3.92		
Autonomy (AY)	Bright Adolescents	100	10.5	2.28	4.43	**
	Dull Adolescents	100	9.17	2.27		
Insecurity (SI)	Bright Adolescents	100	9.70	1.99	3.96	**
	Dull Adolescents	100	8.59	1.95		
Self-Concept (SC)	Bright Adolescents	100	10.12	1.49	3.26	**
	Dull Adolescents	100	9.32	1.95		
Intelligence (IQ)	Bright Adolescents	100	13.90	3.25	8.39	**
	Dull Adolescents	100	9.45	4.15		
Total score or Composite Score	Bright Adolescents	100	75.17	9.9	6.28	**
	Dull Adolescents	100	66.31	10.07		

Note: N.S.: Not Significant, ** Significant at 0.01 level, * Significant at 0.05 level

Fig. 1: Comparison between Bright Adolescents (N = 100) and Dull Adolescents (N = 100) on Mental Health (Factor-Wise).



Fig. 2: Comparison between Bright adolescents (N = 100) and Dull Adolescents (N = 100) on Composite Score of Mental Health.



INTERPRETATION AND DISCUSSION

The perusal of Table 1 makes it obvious that mean of bright adolescents (7.25) is higher to mean of dull adolescents (6.87) on emotional stability (E.S) dimension of M.H.B. The mean difference favours the bright adolescents and it seems that bright adolescent are emotionally stable than dull adolescents. However as the obtained ‘t’ value (1.28) is not significant even at 0.05 level. Hence no conclusive decision can be taken.

The perusal of Table 1 depicts that the bright adolescents differ significantly than dull adolescents on overall adjustment (OA) dimension of M.H.B. The obtained ‘t’ value is (2.31) which is far greater than table ‘t’ value at 0.05 level. The mean difference favours the bright adolescents indicating thereby that bright adolescents are overall adjusted than dull adolescents. It also shows that bright adolescents achieve an overall harmonious balance between the demands of various aspects of environment such as home, health, social emotional on one hand and cognition on the other hand than dull adolescents. It further indicates that bright adolescents’ mentality and their capacity for learning are the basis of all their future achievements including in the matter of their adjustment to life situations. Success in learning and problem solving motivate the bright adolescents to learn more effectively and gather increasing confidence in varied learning situations and problem solving which serve as their general modes of adjustment while as dull adolescents are of limited cognitive capacity. They fail to cope with learning situations and are unable to keep pace with their age mates. So they are very much withdrawn and suffer from lack of social contact and thus develop negative emotional attitude. As a result their overall adjustment is affected badly.

The perusal of Table 1 shows that bright and dull adolescents differ significantly on autonomy (AY) dimension of M.H.B. The obtained 't' value is (4.43) which is decidedly greater than the table 't' value (2.60) at 0.01 level. The results reveal that bright adolescents are autonomous than dull adolescents. Moreover, bright adolescents possess independence and self-determination in thinking while as dull adolescents do not possess independence and self-determination in thinking. It further indicates that as bright adolescents possess high intelligence they are able to make any decision independently. They are self confident and do not depend on others in their matters of life. Thus bright adolescents are autonomous. On the other hand dull adolescents possess less intelligence as a result of which they hesitate to take any decision independently. They lack self confidence and they depend on others while dealing with various life matters. Thus dull adolescents lack autonomy.

On security insecurity (S.I) dimension of M.H.B, the table depicts that mean of bright adolescents (9.70) is superior to mean of dull adolescents (8.59). The obtained 't' value is (3.96), which is far greater than the table 't' value (2.60) which indicates that bright adolescents are secure while as dull adolescents are insecure. It can also be predicted that bright adolescents have high senses of safety, confidence, and freedom from fear, apprehension or anxiety particularly with respect to fulfilling the person's present and future needs. While as dull adolescents possess low sense of safety, confidence, freedom from fear, apprehension or anxiety particularly with respect to fulfilling the persons present or future needs. It further indicates that bright adolescents enjoy high intellectual pursuits as a result of which they are always successful. They are goal directed and motivated, optimistic and are satisfied as a result they feel secure in their endowments, while as dull adolescents, due to their low intelligence are haunted by a feeling that they are doomed to constant failures in learning resulting in their frustration and they develop pessimism about life and its possibilities. Therefore they feel insecure.

While taking a glance of Table 1, it is observed that there is a significant mean difference between bright and dull adolescents on self-concept (SC) dimension of M.H.B. The obtained 't' value on the said dimension is (3.26) which is greater than the table 't' value at 0.01 level. Therefore the difference is statistically significant. The results confirm that bright adolescents possess stronger self-concept than dull adolescents. It further indicates that bright adolescents due to their high intelligence are able to know their feelings, talents and abilities. They are capable of greater understanding of self due to their higher intellectual capacities. They are very much confident upon themselves and thus they are able to cope with any situation. People (in home, school and other places) seeks out their company as a result they got admired and thus bright adolescents develop positive self concept. While as people especially teachers and classmates are impatient with dull adolescents as they are not able to grasp the things immediately. They possess less intelligence and are dependent on others. They are not confident, thus develop poor self concept among themselves.

Dimension Intelligence (I), as depicted on the table 1, shows a high mean of bright adolescents (13.90) while as dull adolescents have a mean of (9.45). The mean difference (8.93) is in favour of bright adolescents and is statistically significant at 0.01 levels. The results indicate that bright adolescents are more intelligent than dull adolescents. It further indicates that bright adolescents think rationally and behave purposefully in their environments than dull adolescents. Therefore the results indicates that bright adolescents have high intelligence while as dull adolescents have low intelligence which had been already justified in our study through Raven's advanced progressive matrices an intelligence test.

The perusal of Table 1 depicts that the mean of bright adolescents is (75.17) which is higher than the mean of dull adolescents (66.31) on total mental health scores of M.H.B. The obtained 't' value is (6.28) which depicts that the two groups differ significantly at 0.01 level. Therefore it can be safely concluded that bright adolescents have strong overall mental health than dull adolescents.

The results of Table 1 analysed and discussed factor-wise and on composite score of mental

health in the above cited paragraphs are in line with. Reynolds and Bradley, (1982); Nail and Gary, (1997); Pufal – Struzic (1999), Dwairy (2004), Hagshenas *et al.* (2006)

Reynolds and Bradley (1982) found that gifted sample consistently displayed lower levels of anxiety than non-gifted peers. They concluded that if heightened anxiety levels are indicators of emotional difficulties, the gifted sample demonstrates a higher level of general emotional mental health than their non-gifted peers. Nail and Gary (1997) studied the emotional adjustment of gifted adolescents and the results of the study support previous findings that, when a difference exists between the overall emotional adjustment of gifted and non-gifted students, the gifted students showed better adjustment on self report instruments. Pufal – Struzic (1999) found that gifted students have a significantly higher level of self-actualization, where as gifted and self actualizing students have a significantly higher level of self acceptance, which altogether make a good basis for their mental health and effective performance. Dwairy (2004) found that the gifted adolescents displayed higher self-esteem and fewer identity disorders, phobias and conduct disorders than non-gifted adolescents. Haghshenas *et al.* (2006) found that students from gifted schools have better mental health conditions when compared with students from ordinary high schools.

Keeping in view the results on all the six dimensions of M.H.B; the hypothesis number 2, “Bright and dull adolescents differ significantly on mental health (factor wise)” is partially accepted and the hypothesis number 3, “Bright and dull adolescents differ significantly on mental health (composite score) is accepted.

CONCLUSIONS

- Bright and dull adolescents do not show any variation on Emotional Stability (ES) dimension of Mental Health.
- There is significant difference between bright and dull adolescents in their mental health towards Overall Adjustments. (OA) which indicates that bright adolescents have greater overall balance between the demands of various aspects of environment and cognition.
- Bright adolescents differ significantly on Autonomy (AY) dimension of Mental Health, which clearly indicates that bright adolescents are independent and possess self-determination in thinking than dull adolescents.
- Bright and dull adolescents differ significantly on Mental Health towards security Insecurity (SI) which shows that bright adolescents have greater sense of safety, confidence, freedom from fear, apprehension or anxiety particularly with respect to fulfilling the person’s present or future needs than dull adolescents.
- The two groups that is bright and dull adolescents differ significantly in their mental health towards Self Concept (SC), which shows that bright adolescents have stronger self-concept than dull adolescents.
- From the results it is shown that the bright and the dull adolescents differ significantly on Intelligence (IQ), dimension of Mental Health which proves that bright adolescents think rationally and behave purposefully in their environment than dull adolescents.
- Total Score (Composite Score) of Mental Health clearly shows that bright adolescents and dull adolescents differ significantly from each other. It indicates that bright adolescents have better overall mental health than dull adolescents.

INFERENCE SUGGESTIONS

- i Bright and dull adolescents should be identified in the early years of their childhood through intelligence and some other non-cognitive measures.

- ii Bright and dull adolescents should be continuously observed and be given special attention at home and at school.
- iii Atmosphere at home and school should be sound from all aspects which will help dull children to develop their inner capabilities which in turn leads to their better mental health.
- iv Separate curricula and methods of teaching should be adopted for bright and dull adolescents. If both bright and dull adolescents are taught the same curriculum, bright adolescents may not find it up to their intellectual level (easy) and thus they may feel dejected and may lack interest. On the other hand, dull adolescents may find it very difficult and as a result they may fail to understand the major portion of the syllabus every year. So their knowledge may remain limited and they may face many problems in next higher class. As a result of which they lag behind many important concepts.
- v Arrangements should be made for separate classes/sections for bright and dull adolescents so that both the groups are fully satisfied and it will help in solving most of the problems to which the teacher and students of different intellectual capabilities in the same classroom are confronted with.
- vi Remedial classes should be provided to dull students wherever arrangements for separate classes are not possible.
- vii Teachers should be properly trained to handle both the groups.
- viii Guidance and counseling cells should be established in every school through which most of the problems that the bright and dull adolescents face from time to time are solved well in time. As a result of which their mental health may be properly maintained.
- ix In the absence of guidance and counseling cells, teachers with special training in child psychology and special education should be appointed so that they may understand and solve the problems of these children to a greater extent.
- x Dull adolescents should be encouraged to complete the tasks themselves under proper guidance of teachers and parents.
- xi Dull adolescents should be treated with love, affection and empathy so that they will not feel themselves in any way different from bright adolescents in getting love and affection from parents, teachers and significant others.

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