

A Changing Profile of High School Girls in Rural India - A Positive Shift

Nimrat Singh*

Abstract

In the modern age, education provided to girls can bring about a revolution in the society and make them equal stake holders in the socio-economic growth of India. Women have been competing men in different spheres of life. Over a period, it has been observed that girls have started to excel over boys in many areas. 515 girls of high school were assessed on their aptitudes and personality factors as part of a CSR – career counselling project. The objective was to find out if there was any difference in the aptitudes and personality over three years (2010-11 and 2013-14). Significant difference was found 4 aptitudes - clerical, mechanical, reasoning and spatial abilities as measured by the DBDA and in 3 of the personality factors namely - reasoning, assertiveness and perfectionism factors as measured by the HSPQ. It can be concluded that - despite of various stigmas, stereotypes and limitations for girls in the education, girls showed a significant difference on various areas of aptitude and personality. The findings of the above study hold promise in encouraging the girl child in rural India to pursue higher studies and make proactive career choices.

Key words: Girls Education, Aptitude, Personality, Rural India.

Secondary education is the gateway for prosperity, for transforming the economy and establishing social justice in any country. Secondary educational hierarchy prepares the students for higher education and the world of work. (Ministry of HRD, 2013) Under the constitution of India, free and compulsory education is a fundamental right to children between 6-14 years. India has made progress in terms of increasing the primary education attendance rate and expanding literacy to approximately three quarters of the population in the 7-10 age group. India's improved education system is often cited as one of the main contributors to its economic development.

India is a country with the population over 1.3 billion people. The growth of the country is by the progress it makes. One significant parameters of progress are measured by the result of the education and training the students receive. Education is an important aspect of the children's life. Right to Education (RTE, 2010) yielded promising results and reflects in the present study too.

There have often been myths and beliefs regarding gender differences between girls and boy especially regarding education. It has been said in the earlier times that boys tend to out lead girls in the spheres of education and the work-related fields. In the recent times girls have been competing equally with boys in all the spheres and have shown to be excelling as compared to boys. This can be seen as girls are topping various entrance examinations like the 18-year-old girl from the state of Surat, Gujarat has topped the AIIMS MBBS Entrance Exam with 100 percentiles in June 2017, a 17-year-old girl from Hyderabad, Telangana was all India topper among girls obtaining 35th rank in IIT JEE (advance) examination in June 2017, 2 girls broke the record and secured a position in top10 ranks for IIT JEE (advance) examination in the year 2013. These statistics are no more aberrations, but the reality of changing time. Despite of the emerging trends in girls excelling in education there still exist some barriers to women's education, which include sociological barrier, which is rooted in gender stereotyping and gender segregation, and others are lagging due to economic concerns and constraints. In patriarchal setting of the Indian family, girls have lower status and fewer privileges than boy children.

Nisha Nair (2003), identified factors that affect women's education in India to be inadequate school facilities which serves as a limitation for the girl child's participation in formal schooling. A report by the International Programs Centre for the U.S. Department of Commerce (Velkoff, 1998) lists the chief barriers to women's education in India as inadequate sanitary facilities, shortage of female teachers and gender bias in curriculum. Parental reluctance to educate girls is a huge factor inhibiting their access to education. This limitation gets compounded with girls belonging to the minority community like in our study. There exist numerous factors that increase the choices parents in Indian society make with regards to refusing or limiting the education of the girl child. Women and girls receive far less education than men, due to prevailing social norms and sometimes fears of violence. (Nair Nisha, 2010) The UNESCO report, 1991, highlighted that in rural households especially amongst the poor, the girl child is a valuable resource for household and field work and a hand that cannot be wasted away through an education with almost invisible gains. In keeping with the above report, during the harvest season, parents preferred to employ their children in field work, hence low attendance was marked by teachers during the harvest season.

Similarly, a study conducted by Dr. Bhupesh Patel & Dr. Dulhari Gandhi – A study of Girls School Dropout rate in Rural Gujarat (2016) suggested some reasons why girls have not been able to attain higher education which were: taking care of siblings and home 58.8%, social restrictions - 8.8%, more distance of school - 11.7%, working with parents for financial

*Clinical Psychologist, Heads Tangram – Tracking the human mind

#427, Platinum Plaza, Judges' Bungalow Road, Opp. IOC Petrol Pump, Bodakdev, Ahmedabad -380054. Gujarat State.

India Email: nimrat@tangramhr.com. Website: www.tangramhr.com

reason - 5.8%, unavailability of higher school nearby 11.7% Studies conducted by the National Committee on the Status of Women in India (1974), covering a sample of 200 undertakings in the private and public sectors, reveal women are restricted to few limited types of occupations because of prevailing social attitudes regarding their aptitudes, resistance of employees, demand of training opportunities in higher skills and their ignorance regarding the opportunities open to them. Regardless of whether the same level of education being provided to the girls and boys, it has been observed that the girls are taking the full advantage of the opportunity being provided to them and making the best out of it. This can also be supported by the decrease in the dropout rates of the girls as compared to the increase in the drop rates of the boys. In the year 2012-13, 41% girls and 40.3% boys dropping out without completion of elementary school. Whereas in the year of 2013-14, it reduced to 33% girls and 39% boys. (Department of School Education and Literacy, Ministry of Human Resource Development, Government of India)

Girl students are often described by educators as “more willing to learn” than their male counterparts. The overall academic performance of the girls is also better than boys, which can be seen from the class 10th results of various school boards. There have been multiple government policies/initiatives which promote the education of girls in the rural and urban areas aiming to help increase literacy rate, enrolment rate, and constructive class rooms and increase the quality of education. Saakshar Bharat Mission was introduced in 2009 to promote and strengthen girl’s education, and to reduce the gap between males and female literacy rate. It was to be administered among 60 million females belonging to SC/ST of different states and union territories whose literacy rate is below 50%. Another government initiative, the Sarva Shiksha Abhiyan (SSA), was started in 2001, with the intent to provide education to children between 6 and 14 years by 2010. The programme focuses especially on girls and children with challenged social or financial backgrounds, charged with providing infrastructure and relevant resource material in the form of free textbooks to children in remote areas. After looking at the promising changing patterns of girls, the current study focuses on observing the aptitude and personality factors as a part of career counselling program of the girl students belonging to rural areas of Gujarat over a span of three years. The rural school was selected for a CSR project, hence our involvement in the school. Interestingly half the population of girls came from the minority group. After the 7th standard, they were shifted back to study in the Madrasa so that they could be given education on religion as well as academics. It’s only in the last 2 to 3 years that these girls could study in a Gujarat board school.

As seen from the above diagram, there are specific challenges for female students starting from primary education. The challenge is to jointly cross the threshold and overcome the hurdles in education faced by a girl child. Our study focused in providing a stepping stone to break into the bias that girls are meant to work at home and in farms. They can dare to dream of professions that are not stereotypical. Once the barriers are surpassed and girls came out with flying colours endorsed by the findings of the psychometric assessment, it paved the path towards new horizons. This could be accomplished only by educating the parents regarding their limiting mental blocks and beliefs regarding girl children.

Objective

To understand the shift in aptitude and personality profile of girl students over three years in rural area.

Hypotheses

Following are Null Hypothesis formulated for the current study

There will be no significant difference in the aptitude of girls from 2011-12 to 2013-14

There will be no significant difference in the personality factors of girls from 2011-12 to 2013-14.

Sample

The sample was drawn from high school girl students of a rural school, in Banaskantha District of Gujarat. The sample was further drawn from four of the co – education divisions and the only section of the Kanya -Vidyalaya of the Sun Mehta School. The sample consisted of a mix of Hindu and Muslim girl students, with the majority being Hindu girls. The Kanya Vidyalaya had a larger population of Muslim girls. Girls from that community usually studied in the Madrasas, but this has been changing over the recent years. As the community has progressed, they have been encouraging their girl children to complete their high school education to have a better and well-rounded education. The final size of the sample was session 2011-12=149, 2012-13=171, 2013-14=195, N=515.

Tools

1. Personality Test - High School Personality Questionnaire (HSPQ), form A by Beloff, & Cattell (1958),
2. Aptitude Test – Hand Book for David’s Battery of Differential Aptitude (DBDA) revised by Sanjay Vora and prepared by Kapoor (1994).
3. Draw A Man, Indian version by Pathak (1987).
4. Personal Information Sheet designed by the author.

Procedure: Aptitude (DBDA) & personality (HSPQ) were administered on high school students of a rural school of Gujarat for 3 years. Once the test was administered the individual Career Success Card were prepared, highlighting the developmental strategies and were explained to the parents and the students in detail by expert counsellors.

Over the span of three years, there was no direct intervention provided to the students. Although there was a subtle training provided to the teachers at two levels for the betterment of the school environment – personal skills (Self Confidence, Time management, Emotional Intelligence) and professional skills (Interpersonal skills, assertiveness and managing personal & professional roles). The teachers training needs were identified after the teachers undergoing a battery of tests consisting of Draw A Man and 16PF in the year 2011.

The data received from all the three years was accumulated to study the effect of a changed school environment on the performance of girls at various levels.

Results and Discussion

Statistical technique of mean, standard deviation (SD) and t test were used for data analysis. The following tables and the subsequent interpretation shows a detailed description of the analysis –

Hypothesis 1: There will be no significant difference in the sub-test of aptitude.

Table (a): Comparison of Aptitudes of High School girls.

APTITUDE											
	2010-2011				2013-14				p value	t-value	level of significance
	Mean	SD	df	N	Mean	SD	df	N			
Clerical	2.51	1.40	148	149	3.96	2.2	194	195	<0.0001	7.07	Not Significant
Closure	2.46	1.33			2.77	1.6			0.054	1.93	Not Significant
Mechanical	3.26	1.97			3.97	2.2			0.002	3.11	Extremely Significant
Numerical	3.95	2.14			4.48	2.1			0.03	2.11	Significant
Psychomotor	2.43	1.42			2.56	1.6			0.21	0.78	Not Significant
Reasoning	3.87	2.34			3.33	2.1			0.02	2.25	Significant
Spatial	2.54	1.65			3.68	2.2			<0.0001	5.21	Significant
Verbal	2.46	1.61			2.72	2.1			0.20	1.25	Not Significant

*level of significance is measured at 0.05 level

The null hypothesis was rejected since from 2010-11 there was significant difference in some of the sub tests of aptitude test in the year 2013-14.

The findings indicated, 1 subtest of aptitude – Mechanical Ability showed extremely significant difference ($t=3.11$; $p=0.002$). Whereas Numerical Ability ($t=2.11$; $p=0.03$), Reasoning Ability ($t=2.25$; $p=0.033$), Spatial Ability ($t=5.21$; $p<0.0001$) were statistically significant from the year 2010 to 2014.

In a study by Daniel Voyer (2014) for the Psychology bulletin – American Psychological Association (APA) ‘Gender Differences in Scholastic Achievement – a Meta-Analysis’, the results indicated boys perform well on the achievement tests, whereas the girls perform well in the classroom grades in the subjects of maths and science.

The author has stated possible reasons, which are – parental assumptions of boys performing better hence push them to put in more efforts, differences in learning styles and more importantly observing girls studying to “understand material” where in boys study to ace on final grades.

Similarly, in a survey conducted by National Council of Educational Research and Training (NCERT) in the 2015 in 7,216 schools (different boards) revealed girls performed equally with boys in maths, sciences and social sciences.

A similar study has been done on the grade X IGCSE students in the year 2009 where Differential Aptitude test and HSPQ was administered. The girls performed significantly better in the sub tests of Clerical Ability, Spelling & Language and Abstract Ability as compared to boys. (Singh N., 2009 unpublished study)

These above results indicate that if girls are provided proper training and given an opportunity the aptitude scores get better and the girls tend to sharpen their skills.

Hypothesis 2: There will be no difference in the personality factors.

Table (b) Comparison of Personality Factors of High School girls.

PERSONALITY FACTORS											
	2010-2011				2013-14				p value	t-value	level of significance
	Mean	SD	df	N	Mean	SD	df	N			
Warmth	5.71	1.32	14	14	5.90	1.43	19	19	0.21	1.23	Not Significant
Reasoning	2.81	1.16			3.57	1.46			<0.0001	5.19	Extremely Significant
Emo. Stability	7.68	1.58			7.78	1.48			0.54	0.6	Not Significant
Dominance	4.87	1.57			5.05	1.56			0.3	1.02	Not Significant
Assertiveness	6.37	1.96			5.69	2.12			0.0024	3.05	Extremely Significant
Liveliness	5.66	1.49			5.72	1.53			0.69	0.39	Not Significant
Rule- consc.	6.5	2.03			7.47	1.86			<0.0001	4.63	Extremely Significant
Social boldness	6.33	1.69			6.67	1.66			0.06	1.87	Not Significant
Sensitivity	4.44	1.57			4.44	1.53			0.75	0.30	Not Significant
Vigilance	6.58	1.50			6.58	1.70			0.15	1.43	Not Significant
Apprehension	4.32	1.80			4.32	1.87			0.13	1.49	Not Significant
Self-reliance	7.09	1.52			7.09	1.44			0.94	0.07	Not Significant
Perfectionism	6.74	1.91			7.39	1.69			0.0009	3.34	Extremely Significant
Tension	4.30	1.74			4.30	1.69			0.47	0.71	Not Significant

*level of significance is measured at 0.05 level

The null hypothesis was rejected since 4 personality factors showed extremely significant difference from the year 2010-11 to 2013-14.

Reasoning (t=5.19; p= <0.0001), Assertiveness (t=3.04; p= 0.0024), Rule consecutions (t=4.63; p=<0.0001), Perfectionism (t=3.34; p=0.0009) were extremely significant. The girls showed improvement in the above areas over a period.

In a study by Ryan Dale B. Elnar (2014) on 'Personality Traits and Occupational Interests: Basis for Career Guidance program' used the Global Factor Scale of the 16PF and Occupational Aptitude Survey and Interest Schedule (OASIS – 2) on freshmen college students of Filipino concluded that the personality factor of Tough-mindedness was higher among girls.

The grade X IGCSE students in the year 2009 were administered the HSPQ and the results indicated that - girls obtained a higher score in five factors namely Warmth, Reasoning, Vigilance, Apprehension and Perfectionism as compared to boys. (Singh N., 2008 unpublished study)

Girls have a low score in reasoning in the present study. They are inclined more towards hands-on activities / subjects. This can be substantiated by their personal information details too. Girls have shown to be inclined towards technical studies, commerce and office related activities. This marks a change of interest among girls.

In 2010-11, during group and individual counselling, the priest and parents started to understand the importance of higher education and how it equips their children to take up short term diploma course. If left otherwise, students would have followed traditional roles.

It was an experiment that paid off. The results are encouraging, and this exercise of psychometric assessment and career planning made the parents change their minds from conventional to practical form of education. Parents and girls became more aspirational and looked beyond their conventional roles and streams. The dropout rate of girls measured from 2010-11 to 2013-14 was marginal.

Some parents were taken by surprise on learning that their girls had well developed aptitudes and hence could excel in certain fields. Parents had less information in terms of new opportunities and streams before this study. Many girls and parents aspired for diploma and short-term courses related to cooking, baking, cutting, handicrafts, ITI, computer courses, office related course, data entry, etc. as life skills. 30% of the girls of Kanya Chatralaya were married and attended school. Hence, parents encouraged them to opt for courses that could help them in their married life. So, this shift was very significant. They could make a living from their abilities. In fact, girls were allotted special time in the day for their studies. This had never happened before. Parents recognised the impact and importance of education on their child's future. During the counselling sessions, parents came with queries of how to score better marks, improve concentration and what are the best career choices based on the child's holistic profile.

It was observed during the counselling sessions; the approval of parents made an enormous difference on girls and they looked for approval and acceptance from parents. They lacked faith and confidence in their abilities and strengths. They were mild, compliant and socialised. This is also clearly reflected in other scores on assertiveness, rule consciousness and perfectionism.

Hence, it's no coincidence that over the three years parents were slowly and subtly inducted into believing more in the education system and looked for higher education opportunities that would earn their girl children respect and value in the times to come. Hence, the role of education earned them to respect, life skills and sustainability. Another promising feature was that attendance in assessment and workshops increased and the feedback of the entire intervention was positive and encouraging.

Conclusions

The education of women in India, will play a more significant role on improving living standards and addressing socio-economic problems like poverty, population control, health in the years to come.

Neglecting education of women, does not augur well for the development of any nation. Economic independence of a girl child will curtail the vicious cycle of reinforcing negative stereotypes and women in chartering paths as individuals, contributing to society, politically and the economy.

There are not many studies like the above that highlight the growth and forward movement of girls in their potential and personalities. Although, similar studies on boys are easily available. Hence, we need to follow up with similar studies and follow through girls throughout their high school. Parents and teachers have a greatly significant role to play and culture to support and accelerate this change of being open to the emerging new role of an equal stake holder (girl child) in the social, economic, psychological well-being on society.

Implications

The author is aware of certain limitation of this study. The key limitations of the study are as below:

The study could follow the student right through the high school and growth could be mapped of the same student over 4 years. (Longitudinal study)

The study was only done in the rural area of Gujarat, a similar study can be incorporated in other settings as well to gain in depth understanding.

The girls only belonged to Gujarat Board; students of no other boards were a part of the study.

The number of participants in the first and the third year were not equal; the level of significance is based on the number of students available.

References

- Barmola, Kailash. (2013). Aptitude and Academic Performance of Adolescents, *International Journal of Research in Social Sciences*, 3(4), 372-382.
- Chaudhary, V. (2004). A comparative study on intelligence and academic achievement of the secondary school students. *Indian Psychological Review*, -62(4), 177-181.
- Singh, N., (2017), 'Holistic Talent Profile (HTP) A Student Empowerment Model' in *International Journal of Indian Psychology*, (IJIP), 4(3), 171-184,
- Singh, N., Silakari. P S., (2017), "Developing Teachers as Counsellors – The Empowerment Model' in *IJEPR*, -6(1), 36-40.
- Nair, Nisha. (2010). Women's education in India: A situational analysis. *Indore Management Journal (IMJ)*, 1(4),100-114.
- Sheard, M. (2009). Hardiness commitment, gender, and age differentiate university academic performance. *British Journal of Educational Psychology*, 79(1), 189-204.

1. A Study of girls' school dropout in rural Gujarat. (PDF Download Available). (n.d.). Retrieved December 8, 2017 from https://www.researchgate.net/publication/303684236_A_Study_of_girls_school_dropout_in_rural_Gujarat
2. Action for girls' education- Times of India. (n.d.). Retrieved November 28, 2017 from <https://timesofindia.indiatimes.com/home/education/news/Action-for-girlseducationltbr-ampnbs/articleshow/11077129.cms>
3. Adult Education | Government of India, Ministry of Human Resource Development. (n.d.). Retrieved November 28, 2017 from http://mhrd.gov.in/saakshar_bharat
4. Cattlee, R.H., Beloff H, (1958) High School Personality Questionnaire: the HSPQ Test: Citation, BiBTEx EndNote RefMan from https://books.google.co.in/books/about/High_school_personality_questionnaire.html?id=G5nxPwAACAAJ&redir_esc=y
5. Department for International Development, & Rt Hon Hilary Benn, MP. (2005). Girls' education: Towards a better future for all from <http://www2.ohchr.org/english/issues/development/docs/girlseducation.pdf>
6. Gender Differences in Five Factor Model Personality Traits in an Elderly Cohort: Extension of Robust and Surprising Findings to an Older Generation. (n.d.). Retrieved December 3, 2017 from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2031866/>
7. Kapoor, M., Vora, S. (1994); Hand Book for David's Battery of Differential Aptitude revised and published by M/s. psy.com services from http://www.ncert.nic.in/announcements/oth_announcements/pdf_files/NLEPT_Catalogue.pdf
8. Most Important Schemes for Girls in 2015 - SSCJUNCTION. (n.d.). Retrieved December 8, 2017 from <http://sscjunction.com/2-important-schemes-girls-2015/>
9. Phatak, P., (1987), Draw a Man Test for Indian Children from https://www.researchgate.net/publication/232447244_Pramila_Phatak_Draw_a_Man_Test_for_Indian_Children_Original_vs_revised_and_extended_scale_A_critical_review
10. Right to Education. (n.d.). Retrieved December 7, 2017 from <http://righttoeducation.in/know-your-rte/about> Secondary Education | Government of India, Ministry of Human Resource Development. (n.d.). Retrieved, December 7, 2017 from <http://mhrd.gov.in/incentives>
11. Woman education in India - Importance & Government Initiatives. (n.d.). Retrieved December, 8, 2017 from <https://www.careerride.com/view/woman-education-in-india-importance-government-initiatives-19688.aspx>

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