

Effect of Parental Attributes on the Locus of Control (LoC) of Secondary School Students

- Aishah Siddiquah** Assistant Professor, Research and Evaluation Department, Lahore College for Women University, Punjab, Pakistan. Email: aishahsid@gmail.com
- Tahira Kalsoom** Assistant Professor, Research and Evaluation Department, Lahore College for Women University, Punjab, Pakistan.
- Moafia Nader** Assistant Professor Department of Professional Studies, Lahore College for Women University, Punjab, Pakistan.

Abstract *This study explores how parental attributes including parental education, occupation and the type of parental interaction affect different types of LoC of secondary school students. A total of 520 students were selected as participants of the study. Brown Locus of Control Scale (BLOCS) was the instrument of the study. ANOVA and t-test were used to explore the differences in LoC of students with different parental attributes. Results showed that internality was significantly more in students who moderately share their feelings with mothers. Other externality was significantly more in students whose fathers were businessmen than in students whose fathers were employees or laborers, and in students who completely or moderately share their feelings with their mothers than those who do not share their feelings with their mothers. External social LoC of students with less mother education (elementary and graduation) was significantly higher than the students with higher (post-graduation) mother education.*

Key Words

Locus of Control (LoC),
Parental Education,
Parental Occupation, Type
of Parental Interaction

Introduction

Locus of control (LoC) is an important concept of personality (Nowicki et al., 2017). It is a person's perceived control on his or her life events. It is a widely studied topic in education and psychology. This concept was first derived from the theory of social learning presented by Rotter (1996). He categorized it as internal and external. Persons with internal LoC think that rewards are attached with personal efforts and can be controlled by themselves. Internals consider life events as the result of their own behavior. Hence, they work hard, try to get knowledge, understand the situations, act accordingly, and feel control over their personal life. On the other hand, individuals with external orientation consider that external factors like chance, situation, destiny, or luck play a vital role in lives. Internal and external LoC represent a dynamic continuum. Brown (1990) further categorized external LoC into external social and external other. Social externals believe that social elements of their surrounding like friends, peers, parents, and siblings are responsible for their life outcomes and other externals believe that other external factors like situation and luck determine their life outcomes. LoC is a psychological construct that remains stable for individuals over time. LoC of adults is more stable than that of children. However, substantial change in LoC is possible across time (Nowicki et al., 2018d).

Persons with internal control demonstrate positive study habits, attitudes, and achievement (Prociuk & Breen, 1974). LoC is also related with mental development and cognition of persons. It is positively related with intelligence. A 10 year old intelligent child possesses more internal LoC at 16 years of age. LoC predicts academic success and financial wellbeing (Furnham & Cheng, 2017). Children's externality is linked to a wide variety of negative outcomes regarding academic achievement, personality, and social adjustment (Nowicki et al., 2018c). Internals have abstract reasoning and externals possess concrete reasoning (Shute et al., 1984). Internality is associated with higher scholastic achievement and externality with lower achievement (Golding et al., 2019). Internals take charge and responsibility of their personal development (Sayın, 2000) and lead happier lives (Pannells & Claxton, 2008) and externals experience more depression (Costello, 1982).

Parents affect the personality and adjustment of their children (Nowicki et al., 2018a). Parental warmth is associated with internal LoC (Carton & Nowicki, 1994). Nowicki et al. (2018c) explored which features of early home environment may facilitate the development of externality in children. They found that inadequate early maternal interaction with the child is associated with an increased risk of the child being externally oriented.

Parents' LoC is also important in the lives of children (Nowicki et al., 2017). LoC of parents and their children are significantly related with each other (Nowicki et al., 2018d). Changes in LoC of parents affect the personal and social adjustment of children. Children of parents who remained or become externally oriented have more behavioral difficulties in primary school compared with parents who remained or became internal (Nowicki et al., 2018b). Prenatal parental externality results in negative behaviors of their children especially when both parents are externally oriented. Prenatal maternal externality leads towards emotional difficulties (Nowicki et al., 2018a) and lower abilities in mathematics and science reasoning of children (Golding et al., 2019).

Internality of parents leads towards positive effects of children in sleeping, eating, and tantrum behavior (Nowicki et al., 2017). Prenatal internality of the mothers positively influences the cognition of the child. Children of prenatal internal mothers were found to have 7 IQ points higher than the children of prenatal external mothers (Golding et al., 2017). Internal parents acquire parenting skills and interact with their children in organized and consistent manner. Positive outcomes are enhanced when both parents are internal. Hence, internal LoC should be promoted among parents (Nowicki et al., 2017) and in adolescents and young adults prior to parenthood to get improvements in the cognitive development of the next generation (Golding et al., 2017).

Objectives of the Study

The objective of this study is to explore the effect of parents' education, parents' occupation, and the type of parental interaction on the internal, external social, and external other LoC of secondary school students.

Methodology

The present study was descriptive survey research. A total of 520 students studying at secondary level were participants of the study. These students belonged to three public schools of Lahore. Data were collected with the consent of participants and it was assured that the data will be used for the research purpose only. The t-test was applied to mother occupation and ANOVA was applied to the rest of the variables.

Results

Table 1 presents the findings regarding the effect of father and mother education on the internal, external social, and external other LoC.

Table 1. Effect of parents' education on LoC of students.

Variable	Internal		External social		External other	
	M	SD	M	SD	M	SD
<u>Father education</u>						
Illiterate(n=70)	37.26	5.46	37.30	4.53	29.48	4.82
Elementary(n = 44)	37.57	5.50	38.09	4.70	29.39	4.76
Secondary and higher secondary (9-12) (n = 275)	38.15	5.64	37.68	4.73	28.94	4.40
Graduation n= 78)	37.55	6.24	38.15	4.94	29.23	4.96
Post-graduation (n = 53)	38.40	5.66	38.17	3.56	29.19	4.38
F	.563		.491		.264	
p	.690		.742		.901	
<u>Mother education</u>						
Illiterate (n = 81)	37.43	4.88	37.43	4.61	28.95	4.38
Elementary (80)	38.60	5.28	38.76	4.29	30.24	4.60
Secondary and higher secondary (9-12) (n = 281)	37.95	6.01	37.66	4.62	28.69	4.64
Graduation (48)	38.50	5.44	38.48	4.44	29.46	4.62
Post-graduation (29)	36.03	6.04	36.00	5.33	29.96	3.48
F	1.356		2.448		2.190	
p	.248		.045		.069	
			Elementary, graduation > post- Graduation			

Table 1 shows that father education has no significant effect on LoC of secondary school students. Mother education also did not affect the internal and external LoC of students. However, external social LoC was affected by mother education. Post hoc LSD revealed that external social LoC of students with mother education elementary (mean difference = 2.76250*, $p < .01$) and graduation (mean difference = 2.47917*, $p < .05$) is higher than that of students with mother education post-graduation. Hence, students with less mother education are influenced more by other people, though this finding is not exclusive as differences were found only in two multiple comparisons and not in all comparisons.

Table 2 presents LoC of students with different father and mother occupations.

Table 2. Effect of parents' occupation on LoC of students.

Variable	Internal		External social		External other	
	M	SD	M	SD	M	SD
<u>Father occupation</u>						
Business (147)	37.54	6.12	37.90	4.39	29.94	4.62
Employee (224)	38.07	5.72	37.73	4.83	28.77	4.41
Labor (144)	37.83	5.13	37.64	4.50	28.61	4.55
F	.377		.120		4.009	
p	.686		.887		.019. Business > Employee & Labors	
Mother occupation						
housewife (485)	37.92	5.67	37.76	4.54	29.02	4.58
Working (33)	38.00	6.13	38.03	5.82	30.52	4.06
t	.072		.259		1.823	
p	.942		.797		.069	

Table 2 shows that father occupation has no effect on the internal and external social LoC of students. External other LoC of students whose fathers were businessmen was significantly higher than that of the students whose fathers were employees (LSD: mean difference = 1.17326*, $p < .05$) or laborers (Scheffe: mean difference = 1.33447*, $p < .05$). Hence, children of businessmen fathers believe more on the external other factors like luck and situation for their failure and success. There was no significant difference in LoC of students whose mothers were working and whose mothers were housewives.

Table 3 presents the LoC of students with various types of parental interaction.

Table 3. Effect of type of parental interaction on LoC of students.

Variable	Internal		External social		External other	
	M	SD	M	SD	M	SD
<u>With fathers</u>						
Complete sharing (87)	37.11	6.63	38.03	5.47	28.78	4.52
Moderate sharing (250)	37.86	5.49	37.96	4.56	29.08	4.58
No sharing (182)	38.41	5.459	37.40	4.25	29.34	4.58
F	1.568		.961		.460	

p	.209		.383		.631	
<u>With Mothers</u>						
Complete sharing (207)	37.53	5.40	37.7198	4.83	29.54	4.62
Moderate sharing (265)	38.57	5.75	37.98	4.41	29.14	4.56
No sharing (48)	36.00	6.15	37.00	4.82	27.23	3.80
F	5.005		.944		5.089	
p	.007 Moderate sharing > No sharing, complete sharing		.390		.006 Complete and moderate sharing > No sharing	

Table 3 shows that LoC was not affected by the type of interaction with fathers. External social LoC of students was also not affected by the type of interaction with mothers. However, internal and external other LoC are affected by the interaction with mothers.

Results showed that students who have moderate level of sharing with mothers have significantly higher level of internality than the students who completely share their feelings with their mothers (LSD: mean difference = 1.03947*, $p < .05$) and the students who do not share their feeling with their mothers (Scheffe: mean difference = 2.56604*, $p < .05$). External other LoC of students with moderate (Scheffe: mean difference = 1.91046* $p < .05$) and complete (Scheffe: mean difference = 2.31190*, $p < 0.01$) sharing with their mothers was significantly higher than the students who do not share their feelings with their mothers.

Discussion and Conclusion

Parental Education

Education has a significant relationship with the LoC (Angelova, 2016). Father education moderates the authoritarian parenting style and enhances internality among children (Keshavarz, et al., 2013). However, results of the present study revealed that father education did not affect LoC of secondary school students. Mother education also did not affected the internal and external other LoC of students. However, external social LoC of students with less mother education (elementary and graduation) was significantly higher than those with higher mother education (post-graduation).

Parental Occupation

Professional activity is related with LoC. It was found that persons with high professions possess internal LoC, whereas persons having no job, with self-employment, and students of school and university have external LoC (Angelova, 2016). The present study is related to secondary school students who are not engaged in any profession yet. However, the study explores the effect of parental occupational status on LoC of their children as it was hypothesized that different occupations of parents may develop different mindset for upbringing the child. Father occupation has an effect on external other LoC. Students whose fathers were businessmen have significantly higher external other LoC than the students whose fathers were employees or laborers. So, the students with business as father occupation believe more in external other factors like fate and situation than the students with employment and labor as father occupation. Father occupation did not affect the internal and external social LoC of their children. Mother occupation also did not affect the LoC of their children.

Type of Parental Interaction

Keshavarz et al., (2013) reported a significant negative relationship between fathers' authoritative and authoritarian styles of parenting with the internal LoC. Internality is cultivated in children when fathers encourage the independence of their children. However, more care and overprotection also results in developing externality among children (Lynch et al., 2002). Walter and Ziegler (1980) also suggested that more parental attention in childhood leads towards dependence and development of external LoC in children.

The results of the present study showed that it is not the type of interaction with fathers but the type of interaction with mothers that affected the LoC of their children. No significant effect of type of interaction with

mothers was found on external social LoC. However, internal and external other LoC were affected by the type of interaction with mothers. Students who have a moderate level of sharing with mothers have a significantly higher level of internality than those who completely share or do not share their feelings with their mothers. Hence, internality was developed with moderate level of sharing with mothers. Students who completely or moderately share their feelings with their mothers have significantly more external other LoC than those who do not share their feelings with mothers. Hence, more sharing with mothers resulted in the development of other externality.

References

- Angelova, N. V. (2016). Locus of control and its relationship with some social-demographic factors. *Psychological Thought*, 9(2), 248–258. <https://doi.org/10.5964/psych.v9i2.179>
- Brown, R. (1990). The construct and concurrent validity of the social dimension of the Brown Locus of Control. *Educational and Psychological Measurement*, 50, 377–382.
- Carton, J. S., & Nowicki, S. (1994). Antecedents of individual differences in locus of control of reinforcement. *Genet. Soc. Gen. Psychol. Monogr.*, (3), 23–58.
- Costello, E. J. (1982). Locus of control and depression in students and psychiatric outpatients. *Journal of clinical psychology*, 38(2), 340-43. [https://doi.org/10.1002/1097-4679\(198204\)38:2<340::AID-JCLP2270380220>3.0.CO;2-D](https://doi.org/10.1002/1097-4679(198204)38:2<340::AID-JCLP2270380220>3.0.CO;2-D)
- Furnham, A. & Cheng, H. (2017). Socio-Demographic Indicators, Intelligence, and Locus of Control as Predictors of Adult Financial Well-Being. *Journal of intelligence*, 5(11). <http://doi.org/10.3390/jintelligence5020011>
- Golding, J., Gregory, S., Ellis, G. L., Nunes, T., Bryant, P., Iles-Caven, Y., & Nowicki, S. (2019). Maternal Prenatal External Locus of Control and Reduced Mathematical and Science Abilities in Their Offspring: A Longitudinal Birth Cohort Study. *Frontiers in Psychology*, 10, [194]. <http://doi.org/10.3389/fpsyg.2019.00194>
- Golding, J., Gregory, S., Ellis, G. L., Iles-Caven, Y., & Nowicki, S. (2017). Prenatal Internal Locus of Control Is Positively Associated with Offspring IQ, Mediated through Parenting Behavior, Prenatal Lifestyle and Social Circumstances. *Frontiers in Psychology*, 8 [1429]. <http://doi.org/10.3389/fpsyg.2017.01429>
- Keshavarz, S., Baharudin, R., & Mounts, N. S. (2013). Perceived parenting style of fathers and adolescents' locus of control in a collectivist culture of Malaysia: the moderating role of fathers' education. *The Journal of Genetic Psychology*, 174(3), 253-70.
- Lynch, S., Hurford, D. P., & Cole, A. (2002). Parental enabling attitudes and locus of control of at-risk and honors students. *Adolescence*, 37(147), 527-550.
- Nowicki, S., Iles-Caven, Y., Gregory, S., Ellis, G., & Golding, J. (2017). The Impact of Prenatal Parental Locus of Control on Children's Psychological Outcomes in Infancy and Early Childhood: A Prospective 5 Year Study. *Frontiers in Psychology*, 8. <http://doi.org/10.3389/fpsyg.2017.00546>
- Nowicki, S., Gregory, S., Ellis, G. L., Iles-Caven, Y., & Golding, J. (2018a). Parental external locus of control in pregnancy is associated with subsequent teacher ratings of negative behavior in primary school: Findings from a British birth cohort. *Frontiers in Psychology*, 9, [120]. <https://doi.org/10.3389/fpsyg.2018.00120>
- Nowicki, S., Gregory, S., Ellis, G. L., Iles-Caven, Y., & Golding, J. (2018b). The Pattern of Stability and Change in Parental Locus of Control Over 6 Years and Teacher Ratings of Child Behavior. *Frontiers in Psychology*, 9. <http://doi.org/10.3389/fpsyg.2018.01427>
- Nowicki, S., Gregory, S., Iles-Caven, Y., Ellis, G. L., & Golding, J. (2018c). Early Home-Life Antecedents of Children's Locus of Control. *Frontiers in Psychology*, 9. <http://doi.org/10.3389/fpsyg.2018.02032>
- Nowicki, S., Iles-Caven, Y., Gregory, S., Ellis, G. L., & Golding, J. (2018d). Stability of, and Associations Between, Parent and Child Locus of Control Expectancies. *Frontiers in Psychology*, 9. <http://doi.org/10.3389/fpsyg.2018.02018>
- Pannells, T. C. & Claxton, F. A. (2008). Happiness, creative ideation and locus of control. *Creativity Research Journal*, 20(1), 67-71.
- Prociuk, T. J. & Breen, L. J. (1974). Locus of control, study habits and attitudes, and college academic performance. *The Journal of Psychology*, 88(1), 91-95. <http://doi.org/10.1080/00223980.1974.9915716>
- Rotter, J. (1966). Generalized expectations for internal versus external control of reinforcement. *Psychological Monographs*, 80, 1–28.
- Sayın, S. (2000). *Lise öğrencilerinin mesleki ilgilerini yordayan bazı değişkenler [Some variables predictors of high school students' professional interest]* (Unpublished Master's Thesis), Hacettepe University, Institute of Social Sciences, Ankara, Turkey.
- Shute, G. E., Howard, M. M. & Steyaert, J. P. (1984). The relationships among cognitive development, locus of control, and gender. *Journal of Research in Personality*, 18, 335–341.
- Walter, D. A & Ziegler, C. A. (1980). The effects of birth order on locus of control. *Bulletin of the Psychonomic Society*, 15(5), 293-294.