ABSTRACT:

OBJECTIVES:
The present study aimed to investigate gender differences on Imaginary Audience (IA) and depression among college students.

METHODOLOGY:
Six hundred college students, both boys (n=299) and girls (n=274) completed cross sectional survey. Data was collected from different colleges of Peshawar (KPK) from September- December 2016 using purposive sampling technique. The age range of the sample was 17-22 (M=19, SD=1.47) years. Two scales, New Imaginary Audience Scale (NIAS) and Beck Depression Inventory (BDI) were administered to them.

RESULTS:
Analysis of the findings was made using stepwise deletion technique for sample distribution and t-test. Statistically significant gender differences were found on New Imaginary Audience Scale (t=-2.48, p=.001) and Beck Depression Inventory (t=3.07, p=.02). Mean score was on NIAS were among girls, while on depression boys mean scores were prominent.

CONCLUSION:
The results of the present study concluded gender differences on both variables i-e NIAS and Depression. The findings further suggest that girls have prominent features of new imaginary audience in their student’s life whereas, boys pertain depressive symptoms during this period.

KEYWORDS: Gender, Imaginary Audience, Depression, College Students

How to cite this article:
Kalsoom U, Rahim S, Akbar H. Gender differences in imaginary audience and depressive symptomatology among college students. J Gandhara Med Dent Sci. 2020;7(1):3-10.
INTRODUCTION:

Egocentrism is a phenomenon associated with the early life of children. Piaget has defined egocentricism as the focus of a child during the early stages of consciousness. During the sensory motor stage, a child lacks the capacity to discriminate between him and the world. Likewise, a child is in no position to evaluate the importance of others and appreciate their viewpoint. Piaget explained egocentrism as an obstacle in the matter of discrimination between self and oneself and the diversity in it could be experienced during certain stages of development. Piaget lays stress on the importance of upgradation of the new cognitive abilities at each stage of development and the movement to next stage expressing intellectual maturity. After successfully completing operational stage the adolescent enters adulthood and acquires meta cognitive skills to reason and understand abstraction. Egocentrism is inherent in homo sapiens, which plays important role in childhood. At this stage the brain is not fully developed to respond to teachings and experiences of others and discriminate between subjective and objective aspects of one’s self. This is the difficulty of brain but if the child persists with the same behavior, cognitive complications will occur. Piaget is of the view that this trait is associated with childhood but when a child grows and matures it will disappear in due course. Adolescents may however experience a sort of new egocentrism during their cognitive development. They may attain the ability of meta cognition which means that they are capable to think and can also appreciate the thoughts of others. Initially it is difficult for the adolescents to discriminate between their own thoughts and that of others. This conflict between thoughts of the adolescents and others is known as adolescent egocentrism. This concept put forth by Piaget was further developed by Elkind. Adolescent egocentrism is expressed in two ways, which are two inter-related concepts i.e. imaginary audience (IA) and personal fable (Pf). Imaginary audience has two dimensional aspects abiding self which means excessive concern for permanent aspects of one’s self, transitory self which keeps focus on temporary aspect of one’s self when adolescents believes in self-importance and his omnipotence that is known as personal fable. This point of view is reflected in their neglectful conduct amongst regular day-to-day existence. The contrast between the two sets is that imaginary audience is identified with cognizance while personal fable is reflected character. Adolescents are dependent on parents but at the same time they are obsessed with the idea of independence. The confusion between imaginary audience and personal fable can however be resolved. Researchers looking into the concept of imaginary audience and have achieved different results in different situations and age. Piaget reported that egocentrism decreases at the end of adolescent because of fortify self-understanding. Gradient in IA observed in eight grades, while gather intensity at
formal operational stage\(^5,\ 8\). Imaginary audience normally drops down during adolescent because of the appearance of different personality factors at different stages\(^9\). Piaget\(^{10}\) is of the view that imaginary audience could not be limited to youth, and with formal operational thoughts, besides these adults who procure identity characters had one-sided opinion about themselves\(^{11}\). Therefore, it is presumed that IA may cause shyness, social anxiety, and embarrassment congruity among affectees\(^{12}\). Self-awareness, feeling of disgrace, identity expressions and requirement for seclusion expounds socially sensitive behavior of imaginary audience adolescents\(^{13},\ 14\). Ryn and Kuezkowski,\(^{15}\) reported that adolescents having doubt bond with their parents indicated reliable result score on imaginary audience scale. Adolescents Pf type also thinks the same way, their behavior is influenced by feeling of indestructibility, which is observed, and risk taking behavior\(^{16}\). Pf affecters are beset by malaise narcissism and self-importance\(^{17}\). Teenagers with IA traits have no positive contribution to society because of their negative thinking style and orientation. Elkind associated egocentrism with adolescence\(^5\), but some researchers established that adults were also susceptible to develop geocentricism\(^{18}\). Galavoki\(^7\) conducted a study to confirm Elkinds theory of adolescent with IA and Pf. The main objective of the research was to test Piaget’s explanation for egocentrism and its growing criteria with age. Health risk behavior e.g. eating disorder, cigarette smoking, and the substance use are also investigated in relation with geocentricism\(^{19}\). Another study suggests geocentricism as a prominent predictor of online risk behavior\(^{20}\). Depression among college students is common.

Normally during this transitory period, many students feel joy, worries, concern and passion at the same time some develop depression. These depressive symptoms may be a reaction to score good grades, concerns about future, away from home etc. Girls may experience more depression as compared to boys. It may be girls face unique socio cultural, psychological, biological factors, lower social status and unequal power and workload\(^{21-23}\). In order to verify relationship between geocentricism and depression 152 participants between the ages of 18-25 were tested. The result indicated positive relationship between two. Psychologists ignored the phenomenon of IA, but the construct of IA was again taken up for study to find out the behavioral problems of adolescents. Likewise, IA and its relation to depression in Pakistani college students were never given attention. Therefore, the present study took initiatives to find out gender role not only in depression but also in geocentricism construct of imaginary audience.

**METHODOLOGY:**

In the present study the sample consisted of N=600 (boys = 300, girls = 300) participants. Out of these 27 participants did not complete the questionnaires. So, remaining 573 participants were included in the study. As a result, 299 boys and 274 girls participated in the study. The data was collected using purposive sampling technique from different colleges of Peshawar (KPK). Age range of the sample was 17-22 years (M=19, SD=1.47). The scale was devised by Elkind and Bowen,\(^{24}\) in order to measure eth response of adolescents in different situations and highlight their thinking process. The response of the
adolescents was obtained through questionnaire regarding their daydreaming and different social events, which affected their popularity. The reliability of the scale on the present sample is α=.831. This inventory was developed to measure the symptoms of depression. It is a self-evaluation questionnaire comprising 21 items. The time allowed 5 minutes to the subjects to put circle on the number that described the best. The ages of the subjects for BDI are ranged between 13 years to 80 years. Score of 14-19 indicates mild depression, 20 to 28 are indicative of moderate depression and 29-63 shows severe depression. In this study the Cronbach alpha reported 0.799. Permission of the concerned college authorities was obtained to contact the participants for collecting data. The participants were informed about the type of study and its objectives. They were assured that the data would be kept confidential and will be used for research purpose only. Questionnaire was given to the volunteers’ along with written and verbal instructions. The subjects were given consent forms besides NIAS and BDI. Those who needed clarification were also obliged now. Data of 27 subjects was discarded being unsatisfactory. Remaining filled questionnaire of 573 participants was processed.

RESULTS:

In order to get effective result, the missing data was handled through SPSS version 20. Those questionnaires, which were completely empty, deleted using stepwise deletion technique. Then Pearson correlation is conducted on New Imaginary Audience Scale, and Beck Depression Inventory with age variable to determine their association. The correlation is found for NIAS (r=.121**, p<.001) and BDI (r=.100*, p<.05). The significant correlation shows that the status of the data is missing at random. The missing data is replaced by linear interpolation method. In the last 529 questionnaires are evaluated for NIAS and 528 for BDI. Further Q-Q plot and histogram shows that the data is normally distributed, as illustrated in Figure 1, 2 and 3. Later t-test was applied to find out gender differences on NIAS and Depression.

Figure1: Q-Q Plot of The Sample of NIAS and BDI
GENDER DIFFERENCES IN IMAGINARY AUDIENCE AND DEPRESSIVE SYMPTOMATOLOGY AMONG COLLEGE STUDENTS

Figure 2: Histogram Showing That the Data is Normally Distributed on NIAS (N=529)

![Histogram showing normal distribution for NIAS](image1)

Figure 3: Histogram Showing That the Data was Normally Distributed on BDI (N=528)

![Histogram showing normal distribution for BDI](image2)

Table 1: Gender Difference Among Students on New Imaginary Audience Scale (N=529)

| Variable | Boys (260) | Girls (269) | P   |
|----------|------------|-------------|-----|
| NIAS     | M (SD)     | M (SD)      | .01 |
|          | 106.45 (18.4) | 110.1 (14.2) |     |

Table 1 shows the comparison between boys and girls on NIAS. Significant gender differences were found between boys and girls. The result suggests that girls score high on NIAS as compared to boys.
Table 2: Mean, Standard Deviation and T-Value Showing Gender Differences of Students on Depression (N=528)

| Variable | Boys (259) M (SD) | Girls (269) M (SD) | P |
|----------|------------------|-------------------|---|
| Depression | 20.94 (10.1) | 18.32 (8.3) | .02 |

The results revealed gender differences on BDI scores. However, it further indicates that boy’s scores on depression are slightly high as compared to girls.

**DISCUSSION:**

Imaginary audience is a phenomenon pertaining to adolescence. This phenomenon has been extensively researched but few researchers have paid attention to NIAS with young adults. The present research is focused on NIAS among the student’s sample. Gender differences coming to surface proves the hypothesis that imaginary audience is higher among girls in comparison to boys, could be on account of socialization to which male and female students are exposed under social cultural pressure. Girls are focused on the issues of identity and career, which may push them to egocentrism. Brody\textsuperscript{25} was of the view that adolescent boys suppressed their emotional expressions whereas girls also did not express socially unacceptable emotions like anger. Peterson and Roscoe\textsuperscript{26} concluded that college students exhibited more IA as compared to subjects. Egocentrism was investigated among Canadian adolescents who displayed depressive symptoms. The study revealed that the girls were distinct and self-conscious in comparison to boys. The researchers also found relationship between social class and geocentrism\textsuperscript{28}. The data was also analyzed to find gender differences in students’ sample about depression. The research proved that depression was more common in girls as compared to boys\textsuperscript{29, 30}. The research also led to mixed result among the students, for example no gender difference was found in students displaying depression symptoms\textsuperscript{30}. Moeini et al\textsuperscript{31} also suggested girls are more susceptible to depression whereas in some studies man were reported to be showing more depressive symptoms as compared to women\textsuperscript{32}. This data indicated that boys got high score on BDI as compared to girls. This might be since in our culture males have to shoulder more responsibilities than women as they have to bear the pressure of jobs and supporting their families. Age of adulthood is immaterial because the males are brought up in social conditions where family responsibility becomes integral part of their personalities. Depressive symptoms common in students are due to academic problems, loneliness, economic problem and relationship with other students.

**CONCLUSION:**
Summarizing the aforesaid factual position, it is concluded that there are gender differences on NIAS and BDI. Girls score more on NIAS as compared to boys. The boys are more prone to depressive symptoms during student life.

REFERENCES:

1. Dacey JS, Travers JF. Human Development: Across the Life Span. 5th ed. New York: McGraw Hill; 2004.
2. Piaget J. Commentary on Vygotsky's criticisms of language and thought of the child and judgement and reasoning in the child. New Ideas Psychol. 2000;18(2-3):241-59.
3. Hueil W, Hummel J. Piaget's theory of cognitive development. Educ Psychol Interact. 2003;3(2):1-5.
4. Butterworth G, Harris M. Principles of Developmental Psychology. East Sussex: Psychology Press Ltd; 1994.
5. Elkind D. Egocentrism redux. Dev Rev. 1985;5(3):218-26.
6. Kroger J. Adolescence as a second separation-individuation process. Personality development in adolescence: a cross national and lifespan perspective. 2005:171.
7. Galanaki EP. The imaginary audience and the personal fable: a test of Elkind's theory of adolescent egocentrism. Psychology. 2012;3(6):457.
8. Alberts A, Elkind D, Ginsberg S. The personal fable and risk-taking in early adolescence. J Youth Adolesc. 2007;36(1):71-6.
9. Enright RD, Shukla DG, Lapsley DK. Adolescent egocentrism-sociocentrism and self-consciousness. J Youth Adolesc. 1980;9(2):101-16.
10. Kesselring T, Müller U. The concept of egocentrism in the context of Piaget's theory. New Ideas Psychol. 2011;29(3):327-45.
11. Weary G, Harvey JH, Schwieger P, Olson CT, Perloff R, Pritchard S. Self-presentation and the moderation of self-serving attributional biases. Soc Cognit. 1982;1(2):140-59.
12. Kelly KM, Jones WH, Adams JM. Using the imaginary audience scale as a measure of social anxiety in young adults. Educ Psychol Meas. 2002;62(5):896-914.
13. Elkind D, Bowen R. Imaginary audience behavior in children and adolescents. Dev Psychol. 1979;15(1):38.
14. Lechner CR, Rosenthal DA. Adolescent self-consciousness and the imaginary audience. Genet Psychol Monogr. 1984;110(2):289-305.
15. Ryan RM, Kuczowski R. The imaginary audience, self-consciousness, and public individuation in adolescence. J Pers. 1994;62(2):219-38.
16. Irwin Jr CE, Millstein SG. Correlates and predictors of risk-taking behavior during adolescence. Self-regulatory behavior and risk-taking: causes and consequences. Norwood NJ: Ablex Publishing; 1992.
17. Aalsma M, Lapsley DK, Flannery D. Narcissism, personal fables, and adolescent adjustment. Psychol Sch. 2006;43(4):481-91.
18. Tesch S, Whitbourne SK, Nehrke MF. Cognitive egocentrism in institutionalized adult males. J Gerontol. 1978;33(4):546-52.
19. Banerjee SC, Greene K, Yanovitzky I, Bagdasarov Z, Choi SY, Magsamen-Conrad K. Adolescent egocentrism and indoor tanning: is the relationship direct or mediated? J Youth Stud. 2015;18(3):357-75.
20. Popovac M, Hadlington L. Exploring the role of egocentrism and fear of missing out on online risk behaviours among adolescents in South Africa. Int J Adolesc Youth. 2020;25(1):276-91.
21. Abela JR, Hankin BL. Rumination as a vulnerability factor to depression during the transition from early to middle adolescence: a multiwave longitudinal study. J Abnor Psychol. 2011;120(2):259.
22. Raheel H. Depression and associated factors among adolescent females in Riyadh, Kingdom of Saudi Arabia, a cross-sectional study. Int J Prev Med. 2015;6:90.
23. Breslau N, Peterson EL, Schultz LR, Chilcoat HD, Andreski P. Major depression and stages of smoking: a longitudinal investigation. Arch Gen Psychiatry. 1998;55(2):161-6.
24. Beck AT, Steer RA, Brown GK. Beck depression inventory-II. San Antonio. 1996;78(2):490-8.
25. Brody L. Gender differences in emotional development: a review of theories & research. J Per. 1985;53:102-49.
26. Peterson KL, Roscoe B. Imaginary audience behavior in older adolescent females. Adolescence. 1991;26(101):195.
27. Schonert-Reichl KA. Gender differences in depressive symptomatology and egocentrism in adolescence. J Early Adolesc. 1994;14(1):49-65.
28. Connell J, Barkham M, Mellor-Clark J. CORE-OM mental health norms of students attending university counselling services benchmarked against an age-matched primary care sample. Br J Guid Counselling. 2007;35(1):41-57.
29. Herrero J, Meneses J. Short web-based versions of the perceived stress (PSS) and center for epidemiological studies-depression (CESD) scales: a comparison to pencil and paper responses among internet users. Comput Hum Behav. 2006;22(5):830-46.
30. Al-Busaid Z, Bhargava K, Al-Ismaiy A, Al-Lawati H, Al-Kindi R, Al-Shafaee M, et al. Prevalence of depressive symptoms among students in Oman. Oman Med J. 2011;26(4):235-39.
31. Moeini B, Bashirian S, Soltanian AR, Ghaleiha A, Taheri M. Prevalence of depression and its associated sociodemographic factors among Iranian female adolescents in secondary schools. BMC Psychiat. 2019;7(1):25.
32. Winsper C, Singh SP, Marwaha S, Amos T, Lester H, Everard L, et al. Pathways to violent behavior during first-episode psychosis: a report from the UK national EDEN study. JAMA Psychiat. 2013;70(12):1287-93.

**CONTRIBUTORS**

1. **Ume Kalsoom** - Concept & Design; Drafting Manuscript; Supervision; Final Approval
2. **Sabeen Rahim** - Data Analysis/Interpretation; Critical Revision
3. **Huma Akbar** - Data Acquisition