

## Incidence of Adult Attention Deficit Hyperactivity Disorder (ADHD) in the General Adult Population of Quetta, Balochistan, in Pakistan

Nida Tabassum Khan\*, Namra Jameel

Department of Biotechnology, Faculty of Life Sciences and Informatics, Balochistan University of Information Technology Engineering and Management Sciences,(BUITEMS),Quetta, Pakistan.

**Corresponding Author:** Nida Tabassum Khan, Department of Biotechnology, Faculty of Life Sciences and Informatics, Balochistan University of Information Technology Engineering and Management Sciences,(BUITEMS),Quetta, Pakistan,

**Tel:** 03368164903; **Email:** nidatabassumkhan@yahoo.com

**Received Date:** 27 Oct 2018

**Accepted Date:** 16 Nov 2018

**Published Date:** 20 Nov 2018

**Copyright** © 2018 Khan NT

**Citation:** Khan NT and Jameel N (2018). Incidence of Adult Attention Deficit Hyperactivity Disorder (ADHD) in the General Adult Population of Quetta, Balochistan, in Pakistan. M J Derm. 3(1): 013.

### ABSTRACT

Adult attention deficit hyperactivity disorder (ADHD) is a neuropsychological problem exhibiting symptoms including lack of concentration, impulsive and aggressive behaviour, hyperactivity, failure to tasks etc. Our study revealed that incidence of adult attention deficit hyperactivity disorder is less predominant in females than in males and its overall incidence rate was also reported to be low in the general adult population of Quetta, Balochistan. The reason for its high occurrence in males is due to the fact that our present communal and cultural masculinity perception influences the personality of these adult males which is reflected in the form of less emotional expressivity followed by reduced degree of sensitivity towards other people or situations. However it is crucial to report ADHD in adults for the sake of their stable frame of mind.

### KEYWORDS

Wender Utah Rating Scale; Neurocognitive; Hyperactivity; Psychiatric Illness, Attention Deficit Hyperactivity Disorder.

### INTRODUCTION

Adult attention deficit hyperactivity disorder is a mental illness exhibiting symptoms including frequently being late and forgetful, suffering from anxiety, low self-esteem, trouble coping at work ,poor organizational skills, difficulty completing tasks, a short temper, restlessness, inability to be static, unable to involve in relaxation things quietly, excessive talking, could not stop from interrupting others etc [1,2,3,4,5].Individuals diagnosed with ADHD disorder, begins with one assigned task but could not keep focus for long and moves to another task without completing the first one [6].Thus individuals suffering with ADHD fails to complete the task for example school/university related work, chores and other tasks. These tasks require full attention but affected individuals experience it as unpleasant and aversive so mostly avoid it because of lack

of attention [7]. The substantial for doing necessary tasks or activities are often lost, scattered or carelessly handled and damaged [8].ADHD may vary with the individual's age and developmental level and diagnostic should be made as soon as possible [9]. Those toddlers and preschoolers who are suffering from ADHD differ from the active youngs and have difficulty in participating in sedentary group activities in educational institutes [10, 11].The school aged children have low intensity of ADHD symptoms but in adult symptoms are more prevalent and intensified [12, 13].Even though studies revealed that the predominant factors of this sickness are sometimes recognized in problematic behavior of ADHD children [14]. The energy level, consistent movement, terrible organizational potential, lack of persistence, terrible social skills, lack of so-

cial judgment, and constant shifting of concentration that are found in children suffering with ADHD lead to a multiple, endless social and academic problems in future [15,16,17]. Complications and problems are noticeable at home where children suffering with ADHD have hard time following the rules like disturbance created by an ADHD child at mealtime, bedtime or family outing, gathering and are rarely done with their homework and assignments [18,19,20]. Due to lack of concentration, not following the rules of classroom, fidgetiness, inappropriate verbalization, disruptiveness and difficulty working independently an ADHD child often stand out of class room or punished [21,22,23,24]. ADHD adults are mostly avoided in peer groups because they might aggravate fights, disturb others [25]. Such negligence may affects an ADHD affected individual emotionally leading to conditions like stress, fretfulness and dejection [26,27]. Another study revealed that parental emotion and harmful family activities are probably noted symptoms of families of adults suffering from ADHD [28,29]. Besides inadequate or poor sleep increases impulsivity, hyperactivity and aggressiveness in adults resulting in neurocognitive problems [30]. Since very little is reported regarding ADHD in adult population of Quetta, Balochistan. Therefore the aim of this study was to identify adult individuals with ADHD and to determine its prevalence rate in the general population of Quetta city. Besides also to recognize the factors associated with ADHD in both the genders.

**MATERIALS AND METHODS**

This designed survey was conducted in Quetta, Balochistan. Participants were randomly selected keeping the sample size 400 i.e., 200 males and 200 females and were mostly undergraduate students currently studying in different educational institutes of Quetta. Participants with any history of chronic or psychiatric illness, neurological damage or disease were excluded from the study.

A well-recognized scale Wender Utah Rating Scale (WURS) [31] was used as a measuring scale for diagnosing adult attention deficit hyperactivity disorder.

**Wender Utah Rating Scale has 3 subscales**

- Factor 1: Dysthymia
- Factor 2: Defiant Behavior
- Factor 3: University/Work Problems

WURS-items were rated using a 5-point Likert scale whereby 0 = not at all or very slightly and 4 = very much. Minimum score is 0 and maximum score is 100

**Wender Utah Rating Scale scoring**

- Equal to or less than 46 = non- ADHD
- Equal to or greater than 56 = ADHD
- Scores of 47 to 55 = possible ADHD

Statistical analysis of the data was done using Microsoft excel 2013.

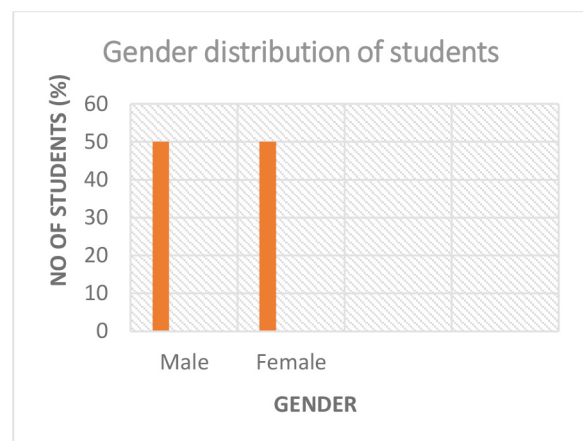
**RESULTS**

Table 1 and Graph 1 displayed the gender distribution of the sample.

Out of 400 students, 50% were females and 50% were males as shown in Table 1 and Graph 1

**Table 1:** Sex distribution of selected students.

S.no	Gender	No of students (%) (n=400)
1	Male	50
2	Female	50

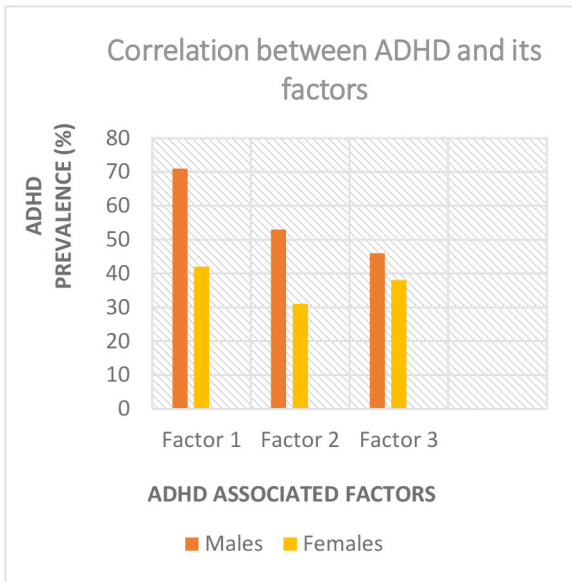


**Graph 1:** Gender distribution of selected students.

Table 2 and Graph 2 reveals the correlation between adult attention deficit hyperactivity disorder and its three dimensions in both the genders.

**Table 2:** Correlation between adult attention deficit hyperactivity disorder and its three dimensions in both the genders.

S.no	Variables	Male (n=200) (%)	Females (n=200) (%)
1	Factor 1	71	42
2	Factor 2	53	31
3	Factor 3	36	38

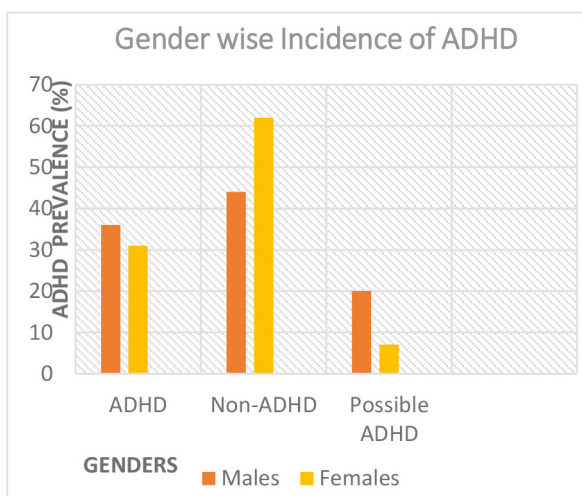


**Graph 2:** Correlation between ADHD and its three dimensions in both the gender

Table 3 and Graph 3 reveals the gender wise incidence of adult attention deficit hyperactivity disorder

**Table 3:** Gender wise incidence of adult attention deficit hyperactivity disorder.

Prevalence	Male (n=200) (%)	Female (n=200) (%)
ADHD (≥ 56)	36	31
Non- ADHD (≤ 46)	44	62
Possible ADHD (Between 47 to 55)	20	7

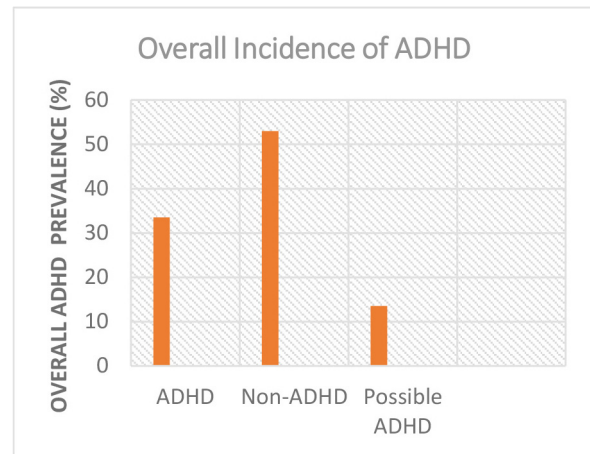


**Graph 3:** Gender wise incidence of Adult attention deficit hyperactivity disorder.

Table 4 and Graph 4 reveals the overall prevalence of Adult attention deficit hyperactivity disorder

**Table 4:** Overall incidence of Adult attention deficit hyperactivity disorder.

Prevalence	n=100 (%)
ADHD	33.5
Non-ADHD	53
Possible ADHD	13.5



**Graph 4:** Over all incidence of Adult attention deficit hyperactivity disorder.

## DISCUSSION

Obtain results revealed high incidence of adult attention deficit hyperactivity disorder (ADHD) in males. It is due to the restrictive emotionality nature of this gender that prevents them from expressing their feelings deeply [32]. These adult males have been disconsolated, and because of their inadequate expression level and low compassion such males are easily vulnerable to ADHD [33]. A stiff and stubborn attitude displayed by men in our society to control feelings and to conceal weakness is a centric social framework [34]. However such display of these traits could not be carried for a longer period of time and soon it develops into anxiety, aggression, hyperactivity and frustration in adult males [35,36]. Females on the other hand hold a more delicate personality by nature therefore tend to be more flexible and halfhearted therefore are less prone to ADHD by the virtue of their soft nature [37]. So we can say that there is a direct association between traditional masculinity concept and ADHD in adult males. Confined personality traits of men play an important role in the progression of symptoms in ADHD affected adults as shown by the three factors of WURS that such adult individuals displayed greatest deficits in identifying and expressing emotions and feelings [38]. Insensitivity, frustration, less passion, lack of concentration, low self-esteem etc act as triggers for ADHD thus intensifying its symptoms [39]. Besides nervous system of both the genders differs from one another in terms of brain perceiving

capabilities and processing functionality [40]. Males are different from females in terms of their brain anatomy and function. Therefore ADHD utilities works differently in the brain of men and woman [41]. Research revealed that deficit in right hemispheric capacity contribute to ADHD in men, but not in case of women [42].

## CONCLUSION

This study recommends that Adult attention deficit hyperactivity disorder (ADHD) is more prevalent in adult males. Therefore it is essential to report this problem because it might have severe effects on the developing personality of adult individual's. Therefore there is a need for counselling and behavioral therapy to treat this mental illness.

## REFERENCES

1. Biederman J, Faraone SV, Spencer T, Wilens T, et al. (1993). Patterns of psychiatric comorbidity, cognition, and psychosocial functioning in adults with attention deficit hyperactivity disorder. *The American journal of psychiatry*. 150(12): 1792-1798.
2. Weiss G and Hechtman LT. (1993). *Hyperactive children grown up: ADHD in children, adolescents, and adults*. Guilford Press.
3. Fayyad J, De Graaf R, Kessler R, Alonso J, et al. (2007). Cross-national prevalence and correlates of adult attention-deficit hyperactivity disorder. *The British Journal of Psychiatry*. 190(5): 402-409.
4. Simon V, Czobor P, Bálint S, Mészáros A, et al. (2009). Prevalence and correlates of adult attention-deficit hyperactivity disorder: meta-analysis. *The British Journal of Psychiatry*. 194(3): 204-211.
5. Wender PH. (1998). Attention-deficit hyperactivity disorder in adults. *Psychiatric Clinics of North America*. 21(4): 761-774.
6. De Graaf R, Kessler RC, Fayyad J, ten Have M, et al. (2008). The prevalence and effects of adult attention-deficit/hyperactivity disorder (ADHD) on the performance of workers: results from the WHO World Mental Health Survey Initiative. *Occupational and environmental medicine*. 65(12): 835-842.
7. Shekim WO, Asarnow RF, Hess E, Zaucha K, et al. (1990). A clinical and demographic profile of a sample of adults with attention deficit hyperactivity disorder, residual state. *Comprehensive psychiatry*. 31(5): 416-425.
8. Biederman J and Spencer T. (1999). Attention-deficit/hyperactivity disorder (ADHD) as a noradrenergic disorder. *Biological psychiatry*. 46(9): 1234-1242.
9. Biederman J. (2005). Attention-deficit/hyperactivity disorder: a selective overview. *Biological psychiatry*. 57(11): 1215-1220.
10. Sobanski E. (2006). Psychiatric comorbidity in adults with attention-deficit/hyperactivity disorder (ADHD). *European archives of psychiatry and clinical neuroscience*. 256(1): i26-i31.
11. Downey KK, Stelson FW, Pomerleau OF and Giordani B. (1997). Adult attention deficit hyperactivity disorder: Psychological test profiles in a clinical population. *The Journal of nervous and mental disease*. 185(1): 32-38.
12. Rowland AS, Lesesne CA and Abramowitz AJ. (2002). The epidemiology of attention-deficit/hyperactivity disorder (ADHD): a public health view. *Mental retardation and developmental disabilities research reviews*. 8(3): 162-170.
13. Spencer T, Biederman J, Wilens TE and Faraone SV. (1998). Adults with attention-deficit/hyperactivity disorder: a controversial diagnosis. *The Journal of clinical psychiatry*. 59(suppl): 59-68.
14. Friedman SR, Rapport LJ, Lumley M, Tzelepis, A, et al. (2003). Aspects of social and emotional competence in adult attention-deficit/hyperactivity disorder. *Neuropsychology*. 17(1): 50-58.
15. Mannuzza S, Klein RG, Bessler A, Malloy P, et al. (1993). Adult outcome of hyperactive boys: Educational achievement, occupational rank, and psychiatric status. *Archives of general psychiatry*. 50(7): 565-576.
16. Roy-Byrne P, Scheele L, Brinkley J, Ward N, et al. (1997). Adult attention-deficit hyperactivity disorder: assessment guidelines based on clinical presentation to a specialty clinic. *Comprehensive psychiatry*. 38(3): 133-140.
17. Murphy KR and Adler LA. (2004). Assessing attention-deficit/hyperactivity disorder in adults: focus on rating scales. *The Journal of clinical psychiatry*. 65(Suppl 3): 12-17.
18. Dinn WM, Robbins NC and Harris CL. (2001). Adult attention-deficit/hyperactivity disorder: neuropsychological correlates and clinical presentation. *Brain and Cognition*. 46(1-2): 114-121.
19. Murphy KR, Barkley RA and Bush T. (2002). Young adults with attention deficit hyperactivity disorder: subtype differences in comorbidity, educational, and clinical history.



- The Journal of nervous and mental disease. 190(3): 147-157.
20. Goldman LS, Genel M, Bezman RJ and Slanetz PJ. (1998). Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Jama*. 279(14): 1100-1107.
21. Wilens TE, Faraone SV and Biederman J. (2004). Attention-deficit/hyperactivity disorder in adults. *Jam*. 292(5): 619-623.
22. Barkley RA, Fischer M, Smallish L and Fletcher K. (2002). The persistence of attention-deficit/hyperactivity disorder into young adulthood as a function of reporting source and definition of disorder. *Journal of abnormal psychology*. 111(2): 279-289.
23. Adler L and Cohen J. (2004). Diagnosis and evaluation of adults with attention-deficit/hyperactivity disorder. *Psychiatric Clinics of North America*.
24. Shaffer D. (1994). Attention deficit hyperactivity disorder in adults. *The American journal of psychiatry*. 151(5): 633.
25. Biederman J, Faraone SV, Monuteaux MC, Bober M, et al. (2004). Gender effects on attention-deficit/hyperactivity disorder in adults, revisited. *Biological psychiatry*. 55(7): 692-700.
26. Biederman J, Petty CR, Woodworth KY, Lomedico A, et al. (2012). Adult outcome of attention-deficit/hyperactivity disorder: a controlled 16-year follow-up study. *The Journal of clinical psychiatry*.
27. Heiligenstein E, Guenther G, Levy A, Savino F, et al. (1999). Psychological and academic functioning in college students with attention deficit hyperactivity disorder. *Journal of American College Health*. 47(4): 181-185.
28. Schoechlin C and Engel RR. (2005). Neuropsychological performance in adult attention-deficit hyperactivity disorder: Meta-analysis of empirical data. *Archives of Clinical Neuropsychology*. 20(6): 727-744.
29. Kooij JJ, Buitelaar JK, FURER JW, RIJNDERS CA, et al. (2005). Internal and external validity of attention-deficit hyperactivity disorder in a population-based sample of adults. *Psychological medicine*. 35(6): 817-827.
30. Kessler RC, Adler LA, Barkley R, Biederman J, et al. (2005). Patterns and predictors of attention-deficit/hyperactivity disorder persistence into adulthood: results from the national comorbidity survey replication. *Biological psychiatry*. 57(11): 1442-1451.
31. Ward MF. (1993). The Wender Utah Rating Scale: an aid in the retrospective. *Am j psychiatry*. 1(50): 885-90.
32. Biederman J, Faraone SV, Monuteaux MC, Bober M, et al. (2004). Gender effects on attention-deficit/hyperactivity disorder in adults, revisited. *Biological psychiatry*. 55(7): 692-700.
33. Johnston C and Mash EJ. (2001). Families of children with attention-deficit/hyperactivity disorder: review and recommendations for future research. *Clinical child and family psychology review*, 4(3): 183-207.
34. Polanczyk G and Rohde LA. (2007). Epidemiology of attention-deficit/hyperactivity disorder across the lifespan. *Current opinion in psychiatry*. 20(4): 386-392.
35. Friedman SR, Rapport LJ, Lumley M, Tzelepis A, et al. (2003). Aspects of social and emotional competence in adult attention-deficit/hyperactivity disorder. *Neuropsychology*. 17(1): 50-58.
36. Spencer TJ, Biederman J and Mick E. (2007). Attention-deficit/hyperactivity disorder: diagnosis, lifespan, comorbidities, and neurobiology. *Journal of pediatric psychology*. 32(6): 631-642.
37. Seidman LJ, Biederman J, Weber W, Hatch M, et al. (1998). Neuropsychological function in adults with attention-deficit hyperactivity disorder. *Biological psychiatry*, 44(4): 260-268.
38. McCarthy S, Asherson P, Coghill D, Hollis C, et al. (2009). Attention-deficit hyperactivity disorder: treatment discontinuation in adolescents and young adults. *The British Journal of Psychiatry*, 194(3): 273-277.
39. Willcutt EG, Doyle AE, Nigg JT, Faraone SV, et al. (2005). Validity of the executive function theory of attention-deficit/hyperactivity disorder: a meta-analytic review. *Biological psychiatry*, 57(11): 1336-1346.
40. Biederman J, Newcorn J and Sprich S. (1991). Comorbidity of attention deficit hyperactivity disorder. *Am J Psychiatry*, 148(5): 564-577.
41. Ströhle A, Stoy M, Wrase J, Schwarzer S, et al. (2008). Reward anticipation and outcomes in adult males with attention-deficit/hyperactivity disorder. *Neuroimage*. 39(3): 966-972.
42. Sergeant JA, Geurts H and Oosterlaan J. (2002). How specific is a deficit of executive functioning for attention-deficit/hyperactivity disorder?. *Behavioural brain research*. 130(1-2): 3-28.