

# THE RELATIONSHIP OF ATTENTION DEFICIT/HYPERACTIVITY DISORDER SYMPTOMS WITH RISKY BEHAVIOURS AND PSYCHOLOGICAL SYMPTOMS AMONG TURKISH UNIVERSITY STUDENTS



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## Introduction

Attention deficit hyperactivity disorder (ADHD) is a childhood-onset neurodevelopment disorder, which around 2/3 of the patients may still have ADHD symptoms (ADHDs) during adulthood. Symptoms' presentation can turn into ongoing attention problems, disorganization and symptoms of emotional dysregulation throughout adulthood [1]. Adult ADHDs may lead familial, academic and occupational dysfunction, risky behaviours and self-mutilation. The study aims to investigate the relationship of ADHDs with risky behaviours and psychological symptoms among students [2].

## Methods

Among a total of 803 randomly selected students from two universities, regarding exclusion criteria 582 was remained and grouped into three groups due to the Turkish version of the Adult ADHD Self-Report Scale (ASRS) cut-off scores, namely, highly likely (HLG), likely (LG) and without ADHD (WG), respectively. They were assessed through online close-questioned and likert-type data form related to risky behaviours and psychological symptoms. Chi-square test and ANOVA were used.

## Results

The size of three groups were 15,1%(n=88), 22,2%(n=129) and 62.5%(n=365), respectively. Although gender was insignificant across groups, age mean was lower for HLG than WG (table 1). The rates of psychological symptoms such as depression and anxiety symptoms (table 1), interpersonal sensitivity, seeking excitement (table 2), risky behaviours and self-mutilation were higher in the HLG (table 3).

## Discussion

Consistent with previous studies, the HLG had more associated comorbid psychiatric disorder symptoms [3, 4]. Thus, assessment of ADHDs in university students may useful for realizing risky behaviours and psychological symptoms for this population.

Table 1. The age means and the frequency of psychological (depression and anxiety) symptoms due to ASRS

	WG		LG		HLG		$\chi^2$	P
	n	%	n	%	n	%		
Age (Mean±SD)	21.35 <sup>a</sup>		20.32 <sup>ab</sup>		21.17 <sup>b</sup>		F(2)=4.01	<0.05
Concentration problems	335	91.8	109	84.5	56	63.6	46.68	<0.001
Suicidal ideation	35	9.6	32	24.8	29	33	36.42	<0.001
Hopelessness	244	66.8	101	78.3	81	92	25.14	<0.001
Worthlessness	159	43.6	79	61.2	72	81.8	45.92	<0.001
Panic attack	96	26.3	49	38	54	61.4	39.80	<0.001
Hypervigilance	128	35.1	72	55.8	65	73.9	50.09	<0.001

Note. The mean scores that do not share the same script on the same raw are significantly different from each other.

Table 2. The frequency of psychological symptoms (interpersonal sensitivity and seeking excitement) due to ASRS

	WG		LG		HLG		$\chi^2$	P
	n	%	n	%	n	%		
Emotional expression deficit	248	67.9	105	81.4	79	89.8	22.11	<0.001
Difficulty of expression	195	53.4	94	72.9	60	68.2	17.93	<0.001
Fear of making mistake	185	50.7	98	76	69	78.4	39.44	<0.001
Enjoy excitement	224	61.4	99	76.7	67	76.1	14.10	<0.01
Seeking excitement	272	74.5	107	82.9	77	87.5	9.11	<0.05
Friends seeking excitement	220	60.3	91	70.5	64	72.7	7.50	<0.05

Table 3. The frequency of risky behaviours due to ASRS

	WG		LG		HLG		$\chi^2$	p
	n	%	n	%	n	%		
Uncontrollable anger attacks	214	58.6	91	70.5	75	85.2	24.15	<0.001
Thinking before doing	237	64.9	105	81.4	78	88.6	26.87	<0.001
Physical harm from a friend	4	1.1	7	5.4	4	4.5	8.72	<0.05
To bear arms	42	11.5	16	12.4	23	26.1	13.01	<0.01
Self-mutilation	40	11.0	23	17.8	18	20.5	7.50	<0.05

## References

- [1] Faraone SV, Biederman J, Mick E. The age-dependent decline of attention deficit hyperactivity disorder: a meta-analysis of follow-up studies. *Psychol Med* 2006; 36: 159-165.
- [2] Hosain GM, Berenson AB, Tennen H, Bauer LO, Wu ZH. Attention deficit hyperactivity symptoms and risky sexual behavior in young adult women. *J Womens Health (Larchmt)* 2012; 21: 463-468.
- [3] Barkley RA, Brown TE. Unrecognized attention-deficit/hyperactivity disorder in adults presenting with other psychiatric disorders. *CNS Spectr* 2008;13: 977-984.
- [4] Ramos-Quiroga JA, Montoya A, Kutzelnigg A, Deberdt, W Sobanski. Attention deficit hyperactivity disorder in the European adult population: prevalence, disease awareness, and treatment guidelines *Curr Med Res Opin* 2013; 29: 1-12.