

The Prevalence of Psychiatric Disorders in Children and Adolescents in Rasht City

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Abstract

Introduction: psychiatric disorders in children and adolescents are very important. To understand more of etiology, diagnosis and treatment as well as prevention, the first step is epidemiological studies.

Objective: To evaluate the prevalence of psychiatric disorders in children and adolescents aged 6 to 18 years in Rasht city and suburbs and the relation between the presence of a mental disorder and demographic characteristics of the children and the families.

Materials and Methods: This study is a cross-sectional analytical study conducted in Rasht city and suburbs. The statistical population includes 147653 children and adolescents aged 6 to 18 years in Rasht and suburbs. We selected 1024 children and adolescents aged 6-18 years by multistage cluster random sampling method from urban and rural parts of Rasht. The clinical psychologists completed the Persian version of Kiddie-SADS-Present and Lifetime Version (K-SADS-PL). Data were analyzed by SPSS version 16 and were interpreted using descriptive statistics (mean, standard deviation) and odds ratios.

Results: The overall prevalence of psychiatric disorders in children and adolescents aged 6 to 18 years in Guilan province was 20.7% (95% confidence interval 18.33-23.29%). The most common disorder was any Anxiety disorder (14.1%). Based on the results, Separation anxiety disorder (6.6%), Generalized Anxiety (5.9%), Phobia (3.4%) and Agoraphobia (3.2%) were the most prevalent disorders in this population.

Conclusion: The high prevalence of anxiety disorders demands further consideration and treatment plans on the part of corresponding authorities.

Conflict of interest: non declared

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Extended Abstract

Introduction Childhood psychiatric disorders are one of the important risk factors that influence normal development and mental health in adulthood. Prevention, diagnosis and treatment of these problems are not only important for improving current adolescence performance, but also for preventing future disease. Effective service planning depends on an accurate estimate of the prevalence of the disease in the general population (1). Epidemiologic studies are the first step in determining the prevalence of psychiatric disorders in children and adolescents (2). Many studies have been done in this field in the world and our country. In 2013, Mohammadi et al, conducted a study in several provinces and found an overall prevalence of 10.55% for psychiatric disorders in the child and adolescent populations (3).

Objective: The present study aimed to evaluate the prevalence of psychiatric disorders in children and adolescents, aged 6 to 18 years, in Rasht city and suburbs and the associations between the presence of a mental disorder and demographic characteristics of the child and the family.

Materials and Methods: This cross-sectional analytical study is a part of the IRCAP study (4), conducted in Rasht and its surrounding rural areas. The population consisted of 147653 children and adolescents in Rasht and surrounding villages, out of which 74946 were boys and 72707 were girls. Children between the ages of 3 and 5 years who had lived in these areas for at least one year, could participate in the study. People with severe medical conditions were excluded from the study. 1024 Children and adolescents were selected based on multistage cluster sampling. Initially, the blocks were randomly selected on the basis of postcode by the provincial post office. From each, 1 case was selected, of which 3 cases were of 3 different age groups. If the chosen postcode was not present, the next day or at the next meeting, psychologists would refer to the same postcode again.

If the enrolled person was excluded (due to non-cooperation or unavailability), another person from the same cluster with the desired age-sex profile was included in the adjacent plaque. Data were supplemented by 4 clinical psychologists who were divided into two groups of two. The interviews were held in the homes of the participants. The Persian version of Kiddie-Sads-Present and Lifetime Version (K-SADS-PL), which was completed within 30 to 40 minutes, was used to collect the data. All data collected included demographic information (age, sex, education level, parental education, and social status). Data were entered into SPSS 16 software and interpreted using descriptive statistics (mean, standard deviation) and odds ratio.

Results: The study involved 1024 children and adolescents. 500 (48.8%) of the participants were male and 524 (51.2%) were female. The age range of participants was 6 to 18 years. 73.5% of them lived in Rasht and 26.5% in rural areas. Parental education was high in most participants (30.1% in fathers and 36.9% in mothers). Most of the fathers were employed (98.9%) and most of the mothers were housewives (81.6%). The demographic characteristics of the participants are shown in Table 1. The prevalence of psychiatric disorders according to (KSADS-PL), was 22.2% in boys and 19.3% in girls. With a 95% confidence interval, the prevalence of psychiatric disorders was not significantly different between the two sexes ($P = 0.25$). The prevalence of the disease was different in the three age groups and the highest prevalence was in the age range of 10-14 years (23.3%). However, the difference was not statistically significant (Table 1).

Table 1: Frequency of demographic variables in children and adolescents 6 to 18 years old in Guilan province and prevalence of psychiatric disorders related to these variables

Table 1: Frequency of demographic variables in children and adolescents 6 to 18 years old in Guilan province and prevalence of psychiatric disorders related to these variables

		Total	With disorder	CI (%95)	X ²	Significant
		Frequency(Percentage)	Frequency(Percentage)			
Sex	male	500(48.8)	111(22.2)	26.05-18.75	1.334	0.25
	female	524(51.2)	101(19.3)	22.87-16.12		

(Continue the table)		Total	With disorder	CI (%95)	X ²	Significant
		Frequency(Percentage)	Frequency(Percentage)			
Age (year)	6-9	349(34.1)	68(19.5)	23.96-15.67	2.090	0.36
	10-14	339(33.1)	79(23.3)	28.08-19.11		
	15-18	336(32.8)	65(19.3)	23.91-15.48		
Location	city	753(73.5)	160(21.2)	24.31-18.48	0.515	0.48
	rural	271(26.5)	52(19.2)	24.3-19.95		
Father's education	illiterate	12(1.2)	2(16.7)	44.81-4.7	6.845	0.24
	primary	158(16.4)	32(20.3)	27.19-14.72		
	Elementary & high school	248(25.7)	63(25.4)	31.16-20.39		
	Diploma	290(30.1)	56(19.3)	24.24-15.18		
	Bachelor	199(20.6)	37(18.6)	24.57-13.8		
	Masters degree and higher	57(5.9)	7(12.3)	23.25-6.08		
	Unknown	60(5.8)	15(7)			
Mother's education	illiterate	14(1.4)	2(14.3)	39.95-4.01	9.311	0.10
	primary	151(15.1)	42(27.8)	35.44-21.28		
	Elementary & high school	236(23.6)	57(24.2)	30-19.13		
	Diploma	369(36.9)	69(18.7)	22.99-15.05		
	Bachelor	190(19)	34(17.9)	23.96-13.09		
	Masters degree and higher	41(4.1)	6(14.6)	28.44-6.88		
	Unknown	23(2.2)	2(0.9)			
Father's job	Employed in the public sector	273(28.3)	56(20.5)	25.69-16.15	0.330	0.85
	Employed in the private sector	681(70.6)	138(20.3)	23.44-17.41		
	Unemployed	11(1.1)	3(27.3)	56.56-9.74		
	Unknown	59(5.7)	15(7)			
Mother's job	Employed in the public sector	107(10.7)	15(14)	21.85-8.68	4.144	0.13
	Employed in the private sector	77(7.7)	14(18.2)	28.23-11.15		
	Unemployed	818(81.6)	181(22.1)	25.1-19.42		
	Unknown	22(2.1)	2(0.9)			
	Total	1024(100)	212(20.7)	23.29-18.33		

The odds ratio of age-related psychiatric disorders in the general population in the age group of 10 to 14 years was 1.25 with $p = 0.23$. According to Table 1, the

prevalence of child and adolescent's psychiatric disorders was 21.2% in Rasht and 19.2% in rural areas. The odds ratio (0.95% confidence interval) of

psychiatric disorders in the total population related to the rural areas was 0.66 with $p = 0.05$. The odds ratio of psychiatric disorders in the whole population related to education in fathers with elementary and high school education was 1.36 with $p = 0.20$. The odds ratio of psychiatric disorders in mothers with the same level of education was 0.88 with $p = 0.57$. The prevalence of child and adolescent psychiatric disorders in unemployed fathers was 27.3% and odds ratio was 1.45 ($p = 0.59$).

Conclusion: The aim of this study was to determine the prevalence of child and adolescent's psychiatric disorders in Guilan province (6-18 years old). The results showed that the prevalence of child such disorders in Guilan province was 20.7%. The prevalence of disorders was 21.2% in Rasht and 19.2% in rural areas. In the present study, the highest prevalence was related to anxiety disorders (14.1%). Most of them were related to separation anxiety disorder (6.6%), generalized anxiety (5.9%), phobia (3.4%), agoraphobia (3.2%), social phobia and

obsessive-compulsive disorder (1.9%), Post Traumatic Stress Disorder (1.5%) and Panic (0.3%). Behavioral disorders (9.4%) were ranked second in the prevalence of psychiatric disorders in children and adolescents, oppositional defiant disorder (ODD) with 6.3% and attention deficit hyperactivity disorder (ADHD) with 4.3%. Other disorders included elimination disorders (4.2%), developmental disorders (2.8%) and mood disorders (2.3%).

Determining the prevalence of psychiatric disorders and assessing the risk factors involved in them is very important in the prevention, treatment and rehabilitation of patients as well as the allocation of health services and support resources needed. In this regard, the present study can help plan appropriate interventions and preventive programs. Since a significant percentage of children and adolescents in the study area had psychiatric disorders with the rate relatively higher than in previous years, educational programs for parents and mental health services are recommended.

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