

The examination of the relationship between gender and socio-economic level factors with psychological disorders in adolescents in Turkey

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Abstract

In this study was aimed to conduct a screening study for examining the relationship between demographic factors such as gender and socio-economic level with psychological disorders seen in adolescents. Psychological Disorders Inventory for Adolescents (PDIA) developed by the researcher on the basis of DSM-5 and based on a self-report scale was used as data collection tool. 1953 students whose were 920 boys (47.1%) and were 1033 girls (52.9%) participated in this study. This study were made in Istanbul, in 4 private schools and 10 state schools. Since our research objective is to examine whether it was differentiated according to socio-economic level and gender of psychological disorders seen in adolescents, cluster sampling method was selected as the sample type and İstanbul was divided into to clusters according to the socio-economic level variable. It applied independent-samples t test and one-way ANOVA to obtained data. Finally, in this study was identified that some psychological disorders showed significant differences in terms of gender, and also some psychological disorders could be explained significantly by the income level.

Keywords: Inventory of Psychological Disorders For Adolescents (PDIA), DSM 5, psychological disorders, gender and socio-economic level.

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1. Introduction

Epidemiological researches, beside from determining defect ratios and distributions, gives hints on determining gender, age, ethnic background, geographical region or certain risk factors. Also aims to identify the disorders etiology to prevent or intervene to the disorder from progressing. (Merikangas, Nakamura, & Kessler, 2009). According to many researchers, mental symptoms and disorders usually start at early ages and carry on to adulthood ages (Hinshaw, 2013; Kessler et al, 2005; Kim-Cohen et al, 2003; WHO, 2005) and because of this, the epidemiological researches on children and adolescents become even more crucial.

When the literature is reviewed, it is noticed that the US is the country where the most epidemiological research is done, and other countries appear to be lacking both in numbers and variety. According to a recent and comprehensive study in the US, 46.3% of teenagers between 13-18 had at least one psychological disorder in their lives and it have been determined that about one of the five (21.4%) teenagers experience a severe psychological disorder in some point of their lives (Merikangas et al, 2010). Within the scope of "Child and Adolescent Mental Health in Europe: Infrastructures, Policy and Programmes (CAMHEE)" which is a project (2009) with 15 countries in the EU, the mental health applications and policies of these countries were compiled. According to this research, developmental, sensual or behavioral problems are present in one out of five children or adolescents and 1/8 of them have a clinically diagnosed psychological disorder. There are a lot of example studies in the developed countries and especially the US (Cohen et al, 1993; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Ford, Goodman, & Meltzer, 2003; et al, 2005; Kessler et al, 2012; Lewinsohn, Hops, Roberts, Seeley & Andrews, 1993; et al, 2010; Wittchen, Nelson & Lachner, 1998). And although the number of the studies are scarce, examples can be given around the world.

On a research in Pakistan which was to determine the risk factors, it has been identified that 47% of the parents rated their children as normal, 19% as at the border and 34% as abnormal and it was also found that being a man is 1.5 times more risky than being a girl (Syed, Hussein, & Mahmud, 2007). On a research conducted in 5 provinces of Iran with 5171 children and adolescents between 12-17, it has been identified that the most common disorders are conduct disorders and the rarest ones are social problems and that females show more emotional disorders than males (Mohammadi et al, 2013). In Japan with about 2000 students, Rutter teacher and parent questionnaire was conducted and the disorder prevalence was 16% for 12-13-year-olds, 14% for 14-15-year-olds and further while the emotional disorders were equal in both males and females, it has been identified that conduct disorders was more common in males (Morita, Suzuki, Suzuki & Kamoshita, 1993).

In our country, the number of the epidemiological studies on psychological disorders on adolescents is very low (Binbay et al, 2014; Gökalp, 2002; Küey, Üstün and Gülec, 1987). According to the Turkey Mental Health Profile Study (2011), 18% of the population in Turkey has a lifelong mental illness, while the rate of problematic behavior in children and adolescents at the clinical level is 11%. Also, most of the research conducted are either a scan of hospital registry or conducted on a small number of disorders, thus they are not comprehensive. It can also be said that the scarcity of such research is caused by the absence of a comprehensive scale to evaluate psychological disorders in children and adolescents. The Psychological Disorders Inventory for Adolescents (PDIA) used on this research is developed to fill this gap in our country.

When the fact that the cost of the treatment the psychological disorders cause is also considered (Smit et al, 2006), the importance of epidemiological researches is going to be noticed. But, unlike adults' mental disorders, the economic impact of mental disorders in children and adolescents has not been much investigated (Merikangas, Nakamura, & Kessler, 2009). Preventive studies can be carried out with findings from epidemiological studies to be conducted in our country. This may also reduce treatment costs.

The main objective of this research is the following:

- Stressing to the numerical and methodological scarcity of the epidemiological research for children and adolescents.
- Supporting epidemiological research to be more comprehensive.

- Considering the youthful population of our country, identifying the variables related to psychological disorders, which will also contribute to protective research, we will pioneer and contribute to the numerical increment of the identification and prevention research.
- Contributing to the international literature on the subject.

Briefly, on this research it has been detected that how is the psychological disorders on adolescents in our country determined by gender and economic status. And it is also thought that this research will both be a reference to early diagnosis and intervention studies and will pioneer the numerical increment of such research.

2. Method

2.1. Research Model

As our aim was to review the relationship between psychological disorders in adolescents and socio-economic status, relational screening model was used.

2.2. Participants

The research was conducted in Istanbul. Because of the geographical size of Istanbul, in determining the sample group, cluster sampling method (Engel & Schutt, 2014; Gokce, 1992; Rosenthal & Rosnow, 2008) which is better for populations on a large geographical area. Istanbul was, according to our research, split into clusters considering the socioeconomic status variable. In determining the socioeconomic status variable, Seker's (2011) research "The Life Quality Research in Istanbul" was used. For high socio-economic status Fatih and Bahcelievler, medium socio-economic status Gungoren and Avcilar, and low socio-economic status Bagcilar and Esenler was selected. In selecting the schools and locations, convenience and approachability was considered. But, the choice of classes and thus students was random. For the application, 14 schools were selected, 4 of them was private and 10 of them state.

The demographic characteristics of the students in the application group of our research were as follows; the sample group consisted of 1953 (100%) students, 1033 of them were female (52,9%) and 920 of them were male (47,1%). The number of the 13 year-old female students were 184, male students was 149 and the sum of them were 333 (17.1%); the number of 14 year-old female students were 125, male students were 125, and the sum of them were 250 (12,8%); the number of 15 year-old female students were 220, male students were 172, and the sum of them were 392 (20,1%); the number of 16 year-old female students were 150, male students were 151, and the sum of them were 301 (15,4%); the number of 17 year-old female students were 198, male students were 179, and the sum of them were 377 (19,3%); the number of 18 year-old female students were 156, male students were 144, and the sum of them were 300 (15,4%).

When examined with the economic status, the number of female students within low economic status were 130, male students were 137 and the sum of them were 267 (13,7%); the number of female students within the medium economic status were 657, male students were 492 and the sum of them were 1149 (58,8%); the number of female students within the high economic status were 241, male students were 285 and the sum of them were 526 (26,9%) the number of the female students whose economic status were unknown were 5, male students were 6 and the sum of them were 11 (0,6%). The demographic information of the participants is shown in Table 1.

Table 1. Application Group Demographic Features

Gender	Female	Male	T	
	1033	920	1953	
Percent %	52,9	47,1	100	
Age Range	Female	Male	T	%
13	184	149	333	17,1
14	125	125	250	12,8
15	220	172	392	20,1
16	150	151	301	15,4
17	198	179	377	19,3
18	156	144	300	15,4
Economic Status	Female	Male	T	%
Low	130	137	267	13,7
Medium	657	492	1149	58,8
High	241	285	526	26,9
Unknown	5	6	11	0,6

2.3. Data Collection Instruments

2.3.1. Personal Information Form

The Personal Information Form, which includes questions such as age, gender, class, and socio-economic level, is on the front of the PDIA optical questionnaire.

2.3.2. Psychological Disorders Inventory for Adolescents (PDIA)

Developed by the researcher, and consisting of 214 items, the Psychological Disorders Inventory for the Adolescents (PDIA) is a DSM-5 (APA, 2013) based inventory that helps diagnose psychological disorders in adolescents in Turkey.

PDIA is a scale which assesses, 17 psychological disorders (Attention-Deficit/Hyperactivity Disorder, Schizophrenia, Depressive Disorder, Separation Anxiety Disorder, Social Phobia, Panic Attack, Generalized Anxiety Disorder, Obsessive-Compulsive Disorder, Somatic Symptom Disorder, Anorexia Nervosa, Bulimia Nervosa, Insomnia Disorder, Hypersomnolence Disorder, Gender Dysphoria, Oppositional Defiant Disorder, Intermittent Explosive Disorder, Conduct Disorder) and 9 personality disorders (PD), excluding antisocial personality disorder because they could only be diagnosed with it after 18 years of age, (Paranoid PD, Schizoid PD, Schizotypal PD, Borderline PD, Histrionic PD, Narcissistic PD, Avoidant PD, Dependent PD and Obsessive-Compulsive PD) which makes a total sum of 26 disorders observed in adolescents.

2.3.3. PDIA Internal Consistency, the Test-retest Correlation and Exploratory Factor Analysis Findings

For the reliability analysis of the data obtained, from the participants whom consisted of a student group of 1953 people, The Cronbach Alpha coefficient was used. As a result of the reliability analyzes conducted for the subscales, the lowest Cronbach alpha coefficient was calculated for the Insomnia Disorder subscale ($\alpha = .69$) and the highest Cronbach alpha coefficient was calculated for the Depression Disorder subscale ($\alpha = .91$). The Average of Cronbach's alpha coefficient from all subscales were .78. The reliability coefficients calculated for the other subscales were .82 for ADHD, .85 for Panic Attack Disorder, .79 for Generalized Anxiety Disorder, .78 for Schizophrenia, .76 for Separation Anxiety Disorder, .83 for Social Phobia, .74 for Obsessive-Compulsive Disorder, .74 for Somatic Symptom Disorder, .85 for Anorexia Nervosa, .75 for Bulimia Nervosa, .79 for Hyper somnolence Disorder, .80 for Gender Dysphoria, .78 for Oppositional Defiant Disorder, .74 for Intermittent Explosive Disorder, and .81 for Conduct Disorder. Furthermore .77 for the Paranoid PD,

.75 for the Schizotypal PD, .71 for the Borderline PD, .79 for the Histrionic PD, .83 for the Narcissistic PD, .82 for the Avoidant PD, .77 for the Dependent PD, and .70 for the Obsessive-Compulsive PD.

The test-retest correlation coefficients were .54-.86 and all correlation coefficients are significant at $p < .001$ level.

In the analyzes conducted for construct validity, each subscale one by one was subjected in itself to Exploratory Factor Analysis, because our inventory was not a total score indexed scale but a profile scale like MMPI. The criterion level of the Kaiser-Meyer-Olkin (KMO) sample adequacy scale, which is designed to assess the suitability of the data set obtained from PDIA subscales for factor analysis, is a "very good" level for all subscales. According to the Bartlett test, significance levels for all subscales were found to be $p < .000$. Based on the Kaiser normalized Varimax rotation, the Basic Component Analysis was also performed to determine how many factors are above the true value of each subscale, and what percentage of the total variance is explained.

2.3.4. The Data Analyses of The Relations of Psychological Disorders on Adolescents With Socio-Economic Status Variables

With accordance to the aim of our research, we studied whether gender and socio-economic status have an effect on psychological disorders in adolescents. In this context, parametric independent samples t test was used according to gender variable, and one-way analysis of variance (ANOVA) and complimentary analysis techniques were applied (Bonferroni if the variables were homogenous, Tamhane's T2 if the variables were not homogeneous) for analyzing the psychological disorders with the influence of income variance. SPSS v20.0 program was used for statistical analyses.

3. Results

3.1. Findings About Gender Variable

The independent group t test was made to determine whether the PDIA facet scores of the sample group participants shows significant differences with the influence of the gender variable. While there was a significant difference that some of arithmetic means of the gender groups and for some there was not. The subscales that had significant differences in accordance with the gender variable are; PDIA ADHD subscale ($t(1949) = 4.20$; $p = .000$ and $p < .05$), Depression subscale ($t(1951) = 9.18$; $p = .000$ and $p < .05$), Panic Attack subscale ($t(1946,4) = 9.05$; $p = .000$ and $p < .05$), Generalized Anxiety Disorder subscale ($t(1951) = 10.85$; $p = .000$ and $p < .05$), Separation Anxiety Disorder subscale ($t(1951) = 7.01$; $p = .000$ and $p < .05$), Obsessive-Compulsive Disorder subscale ($t(1951) = 2.992$; $p = .003$ and $p < .05$), Somatic Symptom Disorder subscale ($t(1950) = 2.809$; $p = .005$ and $p < .05$), Anorexia Nervosa subscale ($t(1949) = 4.20$; $p = .000$ and $p < .05$), Bulimia Nervosa subscale ($t(1950) = 3.347$; $p = .001$ and $p < .05$), Insomnia Disorder subscale ($t(1951) = 3.839$; $p = .000$ and $p < .05$), Hypersomnolence Disorder subscale ($t(1951) = 7.218$; $p = .000$ and $p < .05$), Gender Dysphoria subscale ($t(1541) = 13.76$; $p = .000$ and $p < .05$), Conduct Disorder subscale ($t(1652,4) = 9.61$; $p = .000$ and $p < .05$), Borderline PD subscale ($t(1945,5) = 8.31$; $p = .000$ and $p < .05$), Histrionic PD subscale ($t(1951) = 2.47$; $p = .01$ and $p < .05$), Dependent PD subscale ($t(1951) = 5.23$; $p = .000$ and $p < .05$) and Gender Dysphoria subscale ($t(1951) = 3.61$; $p = .000$ and $p < .05$). Each subscale except for the Conduct Disorder, scores for the female students were significantly higher than the scores for the male students. There was no difference for the gender variance in Schizophrenia, Social Phobia, Oppositional Defiant Disorder, Intermittent Explosive Disorder, Paranoid PD, Schizoid PD, Schizotypal PD, Narcissistic PD and Avoidant PD. *t* test results are in Table 2.

Table 2. The Comparison of PDIA Facet Means for Gender Variable

PDIA Subscales	FEMALE (N=1033)		MALE (N=920)		t	df	p
	\bar{X}	Sd	\bar{X}	Sd			
Attention-Deficit/Hyperactivity Disorder	39,84	10,01	37,94	10,06	4,20	1948,9	,000
Depressive Disorder	43,93	14,35	38,31	12,75	9,18	1951	,000
Panic Attack	27,26	9,53	23,65	8,08	9,05	1946,4	,000
Generalized Anxiety Disorder	29,51	7,69	25,82	7,30	10,85	1951	,000
Schizophrenia	18,69	6,14	18,76	6,50	,246	1951	,806
Separation Anxiety Disorder	17,07	5,63	15,38	5,03	7,01	1951	,000
Social Phobia	23,42	8,13	23,14	7,59	,77	1951	,442
Obsessive-Compulsive Disorder	26,00	6,90	25,07	6,88	2,992	1951	,003
Somatic Symptom Disorder	14,29	5,06	13,67	4,62	2,809	1950	,005
Anorexia Nervosa	14,34	6,64	13,16	5,72	4,20	1949	,000
Bulimia Nervosa	9,81	4,28	9,20	3,72	3,347	1950	,001
Insomnia Disorder	10,79	4,00	10,10	4,00	3,839	1951	,000
Hyper somnolence Disorder	15,74	5,65	13,99	5,01	7,218	1951	,000
Gender Dysphoria	10,47	4,45	8,31	2,19	13,76	1540,6	,000
Oppositional Defiant Disorder	15,54	5,13	15,53	5,33	,06	1906	,953
Intermittent Explosive Disorder	10,14	3,89	10,48	4,04	1,88	1905,4	,06
Conduct Disorder	19,06	4,85	21,63	6,72	9,61	1652,4	,000
	FEMALE (N=1033)		MALE (N=920)				
PDIA Subscales	\bar{X}	Sd	\bar{X}	Sd	t	df	P
Paranoid Personality Disorder	19,17	6,04	19,33	6,26	,60	1951	,551
Schizoid Personality Disorder	12,11	4,22	12,15	4,05	,171	1951	,864
Schizotypal Personality Disorder	19,46	5,91	19,40	6,15	,267	1951	,789
Borderline Personality Disorder	20,42	6,08	18,21	5,71	8,31	1945,5	,000
Histrionic Personality Disorder	27,97	8,08	27,08	7,91	2,47	1951	,01
Narcissistic Personality Disorder	27,79	8,92	28,34	8,73	1,39	1951	,166
Avoidant Personality Disorder	28,49	9,00	28,45	8,69	,10	1951	,921
Dependent Personality Disorder	24,75	6,98	23,11	6,79	5,23	1951	,000
Obsessive-Compulsive Personality Disorder	26,24	5,79	25,67	6,06	3,61	1951	,000

3.2. Findings About Socio-Economic Status Variable

To determine whether the PDIA subscale score means differentiate for the income level, one-way analysis of variance (ANOVA) was conducted. As results, the difference between the income group was significant except for the Separation Anxiety Disorder, Somatic Symptom Disorder, Anorexia Nervosa, Insomnia Disorder, Hyper somnolence Disorder, Gender Dysphoria, Borderline PD, Histrionic PD and Obsessive-Compulsive PD.

The results are: PDIA ADHD subscale $F(2,1939)=6.58$, $p=.001$ and $p<.05$; Depression subscale $F(2,1939)=10.66$, $p=.000$ and $p<.05$; Panic Attack subscale $F(2,1939)=8.21$, $p=.000$ and $p<.05$; Generalized Anxiety Disorder subscale $F(2,1939)=8.10$, $p=.000$ and $p<.05$; Schizophrenia subscale $F(2,1939)=11.39$, $p=.000$ and $p<.05$; Separation Anxiety Disorder subscale $F(2,1939)=1.67$, $p=.19$ and $p>.05$; Social Phobia subscale $F(2,1939)=13.24$, $p=.000$ and $p<.05$; Obsessive-Compulsive Disorder subscale $F(2,1939)=6.62$, $p=.001$ and $p<.05$; Somatic Symptom Disorder subscale $F(2,1939)=3.48$, $p=.031$ and $p>.05$; Anorexia Nervosa subscale $F(2,1939)=1.20$, $p=.301$ and $p>.05$; Bulimia Nervosa subscale $F(2,1939)=5.17$, $p=.006$ and $p<.05$; Insomnia Disorder facet $F(2,1939)=4.56$, $p=.011$ and $p>.05$; Hypersomnolence Disorder subscale $F(2,1939)=0.67$, $p=.510$ and $p>.05$; Gender Dysphoria subscale $F(2,1939)=0.34$, $p=.713$ and $p>.05$; Oppositional Defiant Disorder subscale $F(2,1939)=10.62$, $p=.000$ and $p<.05$; Intermittent Explosion Disorder subscale $F(2,1939)=10.74$, $p=.000$ and $p<.05$; Conduct Disorder subscale $F(2,1939)=19.73$, $p=.000$ and $p<.05$; Paranoid PD subscale $F(2,1939)=16.06$, $p=.000$ and $p<.05$; Schizoid PD subscale $F(2,1939)=8.58$, $p=.000$ and $p<.05$; Schizotypal PD subscale $F(2,1939)=10.63$, $p=.000$ and $p<.05$; Borderline PD subscale $F(2,1939)=2.46$, $p=.086$ and $p>.05$; Histrionic PD subscale $F(2,1939)=4.02$, $p=.018$ and $p>.05$; Narcissistic PD facet $F(2,1939)=7.38$, $p=.001$ and $p<.05$; Avoidant PD subscale $F(2,1939)=14.08$, $p=.000$ and $p<.05$; Avoidant PD subscale $F(2,1939)=16.61$, $p=.000$ and $p<.05$ and Obsessive-Compulsive PD subscale $F(2,1939)=3.28$, $p=.038$ and $p>.05$. The results are in Table 3.

Table 3. The Comparison of PDIA Subscales Means for Socio-Economic Status

PDIA Subscales	LOW (N=267)		MEDIUM (N=1149)		HIGH (N=526)		F	P
	\bar{X}	Sd	\bar{X}	Sd	\bar{X}	Sd		
Attention-Deficit/Hyperactivity Disorder	40,93	10,30	38,84	9,80	38,24	10,42	6,58	,001
Depressive Disorder	44,93	14,60	40,90	13,32	40,43	14,57	10,66	,000
Panic Attack	27,65	9,60	25,28	8,65	25,18	9,54	8,21	,000
Generalized Anxiety Disorder	29,26	7,76	27,84	7,46	26,94	8,23	8,10	,000
Schizophrenia	20,19	6,63	18,24	5,91	19,07	6,88	11,39	,000
Separation Anxiety Disorder	16,67	5,64	16,34	5,31	15,96	5,54	1,67	,188
Social Phobia	25,28	8,46	23,34	7,77	22,25	7,69	13,24	,000
Obsessive-Compulsive Disorder	26,98	7,07	25,39	6,70	25,24	7,21	6,62	,001
Somatic Symptom Disorder	14,71	5,15	13,96	4,76	13,77	4,92	3,48	,031
Anorexia Nervosa	14,29	6,63	13,64	6,19	13,87	6,21	1,20	,301
Bulimia Nervosa	9,91	4,05	9,28	3,82	9,87	4,44	5,17	,006
Insomnia Disorder	11,16	4,16	10,37	3,86	10,35	4,24	4,56	,011
Hyper somnolence Disorder	15,25	5,06	14,94	5,44	14,78	5,57	,67	,510
Gender Dysphoria	9,64	3,86	9,43	3,76	9,44	3,61	,338	,713
Oppositional Defiant Disorder	16,50	5,56	15,11	4,97	16,00	5,51	10,62	,000

	LOW (N=267)		MEDIUM (N=1149)		HIGH (N=526)		F	P
PDIA Subscales	\bar{X}	Sd	\bar{X}	Sd	\bar{X}	Sd		
Intermittent Explosive Disorder	11,14	4,34	9,99	3,73	10,58	4,20	10,74	,000
Conduct Disorder	21,59	6,59	19,59	5,46	21,12	6,42	19,73	,000
Paranoid Personality Disorder	21,18	6,48	18,83	5,94	19,22	6,25	16,06	,000
Schizoid Personality Disorder	13,09	4,32	11,93	4,04	12,10	4,13	8,58	,000
Schizotypal Personality Disorder	20,91	6,53	19,05	5,65	19,57	6,45	10,63	,000
Borderline Personality Disorder	20,14	5,91	19,24	5,85	19,33	6,41	2,46	,086
Histrionic Personality Disorder	27,76	7,84	27,15	8,04	28,33	8,02	4,02	,018
Narcissistic Personality Disorder	28,28	8,55	27,46	8,79	29,23	9,02	7,38	,001
Avoidant Personality Disorder	30,87	9,58	28,46	8,67	27,36	8,71	14,08	,000
Dependent Personality Disorder	25,83	7,38	24,01	6,94	22,88	7,01	16,61	,000
Obsessive-Compulsive Personality Disorder	37,55	7,92	36,49	7,50	36,05	8,36	3,28	,038

4. Conclusion And Discussion

The aim of this research is to study how much there can be a relation between the demographic characteristics and psychological disorders on adolescents which we see to be in the rise. In this context, the relations of psychological disorders with gender and socio-economic status were studied and whether the psychological disorders differ according to the variables were researched.

According to the gender variable, as a result of the analyses to know whether there are significant differences in the PDIA subscale scores, between the male and the female groups, while there were significant differences in some subscales, there was none in some others. If the literature is reviewed, it can be seen that there are many other studies that have equivalent results to ours. In the longitudinal study, by Costello, Mustillo, Erkanli, Keeler, & Angold (2003) it is stated that the probability of having a psychological problem in the age of 16 is much more than predicted and that comorbidity is much more common in females than males. In another study conducted with adolescents in confinement, it has been seen that depression in significant levels is more common in females and ADHD and conduct disorder is more common with males (Ulzen and Hamilton, 1998). In another study conducted with in-patient adolescents, it has been observed that anxiety disorder is more common with females and substance-use is more common with males (Hovens, Cantwell and Kiriakos, 1994; Grant, et al., 2009). There are, in our country, studies too that show that gender is an important risk factor in psychological disorders. In Öy's (1995) research it has been discovered that depression more commonly seen in females than males. In Yavas's (1996) 94-95 hospital registry research, while 81 males were diagnosed with conduct disorder, the number on females was 20. When the causes of referral to 1079 adolescents aged between 12 and 18 years who applied to the Department of Child and Adolescent Psychiatry and Diseases of Istanbul University Faculty of Medicine between the years of 2001-2002 were examined, while it was found that girls had more introverted disorders such as physical findings, anxiety and depressive symptoms, it was determined that males had more extravert disorders such as mobility, distraction, lying and stealing behaviors (Görker, Korkmazlar, Durukan and Aydogdu, 2004). Balat and Akman's (2006) study shows that internalization problems were more common in females and externalization problems were more common in males.

In our study, just like the other studies in the subject, while some psychological disorders had some difference, some did not. The fact that many psychological disorders were significant in favor of females can be explained with the childrearing styles with girls. Girls see their mother as role models and their mother are constantly in home and economically dependent. They see their fathers as at work, bring money to the home and strong (Dökmen, 2004). Because women cannot assert their presence in the outer world and mentally

evolve into wanting this, girls have more role confusion than boys. At the same time girls have a challenging time to decide whether to position themselves at home or at outside. While the society only expects from boys to acquire a profession, they have vague and complicated expectations as with related to girls about the profession as well as responsibilities about the house.

According to the socio-economic status variable, most psychological disorders are seen in the low-income group, and in medium and high income groups, the rate is lower and closer to each other.

According to the findings from our research, while for some psychological disorders, socio-economic status is a risk factor, for some it is not. In an experimental research which assessed 1420 children from 9 to 13, a quarter of them native American, the rest white, for 8 years in a rural area, while income level had a positive effect in Conduct and Oppositional Defiant Disorders, it had no effect in Anxiety and Depression (Costello, Compton, Keeler and Angold, 2003). In a retrospective study by McLaughlin et al (2011), the relationship between socio-economic hardships and mental disorders was investigated, and discovered that economic difficulties had relations with the lifelong probability of anxiety, sensual, behavioral disorders and substance usage but had no relations with their permanence and severity.

Three of the researches on our country about the influence of socio-economic status are with related to depression. In Erözkan's (2011), study it is shown that depression is more common in low economic status. Similar result was found also in Kaya, Genc, Kaya, and Pehlivan (2007) and Emiroglu, Murat and Bindak (2011) studies. And in Balat and Akman's (2006) research, social introversion score means were higher in medium and low income groups than high income group. Sahin, Batigün and Ugurtas (2002) found that low-income adolescents had higher scores on the Brief Symptom Inventory (BSI) total score, anxiety and negative self subscales than those in the middle and high income groups, and depression scores were significantly higher.

The results, from our research, of low socio-economic status being a risk factor, can be explained with children and adolescents of low socio-economic status having weakened egos. And this could be the reason why they are more vulnerable to psychological disorders. At the same time, it can also be explained, with the conflicts caused by poverty in families, the lack of interest, and neglect in parents towards their children, because of having financial hardships.

5. Suggestions

Such a survey research can be conducted nationwide and a "Mental Health Map" can be created. Thus, it can accelerate the intervention operations to adolescents in high mental health risk areas

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