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SCREENING FOR ANXIETY DISORDERS AND ASSOCIATED SOCIAL RISK FACTORS IN CHILDREN IN SAUDI ARABIA

Psychiatry

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ABSTRACT

This study aimed to estimate the prevalence of anxiety disorders in children aged 8–12 years, to identify associated social factors and measure their relationship with anxiety disorder severity. An analytical cross-sectional study was conducted using the parent-validated version of the Screen for Child Anxiety Related Emotional Disorders questionnaire, which was administered to parents of 405 children from the Eastern Province, Saudi Arabia. The results indicated that a quarter of children aged from 8–12 years were at risk of developing anxiety disorders. The most common type of disorder was separation anxiety disorder (49.1%), followed by social anxiety disorder (17.5%), panic disorder (17.3%), school avoidance (14.6%), and generalized anxiety disorder (12.8%). Medium and high family income was significantly associated with panic disorder, social anxiety disorder, and school avoidance. Children of healthy parents who did not use antidepressants were healthier and less likely to develop generalized anxiety or panic disorder relative to other children. The highest proportion of patients who are at risk of social anxiety disorder is in Dammam. Social anxiety disorder was associated with the level of education of parents who were graduated from university and secondary school. Future studies should gather information from both parents and children and involve clinical interviews with children.

KEYWORDS

anxiety disorders, children, Saudi Arabia, screening, social factors

INTRODUCTION

Worries and fears are common in children as a part of their healthy development. However, unexplained excess fears and worries can be symptoms of anxiety disorder, which is the most common pediatric psychiatric disorder [1]. There are different types of anxiety disorders, which are diagnosed according to the Diagnostic and Statistical Manual of Psychiatric Disorders, Fifth Edition, criteria [2]. There are specific criteria for each type of anxiety disorder. Generalized anxiety disorder (GAD) is defined as excessive worry that interrupts daily activity, social anxiety disorder is an excessive worry and fear concerning social interactions, panic disorder is an abrupt tense fear that peaks within minutes, agoraphobia is a fear of being in a public place where help might not be available, specific phobia is a fear or anxiety resulting from specific situations or objects, separation anxiety disorder is an excessive worry resulting from separation from an individual to whom a child is attached, and selective mutism is the inability to communicate or speak in some social settings.

LITERATURE SURVEY

The global prevalence of pediatric anxiety disorders is significant. In 2015, a meta-analysis of the global prevalence of mental disorders in children and adolescents was conducted in 27 countries and revealed that the overall prevalence rate for psychiatric disorders was 13.4%, and half of these disorders were anxiety disorders [3]. The study included four Asian countries (United Arab Emirates, Yemen, Israel, and India), which showed a prevalence rate of 12.7% for mental disorders [3]. Moreover, in 2007, the prevalence rates for anxiety disorder subtypes were compared between children and adolescents in the USA. In children younger than 13 years of age, the prevalence rates for anxiety disorder subtypes were as follows: specific phobia: 0.4%, social phobia: 0.6%, agoraphobia: 0.1% panic disorder: 0.2%, and GAD: 1.8% [4]. However, the prevalence of anxiety disorders in children in the Middle East has not been studied.

In Saudi Arabia, three studies had discussed the prevalence of anxiety disorders in adolescents. In 2012 and 2014, two studies were conducted in Al-Madinah, with both male and female secondary school students, and showed that the prevalence rates for male and female students were 61.6% and 64.6%, respectively [5], [6]. In 2016, another study was conducted with adolescent boys in Al-Taif and revealed prevalence rates of 18.6%, 7.8%, 11.4%, 26.6%, and 6,6% for obsessive-compulsive disorder (OCD), social phobia, panic-agoraphobia, separation anxiety, and GAD, respectively [7]. Therefore, anxiety disorders in childhood could extend to adolescence [8].

Multiple family risk factors, such as household income, caregiver education, parental employment status, and family structure (i.e., marital relationship, family size, birth order, and sibling domination) are strongly associated with pediatric anxiety disorders [1], [9]. In 2013, a survey was conducted by the Australian government and revealed an association between anxiety disorders and some social factors such as household income, parent/carer education, and parent/carer employment status [1]. Further, in 2012, a study was conducted to explore biological and environmental risk factors that affected the development, treatment, and prevention of anxiety disorders in childhood. The results showed that negative parental behavior was a risk factor for the presence of anxiety disorders in children [10]. In addition, a pilot study, which included 97 children and 129 adolescents, was conducted in Riyadh in 2015 and showed that fathers who hit their children exposed them to risk of developing psychiatric disorders. Moreover, there were associations between the incidence of mental disorders in adolescence and maternal education and the presence of the Internet at home [11].

Childhood anxiety disorders are highly prevalent worldwide, and insufficient studies have been conducted in Saudi Arabia to examine pediatric anxiety disorders. However, anxiety exerts a negative impact on children's lives, and anxiety disorders should be screened for because of their association with comorbid conditions such as depression, substance abuse, and attention deficit hyperactivity disorder (ADHD). In addition, anxiety disorders could be associated with educational disabilities and exert a negative impact on daily life, extending into adulthood.

Screening for anxiety disorders and potential associated risk factors should be evaluated to highlight the extent of this issue. Moreover, understanding these disorders allows the proposal of relevant solutions that help families and communities, which is an essential role for family physicians.

There are different tools for use in screening for anxiety in children and adolescents. For example, the Screen for Child Anxiety-Related Emotional Disorders (SCARED) developed by Birmaher et al. in 1999 is a tool used to screen for anxiety disorders in children and adolescents. There are two versions: one for children and one for parents. This tool also can be used in follow-up assessments [12]. In addition, the Youth Anxiety Measure for the Diagnostic and Statistical Manual of Psychiatric Disorders, Fifth Edition, is a new screening tool and is used to collect responses from children and parents across two

sections pertaining to different types of anxiety [13]. However, the diagnosis of anxiety disorders in children and adolescents is currently performed via clinical assessment following the screening in interviews with children and parents.

This study aimed to estimate the prevalence of anxiety disorders in children aged 8–12 years, to identify associated social factors and measure their relationship with anxiety disorder severity.

Objectives

1- To estimate the level of anxiety disorders among children in the Eastern Province, Saudi Arabia.
2- To identify the social factors that are associated with anxiety disorders among children in the Eastern Province, Saudi Arabia.
3- To measure the relationship between the social factors and the level of anxiety disorders among children in the Eastern Province, Saudi Arabia.

MATERIALS AND METHOD

Study Design

Analytical cross-sectional study

Study setting

Primary Health Care Centers (PHCC) in three capital areas of Eastern province in Saudi Arabia; Khobar, Dammam, and Qatif. In Khobar there are 13 PHCC serving 218084 of population, in Dammam, there are 30 PHCC serving 519978 of population, and In Qatif there are 30 PHCC serving 492286 of population.

Study sample

Children aged 8-12 years old in PHCC.

Inclusion criteria:

Children from 8-12 years old of both genders.

Exclusion criteria:

Children with mental diseases on medications.
Children with developmental delay.

Sampling technique and methods

The study sample was selected from PHCC by multistage sampling techniques, based on population size for each region.

- Stage1: a selection of total PHCC number from each city using cluster sampling and a proportional number of PHCC was selected.
- Stage 2: a selection of PHCC that was included in the study by Systemic Random Sampling.
- Stage 3: a selection of the participants by including all attendees in the PHCC during the research time until reaching the sample size for each cluster.

Sample size

Sampling size (405) calculation was done by Raosoft® calculator based on population and the assuming a 95% confidence interval (CI) with a degree of precision 5%.

Data collection methods

Using a validated self-administrative questionnaire, which is the parent version of the Screen for Child Anxiety Related Emotional Disorders (SCARED) questionnaire.12 The SCARED questionnaire was used for screening anxiety in children and adolescents aged 8-18 years. The tool contains 41 items.
The study questionnaire is consisting of 4 parts;
Part one: demographic data.
Part two: medical history.
Part three: social information.
Part four: SCARED scale.

Variables

- Dependent: Anxiety disorders in children, using the SCARED scale.
- Independent: family history of anxiety, household income, level of education of caregiver, working status of parent, Chronic disease and family structure including marital relationship, family size, birth order, and sibling domination.

RESULTS

Table 1. Sociodemographic Data (no. 405)

Sociodemographic Data	Frequency	%
Relation to the Child		
Mother	315	77.8
Father	48	11.9
other	42	10.4
Child Gender		
Male	192	47.4
Female	213	42.6
Child Nationality		
Saudi	391	69.5
Non Saudi	14	3.5
Region		
Khobar	69	17
Dammam	167	41.2
Qatif	169	41.7
Child on Medication		
Yes	22	5.4
No	383	94.6
Child with Disabilities		
Yes	1	0.2
No	404	99.8
Parent on Antidepressant		
Yes	18	4.4
No	387	95.6
Child Caregiver		
Parents	389	96
Father	3	0.7
Mother	13	3.2
Caregiver Educational Level		
Illiterate	3	0.7
Primary level	36	8.9
Intermediate level	27	6.7
Secondary level	97	24
University level	196	48.4
High education	46	11.4
Working Father		
Yes	379	93.6
No	23	5.7
Working Mother		
Yes	179	44.2
No	222	54.8
Parent Relationship		
Married	391	96.5
Divorced	7	1.7
Widow	7	1.7
Family Income		
Less than 5000	33	8.1
5000-10,000	153	37.8
More than 10,000	219	54.1
Number of Siblings		
Less than 3	301	74.3
4-6	89	22
More than 6	15	3.7
Birth Order		
1st Child	177	43.7
Other	228	56.3

Table 1 shows that population sample was taken from the largest cities in the Eastern Providence of Saudi Arabia, with almost equal percentage was taken from Dammam and Qatif, and around fifth of them from Al-Khobar. Boys and girls those included in the study were almost equal in number. Most of the children were healthy, Saudi, and living with their parents. Half of the child in this study were first born.. Most of the family have less than 3 children. Majority of the children have no family history of anxiety disorders. These children have some good indicators; the majority of the parents were married with moderate educational level. High-income family forms around half of the sample, the majority of them were working fathers and around half of them were working mothers.

Figure 1 Prevelance of Anxiety Disorders in Children Age (8-12)

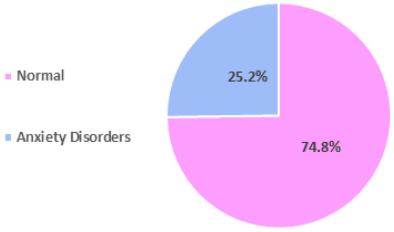

Figure 1 demonstrates that the prevalence of anxiety disorders was around a quarter of the collected sample

Figure 2 Types of Anxiety Disorders in Children Age (8-12)

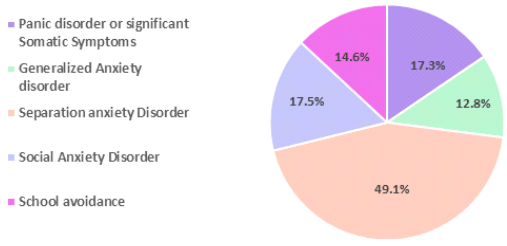

Figure 2 demonstrates that almost half of the children with anxiety disorders has separation anxiety type

Table 2 Association between social factors and Panic Disorder (n=405)

Social factors	Normal Frequency (%)	Frequency of Panic disorder (%)	P value
Relation to the Child			0.220
Mother	255 (76.1)	60 (85.7)	
Father	43 (12.8)	5 (7.1)	
Other	37 (11)	5 (7.1)	
Child Gender			0.237
Male	154 (46)	38 (54.3)	
Female	181 (54)	32 (45.7)	
Child Nationality			1.000
Saudi	323 (96.4)	68 (97.1)	
Non Saudi	12 (3.6)	2 (2.9)	
Region			0.301
Khobar	53 (15.8)	16 (22.9)	
Dammam	138 (41.2)	29 (41.4)	
Qatif	144 (43)	25 (35.7)	
Child on Medication			0.241
Yes	16 (4.8)	6 (8.6)	
No	319 (95.2)	64 (91.4)	
Child with Disabilities			1.000
Yes	1 (0.3)	0 (0)	
No	334 (99.7)	70 (100)	
Parent on Antidepressant			0.022*
Yes	11 (3.3)	7 (10)	
No	324 (96.7)	63 (90)	
Child Caregiver			0.650
Parents	322 (96.1)	67 (95.7)	
Father	3 (0.9)	0 (0)	
Mother	10 (3)	3 (4.3)	
Caregiver Educational Level			0.445
Illiterate	2 (0.6)	1 (1.4)	
Primary level	29 (8.7)	7 (10)	
Intermediate level	20 (6)	7 (10)	
Secondary level	77 (23)	20 (28.6)	
University level	166 (49.6)	30 (42.9)	
High education	41 (12.2)	5(7.2)	
Working Father			0.151
Yes	316 (95.2)	63 (90)	
No	16 (4.8)	7 (10)	
Working Mother			0.291
Yes	152 (45.9)	27 (38.6)	
No	179 (54.1)	43 (61.4)	
Parent Relationship			0.196
Married	325 (97)	66 (94.3)	
Divorced	4 (1.2)	3 (4.3)	
Widow	6 (1.8)	1 (1.4)	
Family Income			0.011*
Less than 5000	21 (6.3)	12 (17.1)	
5000-10,000	129 (38.5)	24 (34.3)	
More than 10,000	185 (55.2)	34 (48.6)	
Number of Siblings			0.451
Less than 3	253 (75.5)	48 (68.6)	
4-6	70 (20.9)	19 (27.1)	
More than 6	12 (3.6)	3 (4.3)	
Birth Order			0.236
1st Child	151 (45.1)	26 (37.1)	
Other	184 (54.9)	44 (62.9)	

Table 2 shows that high and medium income family significantly associated with panic disorder consecutively. Healthy parent who doesn't use antidepressant has significantly healthy children with no panic disorder. There is no association between panic disorder and other social factors including; parent educational level, parent relationship, working parent, family size or birth order.

Table 3 Social factors in relation to Social Anxiety Disorder

Social factors	Normal Frequency (%)	Frequency of SoAD (%)	P value
Relation to the Child			0.100
Mother	253 (75.7)	62 (87.3)	
Father	44 (13.2)	5 (5.6)	
Other	37 (11.1)	5 (7)	
Child Gender			0.362
Male	162 (48.5)	30 (42.3)	
Female	172 (51.5)	41 (57.7)	
Child Nationality			1.000
Saudi	322 (96.4)	69 (97.2)	
Non Saudi	12 (3.6)	2 (2.8)	
Region			0.009*
Khobar	54 (16.2)	15 (21.1)	
Dammam	129 (38.6)	38 (53.5)	
Qatif	151 (45.2)	18 (25.4)	
Child on Medication			0.394
Yes	20 (6)	2 (2.8)	
No	314 (94)	69 (97.2)	
Child with Disabilities			1.000
Yes	1 (0.3)	0 (0)	
No	333 (99.7)	71 (100)	
Parent on Antidepressant			1.000
Yes	15 (4.5)	3 (4.2)	
No	319 (95.5)	68 (95.8)	
Child Caregiver			0.895
Parents	320 (95.8)	69 (97.2)	
Father	3 (0.9)	0 (0)	
Mother	11 (3.3)	2 (2.8)	
Caregiver Educational Level			0.041*
Illiterate	1 (0.3)	2 (2.8)	
Primary level	29 (8.7)	7 (9.9)	
Intermediate level	19 (5.7)	8 (11.3)	
Secondary level	76 (22.8)	21 (29.6)	
University level	170 (50.9)	26 (36.6)	
High education	39 (11.7)	7 (9.9)	
Working Father			0.779
Yes	313 (94.6)	66 (93)	
No	18 (5.4)	5 (7)	
Working Mother			0.359
Yes	151 (45.8)	28 (39.4)	
No	179 (54.2)	43 (60.6)	
Parent Relationship			0.267
Married	320 (95.8)	71 (100)	
Divorced	7 (2.1)	0 (0)	
Widow	7 (2.1)	0 (0)	
Family Income			0.009*
Less than 5000	24 (7.2)	9 (12.7)	
5000-10,000	118 (35.3)	35 (49.3)	
More than 10,000	192 (57.5)	27 (38)	
Number of Siblings			0.438
Less than 3	252 (75.4)	49 (69)	
4-6	71 (21.3)	18 (25.4)	
More than 6	11 (3.3)	4 (5.6)	
Birth Order			0.116
1st Child	152 (45.5)	25 (35.2)	
Other	182 (54.5)	46 (64.8)	

Table 3 shows that there is a significant association between social anxiety disorder and prevalence in Dammam compare to other regions. There is a significant association with the educational level of the parent at university level and secondary level consecutively. The medium to high family income is another factor that was significantly associated with social anxiety disorder compared to low family income. There is no significant association between social anxiety disorder and other social factors including; parent relationship, working parent, family size and birth order.

DISCUSSION

The current study aimed to evaluate the severity of anxiety disorders and associated social factors in children aged 8–12 years in the Eastern Province, Saudi Arabia. The parents' version of the SCARED questionnaire was used as a valid screening tool [12]. A limited number of studies have been conducted to assess social factors and anxiety disorders specifically in children in Saudi Arabia.

In the present study, the rates of children who are threatened by the developing anxiety disorders (aged 8-12 years) were (25.2%) which was higher than the worldwide prevalence rate of 18% [14]. This inconsistency could be attributed to several factors, including large population, multiple countries, cultural differences, and various social factors, which are also observed in older age groups (up to 18 years).

The most common type of anxiety disorder was separation anxiety disorder (49.1%); it was also the most frequently observed type of anxiety disorder in an Australian study (4.9%) [1]. However, it was not associated with any social factor in the current study. This finding could have occurred because the questionnaire was completed by parents only, and they might have exaggerated or misinterpreted their children's behaviors. In addition, we screened only for anxiety disorders, unlike the Australian study, which was a screening study and included clinical interviews for diagnosis. Usually, parents' protection could help their children to deal with external environmental issues, however, overprotection could increase levels of attachment and dependence. In contrast, parental ignorance could lead to low self-esteem in children.

Moreover, as in the Australian study, there was no significant difference in prevalence rates for separation anxiety disorder between males and females.

In this study, the prevalence of risk of school avoidance, panic disorder, and social anxiety disorder was highest in families with incomes of more than 5000 SAR (1333 USD) per month. In contrast to the Australian survey, there was an association between the prevalence of all types of anxiety and low family income (l<16,248 SAR [4,333 USD] per month) [1]. In addition, a study was conducted in France (2010) with children aged 4–18 years and aimed to screen for depression and anxiety symptoms and examine their association with socioeconomic factors. The results showed that the risk of anxiety and depression in children from low-income families was 1.96 times higher than that in children from high-income families [15]. This inconsistency could have occurred because of the living costs in these countries and cultural differences.

Dammam city showed a higher prevalence of social anxiety disorder relative to those of other regions in the current study. Dammam is the largest city and the capital of the Eastern Province of Saudi Arabia. The high prevalence of social anxiety disorder in this area is likely related to the presence of different races and cultures, which could have affected the interpretation of children's symptoms and behaviors. Similarly, Italian research conducted in 2016 with adult patients (mean age: 45 years) examined mental health and urbanization and found that people living in large cities showed higher levels of anxiety and mood disorders relative to those in rural areas. Factors that could have influenced this finding include perceived insecurity and various social problems (e.g., negative attitudes toward life and poor social capacity) [16], and this similarity between the two studies could have occurred because there are usually residents of different ethnicities and nationalities and the presence of greater urbanization in large cities.

In the current study, there was a significant association between the presence of healthy parents who did not use antidepressants and the absence of pediatric GAD and panic disorder. A meta-analysis conducted in the United States (2009) showed that parental anxiety disorders increased the risk of anxiety disorders and depression in children [17]. In addition, research conducted in the USA (2001) showed that children of parents with panic disorder and major depression were at high risk of developing these disorders [18]. These findings could have occurred because of genetic and/or environmental factors, and children who grow up with anxious parents or caregivers imitate anxious behaviors because they consider their parents or caregivers role models. In addition, overprotective parents who prevent children from contact with the external environment will affect the development of personality and mental health of their children.

Other environmental factors include children's exposure to screens. The American Academy of Pediatrics advises no more than 2 hours of screen time per day for children aged ≥2 years and no screen time for those aged <2 years [19]. A review article published in 2017 summarized the clinical and psychological effects of overexposure to screen time on children and demonstrated that children's exposure to screens (i.e. TV, computers, video games, and personal devices such as smartphones and tablets) for longer durations than recommended was associated with depression, anxiety, obesity, and sleep problems [20].

Moreover, a Canadian cross-sectional study involving 2,482 children and adolescents aged 12–18 years showed that screen time was a risk factor for anxiety and depression in this age group; in particular, playing video games was associated with anxiety severity [21]. Therefore, genes and environment are confounding factors that interact with the presence of anxiety and depression in childhood.

CONCLUSION

The results suggested that a quarter of children aged 8–12 years in the Eastern Province were at risk of developing anxiety disorders. The most common type of disorder was separation anxiety disorder (49.1%), followed by social anxiety disorder (17.5%), panic disorder (17. 3%), school avoidance (14.6%), and GAD (12.8%). In addition, there was a significant association between anxiety disorders and social factors. Medium and high family income was significantly associated with panic disorder, social anxiety disorder, and school avoidance. Moreover, children with healthy parents who did not use antidepressants were significantly healthier and less likely to have GAD or panic disorder relative to other children. Furthermore, the proportion of patients at risk of social anxiety disorder in Dammam was higher compared to those in other regions of the Eastern province. In addition, there was a significant association between social anxiety disorder and parental graduation from secondary school and university.

FUTURE SCOPE

The study was subject to some limitations. For example, it was community-based. In addition, while the SCARED questionnaire includes versions for both parents and children, we used only the parents' version. In future research, information gathering from both parents and children could verify the current findings, and conducting clinical interviews with children could confirm the diagnosis of anxiety disorders. Despite these limitations, the main strength of the study was that it examined anxiety disorders in children in Saudi Arabia, as there is a lack of research in this area.

Given the high prevalence of risk of pediatric anxiety disorders observed in the current study, a primary mental health program that supports children's behavioral and mental health is required in Saudi Arabia. Schools are the best place at which to resolve this issue via periodic screening for risk factors in school health programs in cooperation with Primary Health Care Centers. Moreover, campaigns are an effective means of connecting with the community to enhance knowledge about common pediatric mental disorders and conduct screening to identify children at risk. In addition, further research examining all pediatric mental health conditions is required in Saudi Arabia.

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REFERENCES

[1] D. Lawrence, S. Johnson, J. Hafekost, K. Boterhoven de Haan, M. Sawyer, J. Ainley, and S.R. Zubrick, "The Mental Health of Children and Adolescents" Canberra, pp.23-64, 2015.

[2] American Psychiatric Association "American Psychiatric Association. Diagnostic and

Statistical Manual of Mental Disorders, 5th ed." Washington, DC: American Psychiatric Association, 2013.
[3] G. Polanczyk, G. Salum, L. Sugaya, A. Caye, and L. Rohde, "Annual Research Review: A Meta-Analysis of the Worldwide Prevalence of Mental Disorders in Children and Adolescents" Journal of Child Psychology and Psychiatry Vol.56, No.3, pp.345-365, 2015.
[4] K. Beesdo, S. Knappe, D. Pine, "Anxiety and Anxiety Disorders in Children and Adolescents: Developmental Issues and Implications for DSM-V" Psychiatric Clinics of North America. Vol.32, No.3, pp.483-524, 2009.
[5] A. Al-Qahtani A and M. Al-Harbi, "Prevalence and Risk Factors of Anxiety among Female Governmental Secondary Schools Students in Al-Madinah, Saudi Arabia" Indian Journal of Pharmaceutical Education and Research Vol.51, No.1, pp.136-143, 2017.
[6] M. AlJohani and A. AlQahtani, "Prevalence and Risk Factors of Anxiety Among Saudi Male Secondary Schools' Students in Madinah, Saudi Arabia" International Journal of Medical Science and Public Health Vol.5, No.5, p.994, 2016.
[7] A. Alzahrani, H. Abozaid, A. Ahmed, A. Alshomrani, R. Aljoaid, M. Alqurashi, and M.S. Althobaiti, "Prevalence of Anxiety Disorder Among Male School Students at Taif Governorate, Saudi Arabia" International Journal of Advanced Research Vol.4, No.1, pp.302-316, 2016.
[8] A. Bittner, H. Egger, A. Erkanli, J.E. Costello, D. Foley, and A. Angold, "What do Childhood Anxiety Disorders Predict?" Journal of Child Psychology and Psychiatry Vol.48, No.12, pp.1174-1183, 2007.
[9] S. Bögels and M. Brechman-Toussaint, "Family Issues in Child Anxiety: Attachment, Family Functioning, Parental Rearing and Beliefs" Clinical Psychology Review Vol.26, No.7, pp.834-856, 2006.
[10] K. Drake and G. Ginsburg, "Family Factors in the Development, Treatment, and Prevention of Childhood Anxiety Disorders" Clinical Child and Family Psychology Review Vol.15, No.2, pp.144-162, 2012.
[11] O. Al-Modayfer and Y. Alatiq. "A Pilot Study on the Prevalence of Psychiatric Disorders among Saudi Children and Adolescents: A Sample from a Selected Community in Riyadh City" The Arab Journal of Psychiatry Vol.26, No.2, pp.184-192, 2015.
[12] B. Birmaher, D.A. Brent, L. Chiappetta, J. Bridge, S. Monga, and M. Baugher, "Psychometric Properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED): A Replication Study" Journal of the American Academy of Child & Adolescent Psychiatry Vol.38, pp.1230-1236, 1999.
[13] P. Muris, E. Simon, H. Lijphart, A. Bos, W. Hale, and K. Schmeitz. "The Youth Anxiety Measure for DSM-5 (YAM-5): Development and First Psychometric Evidence of a New Scale for Assessing Anxiety Disorders Symptoms of Children and Adolescents" Child Psychiatry & Human Development. Vol.48, No.1, pp.1-17, 2016.
[14] G. Bronsard, M. Alessandrini, G. Fond, A. Loundou, P. Auquier, S. Tordjman, and L. Boyer, "The Prevalence of Mental Disorders Among Children and Adolescents in the Child Welfare System" Medicine. Vol.95, No.7, p.e2622, 2016.
[15] M. Melchior, J. Chastang, V. Walburg, L. Arseneault, C. Galéra, and E. Fombonne. "Family Income and Youths' Symptoms of Depression and Anxiety: A Longitudinal Study of the French GAZEL Youth Cohort" Depression and Anxiety Vol.27, No.12, pp.1095-1103, 2010.
[16] M. Luciano, C.D. Rosa, V.D. Vecchio, G. Sampogna, D. Sbordone, A. Atti, F. Bardicchia, F. Bertossi, S. Calò, L. Cava, M. Ciafone, P. De Fazio, G. Di Iorio, E. Fantini, S. Ferrari, A. Ginanneschi, S. Gotelli, A. Macina, A. Mulè, D. Papanti, L. Pingani, F. Pinna, M. Piselli, M.S. Signorelli, I. Tarricone, L. Tarsitani, A. Ventriglio, G. Carrà, F. Catapano, and A. Fiorillo, "Perceived Insecurity, Mental Health and Urbanization: Results from a Multicentric Study" International Journal of Social Psychiatry Vol.62, pp. 252–261, 2016.
[17] J.A.Micco, A. Henin, E. Mick, S. Kim, C.A. Hopkins, and J. Biederman, J. "Anxiety and Depressive Disorders in Offspring at High Risk for Anxiety: A Meta-Analysis" Journal of Anxiety Disorders Vol.23, pp.1158–1164, 2009.
[18] J. Biederman, S. Faraone, D. Hirshfeld-Becker, D. Friedman, J. Robin, and J. Rosenbaum, "Patterns of Psychopathology and Dysfunction in High-Risk Children of Parents With Panic Disorder and Major Depression" American Journal of Psychiatry Vol.158, No.1, pp.49-57, 2001.
[19] Policy Statement—Children, Adolescents, Substance Abuse ... [Internet]. [cited 2019, May 6]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/20876181
[20] S. Domingues-Montanari, "Clinical and Psychological Effects of Excessive Screen Time on Children" Journal of Paediatrics and Child Health. Vol.53, No.4, pp.333-338, 2017.
[21] D. Maras, M.F. Flament, M. Murray, A. Buchholz, K.A. Henderson, N. Obeid, G.S. Goldfield, "Screen Time is Associated with Depression and Anxiety in Canadian Youth" Preventive Medicine Vol.73, No.133-138, 2015.