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List of Abbreviations

APA	:	American Psychiatric Association
CBT	:	Cognitive behavioral therapy
DSM-IV	:	Diagnostic and statistical manual of mental disorder. fourth edition
ECA	:	Epidemiologic catchment area study
FDA	:	Food and drug administration
GAD	:	Generalized anxiety disorder
ICD-10	:	International classification of diseases- 10th edition
PA	:	Panic disorder
PH	:	Physical health
PSH	:	Psycho-social health
PTSD	:	Post traumatic stress disorder
QOL	:	Quality of life
QOLI	:	Quality of life inventory
SAD	:	Separation anxiety disorder
SCARED	:	Screening for child anxiety related disorder
Sch. A	:	School avoidance
Soc. AD	:	Social anxiety disorder
SSRI	:	Selective serotonin reuptake inhibitors
STG	:	Superior temporal gyrus
WHO	:	World Health Organization

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INTRODUCTION

Anxiety is a biological warning system that prepares us for action. Anxiety is a state with intense feelings of dread accompanied by somatic complaints that indicate a hyperactive autonomic nervous system such as palpitation and sweating. Anxiety affects cognition and tends to produce distortion of perception. It is differentiated from fear, which is an appropriate response to a known threat; anxiety is a response to a threat that is an unknown, vague, or conflictual ***(Sadock and Sadock, 2005)***.

The major anxiety disorders included in the DSM-IV-TR are; separation anxiety disorder (SAD), generalized anxiety disorder (GAD), social phobia, specific phobia, panic disorder (with and without agoraphobia), agoraphobia without panic disorder, posttraumatic stress disorder (PTSD), and obsessive-compulsive disorder (OCD). Selective mutism may have a multifactorial etiology and children with selective mutism also meet criteria for social phobia ***(Bergman et al., 2002)***.

The term generalized anxiety disorder (GAD) was introduced in the DSM-III, which evolved from the anxiety neurosis category in DSM-II that included two core components: Panic symptoms and generalized symptoms of anxiety. In the DSM-III, a diagnosis of GAD required uncontrollable and diffuse anxiety or worry that excessive or unrealistic in relation to objective life circumstances that persisted for one month or more. In addition,

several psycho-physiological symptoms were required to occur with anxiety or worry. These symptoms needed to be present for the duration of 1 month for diagnosis of GAD to be met. Finally, the diagnosis of GAD could not be assigned if subjects met criteria for another mental disorder ***(Nutt and Ballenger, 2003)***.

Separation anxiety disorder is the most common anxiety disorder in childhood. To meet the diagnostic criteria ,according to DSM-IV-TR ,the disorder must be characterized by three of the following symptoms for at least 4 weeks: persistent and excessive worry about losing, or possible harm befalling, major attachment figures; persistent and excessive worry that an untoward event can lead to separation from major attachment figure; persistent reluctance or refusal to go to school or elsewhere because of fear of separation; persistent and excessive fear or reluctance to be alone or without major attachment figures at home or without significant adults in other sittings; persistent reluctance or refusal to go to sleep without being near a major attachment figure or to sleep away from home; repeated nightmares involving the theme of separation; repeated complaints of physical symptoms, including headaches and stomachaches when separation from major attachment figure is anticipated or involved. According to DSM-IV-TR, the disturbance must also cause significant distress or impairment in functioning ***(Sadock and Sadock, 2000)***.

The diagnostic criteria for panic disorder are the same for children and adolescents as for adults. As with less psychologically minded adults, children may focus more on somatic symptoms or may express panic as acute separation anxiety if symptoms occur while they are stressed and away from familiar surroundings. They may not tell anyone about the psychological symptoms or discrete panic attacks without systematic inquiry ***(Sadock and Sadock, 2000)***.

Children with social anxiety disorder, as defined by the *DSM-IV*, have a fear of social and performance situations in which embarrassment or humiliation may occur. When exposed to these situations, they experience intense anxiety that substantially interferes with normal childhood activities. Ordinary social interactions, such as starting or joining a conversation, and performances, such as playing sports, cause significant distress for these children. Their fears and avoidance result in loneliness, dysphoria, and inadequate social skills ***(Spence et al., 1999 and Beidel et al., 1999)***.

Phobia unlike adults, children are not required to acknowledge their fears and worries as unreasonable or excessive to make a diagnosis of a phobic disorder. It is sufficient that the fear causes avoidant behavior that interferes with some aspect of childhood functioning ***(Sadock and Sadock, 2000)***.

According to the fourth edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), Obsessive Compulsive Disorder (OCD) is defined as the presence of either obsessions or compulsions that "cause marked distress, are time consuming, or significantly interfere with the person's normal routine... or functioning." *Obsessions* are defined as "recurrent or persistent thoughts, impulses, or images" that are experienced as intrusive or inappropriate, are not simply excess worries about real-life problems, and which cause marked anxiety or distress. They must be recognized as products of one's own mind (to differentiate them from thought insertion). Common obsessions in childhood include fears of harm coming to self or others, fear of harming others, and contamination fears. *Compulsions* are repetitive behaviors or mental acts that are performed in response to an obsession or according to some other rigidly applied rules. Compulsions are meant to reduce anxiety or distress or prevent some dreaded event, but they are clearly excessive or are not realistically connected with the triggering stimulus. Typical compulsions in childhood include excessive hand washing, cleaning, checking, counting, and arranging ***(Sadock and Sadock, 2000)***.

Childhood disorders greatly increase the risk of similar disorders occurring in adolescence. Adults with panic disorder and a history of childhood anxiety had greater agoraphobic avoidance ***(Pollock et al., 1995)***. They developed panic attacks and phobic avoidance at a younger age than those without a

history of childhood anxiety ***(Otto et al., 1994)***. At the same time, children with a previous DSM-IV disorder were significantly more likely than those without a previous disorder to have a subsequent DSM-IV diagnosis ***(Costello et al., 2003)***.

Simply this means that onset of many adult psychological problems has their origins in childhood and adolescence and this is particularly the case for anxiety disorders ***(Mattison, 1992 and Stemberger et al., 1995)***. But the main problem still that anxiety in childhood is often regarded as a passing complaint ***(Keller et al., 1992)***.

In Egypt, epidemiological studies in the medical field – although still not sufficient – were very important as a first step for planning the management of health services. According to **Okasha and Sayed, 1994**, the prevalence of anxiety disorders among children was found to be 7.9% while that of hyperkinetic disorder was 2.2%. Nocturnal enuresis was represented in 1.9% of children in Egyptian surveys.

Early identification and intervention is an important area of investigation. An early intervention project in Australia compared group CBT versus monitoring for children with mild-moderate anxiety disorders and for those with sub-threshold anxiety disorders. Group CBT decreased the prevalence of anxiety diagnoses post treatment, and also prevented the onset of new anxiety disorders over time. At 6-month follow-up, only

16% of children who received the group intervention had the onset of a new anxiety disorder compared with 54% in the monitoring group ***(Dadds et al., 1997)***.

The future directions in anxiety research are numerous. It is strongly recommended an academic career that includes research, linking neuroscience, genetics, behavioral science, and epidemiology will advance our knowledge of etiology, risk, and protective processes in early-onset mental illnesses and will guide our treatment approaches.

Aim of the Work

1. To estimate the prevalence of anxiety disorder among school age children in Egypt.
2. To study the impact of anxiety symptoms in different aspects of quality of life of the children.

CHAPTER (I)
Prevalence of Anxiety Among Children

It is a common enquiry, if prevalence of childhood psychiatric disorders may be underestimated ***(Costello et al., 2003)***. In his study to answer this question, **Costello et al. (2003)**; examined three month prevalence of DSM-IV disorders in children aged 9-16 years, it was 13.3%, By 16 years, 36.7% of children had been diagnosed with at least one DSM-IV disorder. **Costello et al. (2003)** reported that, the roots of many adolescent (and adult) psychiatric disorders begin in childhood, with psychiatric disorder in younger years carrying a significant risk for adverse psychiatric outcomes throughout life.

Childhood disorders greatly increase the risk of similar disorders occurring in adolescence. Adults with panic disorder and a history of childhood anxiety had greater agoraphobic avoidance. They developed panic attacks and phobic avoidance at a younger age than those without a history of childhood anxiety ***(Otto et al., 1994)***.

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Prevalence rates for having at least one childhood anxiety disorder vary from 6% to 20% over several large epidemiological studies ***(Costello et al., 2004)***. Strict adherence to diagnostic criteria and consideration of functional impairment, rather than just the presence of anxiety symptoms, bring the rates down substantially. Referral biases can also dramatically alter prevalence rates ***(Angold et al., 1999)***.

Surveys of children and adolescents in community populations, using self-report questionnaires, indicate that anxiety disorders are the most common childhood emotional disorders. Twelve month prevalence rates range from 17% to 21%; about 8% may require treatment ***(Bernstein , 1991).***

Subclinical anxiety symptoms are very common in the general pediatric population. About 70% of grade school children report they worry "every now and then". Across the child and adolescent age span, anxiety was found to be the most frequently reported type of psychopathology ***(Muris et al., 1998)***. While according to **Wittchen et al. (2000)** depressive disorders (16.8%) were more frequent than anxiety disorders (14.4%), eating

disorders (3.0%) and threshold somatoform disorders (1.2%) were rare disorders.

Costello et al. (1997) found the prevalence of any anxiety disorder among 9-13 years American Indian children 5.3% while among white children it was 5.6% and separation anxiety was found among 4.6% of American Indian children and 3.3% of white children.

In a sample of 792 eleven-years-old, **Anderson et al. (1987)** found the following rates of anxiety disorders: 3.5% for separation anxiety disorder, 2.9% for overanxious disorder, 2.4% for simple phobia, and 1.0% for social phobia. **Bowen et al. (1990)** reported a 3.6% prevalence of separation anxiety disorder and a 2.4% prevalence of overanxious disorder in a sample 12 to 16-year-old. In 14 to 17 year-old, the lifetime prevalence for panic disorder was 0.6% and for generalized anxiety disorder was 3.7% ***(Whitaker et al., 1990)***. **Benjamin et al. (1990)** reported that a one year prevalence of anxiety disorder in children is 15.4%. Simple phobia, separation anxiety disorder, and overanxious disorder were the most prevalent, with the rates of 9.25, 4.1%, and 4.6%, respectively.