Age Comparisons in the Prevalence and Severity of Anxiety Disorders Among Children and Adolescents from Nairobi, Kenya.

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Abstract

The purpose of the study was to compare age differences in the prevalence and severity of anxiety disorders among 163 children and adolescents (8-16 years) drawn from Kabiria and Kawangware primary schools, in Dagoretti Constituency, Nairobi County Kenya. Data on prevalence and severity of anxiety disorders was collected using the Screen for Child Anxiety Related Emotional Disorders (SCARED)-Child version. Quantitative data analysis using the statistical package for social sciences version 20 revealed presence of anxiety disorders (M \geq 25) for most respondents ($M_{8-16 \ vears} = 33.67, 79.1\%$). The severity and prevalence of anxiety disorders per age group were M 8-10 years=37.36, 83.3%; M 11-13 years=35.80, 87.7% and M 14-16 years = 30.58, 72.5%. The analysis of variance revealed statistically significant age differences in severity of the ADs between the 8-10 and 14-16 year old (p=0.005) and the 11-13 and 14-16 year old (p=0.024) but not the 8-10 and 11-13 year old (p=0.570). Among the 8-10 year old, separation anxiety (83.3%) and panic disorder (81%) were the most prevalent pointing to high comorbidity rates that start early. Social anxiety (M=8.28) and generalized anxiety (M=7.68) were more severe for the 11-13 year old. Overall, the results indicated early age of onset of ADs with severity moderated by increased age, but also a waxing and waning course across the lifespan. Findings thus highlighted the importance of early intervention to curb chronicity.

Key words: Age differences, Anxiety disorders, Children, Adolescents, Assessment.

Introduction and Background

In the Diagnostic statistical manual for mental disorders, fifth edition, anxiety disorders (ADs) are classified into seven major categories, depending upon the age of onset. The anxiety disorders with the earliest age of onset below 7 years are; separation anxiety disorder, selective mutism, and specific phobias (APA, 2013). Social anxiety disorder usually sets in at adolescence, while panic disorder, generalized anxiety disorders and agoraphobia have a later

age of onset at late adolescence or early adulthood (Bhatt, 2019; de Lijster et al., 2017). ADs share features of excessive fear, anxiety and related behavioral disturbances. The fear is further defined as the emotional response to real or perceived imminent threat, while anxiety is the anticipation of future threat (APA, 2013).

Research among children aged 0-10 years indicates that AD symptoms increase up to age 6 and then decrease up to age 10. From as early as 4 months, children display fears such as the fear of being separated from significant others, and the fear spectrum widens as they grow older, reflecting cognitive growth (Kidcentral tn n.d). The continuum of fear evoking stimuli broadens with increase in age encompassing specific phobias of the environment type, fear of animals or fear of attacks from burglars (de Lijster, 2019; Swanson, 2021).

The intensity of the fears dissipate with increase in age but due to the normal growth processes, new fears may develop (Orgiles et al., 2012; Park et al., 2014). For example at puberty, children become more socially connected outside the home environment, as their bodies also mature physically and cognitively which may heighten fears regarding social acceptability. Adolescents are thus prone to ADs such as generalized anxiety disorder; social anxiety disorder and panic disorder (Ferri et al., 2014). Puberty is also opined a major developmental period where hormonal changes in the body can trigger development of ADs more so in females, more than males (Hantsoo & Epperson, 2017; Lewis et al., 2018).

Separation anxiety disorder has the earliest age of onset at preschool years and it is seen in 4% of children and 1.6% of adolescents, making it the most prevalent anxiety disorder among children under the age of 12 (APA, 2013). Research from cross sectional studies with children and adolescents aged 6-17 years suggest that the prevalence of SEP decreases with age (Orgiles et al., 2012; Park, Bang & Kim, 2014). SEP is characterized by recurrent and excessive distress about anticipating or being away from home or loved ones and excessive worry about losing a parent or other loved one to an illness or a disaster. They may also worry that something bad will happen, such as being lost or kidnapped on separation from parents or other loved ones (Hurley, 2019). Children with SEP also have repeated nightmares about separation, frequent complaints of headaches, stomachaches, social withdrawal, apathy, sadness, difficulty concentrating on

work or play, when separation from a parent or other loved one is anticipated. SEP commonly occurs with panic disorder and panic attacks where the child experiences repeated episodes of sudden feelings of intense anxiety and fear or terror that reach a peak within minutes (Bressert, 2018; Mayo Clinic Staff, 2021). The anxiety is usually beyond the expected range for the individual's developmental level, and is persistent, lasting at least four weeks in children and adolescents, and typically six months or more in adults (Dabkowska & Dabkowska-Mika, 2021).

Separation anxiety can manifest through fear of animals, monsters, the dark, muggers, burglars, kidnappers, car accidents, plane travel, and other situations that are perceived as presenting danger to the family or the individual. Additionally, such children usually report unusual perceptual experiences such as seeing people peering into their room, frightening creatures reaching for them, or feeling eyes staring at them. The fears usually emanate from excessive anxiety regarding separation from home, or from major attachment figures (APA, 2013; Feriante & Bernstein, 2021).

Later onset of SEP is common and onset may as well occur across the lifespan where childhood adversity and lifetime trauma are important antecedents (Silove et al., 2015). Adolescents with separation disorders may deny anxiety about separation, yet it may be reflected in their reluctance to leave home and resistance to being drawn into independent activity and school avoidance. The latter can follow a significant change at school, such as school related transitions or something unrelated to school, such as a divorce, illness, or a death in the family (American Academy of Child & Adolescent Psychiatry, n.d).

Social anxiety disorder (SAD) also called social phobia is characterized by a strong, persistent fear of being judged by others, and by frequent feelings of embarrassment (Bennington-Castro, 2020). SAD has a later age of onset at either adolescence or early adulthood, but it can also occur at below age ten years (APA, 2013). In preschool children, SAD manifests through the fear of new things, irritability, crying, or whining, freezing or clinging and refusing to speak (Elia, 2021). Among the school age children and adolescents, excessive fears are provoked in situations involving speaking up in public such as; speaking in class, talking to peers and adults, being in front of the class, musical or sports performance activities, or attending social functions.

The behavioral manifestations may include crossing the arms, avoiding eye contact or nervous habits such as hair twirling and fidgetiness (Cuncic, 2019).

SAD adversely affects the social relationships of the children and adolescents, to the extent that some refuse school, or have comorbid conditions such as depression, and even additional problems such as suicidal ideation and alcoholism (Koyuncu, İnce, Ertekin & Tükel, 2019). In one study among 12-17 year olds, higher prevalence of social anxiety disorder was found among children aged above 15 years (Achiko & Shikuro, 2019). Adolescence is specifically posited to be a developmentally sensitive period for the emergence of the condition, since it is a time when the peer group becomes increasingly important (Leigh & Clark, 2018).

Nevertheless there are studies suggesting that the development of SAD may be prompted by a stressful or humiliating experience such as being bullied, vomiting during a public speech or it may be insidious, developing slowly (APA, 2013). In support of an earlier age of onset, Campbell (1996) study forwarded that worry about social threat does not increase with age but the content of the feared social outcomes remain relatively constant over the age span. Pearcey et al (2021) additionally forwarded that adults who report social anxiety indicate that they have always felt anxious since childhood. This implies that young children are just as socially anxious as adolescents are.

Panic disorder (PD) is defined as recurrent panic attacks and it has a late age of onset at early adulthood (20-24 years). A panic attack occurs abruptly due to intense fear, or intense discomfort and the attack reaches a peak within minutes (Encyclopedia, 2016). During the attack, four or more of the following physical and cognitive symptoms should occur. These are; increased heartbeat, sweating, shaking, sensations of shortness of breath or smothering, feelings of choking, chest pain or discomfort, nausea or abdominal distress, feeling dizzy, chills or heat sensations, paresthesias (numbness or tingling sensations), derealisation (feelings of unreality) or depersonalization (being detached from oneself), fear of losing control or "going crazy" and fear of dying (APA, 2013; Cackovic et al., 2021). Common features of panic disorder include avoidance behaviors to the locations of previous episodes and other places where help would not

be available; or escape would be difficult such as enclosed or crowded places (American Academy of Child and Adolescent Psychiatry, 2013).

Panic disorder is diagnosed if the child has suffered at least two unexpected panic or anxiety attacks and thereafter, at least a month of constant worries over having another attack, losing control, or a feeling of going crazy (Anxiety and Depression Association of America [ADAA], 2015). Children can have panic disorder, but it is often not diagnosed before 14 years of age, even though the prevalence is low, but the rates gradually increase throughout puberty and peak during adulthood (Center for the Treatment and study of Anxiety, n.d; MedlinePlus, 2021). Panic attacks usually co-occur with other ADs where for example, children with separation anxiety may have a panic attack when a parent leaves or children who fear being trapped in places with no way to escape easily may have a panic attack when in crowded places (Elia & Kimmel, 2021).

Generalized anxiety disorder (GAD) is characterized by excessive anxiety and worry about a variety of events or activities, such as work or school performance, that occur more days than not, for at least 6 months (National Institute of Mental Health, 2017). Children with GAD worry excessively on a myriad of issues, such as past conversations or actions, upcoming events, school, family health, own health, sports or academics, and world events among other issues (APA, 2013). Due to these constant worries, their daily life is interfered with and physical symptoms such as headaches, muscular tension, restlessness, heart palpitations and stomach upset may be present (Boston Children's Hospital, 2018).

The constant fears and worries experienced in GAD also interfere with the child's ability to concentrate and pay attention to anything else. They may thus appear inattentive since their intense attention and worry is turned inward toward managing fears. Other children with GAD try to cope by being perfect at school, at home and in sports. More to that, they may constantly worry about performance and require constant appraisal (ADAA, 2015; Olivardia, n.d). Although GAD has a later age of onset at 30 years (Bhatt, 2019), it has been reported in both younger and older children, but differences occur in the fear content. Jarrett et al (2015) study among children aged 7-13 years diagnosed with GAD, found differences across age groups in the

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fear content. Older children with GAD generally reported similar levels of worry as younger children with the exception of greater school-related worry, trouble paying attention, and getting upset easily. Younger children reported greater harm avoidance than older children. Parent reports did not generally differ between groups with the exception of greater perfectionism in younger children and greater school competence issues for older children. GAD can therefore be diagnosed among children and adolescents despite its later age of onset but the fear content varies by age.

Research suggests that anxiety disorders co-occur with school refusal also known as school phobia or significant school avoidance (Prabhuswamy et al., 2018). Although school phobia has been investigated in many studies (Frank-Briggs & Alikor, 2010; Ndetei, et al., 2008) it is not classified as a mental disorder in the DSM-5. In the screen for childhood anxiety related disorders (SCARED), it is categorized as significant school avoidance. It is diagnosed if the children are usually scared to go to school, and are preoccupied with worries about school.

Approximately 2-5% of school going children, experience school phobia where it is more common among children aged 5 to 6 and 10 to 11 years of age (Kawsar et al., 2021). Hraniotis (n.d) posits that school phobias may be triggered after a child has been absent from school for a vacation or an illness. Other triggers could situations such as when a parent displays distress on being separated from the child, or traumatic events such as accidents, family-related deaths, relocations, or divorce. Bullying at school or the fear of teachers could as well trigger the school phobia. The children may have somatic symptoms that present in the morning and improve if the child is allowed to stay home. However, the longer the child stays out of school, the more difficult it is to return. School avoidance thus provides immediate short-term relief from the distressing aspects of the school day (Burch, 2019).

Children with school phobia may cry incessantly when it is time to go to school and they may have many complaints regarding teachers and peers (Kawsar et al., 2021). Additionally, there may be physical and psychological manifestations exhibited through dizziness, body aches, heart palpitations, nausea, diarrhea, shakiness and vomiting, fearfulness and threats of self-harm. Children with school phobia present with low moods predisposing them to depression (Burch,

2018; Drugs.com, 2019). Truancy differs from school refusal in that it is ego-syntonic (the child is not upset about missing school) and willful and the parents are often unaware. Truancy unlike school refusal, is associated with other antisocial behavior, and additionally in school refusal, a genuine physical illness may exist (Goddard, 2012).

Methodology

This comparative study examined age differences in the severity and prevalence of various types of anxiety disorders among children aged 8-16 years. There were 163 participants selected from class 4 and class 8 in both Kabiria primary school and Kawangware primary school in Dagoretti constituency, Nairobi County, Kenya. The study schools were selected through simple random sampling from a list of the 19 public days and mixed primary schools in Dagoretti Constituency. Inclusion into the study required having signed informed consent, willingness to participate and the ability to read and write in English. The research was carried out amidst the Covid-19 pandemic and as such, there were lock down measures that had restricted the rest of the classes (lower classes and classes 5, 6 and 7) from attending school. There were 90 respondents from Kabiria School (43 males and 47 females) and 73 respondents from Kawangware primary (26 males and 47 females).

The Screen for Children Anxiety and related disorders (SCARED) questionnaire was administered to the 163 participants in both schools. For the younger respondents aged 8-13 years, all the questions were read out loudly by the researchers and respondents were allowed to ask questions if they did not understand. SCARED is a 41-item self-report inventory scored on ordinal levels from 0 to 2, used to measure anxiety levels in children. The overall cut off score for determining presence of an AD is 25 out of the possible 82 scores. The 41 questions in the SCARED are classified into five scales which are; were panic disorder (PD) which has 13 items with a cut off score of 7, generalized anxiety disorder (GAD) 9 items with a cut off score of 9 and separation anxiety disorder (SEP) which has 8 items with a cut off score of 5. The last two scales are social anxiety disorder (SAD) which has 7 items with a cut off score of 8 and significant school avoidance (SSA) which has 4 items with a cut off score of 3. The reliability

and consistency of the SCARED (child) version has been ascertained cross culturally in several global studies (Arab et al., 2016; Ivarsson et al., 2018).

All data were analyzed using the Statistical Package for Social Sciences program (SPSS version 20). Descriptive statistics of frequencies, percentages and analysis of variance were used to compare prevalence rates and severity of the ADs for the different age categories 8-10, 11-13 and 14-16 years. Ethical clearance was procured from the Ethics Committee of Daystar University, the National commission for science technology and Innovation and the Ministry of Education.

Results

Results for those who met criteria for diagnosis of the different ADs are presented in the table 1 below.

Table 1: Prevalence of the Different Types of Anxiety Disorders

Age	ADs	Total	Has AD (N)	Percentage	Mean	Standard	
range		sample		(%)	(M)	Deviation(S.D)	
8-16	Total scores	163	129	79.1 33.67		12.87	
years	SAD	163	83	50.9	7.45	3.22	
	PD	163	118	72.4	10.06	4.92	
	GAD	163	58	35.6	6.96	3.51	
	SEP	163	128	78.5	7.36	3.48	
	SSA	163	48	29.4	1.85	1.81	
8-10	SAD	42	26	61.9	7.81	3.63	
years	PD	42	34	81.0	11.31	5.58	
	GAD	42	18	42.9	7.55	3.76	
	SEP	42	35	83.3	8.33	3.52	
	SSA	42	16	38.1	2.36	1.81	
	Total scores	42	35	83.3	37.36	14.65	
11-13	SAD	40	24	60.0	8.28	2.72	
years	PD	40	29	72.5	10.43	4.47	

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-		GAD	40	17	42.5	7.68	3.35
		SEP	40	29	72.5	7.35	3.91
		SSA	40	16	40.0	2.08	2.04
		Total scores	40	35	87.5	35.80	11.85
	14-16	SAD	80	32	40.0	6.84	3.15
	years	PD	80	54	67.5	9.18	4.68
		GAD	80	22	27.5	6.28	3.39
		SEP	80	63	78.8	6.84	3.168
		SSA	80	15	18.8	1.45	1.62
		Total scores	80	58	72.5	30.58	11.78

Table 1 presents the descriptive statistics for prevalence and severity of ADs. Overall, the 8-10 year olds had the highest severity based on means of the total AD scores, followed by the 11-13 year old and then the 14-16 year old ($M_{8-10\ years} = 37.36$, 83.3%; $M_{11-13\ years} = 35.80$, 87.5%; $M_{14-16\ years} = 30.58$, 72.5%). This trend where means for the ADs decreased from 8-10, to 11-13 and to 14-16 years was also observed in SEP, SSA and PD but not in SAD and GAD (SAD: $M_{8-10\ years} = 7.81$, $M_{11-13\ years} = 8.28$, $M_{14-16\ years} = 6.84$; GAD: $M_{8-10\ years} = 7.55$, $M_{11-13\ years} = 7.68$, $M_{14-16\ years} = 6.28$). In both SAD and GAD, severity as indicated by the means peaked at 11-13 years and then dropped at 14-16 years.

Concerning the types of ADs, SEP, PD and SAD had the highest prevalence at 78.5%, 72.4% and 50.9% respectively. Both GAD and SSA had lower prevalence rates at 35.6% and 29.4% respectively. The overall prevalence rates show that more of the 11-13 year olds (87.5%) had ADs as compared to the 8-10 year olds (83.3%) probably indicating development of some ADs from 11 years. The percentage however reduced to 72.5% among the 14-16 year olds suggesting that older age moderated the ADs. More of the 14-16-year-olds (78.8%) met criteria for SEP as compared to the 11-13 year old (72.5%).

Overall, these results suggest early age of onset for all ADs but that increased age moderates against anxiety symptoms. However at commencement of adolescence (11-13 year olds) some ADs such as SAD and GAD also develop. Furthermore, the higher prevalence of ADs among the

younger respondents (8-10 years) could point to the high comorbidity rates for ADs. Separation anxiety which normally has an early age of onset at below 10 years seems to have a chronic trend since a good number of the 14-16 year olds (78.8%) displayed with SEP. Analysis of variance was done to ascertain if the age differences observed in the means for the total anxiety scores were statistically significant. Results are presented as shown in table 2 below.

Table 2: ANOVA Table for Age Differences in the Anxiety Scores

Age Category		Sum of	df	Mean Square	F	Sig.
Comparisons		Squares				
8-10 & 11-13	Between Groups	57.457	1	57.457	.326	.570
years	Within Groups	14289.098	81	176.409		
	Total	14346.554	82			
11-13 & 14-16	Between Groups	728.017	1	728.017	5.226	.024
years	Within Groups	16437.950	118	139.305		
	Total	17165.967	119			
8-10 & 14-16	Between Groups	1327.720	1	1327.720	8.123	.005
years	Within Groups	19778.248	121	163.457		
	Total	21105.967	122			

Table 2 presents the ANOVA for age comparisons in severity of the anxiety disorders. The table shows that age differences in severity of anxiety scores between the 8-10 and 11-13 year olds were not statistically significant (p=0.570). However, the age differences in severity of anxiety disorders between the 8-10 and 14-16 year olds and the 11-13 and 14-16 year olds were statistically significant (p<0.05). The results suggest that children's fears decreased with increased age such that the younger children (8-10 years) self-reported more 'anxious' symptoms.

Discussion

Varying age differences were noted in the prevalence rates of the various anxiety syndromes and in the overall scores for anxiety. In the overall scores, the 11-13 year olds had the highest prevalence rates (87.5%) followed by the 8-10 year olds (83.3%) and then the 14-16 year old

(72.5%). Concerning the severity as depicted by the means of the total scores, the severity decreased with increased age (M_{8-10 years} = 37.36, M_{11-13 years} = 35.80, M_{14-16 years} = 30.57). Statistically significant age differences were observed between 8-10 and 14-16 year old and 11-13 and 14-16 year old pointing to higher anxiety symptoms among younger children and moderation of anxiety symptoms as age increased. These findings concur with research suggesting that ADs have an early age of onset and that most ADs resolve themselves with increased age (de Lijster et al., 2019; Wehry et al., 2015). Furthermore, research indicates that higher anxiety among younger children reflects cognitive development, such that as children grow older, they gain more resilience as they interact more with their environment (Masten & Barnes, 2018). Nevertheless, it was evident that separation anxiety disorder was still highly prevalent among the older children which concurs with research pointing to anxiety disorders being chronic and persistent, since separation anxiety has its onset at below 10 years (Wehry et al., 2015).

Concerning the different anxiety syndromes, separation anxiety disorder had the highest prevalence followed by panic disorders in all the age groups. The severity of both disorders as depicted in the means decreased with increased age SEP (M₈₋₁₀ years= 8.33, 83.3%, M₁₁₋₁₃ years=7.35, 72.5%, M₁₄₋₁₆ years=6.84, 78.8%; PD (M₈₋₁₀ years= 11.31, 81.0%, M₁₁₋₁₃ years=10.43, 72.5%, M₁₄₋₁₆ years=9.18, 67.5%). Several other studies as reviewed in Feriante and Bernstein (2021) and de Lijster et al (2017) also point to separation anxiety disorder as one of the most common childhood anxiety disorders with an early age of onset at approximately 7 years (Kessler et al., 2012). Additionally in concurrence with the current study, separation anxiety studies indicate that the lifetime prevalence rate of separation anxiety decreases with age. The lifetime prevalence is approximated at 6.5% for those below 14 years and 2.9% for those between 14-16 years (Krajniak et al., 2021).

A unique finding is that although the means of the 14-16 year olds were lower than those of the 11-13 year olds in SEP, more of the 14-16 year olds (78.8%) had the symptoms as compared to the 11-13 year old (72.5%). Krajniak et al (2021) continues to explain that older children may also have the disorder although the nature of the anxiety changes. In younger children, SEP manifests through anxiety regarding separation from significant others but in older children,

there is more of anticipatory anxiety. The 14-16 year olds in this study were in class 8 and just about to sit for their end of primary school exams. After the exams, they would be required to leave primary school and transition into high schools. This could probably explain why more of them showed separation anxiety as compared to the 11-13 year olds.

Regarding panic disorder, the finding for higher prevalence rates among the 8-10 year old is unique. This is because literature suggests a later age of onset for PD at 14 years (APA, 2013). The higher prevalence for SEP and PD could point to high comorbidity rates of SEP with PD, which is in line with research forwarding that separation anxiety co-occurs with panic attacks (Elia & Kimmel, 2021; Mohammadi et al., 2020).

Age differences were also noted in severity and prevalence of social anxiety disorder which was more severe among the 11-13 year olds (M₈₋₁₀ years= 7.81, 61.9%, M₁₁₋₁₃ years=8.28, 60%, M₁₄₋₁₆ years=6.84, 40%). The findings concur with age of onset research suggesting that 11-15 years is the age of onset for SAD (Achiko & Shikuro, 2019; Dalrymple & Zimmerman, 2011; de Lijster, 2019; Leigh & Clark, 2018). The ages 11 through 14 years are often referred to as early adolescence where adolescents feel the urge to be more independent from their families. Friends replace parents as a source of advice and the peer group becomes increasingly important (Healthwisestaff, 2019; Leigh & Clark, 2018). Nevertheless, the 8-10 year old also had high prevalence of SAD, which could be supported by studies suggesting that the development of SAD is not necessarily at adolescence, but it could have an earlier age of onset depending on the triggers in the social environment such as bullying or being humiliated in public (APA,2013). Further, it could be genetically inherited such that the content of the feared social outcomes remain relatively constant over the age span (APA, 2013; Campbell 1996; Pearcy et al., 2021).

Regarding GAD, the 11-13 year old had the highest severity for GAD, but prevalence rates decreased with increased age (M_{8-10 years}= 7.55,42.9%, M_{11-13 years}=7.68, 42.5%, M₁₄₋₁₆ years=6.28,27.5%). The finding for higher severity of GAD among the 11-13 year olds as compared to the 8-10 year olds concurs with studies suggesting that this age group coinciding with puberty signifies emergence of GAD (de Lijster, 2019). Concerning the GAD observed among the 8-10 year old, some studies show that GAD can occur in both younger and older

children, but differences occur in the fear content. Older children usually have greater school-related worry, worry about catastrophic events, such as earthquakes or nuclear war, trouble paying attention, and getting upset easily, perfectionism and school competence issues while younger children report greater harm avoidance (APA, 2013; Jarrett et al., 2015).

In SSA the 11-13 year olds had the highest prevalence rates but severity decreased with increased age SSA (M₈₋₁₀ years= 2.36, 38.1%, M₁₁₋₁₃ years=2.08, 40%, M₁₄₋₁₆ years=1.45, 18.8%). The findings for elevated SSA among the 11-13 year olds also concurs with studies pinpointing 11 years as a vulnerable age where children can show school avoidance (ADAA, n.d; Kawsar et al., 2021). Significant school avoidance is associated with factors such as fear of failure, problems with other children, and anxieties over toileting in a public bathroom, perceived "meanness" of the teacher, bullying or actual physical harm (healthychildren.org).

Prabhuswamy (2018) also forwarded that chronic school refusal is associated with other anxiety disorders such as specific phobias, social anxiety, generalized anxiety and panic attacks, among younger children and mood disorders among older children. Hence, there could be many underlying factors associated with the increased prevalence of SSA at 11 years of age. Overall, the findings confirmed age differences in the severity and prevalence of the disorders most of which are in line with previous studies.

Conclusion

Findings indicated that anxiety disorders were more prevalent and severe among the younger children (8-10 years) but again commencement of adolescence was critical to development of some anxiety disorders such as social anxiety and generalized anxiety. The high prevalence of the anxiety disorders among younger children as well pointed to high comorbidity rates of the disorders, hence the need for early interventions. Although increased age moderated against the prevalence and severity of disorders, a waxing waning course was observed in separation anxiety as the prevalence increased from among the 11-13 year olds to the 14-16 year olds. There is thus need for early interventions to help curb chronicity and the high comorbidity rates of ADs. Having school based mental health programs is also a great way to offer timely and affordable treatments.

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Nevertheless, there are limitations since the sample size was derived from only the class 4 and class 8 students (8-16 years) who were the only ones available at the time. A study incorporating a wider age group such as 4-17 years is recommended. The Screen for Child Anxiety Related Emotional disorders (SCARED) was the only tool used and it did not assess for all the categorized ADs in the DSM-5. The anxiety disorders that were not assessed were selective mutism, specific phobias and agoraphobia. Incorporating tools that can assess for these other disorders would shed more light on age differences in anxiety disorders from a wider perspective. This study was also on a relatively small sample, which makes it difficult to apply the results on a larger population. Despite these limitations, findings from the study are important since they reveal age differences in both prevalence and severity of anxiety disorders, which is important for treatment planning.

References

- Abbo, C., Kinyanda. E., Kizza, R.B., Levin, J., Ndyanabangi, S., & Stein, D.J. (2012). Prevalence, comorbidity and predictors of anxiety disorders in children and adolescents in rural north-eastern Uganda. *Journal of Psychiatry and Research*, 45(8). http://www.capmh.com/content/7/1/21
- Achiko, A. & Shikuro, E. (2019). Social Anxiety Disorder among Children at Gofermeda Sub City, Hosanna Town, Ethiopia: Prevalence and Associated Factors. *Psychology*, *10*, 1526-1541. https://doi.org/10.4236/psych.2019.1011100.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*, (5th ed.).
- Anxiety and Depression Association of America [ADAA]. (2015). *Childhood anxiety disorders*. Retrieved from https://adaa.org/
- Arab, A., Keshky, M. E., & Hadwin, J.A. (2016). Psychometric properties of the Screen for Child Anxiety and Related Emotional Disorders (SCARED) in a non-clinical sample of children and adolescents in Saudi Arabia. *Child Psychiatry and Human Development*, 47, 554-562. https://doi.org/10.1007/s10578-015-0589-0
- Bennington-Castro, J. (2020). What is social anxiety disorder? Symptoms, causes, diagnosis, treatment, and prevention. Everyday Health. https://www.everydayhealth.com/
- Bhatia, M. S. & Goyal, A. (2018). Anxiety disorders in children and adolescents: Need for early detection. *Postgraduate Medical Journal*, 64,75-6.
- Bhatt, N. Bienenfeld, D. (2019, August 3). What is the age distribution of anxiety disorders? Medscape. https://www.medscape.com/
- Blanco, C., Rubio, J., Wall, M., Wang, S., Jiu, C. J., & Kendler, K. S. (2014). Risk factors for anxiety disorders: Common and specific effects in a national sample. *Depression and Anxiety*, 31(9), 756–764. https://doi.org/10.1002/da.22247
- Boston Children's Hospital. (2018). *Generalized anxiety disorder (GAD)*. http://www.childrenshospital.org/
- Bressert, S. (2018, March 18). Separation anxiety disorder symptoms. *Psych Central*. https://psychcentral.com/disorders/separation-anxiety-disorder-symptoms/
- Burch, J.M. (2018). *School refusal: When a child won't go to school*. Havard Health Publishing. https://www.health.harvard.edu/
- Cackovic, C., Nazir, S., & Marwaha, R. (2021). *Panic disorder*. StatPearls Publishing. PMID:

28613692.

- Campbell, M. A. (1996). Does social anxiety increase with age?. *Australian Journal of Guidance and Counselling* 6(1), 43-52. Australian Academic Press.
- Center for the Treatment and Study of Anxiety (n.d). *Panic disorder*. Penn Psychiatry. https://www.med.upenn.edu/ctsa/
- Cuncic, A. (2019, January 07). Social anxiety disorder in children. How to recognize and treat SAD in kids. Verywellmind. https://www.verywellmind.com/
- Dabkowska, M. & Dabkowska-Mika, A. (2021). Potential effects of the COVID-19 pandemic on children and adolescents with separation anxiety disorder. *Intech open*. https://doi.org/10.5772/intechopen.98334
- de Lijster, J., M., Dierckx, B., Utens, E.M., Verhulst, F.C., Zieldorff, Dieleman, G.C., & Legerstee, J.S. (2017). The age of onset of anxiety disorders: A meta-analysis. *The Canadian Journal of Psychiatry*, 62(4), 237-246. https://doi.org/10.1177/0706743716640757.
- de Lijster, J. (2019). Affected by anxiety age-related characteristics and cognitive biases of anxiety disorders in children and adolescents. ISBN: 978-94-6323-790-1. Creative Commons Attribution 4.0 International License. http://creativecommons.org/licenses/by/4.0/.
- Drugs.com (2019, February 21). School phobia. https://www.drugs.com/cg/school-phobia.html
- Elia, J. (2021). Social anxiety disorder in children and adolescents. (Social phobia). MSD Manual. https://www.msdmanuals.com/professional
- Elia, J., & Kimmel, S. (2021). *Panic disorder in children and adolescents*. MSD Manual Consumer version. https://www.msdmanuals.com/home
- Erskine, H. E., Baxter, A. J., Patton, G., Moffitt, T. E., Patel, V., Whiteford, H. A., & Scott, J.G. (2016). The global coverage of prevalence data for mental disorders in children and adolescents. *Epidemiology and Psychiatric Sciences*.(4), 395-402. https://doi.org/10.1017/S2045796015001158.
- Feriante, J., & Bernstein, B. (2021). *Separation anxiety*. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK560793/
- Ferri, J., Bress, J. N., Eaton, N. R., & Proudfit, G. H. (2014). The impact of puberty and social anxiety on amygdala activation to faces in adolescence. *Developmental Neuroscience*, *36*(3-4), 239–249. https://doi.org/10.1159/000363736

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- Frank-Briggs, A.I. & Alikor, E.A. (2010). Anxiety disorders among secondary school children in an urban city in Nigeria. *International Journal of Biomedical Science*, 6(3), 246-251.
- Ghandour, R.M., Sherman, L.J., Vladutiu, C.J., Ali, M.M., Lynch, S.E., Bitsko R.H., & Blumberg S.J. (2018). Prevalence and treatment of depression, anxiety, and conduct problems in U.S. children. *The Journal of Pediatrics*.
- Goddard, N. (2012) 14-School refusal. In P.Wright, J. Stern, M. Phelan (Eds.), *Core Psychiatry*, (3rd ed., pp. 177-189). W.B. Saunders. ISBN 9780702033971. https://doi.org/10.1016/B978-0-7020-3397-1.00014-8.
- Hantsoo, L., & Epperson, C. N. (2017). Anxiety disorders among women: A female lifespan approach. *Focus (American Psychiatric Publishing)*, 15(2), 162–172. https://doi.org/ 10.1176/appi.focus.20160042
- Hraniotis, N. (n.d). School phobia in children school phobia: How can I help my child cope with this condition? Child, adult & adolescent psychiatrist. http://www.doctornicki.com/index.html
- Hurley, K. (2019). Separation anxiety in children: How to help your child with separation anxiety disorder. PSYCOM. https://www.psycom.net/
- Ivarsson, T., Skarphedinsson, G., Andersson, M., & Jarbin, H. (2018). The validity of the Screen for Child Anxiety Related Emotional Disorders Revised (SCARED-R) scale and sub-scales in Swedish youth. *Child Psychiatry and Human Development*, 49,234. https://doi.org/10.1007/s10578-017-0746-8
- Jarrett, M.A., Black, A.K., Rapport, H.F., Grills-Taquechel, A.E., & Ollendick, T.H. (2015). Generalized anxiety disorder in younger and older children: Implications for learning and school functioning. *Journal of Child and Family Studies 24*, 992–1003. https://doi.org/10.1007/s10826-014-9910-y
- Kawsar, M.D., Yilanli, M., & Marwaha, R. (2021). *School refusal*. StatPearls Publishing. PMID: 30480934.
- Kidcentral tn (n.d). *Social and emotional development: Ages 8-10.* https://www.kidcentraltn.com/
- Koyuncu, A., İnce, E. Ertekin, E., & Tükel R. (2019). Comorbidity in social anxiety disorder: Diagnostic and therapeutic challenges. *Drugs in Context*, 8, 212573. https://doi.org/10.7573/dic.212573
- Leigh, E., & Clark, D. M. (2018). Understanding social anxiety disorder in adolescents

- and improving treatment outcomes: Applying the cognitive model of Clark and Wells (1995). *Clinical Child and Family Psychology Review*, *21*(3), 388–414. https://doi.org/10.1007/s10567-018-0258-5
- Lewis, G., Ioannidis, K., van Harmelen. A-L., Neufeld, S., Stochl, J., Lewis, G., et al. (2018). The association between pubertal status and depressive symptoms and diagnoses in adolescent females: A population-based cohort study. *PLoS ONE 13*(6): e0198804. https://doi.org/10.1371/journal.pone.0198804
- Masten, A.S., & Barnes, A.J. (2018) Resilience in children: Developmental perspectives. *Children (Basel)*, 5(7), 98. https://doi.org/10.3390/children5070098PMCID: PMC6069421PMID: 30018217
- Mayo Clinic Staff. (2021, April 5). Separation anxiety disorder. https://www.mayoclinic.org/
- Medlineplus (2021). Panic disorder. https://medlineplus.gov/medlineplus.html
- National Institute of Mental Health. (2017). *Generalized anxiety disorder*. https://www.nimh.nih.gov/index.shtml.
- Ndetei, D.M., Khasakhala, L., Nyabola, L., Ongecha-Owuor, F., Seedat, S., Mutiso, V., Kokonya, D., & Odhiambo, G. (2008). The Prevalence of anxiety and depression syndromes in Kenyan children and adolescents. *Journal of Child and Adolescent Mental Health*, 20(1), 3351.
- Olivardia, R. (n.d). [Self-test] Does my child have generalized anxiety disorder? ADDITUDE. https://www.additudemag.com/
- Orgiles, M., Mendez, X., Espada, J.P., Carballo, J.M., & Piqueras, J.A. (2012). Anxiety disorder symptoms in children and adolescents: Differences by age and gender in a community sample. *Rev Psiquiatr Salud Ment (Barc.)*,5,115-120.
- Encyclopedia (2016). Panic disorder. In *Encyclopedia.com*. Retrieved December 21, 2018 from https://www.encyclopedia.com/
- Park, J. H., Bang, Y. R., & Kim, C. K. (2014). Sex and Age Differences in Psychiatric Disorders among Children and Adolescents: High-Risk Students Study. *Psychiatry Investigation*, 11(3), 251–257. https://doi.org/10.4306/pi.2014.11.3.251
- Pearcey, S., Gordon, K., Chakrabarti, B., Dodd, H., Halldorsson, B., & Creswell, C. (2021). Research review: The relationship between social anxiety and social cognition in children and adolescents: a systematic review and meta-analysis. *Journal of Child Psychology and Psychiatry*, 62, 805-821. https://doi.org/10.1111/jcpp.13310
- Prabhuswamy, M. (2018). To go or not to go: School refusal and its clinical correlates.

Developmental and Behavioural Paediatrics, 54(10).

- Silove, D., Alonso, J., Bromet, E., Gruber, M., Sampson, N., Scott, K., Andrade, L., Benjet, C., Caldas de Almeida, J. M., De Girolamo, G., de Jonge, P., Demyttenaere, K., Fiestas, F., Florescu, S., Gureje, O., He, Y., Karam, E., Lepine, J. P., Murphy, S., Villa-Posada, J., ... Kessler, R. C. (2015). Pediatric-Onset and Adult-Onset Separation Anxiety Disorder Across Countries in the World Mental Health Survey. *The American Journal of Psychiatry*, 172(7), 647–656. https://doi.org/10.1176/appi.ajp.2015.14091185
- Swanson, W. S. (2021). *How to ease your child's separation anxiety*. Healthy children.org. https://www.healthychildren.org/English
- Waddell, C., Shepherd, C.A., Schwartz, C., & Barican, J. (2014). *Child and youth mental disorders: Prevalence and evidence-based interventions*. Children's Health Policy Centre.
- Wehry, A. M., Beesdo-Baum, K., Hennelly, M. M., Connolly, S. D., & Strawn, J. R. (2015). Assessment and treatment of anxiety disorders in children and adolescents. *Current Psychiatry Reports*, 17(7), 52. https://doi.org/10.1007/s11920-015-0591-z
- World Health Organization. (2020, September 28). *Adolescent mental health*. https://www.who.int/