

Screening of anxiety disorders in adolescents among inpatients of pediatric department at Cheluvamba hospital

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Abstract

Background: Anxiety disorders are one of the most common psychiatric illnesses affecting children and adolescents ⁽¹⁾. Mental health problems are likely to be a significant cause of morbidity and mortality among adolescent populations ⁽²⁾. Those adolescents who suffer from anxiety disorders have impairment related to social, family, and educational aspects of functioning. Despite the prevalence of anxiety disorders, recognizing mental health issues such as anxiety as the underlying cause could be a challenge ⁽¹⁾. The objective of the study is to screen for anxiety disorders among adolescent inpatients and respective parents, so that early intervention could be done.

Methods: We have screened a sample of 60 adolescents-parents sets among inpatients of Cheluvamba hospital for the current study by using SCARED P and SCARED C questionnaire formats which is a validated questionnaire as per standard AAP recommendation during the months of march-December 2020. Additional demographic and clinical data were collected accordingly. The statistical methods used for analysis are chi square and Fisher exact test.

Results: The standard questionnaire screening identified probable anxiety disorder in 21.7 percent of adolescents($p=0.00$) out of which 33.3% were above 16 years of age, although the mean SCARED P and mean SCARED C scores were 19.26 which is clinically not significant. Among adolescents who screened positive, 34.3% were females and this was statistically significant. As per the results of the study other demographic data such as socioeconomic status, pre psychiatric illness, suicidal attempts were not statistically significant.

Conclusions: This study suggests that anxiety disorders are prevalent among adolescent inpatients. They are less recognized and thus are undertreated. Pediatricians should also concentrate on mental health aspects along with physical ailments specially during covid times. More studies and awareness are required in this set of population to encourage screening and early recognition and thus seeking early mental health services to avoid significant mortality and morbidity associated with these conditions.

Keywords: Anxiety disorders

Introduction

Anxiety disorders are one of the most common psychiatric illnesses affecting children and adolescents. Those adolescents suffer from anxiety disorders have impairment related to social, family, and educational aspects of functioning. Despite the prevalence of anxiety disorders, recognizing mental health issues such as anxiety as the underlying cause could be a challenge ^[1] Mental health problems are likely to be a significant cause of morbidity and mortality among adolescent populations ^[2]. Anxiety may appear in different forms including separation anxiety disorder, social anxiety disorder, panic disorder, agoraphobia, specific phobia, and generalized anxiety disorder ^[1] Evidences available show that these disorders involve dysfunction in the parts of the limbic system and hippocampus that regulate emotions and response to fear ^[3]. Anxiety disorders are the most prevalent mental health issue experienced by adolescents in today's times and still these diseases are underrated and under treated ^[4]. These disorders can lead to major impairment in academic, social and family functioning. The prevalence of anxiety disorders ranges from 4% to 20% ^[2]. Over the past decades, screening and assessment tools have been introduced to help the practitioners in early recognition of symptoms related to anxiety and thus making the diagnoses accurately. More importantly, these disorders are responsive to treatment. Hence it is of paramount importance to recognize early so that treatment could be initiated ^[5]. Hence recognizing at the earliest is of paramount importance.

Methods

A cross sectional study done at Cheluvamba hospital, tertiary care center in Mysore for a period of 10 months from March 2020-December 2020 after ethical committee clearance.

Inclusion criteria: Study population included 60 adolescent inpatients at Cheluvamba hospital aged between 9-18years of age.

Exclusion criteria: Adolescents with acute medical problems that required immediate therapeutic intervention (hemodynamically unstable), k/c/o psychiatric disorders, altered mental status, developmental disability, hyperthyroidism.

Adolescents who met inclusion criteria and their respective either of the parents were given the SCARED P AND SCARED C questionnaire ^[6] which is a standard recommendation from American academy of Pediatrics for screening of anxiety disorders. Each set of child and the respective parents were asked to provide the information regarding the domains provided in the questionnaire and individual scores were recorded.

The statistical methods used for analysis are chi square and Fisher exact test and p value <0.05 was considered statistically significant.

Results

Following results were obtained from the study:

Table 1: Age wise distribution of the subjects as per SCARED C scores

Age in years	SCARED C scores	
	Significant scores (n=13)	Non-significant scores (n=47)
9-12y	16.7% (4)	83.3% (20)
12-16y	20.8% (5)	79.2% (19)
16-18y	33.3% (4)	66.7% (8)

Among the Adolescents screened who had significant score on SCARED C questionnaire, 4 adolescents belonged to the age group 9-12 years, 5 adolescents belonged to the age of 12-16 years, 4 adolescents belonged to the age of 16-18 years ($p=0.515$).

Table 2: Gender distribution of the subjects as per SCARED C scores

Sex	SCARED C scores	
	Significant scores (n=13)	Non-significant scores (n=47)
Males	4% (1)	96% (24)
Females	34.3% (12)	65.7% (23)

Among the adolescents screened who had significant score on SCARED C questionnaire, 4% were males, 34.3% were females with p value being $p=0.05$.

Table 3: Distribution of subjects as per SCARED C Scores and socioeconomic status

Socio economic status	SCARED C scores	
	Significant scores (n=13)	Non-significant scores (n=47)
Class 3	21.2% (7)	78.8% (26)
Class 4	22.2% (6)	77.8% (21)

Among the adolescents screened who had significant score on SCARED C, 21.2% belonged to class 3 and 22.2% belonged to class 4 Kuppuswamy classification of socioeconomic status with p value-0.9 which was not statistically significant.

Table 4: Distribution of subjects as per SCARED C Scores and area of residence

Area of residence	SCARED C scores	
	Significant scores (n=13)	Non-significant scores (n=47)
Rural	15.5% (2)	84.6% (11)
Urban	23.4% (11)	76.6% (36)

Among the adolescents screened who had significant score on SCARED C, 15.5% belonged to rural areas and 23.4% belonged to urban area with p value being 0.5 which was statistically not significant.

Table 5: Distribution of subjects as per significant and non-significant SCARED C and SCARED P scores

	SCARED C scores		SCARED P scores	
	frequency	Percentage	frequency	Percentage
Non-significant scores	47	78.3	47	78.3
Significant scores	13	21.7	13	21.7
Total	60	100	60	100

Among 60 adolescents and respective parent sets, 13 children had significant scores on SCARED P and SCARED C questionnaire with p value being 0.000 which was statistically significant. That is 21.7 % of children were screened positive for anxiety disorders. Although the mean SCARED P and mean SCARED C scores were 19.26 which was clinically not significant.

Discussion

The current study is a cross sectional study conducted at Cheluvamba hospital, a tertiary care Centre.

In our study, Among the Adolescents screened who had a significant score on SCARED C questionnaire, 4 children belonged to the age group 9-12 years, 5 adolescents belonged to the age of 12-16 years, 4 children belonged to the age of 16-18 years ($p=0.515$) (Table 1).

Among the adolescents screened who had a significant score on the SCARED C questionnaire, 4% were males, 34.3% were females with p-value being $p<0.05$ (Table 2). similar results were seen in the study conducted by Ramsawh HJ *et al.* [7] showed that Adolescents who screened positive for anxiety on the SCARED-C were more likely to be female ($p < .001$).

Among the adolescents screened who had significant scores on SCARED C, 21.2% belonged to class 3 and 22.2% belonged to class 4 Kuppuswamy classification of socioeconomic status with $p<0.9$ which was not statistically significant (Table 3).

Among the adolescents screened who had a significant score on SCARED C, 15.5% belonged to rural areas and 23.4% belonged to an urban area with a p-value being 0.5 which was statistically not significant. (Table 4).

Among 60 adolescents and respective parent sets, 13 children had significant scores on the SCARED P and SCARED C questionnaire a with p-value being 0.000 which was statistically significant. That is 21.7% of children were screened positive on SCARED P AND SCARED C Scores for anxiety disorders. Although the mean SCARED P and mean SCARED C scores were 19.26 which was clinically not significant. (Table 5). Similar results were shown by study conducted by Ramsawh HJ *et al.* [7] in 2012, which included 100 parent-child pairs, 33% screened positive for probable anxiety disorder using the SCARED-C and 26% using the SCARED-P. Another study conducted by Miriam E. Tucker [8] in Atlanta. This study was conducted on 74 adolescents and validated 5-item Screen for Child Anxiety Related Emotional Disorders, Child and Parent versions (SCARED-C &-P) was used. Twenty-two percent of the participants screened positive for probable anxiety disorder by parent report on the SCARED-P, while 30% screened positive by child report on the SCARED-C.

Conclusions

This study suggests that anxiety disorders are prevalent among adolescent inpatients. They are less recognized and thus are undertreated. Pediatricians should also concentrate on mental health aspects along with physical ailments especially during covid times. More studies and awareness are required in this set of population to encourage screening and early recognition and thus seeking early mental health services to avoid significant mortality and morbidity associated with these conditions.

Limitations of the study

This study was conducted with a relatively smaller sample size and other medical concerns of the patient was considered during this study hence more Indian studies with larger sample size is required.

Declarations

Funding: None.

Conflict of interest: None declared.

Ethical approval: Granted.

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