

# Prevalence of Depression among Children and Adolescent in Orphanages

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## ABSTRACT

**Objective:** This study aims to discuss the prevalence and severity of depression among children and Adolescent in orphanages and compare between both of them using Children's Depression Inventory and Beck Depression Inventory.

**Introduction:** Depression is one of the most common mental disorders among children and adolescent. It affects their social and academic improvement.

**Methods:** A total of 133 orphans that living in orphanage aged 7-24 years at Abha city, Saudi Arabia were included in this cross-sectional study. We used stander questionnaire specific for each age group "Children's Depression Inventory (CDI) and Beck Depression Inventory (BDI)" to assess the prevalence and severity of depression. SPSS software was used to analyze the data. Ethical approval was obtained from the local ethical committee.

**Results:** 133 participants were divided into two groups. One contains orphans less than or have 14 years and the other contains elder orphans. 43 out of 55 participants from group one had severe depression, 1 with moderate, 5 with mild and 6 with no or minimal depression. On the other hand, the most prevalent type of depression in the second group was mild, no or minimal, moderate and sever respectively.

**Conclusion:** There was high prevalence of severe depression among children than young adults in the orphan house thus we need to improve the quality and the kind of care giving to those children as well as adolescents and may providing more caregivers will be a solution to overcome this mental disorder.

**Keywords:** Children, Adolescent, Children's Depression Inventory, Beck Depression Inventory, Depression, Prevalence, Severity.

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## INTRODUCTION

About 20% of both children and adolescents suffer from mental health problems and disorders as reported by WHO (World Health Organization 2005). Depression is one of the most recurrent and prevalent psychological disorder in children with estimated prevalence 17% during lifetime.<sup>1-3</sup>

It's associated with social, academic and functioning impairment and increases the risk of developing more sever psychiatric problems as suicidal thinking and addiction.<sup>4-7</sup>

Children of all ages can have Behavioral problems that may start early in life. These children become rude with communication and learning disorders and hyperactivity thus they become out of control.<sup>8</sup>

Detection of both emotional and behavioral disorders is wellknown all over the world and a some of researches have been established in a number of developed countries.<sup>9</sup> On the other hand, there are little research established in developing countries. Theoretically, there is a directly propionate relation between the long-term mental health and early social-emotional development, particularly to secure early-attachment relationships.<sup>10,11</sup> Orphans living in orphanages are one of the most susceptible groups to suffer from those mental illness as a result of repeated neglect, abuse or fear.<sup>12</sup> Early Detection of depression protect those children from mental disorder as well improve their performance in all the aspects of life.<sup>13</sup> Thus, we conduct this study in order to detect the prevalence of depression among orphans that living in orphanage and help Saudi society to improve the mental health, welfare and academic achievements of orphans.

## METHODS

#### Study Setting

We conduct this cross-section based study to know the prevalence of depression among orphans in Abha city, Saudi Arabia. This study helps to make orphans more integrated into the society and improve their level of academic achievement.

#### **Selection Criteria**

We included orphans that lives in orphanage at Abha city and have 7 years old or more. Orphans that live with caregiver families were excluded and those with less than 7 years old.

#### **Data Collection and Laboratory Methods**

We used Children's Depression Inventory (the original questionnaire) for children less with 14 years old and less and Beck Depression Inventory for participants with elder than 14 years old after translating both into Arabic.

#### **Statistical Analysis**

Data were analyzed using SPSS 24 for Windows (SSPS Inc., Chicago, IL, USA) by Chi square, and Fisher's exact test. In order to compare the mean of age and total score, as well gender,

receiver-operating characteristic (ROC) curves were created for each endpoint. p-value were considered to be statistical significance when it was <0.05 for all statistical tests

## Research Ethics

We obtained the ethical approval of Research ethics committee -KKU at Abha city and we contacted the Branch of the ministry of labor and social development – Abha. Participation was voluntary, and participants told that they could exclude themselves at any time. All their personal information and files number will be confidential and the results will be published as a total. No one from the orphanage can see the answers and the participants filled their questionnaire away from them.

Variable	Children	Adolescent
Total (%)	55 (41.4)	78 (58.8)
Gender (%):		
Male	26 (47.3)	45 (57.7)
Female	29 (52.7)	33 (42.3)
Age in years: mean (SD)	11.8 (2.2)	18 (2.4)
Total score: mean (SD)	38.96 (15.9)	(16.14) (9.1)
Educational Level:		
Primary School	26 (47.3)	0
Intermediate School	29 (52.7)	16 (20.5)
Secondary School	0	33 (42.3)
University Students	0	29 (37.2)

## Table 1: Basic characteristics of participants

Table 2: Prevalence of depression	
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Variables	Children	Adolescent	p-value
No or minimal (%)	6 (10.9)	18 (23)	
Mild (%)	5 (9.1)	39 (50)	0.0001***
Moderate (%)	1 (1.8)	14 (9)	
Severe (%)	43 (78.2)	7 (4.5)	

## RESULTS

We included 133 participants. They were divided into 2 groups. The first group has age ranged from 7-14 with mean age of years 11.8 and standard deviation (SD) 2.2. The second one has age ranged from 15-24 with mean age of years 18 and standard deviation 2.4 (table 1).

The first group consisted of 26 (47.3%) male and female 29 (52.7). the average of their score was 38.96 out of 54 with SD 15.9. there were 26 (47.3) student at primary school and 29 (52.7) student of intermediate school. In the second group, males were of 26 (47.3%) male and female 29 (52.7%). the average of their score was 38.96 out of 63 with SD 15.9. there were 26 (47.3%) student at intermediate school, 33 (42.3) at secondary school and 29 (37.2%) student of University (table 1).

In table 2, there were a statistically significant different between the prevalence of different types of depression among both groups and p-value was 0.0001. Severe depression was prevalent in 43 out of 55 children in group 1 while in group 2 (table 2).

# DISCUSSION

If the participant was less than or has 14 years, we used CDI (the original version after translating it into Arabic) and considered total score less than 15 as no or minimal depression, 15 for mild, 20 for moderate and 25 and higher for severe.<sup>14</sup>

On the other hand, for those older than 14 years, we used BDI after translating it and considered total score from zero up to nine as no or minimal depression, 10-18 for mild, 19-28 for moderate and 29 and higher for severe.<sup>15</sup> The CDI was designed to evaluate the presence and severity of specific symptoms of depression like (Negative Mood, Ineffectiveness, Anhedonia, Negative Self-Esteem, Interpersonal Problems) in Youngs so they can be treated earlier.<sup>16-18</sup> However, the original Beck Depression Inventory, was first described by Beck in 1961,<sup>19</sup> and consisted of 21 questions about how the patient felt in the last week. Every question has four possible responses, ranging in intensity.<sup>20</sup>

We found that severe depression was most prevalent among children less than 14 years old and this a serious indication of

other major disorders.<sup>21</sup> It's affect their learning, communication and other soft skills as well as behaviors.<sup>22</sup>

The main strength point of our study that it was conducted in a city of Saudi Arabia which lacks psychiatric studies in general and pediatric ones. We also discuss a new topic and pave the way to other researcher to follow the steps and help in improving Saudi society.

We faced some limitations as the small sample size and lack of fund to add more children from other cities.

# CONCLUSION

Our study provided some evidence that the young children are more affected than adolescents. However, they may suffer from other mental disorders that we can't screen during our study. Children entering orphanage should be routinely screened and referred to child psychiatrist. We suggest conducting more researches with larger sample size and different age groups as well compare between orphans living in orphanage and those with caregivers. We also need to compare between children with their real families and with caregivers.

This field (child's mental health" in general needs more researches in our country.

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