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CORRELATES OF ADOLESCENT DEPRESSION IN ORPHANAGE HOMES IN YENAGOA CITY, BAYELSA STATE, NIGERIA

Running title: Adolescent Depression in Orphanage Homes

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ABSTRACT:

This study was designed to investigate the correlates of adolescent depression in orphanage homes using Yenagoa, Bayelsa State as a case study in Nigeria. Adopting the attachment theory as a theoretical framework, this study adopted the respondent-driven sampling technique to study 120 adolescents in three orphanage homes in Yenagoa city. Data for this study was collected through the use of the questionnaire. Data analysis was carried out using descriptive and inferential statistics. The mean age of the respondents was 13.7 ± 3.4 years. The results indicated that more than a quarter of the respondents have manifested depression symptoms (45.8%). Most of the respondents had manifested at least one symptom of depression. Socio-demographic variables of the respondents such as, orphan type ($\beta = -1.795$; $t = -8.377$; $p < 0.05$), duration of stay at orphanage home ($\beta = -0.082$; $t = -3.458$; $p < 0.05$), age ($\beta = 0.253$; $t = 5.532$; $p < 0.05$), ethnic group ($\beta = 0.653$; $t = 3.532$; $p < 0.05$), level of education ($\beta = 0.583$; $t = 2.248$; $p < 0.05$), mode of getting to orphanage home ($\beta = 0.971$; $t = 4.711$; $p < 0.05$) and availability of relative(s) ($\beta = 2.430$; $t = 6.549$; $p < 0.05$) significantly predicted adolescent depression. In conclusion, there is a high prevalence rate of depression among adolescents living in orphanage homes in the city. Thus, there is a need to increase the level of social support for adolescents living in orphanage homes to ameliorate their conditions of depression.

Keywords: Depression, Orphanage homes, Adolescent, Yenagoa city, Attachment.

INTRODUCTION:

Depression is a global illness, with an estimate of 264 million people affected across all ages [1]. It may become a serious health condition, especially when it lasts longer than usual or is

severe. Besides its effects on the normal functioning of the body of the affected persons, depression is one of the leading causes of suicide, disability and death among adults and adolescents [2, 3]. About 800,000 people

worldwide have died of suicide, especially among those within the age groups of 10-19 and 15-29 years [2,3].

Specifically, several studies have reported that 3% - 9% of adolescents are depressed at one point in time or the other, while 20% of the children have been reported to have had the condition as a lifetime prevalence during the adolescence stage [4]. On the other hand, as the health condition increases among adolescents, other studies have shown that the condition is usually undiagnosed; and when its negative consequences persist in the affected persons over time, it becomes a chronic health condition throughout their life span [5].

However, while this prevalence persists among adolescents, studies have linked the causes of adolescent depression to different risk factors among the population sub-groups of the affected people [6]. Among other risk factors, Betts et al, [7] pointed out that parenting styles imbued with overprotective traits and low nurturing were associated with the increased manifestation of depressive symptoms in adolescents. Lewinsohn *et al.* [8] also found that female adolescents who usually have parental conflicts were predisposed to persistent episodes of depression. In another study conducted by Mathiesen *et al.* [9], it was observed that after puberty among adolescents, girls were 2 or 3 times more likely to manifest depressive symptoms than boys.

In the study of Skrove *et al.* [10] among adolescents, it was observed that adolescents who engaged in low levels of physical activity were more likely to report more depressive symptoms than those who engaged in high levels of physical activity.

Additionally, an earlier study by Frojd *et al.* [11] reported that perceived difficulties due to heavy schoolwork load were associated with moderate depressive symptoms among boys, while severe depressive symptoms among girls were observed. Some other studies found that early relationship problems with peer groups among adolescents that were characterized by loneliness increase the likelihood of depression among adolescents [12].

Copeland *et al.* [13] further identified that bullying of a child is a strong predictor of adolescent depression despite the general belief that it serves as positive reinforcement. This implies that it makes the victim exhibit reverse behaviour. As Pullen *et al.* [14] concluded in their study of adolescent depression, adolescent depression has been identified to have a link with an increased risk of substance abuse such as smoking and drinking alcohol, which also aggravate the severity of depressive symptoms among young adults.

Conversely, while there seems to be a reduction in the burdens of other health conditions globally; the burdens of depression and mental

disorders have been on the increase and it has become a major public health challenge [15-17]. According to Birmaher and Brent [18], early identification and effective treatment of adolescence with depressive symptoms may reduce its impacts on families and others, thereby, reducing the risk of substance abuse, suicidal thoughts and mental health disorder in a population.

Due to the undiagnosed nature of depression particularly among young adults, it is usually under-recognized. Although research interests on adolescent depression among orphans are still scanty in the body of literature, studies have shown that those who are treated in a well-run institution often experience some forms of deprivation and are prone to developing psychiatric disorders [19]. Despite this, a study reported the prevalence of depression and its associated factors among orphans in Addis Ababa centres [19]. However, this study was conducted on the prevalence and associated factors of depression outside the domain of this present research. Hence, the fundamental factors associated with the prevalence of depression among orphans living in orphanage homes in the current research setting have remained unknown.

Additionally, while Alghamdi [20] explored the relationship between orphans and their behavioural disorders in Saudi Arabia; Bhatt *et al.* [21] examined the relationship between

orphans and depressive symptoms in Nepal. Despite these studies providing an empirical analysis of the relationship between orphans and behavioural disorderliness or depressive symptoms, there is still a dearth of empirical studies analyzing the relationship between orphan types and depression among adolescents living in orphanage homes in the study area. This knowledge gap requires urgent attention for future intervention programmes on orphans.

On the other hand, Wenger and colleagues [22] examined the exercise effects on depression in adolescents in a systematic review of meta-analysis, Wallin *et al.* [23] looked at academic performance including externalizing disorders and depression among adolescents. Although these studies have provided the fundamental knowledge of the effects of depression among adolescents, they cover a wide range of adolescents with limited attention to orphans who are more vulnerable and lived in orphanage homes.

Finally, studies on the wellbeing and satisfaction of children in orphanages have largely focused on their psychosocial wellbeing [24], challenges faced by the orphans [25] or the experiences of orphans regarding the services rendered by the caregivers [26] among others. These studies are, however, essential for the projections of a future specific area of interventions in their merits, yet the level of satisfaction derivable by

these special groups of people has been neglected, particularly in the study area. This study, therefore, aims to analyse the level of satisfaction derived by the orphans from the services of professional caregivers in orphanage homes in Yenagoa City, Bayelsa State in Nigeria.

Theoretical framework:

This study is premised on the attachment theory of depression as proposed by John Bowlby in 1980. The theory states that children are born to be attached to parents or caregivers, which in turn organize their behaviour and thinking to maintain close relationships and social bonds through the process of socialization. It is also believed that the survival of a child is a function of the relationship that exists between a child and caregivers [27].

Karen [28] argues that the idea of John Bowlby as the founder of attachment theory was predicated on the need to challenge Freud's long-held notions of humans, who in turn posited that humans are compelled by their drives. Building on this assertion, Bowlby [29] added that humans are not only compelled by relationships but also influenced by the need, even from infancy to attach to a primary caregiver. By this, Bowlby [29] believed that every human right from infancy can internalize the experience of the earliest caregivers and that other caregivers in later life will maintain the same manner of behaviour just as the earliest caregivers did.

Bowlby [27] further argues that the theory of attachment is governed and conditioned by three types of circumstances. First, when a child's caregiver is deceased; second, when the child is unable to secure a stable relationship with the caregivers, and third when the child feels he/she is not loved by the caregiver. With these three circumstances, three depressive symptoms could emanate. First, when the child could no longer receive expected affection from the deceased caregivers, depression is bound to occur. Second, when a child could no longer receive expected love and care from an unstable relationship, he/she may feel being cheated upon and depressed. Third, when a child feels not lovable by the caregiver, withdrawal syndrome and depression may set in. Bowlby [27], therefore, proposed that the theory of attachment is key in the treatment of depression in infants and children.

Furthermore, due to its usefulness in the treatment of depression and other mental health disorders, the theory has become more useful among adults than in infants in recent times [30]. As such, Bowlby believed that the application of the theory of attachment to the treatment of depression would serve as a therapeutic regimen when applied to early family life experience till the later personality functioning and relationships with caregivers [27].

Considering the relevance of attachment theory to a romantic relationship in adults, contemporary scholars have added that many adults are motivated by the need for attachment

which is in turn similar to those of children [30]. For example, there is a need for attachment among partners who are in romantic relationships, family members and peer groups. Applying attachment theory to adulthood in this way can be considered relational and pathological in adulthood [30].

In the contribution of Slade [30] to the attachment theory, however, it is contended that children who maintain cordial relationships with a caregiver at significant cost to their advantage usually feel distorted when the caregiver is unable to meet the needs to comfort, secure and maintain their emotional stability. As Sable [31] added to the distortion between a child and his relationship with the caregivers, it was stated that environmental deficits such as behavioural inconsistency or rejection of caregiving options by the child could be a significant factor. In that, it impacts negatively on the healthy development of the child as it relates to lack of coherence in the personality of the child till adulthood stage [31]. While this serves as an outcome of environmental deficit, it consistently manifests in children as depression, anxiety, anger, and consequently disruptions in personal bonds with others.

From the onset of the theory, it is acclaimed that the increase in depressive symptoms is predicated on the stressors experienced by the victims which could also strain the existed relationships between the affected persons. Such experiences can increase depressive symptoms among adolescents when negative

beliefs about the self as being adolescence feel unworthy of love and support.

This is by implication suggesting that insecurity could be experienced among depressed adolescent orphans thereby resulting in dysfunctional attitudes and low self-esteem. Among adolescent orphans, low self-esteem could be experienced as soon as they (adolescents) began to feel deprived of care and supports as compared to children with parents. The theory in this note expresses insecurity as the belief that others are not available in times of need, feelings of discomfort in becoming close to others, and fear of abandonment or the lack of love. This means that the loss of parents and inadequate care experienced by the adolescent orphans could predispose them to the manifestation of depressive symptoms.

METHODOLOGY:

Study Design and Location:

A survey research design was used to study adolescents' orphans living in orphanage homes in Yenagoa City, which is the administrative capital of Bayelsa state in the southern part of Nigeria. The major language of the people is *Epie-Atissa*. The choice of the study area is based on the fact that it is the only city in the state with a functional orphanage where a study of this nature can be carried out.

Sample and Sampling:

The sample size for this study was based on the number of orphans in each of the selected

orphanage homes in Yenagoa. The orphan's registers were made available with a moderate number of orphans in each home, all orphans present in each of the orphanage homes were selected to participate in the study. Thus, a total of 120 orphans served as the respondents in this study.

The sampling technique adopted for this study was respondent-driven sampling, where an initial selection of respondents was made through the caregivers of the adolescents/orphans before referrals of others were made until the total number of orphans in each home was included in the sample. This sampling technique was necessitated because no orphan could be easily identified by the researcher except through the initial identification of the orphans from the caregivers before referrals of adolescents in the orphanage homes were made. They remain hidden from the researcher and research assistants until when they were identified and introduced to the researcher and research assistants for the administration of the research instruments by the caregivers.

Data Collection:

A self-designed structured questionnaire was used as the research instrument to gather relevant information from the respondents in their respective orphanage homes. However, the design of the structured questionnaire was based on the specific objectives of the research which were made to be varied by sections.

Measurement and Definition of Variables:

The dependent variable in this study is adolescent depression. However, while depression is described as a mood disorder accompanied by feelings of sadness or anger that may interfere with an individual's daily activities, Kutcher's adolescent depression (KAD) scale (11 items) was adopted measuring each of the items in the scale in the constructs with (1) hardly ever (2) much of the time (3) most of the time (4) and, all of the time [32].

In these measures, any respondent who had indicated 'hardly ever' was categorized as having no depression, while any respondent who indicated either 'much of the time', 'most of the time' or 'all of the time' was regarded as manifesting adolescent depression, hence, scored '1'. These scores were further summed up as ordinal variables.

The independent variables in this study are the socio-demographic variables of the respondents which ranged from gender (nominal), age group (interval or ordinal), religion (nominal), ethnic group (nominal), level of education (ordinal), age at the entrance into orphanage home (ordinal or interval), orphan type (nominal), and the type of orphan/duration of stay in orphanage home.

Validity and Reliability of Research Instruments:

The instrument used in the research was validated through a pretest and face validity where the key variables in each measure were examined by the supervisor and tested with one

of the orphanage homes included in the sample before the administration of the actual instrument. On the other hand, the inter-item reliability coefficient of adolescent depression was $\alpha=0.891$, which suggests that the measures for adolescent depression in the study are highly reliable.

Data Analysis:

The method of analysis of the research was based on the quantitative approach adopted for the study. Hence, the analysis of the study data was carried out using descriptive statistics and inferential statistics. While the descriptive statistics adopted the simple percentage distribution tables and the mean for the socio-demographic characteristics of the respondents among others, the inferential statistics employed chi-square and stepwise multiple linear regression at $p<0.05$ level of significance.

Ethical Approval:

Ethical clearance was obtained from the Bayelsa State Health Research Ethics Committee (BSHREC) of the Bayelsa State Ministry of Health with approval Number: BSHREC/Vol.1/21/04. In addition, permission to administer the study instrument was sought from the heads of the various orphanage homes visited before the administration of the instrument.

Permission was also sought from the guidance and caregivers of the orphans while assuring

them of the confidentiality of their responses via verbal consent.

RESULTS:

Socio-Demographic Characteristics of the Respondents:

Table 1 shows the socio-demographic characteristics of the respondents. About half (51.7%) of the respondents were females. The mean age of all the respondents was 13.7 ± 3.4 years. All the respondents were adherents of Christianity and 48.3% were predominantly Ijaw by ethnicity. Most of the respondents (69.2%) were in or have attained primary school certificates, while only a few (6.7%) of them had attained educational levels above primary school. The age of entrance of the respondents into orphanage homes revealed that a large majority of them (73.3%) entered when they were less than 5 years old. Most of the respondents were brought into orphanage homes by welfare officers (83.3%) when compared to other categories of persons. On the orphan type, majority of the respondents were of double or both orphan types (80.0%).

A large majority of the respondents (75.8%) at the orphanage home had stayed for less than 5 years. With regards to the presence of biological relatives, majority of the respondents (84.2%) did not have their biological relatives at the orphanage homes.

Prevalence of depression among adolescent children living in orphanage homes:

Assessing the prevalence of depression among the adolescents living in orphanage homes, Kutcher's Adolescent Depression Scale (11 items) was adopted [32]. For the implementation of the scale, any respondent with either 'much of the time', 'most of the time' and 'all of the time' as the response for the question constructs was re-categorized as depressed, while any

respondent who subscribed to 'hardly ever' was re-grouped and named non-depressed. Based on this re-categorization, majority of the respondents (54.2%) were non-depressed, and 45.8% manifested depression. Using Kutcher's adolescent depression scale (11 items), table 2 reveals the constructs of depression among the adolescents in orphanage homes.

Table 1: Distribution by socio-demographic characteristics of the respondents

Variables	Categories	Frequency (n=120)	Percentage (%)
Gender	Male	58	48.3
	Female	62	51.7
Age group (Mean=13.7±3.4 years)	10-12 years	40	33.3
	13 – 15 years	54	45.0
	16 and above	26	21.7
Religion	Islam	-	-
	Christianity	120	100.0
	Traditionalist	-	-
Ethnic group	Igbo/Ikwere	3	2.5
	Ijo/Ijaw	58	48.3
	Ogbia/Epie-Atissa	44	36.7
	Nembe	15	12.5
Level of education	No formal education	29	24.2
	Primary	83	69.2
	Secondary	5	4.2
	Tertiary	3	2.5
Age of entrance into orphanage home	Less than 5 years	88	73.3
	5 – 9 years	32	26.7
	10 – 14 years	-	-
	15 – 19 years	-	-
The person that brought the orphan	Friends of my parents	5	4.2
	Uncle	3	2.5
	Aunt	3	2.5
	Welfare Officers	100	83.3
	Others	9	7.5
Orphan Type	Maternal	13	10.8
	Paternal	11	9.2
	Double or Both	96	80.0
Duration at Orphanage Home	Less than 5 years	91	75.8
	5 – 9 years	29	24.2
Presence of biological relative	No	101	84.2
	Yes	19	15.8

Table 2: Distribution of respondents by Kutcher's adolescent depression scale (11 items)				
Constructs of depression	Response Categories	Frequency (%)	Mean	Remarks
Low mood, sadness, feeling blah or down, depressed, just can't be bothered.	Hardly ever Much of the time Most of the time All of the time	97 (80.8) 13 (10.8) 10 (8.3) 0	0.28	Significant
Irritable, loosing your temper easily, feeling pissed off, loosing it.	Hardly ever Much of the time Most of the time All of the time	89 (74.2) 18 (15.0) 13 (10.8) 0	0.37	Significant
Sleep difficulties - different from your usual (over the years before you got sick): trouble falling asleep, lying awake in bed.	Hardly ever Much of the time Most of the time All of the time	87 (72.5) 17 (14.2) 16 (13.3) 0	0.41	Significant
Feeling decreased interest in: hanging out with friends; being with your best friend; being with your boyfriend/girlfriend; going out of the house; doing school work or work; doing hobbies or sports or recreation.	Hardly ever Much of the time Most of the time All of the time	86 (71.7) 21 (17.5) 13 (10.8) 0	0.39	Significant
Feelings of worthlessness, hopelessness, letting people down, not being a good person.	Hardly ever Much of the time Most of the time All of the time	90 (75.0) 22 (18.3) 8 (6.7) 0	0.32	Significant
Feeling tired, feeling fatigued, low in energy, hard to get motivated, have to push to get things done, want to rest or lie down a lot.	Hardly ever Much of the time Most of the time All of the time	68 (56.7) 28 (23.3) 24 (20.0) 0	0.63	Significant
Trouble concentrating, can't keep your mind on schoolwork or work, daydreaming when you should be working, hard to focus when reading, getting "bored" with work or school.	Hardly ever Much of the time Most of the time All of the time	82 (68.3) 24 (20.0) 14 (11.7) 0	0.43	Significant
Feeling that life is not very much fun, not feeling good when usually (before getting sick) would feel good, not getting as much pleasure from fun things as usual (before getting sick).	Hardly ever Much of the time Most of the time All of the time	88 (73.3) 24 (20.0) 8 (6.7) 0	0.33	Significant
Feeling worried, nervous, panicky, tense, keyed up, anxious.	Hardly ever Much of the time Most of the time All of the time	68 (56.7) 33 (27.5) 19 (15.8) 0	0.59	Significant
Physical feelings of worry like: headaches, butterflies, nausea, tingling, restlessness, diarrhoea, shakes or tremors.	Hardly ever Much of the time Most of the time All of the time	42 (35.0) 30 (25.0) 45 (37.5) 3 (2.5)	1.08	Significant
Thoughts, plans or actions about suicide or self-harm.	No thoughts or plans or actions Occasional thoughts, no plans or actions Frequent thoughts, no plans or actions Plans and/or actions that have hurt	96 (80.0) 21 (17.5) 0 3 (2.5)	0.25	Significant

Table 3: Model summary and the ANOVA of the Joint Contributions of all Independent variables to Adolescent Depression among Adolescents Living in Orphanage Homes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.462a	.213	.200	2.002
2	.844b	.713	.689	1.247

Model		Sum of Square	DF	Mean Square	F	
1	Regression	127.052	2	63.526	15.854	0.000b
	Residual	468.815	117	4.007		
	Total	595.867	119			
2	Regression	424.834	9	47.204	30.359	0.000c
	Residual	171.033	110	1.555		
	Total	595.867	119			

Table 4: Multiple Linear Regression showing the relationship between orphan type, duration of stay, socio-demographic variables and Adolescent Depression among Adolescents Living in Orphanage Homes

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	B		
1	(constant)	6.168	.950		6.491	.000
	Type of orphan*	-1.554	.279	-.457	-5.573	.000
	Duration of stay	-.417	.427	-.080	-.977	.330
2	(Constant)	-1.672	1.677		-.997	.321
	Type of orphan*	-1.795	.214	-.528	-8.377	.000
	Duration of stay*	-1.082	.313	-.208	-3.458	.001
	Gender	.226	.332	.051	.679	.498
	Age*	.253	.046	.386	5.532	.000
	Ethnic group*	.653	.185	.216	3.532	.001
	Level of education*	.583	.259	.157	2.248	.027
	Entrance age	.283	.356	.056	.796	.428
	Mode of getting to orphanage*	.971	.206	.326	4.711	.000
Availability of relative*	2.430	.371	.398	6.549	.000	

*Significant at P<0.05

Putting the minimum threshold of the mean that can be termed normal in the constructs to 0.20, all of the constructs have been found significant among adolescents. This implies that most of the respondents manifested at least one of the symptoms of depression as put forward by Kutcher in his constructs [32].

Relationship between orphan type, duration of stay in orphanage homes, and depression among adolescents living in orphanage homes: This section examines the relationship between orphan type, duration of stay in orphanage homes, and depression among adolescents living in orphanage homes. Using stepwise multiple linear regression, Table 3 shows that the summary of the joint contribution of orphan

type and duration of stay in orphanage homes to the prediction of adolescents' depression was significant at step 1 ($F = 15.854(2, 117)$; Adj. $R^2 = 0.200$; $p < 0.05$). This implies that when the independent variables are taken together, they jointly predict depression among the adolescents living in orphanage homes at step 1. It further shows the multiple regression coefficients ($R = 0.462$), which means that the independent variables altogether have a positive significant relationship with adolescent depression. As a result of multiple regression adjusted (Adj. $R^2 = 0.200$) showing 0.200, it means that there were 20.0% variations in adolescents' depression that can be accounted for by the joint contribution of the independent variables at step 1. The remaining 80.0% may be accounted for by other factors rather than the independent variables included in the model.

When the socio-demographic variables of the respondents were included in step 2 of the model, the joint contribution of orphan type, duration of stay and socio-demographic variables to the prediction of adolescents living in orphanage homes is significant at ($F = 30.859(9, 110)$; Adj. $R^2 = 0.689$; $p < 0.05$). It further shows that the $R = 0.844$, which suggests a positive relationship with adolescents' depression at step 2. As a result of the multiple regression adjusted (Adj. $R^2 = 0.689$) showing 68.9%, it means that 68.9% variations in adolescents depression is accounted for by the joint contribution of the independent variables and the socio-demographic characteristics in

step 2. The remaining 31.1% may be accounted for by other factors rather than the independent variables and socio-demographic variables included in the model.

Furthermore, Table 4 presents the relative contributions of orphan type, duration of stay at orphanage homes and socio-demographic variables to adolescent depression. At the STEP 1 of the MODEL using unstandardized coefficients, the relative contributions of orphan type ($\beta = -1.554$; $t = -5.573$; $p < 0.05$) was significantly related to adolescent depression, while duration of stay at orphanage home ($\beta = -0.417$; $t = -0.997$; $p > 0.05$) was not significantly related to adolescent depression.

At the STEP 2 of the MODEL when the socio-demographic variables of the respondents were included, orphan type ($\beta = -1.795$; $t = -8.377$; $p < 0.05$), duration of stay at orphanage home ($\beta = -0.082$; $t = -3.458$; $p < 0.05$), age ($\beta = 0.253$; $t = 5.532$; $p < 0.05$), ethnic group ($\beta = 0.653$; $t = 3.532$; $p < 0.05$), level of education ($\beta = 0.583$; $t = 2.248$; $p < 0.05$), mode of getting to orphanage home ($\beta = 0.971$; $t = 4.711$; $p < 0.05$) and availability of relative(s) ($\beta = 2.430$; $t = 6.549$; $p < 0.05$) significantly predicted adolescent depression. Conversely, the gender of the respondents ($\beta = 0.226$; $t = 0.679$; $p > 0.05$) and entrance age to the orphanage homes ($\beta = 0.283$; $t = 0.796$; $p > 0.05$) were not significantly related to adolescent depression.

This indicates that availability of the relative(s) of the orphan is the most potent variable that predicts adolescent depression which is closely followed by the mode of getting to the orphanage home and ethnic group membership of the respondents at STEP 2 of the MODEL, while orphan type at both steps is the least predictor of adolescent depression.

DISCUSSION:

The results indicate that the majority of the orphans were of double or both orphan types and had stayed less than 5 years in the orphanage homes. This suggests that the majority of the orphans had no biological parents when compared to others who still had at least one of the parents alive. This may have implications on the subject of investigation (adolescent depression) since the level of social bonding and attachment of children in that age category impact significantly on the well-being of the child.

Furthermore, with the KAD scale and its re-categorization [32], findings revealed that more than a quarter of the respondents (45.8%) manifested one form of depression or the other. This finding is similar to the earlier work done by Demoze, Angaw and Mulat [33] who reported that 36.4% of the orphan adolescents in Addis Ababa (Ethiopia) experienced adolescent depression at orphanage homes. It also affirms the work of Zuckerbrot and Jensen [4] that 3% - 9% of adolescents are depressed at one point or the other as 20% of the adolescent were

reported to have had the condition as a lifetime prevalence.

In terms of the correlates of depression among orphan adolescents in our present study, the findings revealed that orphan type (especially those without any parents), duration of stay at orphanage home, age of the orphans, ethnic group, level of education, mode of getting to orphanage home (whether the orphan was taken to orphanage home by one of the biological parents or relatives) and availability of relative(s) were significantly correlated with adolescent depression. This result corroborates the findings of Demoze, Angaw and Mulat [33] that perceived social support, community discrimination, length of stay, age of entrance and the presence of visitors were associated with adolescent depression living in orphanage homes in Addis Ababa (Ethiopia).

Eisenberg et al [34] reported that adolescents suffering from depression spend less time on assignments and achieve lower grade points. Our present study also found that there were pockets of low attendance in school, academic performance and inactive involvement in social activities either at school or around the orphanage. This finding is also in line with Hirschfeld et al, [35] that the effect of depression among adolescents in an orphanage can be seen in the impairment of functioning in several domains such as, home life, workplace, friends and school. It further corroborates the American College Health Association's [36] nationwide

survey that 30% of the students suffering from depressive symptoms find it difficult to perform basic academic functions compared to other students who had no depressive symptoms.

The attitudes of professional caregivers play a pivotal role in the well-being of adolescents. Indeed, studies have shown that deficiency in the responsibilities of caregivers towards adolescents, neglect and abuse predisposed orphan adolescents to depression [37-40]. Our study also found that majority of the orphans reported late coming to assume duties by some professional caregivers. This may have implications on the level of satisfaction derived from the services of caregivers and consequently the manifestation of depressive symptoms.

CONCLUSION

This study focused on the correlates of depression among adolescents living in an orphanage in Yenagoa City, Bayelsa State. The results show a high prevalence rate of depression among adolescents living in orphanage homes in the city. The predispositions of the orphans to depression are associated with orphan type, duration of stay at the orphanage, age of the orphan, ethnic group membership, level of education attained, mode of getting to orphanage and availability of relative(s) including poor attitudes of professional caregivers. The implications are that there is a low level of social support for

adolescents living in the orphanage. As a result, the level of their attachments to relatives or institutional care has been affected and resulted in adolescent depression.

Recommendations:

Based on the findings from the study, some recommendations can be suggested for policymakers, the government and concerned agencies.

There is a need to increase the level of social support for the adolescents living in orphanage homes to ameliorate their conditions of depression while reducing the manifestations and prevalence of depressive symptoms through the services of professional counsellors at regular intervals. The relatives (if any) and religious groups should be encouraged to complement the efforts of the professional caregivers in the provision of necessary items that will reduce the incidences of depressive symptoms among adolescents living in orphanage homes through mobilization, sensitization and awareness creation.

Special attention should be given to adolescents who have been observed to manifest depressive symptoms at schools or orphanage homes by school counsellors, clinical psychologists, teachers, nurses and other caregivers to reduce or eradicate its negative effects on their academic performances and involvement in social activities.

Ethical principles underlying the discharge of professional duties by the professional

caregivers of adolescents living in orphanage homes should be emphasized by the policymakers through monitoring and evaluation of their professional bodies. This is needed to improve the services rendered by these professionals which will, in turn, improve the level of satisfaction derived from their services by the adolescents living in orphanage homes.

Conflict of interest:

There are no conflicts of interest.

REFERENCES:

1. Global Burdens of Diseases. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, 2018; 392.
2. Belfer ML. Child and adolescent mental disorders: the magnitude of the problem across the globe. *J Child Psychol Psychiatry*, 2008; 49, 226–36.
3. Avenevoli S, Swendsen J, He JP, Burstein M, Merikangas KR. Major depression in the National comorbidity survey-adolescent supplement: Prevalence, correlates, and treatment. *J Am Acad Child Adolesc Psychiatry*, 2015; 54(1):37-44. doi: 10.1016/j.jaac.2014.10.010.
4. Zuckerbrot RA, Jensen PS. Improving recognition of adolescent depression in primary care. *Arch Pediatr Adolesc Med*, 2006; 160, 694-704.
5. Thapar A, Collishaw S, Pine DS, Thapar AK. Depression in adolescence. *Lancet*, 2012; 379, 1056–67. doi: 10.1016/S0140-6736(11)60871-4.
6. Kieling C, Baker-Henningham H, Belfer M, Conti G, Ertem I, Omigbodun O, Rohde LA, Srinath S, Ulkuer N, Rahman A. Global mental health 2. Child and adolescent mental health worldwide: evidence for action. *Lancet*, 2011; 378(9801):1515-25. doi: 10.1016/S0140-6736(11)60827-1
7. Betts J, Gullone E, Allen JS. An examination of emotion regulation, temperament, and parenting style as potential predictors of adolescent depression risk status: a correlational study. *Brit J Dev Psychol*, 2009; 27, 473-485.
8. Lewinsohn PM, Rohde P, Seeley JR, Klein DN, Gotlib IH. Natural course of adolescent major depressive disorder in a community sample: predictors of recurrence in young adults. *Am J Psychiatry*, 2000; 157, 1584-1591.
9. Mathiesen KS, Sanson A, Stoolmiller M, Karevold E. The nature and predictors of undercontrolled and internalizing problem trajectories across early childhood. *Abnormal Child Psychol*, 2019; 37(2):209-22. doi: 10.1007/s10802-0089268-y.
10. Skrove M, Romundstad P, Indredavik MS. Resilience, lifestyle and symptoms of anxiety and depression in adolescence: The Young-HUNT study. *Soc Psychiatry Psychiatr Epidemiol*, 2013; 48, 407–416.
11. Fröjd SA, Nissinen ES, Pelkonen MUI, Marttunen MJ, Koivisto A-M, Kaltiala-Heino R. Depression and school performance in middle adolescent boys and girls. *J Adolesc*, 2008; 31, 485–498. doi: 10.1016/j.adolescence.2007.08.006.
12. Fontaine RG, Yang C, Burks VS, Dodge KA, Price JM, Pettit GS, Bates JE. Loneliness as a partial mediator of the relation between low social preference in childhood and anxious/depressed symptoms in adolescence. *Dev Psychopathol*, 2009; 21, 479-491. doi:10.1017/S0954579409000261.
13. Copeland WE, Wolke D, Angold A, Costello EJ. Adult psychiatric outcomes of bullying and being bullied by peers in childhood and adolescence. *JAMA Psychiatry*, 2013; 70(4):419-426. doi:10.1001/jamapsychiatry.2013.504
14. Pullen LM, Modrcin-McCarthy MA, Graf EV. Adolescent depression: important facts that matter. *J Child Adolesc Psychiatr Nurs.*, 2000; 13, 69-75.
15. Sund AM, Larsson B, Wichstrom L. Prevalence and characteristics of depressive disorders in early adolescents in central Norway. *Child Adolesc Psychiatry Mental Health*, 2011; 5(1), 1-13.
16. Kaur J, Cheong SM, Mahadir Naidu B, Kaur G, Manickam MA, Mat Noor M, et al. Prevalence and correlates of depression among adolescents in Malaysia. *Asia Pacific Journal of Public Health*, 2014; 26(5_suppl), 53S-62S.
17. Abebe D S, Frøyland L R, Bakken A, von Soest T. Municipal-level differences in depressive symptoms among adolescents in Norway: Results from the cross-national Ungdata study. *Scand J Public Health*, 2015; 44, 47–54. doi: 10.1177/1403494815604764
18. Birmaher B, Brent D. Practice parameter for the assessment and treatment of children and adolescents with depressive disorders. *J Am Acad Child Adolesc Psychiatry*, 2007; 46, 1503–1526.

19. Demoze MB, Angaw DA, Mulat H. Prevalence and Associated Factors of Depression among Orphan Adolescents in Addis Ababa, Ethiopia. *Hindawi Psychiatry Journal*, 2018; 1-5: <https://doi.org/10.1155/2018/5025143>
20. Alghamdi HO. Relationship between Behavioural Disorders and Social Cognition among Orphans in Saudi Arabia. *International Education Studies*, 2020; 13(6), 85-95.
21. Bhatt KB, Apidechkul T, Srichan P, Bhatt N. Depressive symptoms among orphans and vulnerable adolescents in childcare homes in Nepal: a cross-sectional study. *BMC psychiatry*, 2020; 20(1), 1-10.
22. Wegner M, Amatriain-Fernández S, Kaulitzky A, Murillo-Rodriguez E, Machado S, Budde H. Systematic review of meta-analyses: Exercise effects on depression in children and adolescents. *Frontiers psychiatry*, 2020; 11, 81.
23. Wallin AS, Koupil I, Gustafsson JE, Zammit S, Allebeck P, Falkstedt D. Academic performance, externalizing disorders and depression: 26,000 adolescents followed into adulthood. *Social psychiatry and psychiatric epidemiology*, 2019; 54(8), 977-986.
24. Msoka A, Holroyd E. Children's perspectives of their psychosocial wellbeing in Tanzanian orphanages. *International Journal of Nursing and Midwifery*, 2018; 10(5), 41.
25. Dereje F, Jibat N. Challenges of Orphan Caregiver Families in Jimma Town, Oromia/Ethiopia. *International Journal of Science and Research (IJSR)*, 2017; www.ijsr.net/archive/v6i3/v6i3.php, 6(3), 455-461.
26. Antindi H. Experiences of orphans and caregivers regarding services rendered by the Motor Vehicle Accident (MVA) Fund of Namibia. (M.Sc Thesis submitted to Department of Social Work, Faculty of Community and Health Sciences, Uni of the Western Cape), 2019.
27. Bowlby J. Attachment and loss, Vol. 3: Loss. New York: Basic Books, 1980.
28. Karen R. Becoming attached: Unfolding the mystery of the infant-mother bond and its impact on later life. Warner Books, 1994.
29. Bowlby J. A secure base. NY: Basic Books, 1988.
30. Slade A. "Attachment theory and research: Implications for the theory and practice of individual psychotherapy with adults". In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (p. 575-594). Guilford Press, 1999.
31. Sable P. Attachment and adult psychotherapy. Northvale, NJ: Jason Aronson; 2000.
32. Brooks S. The Kutcher Adolescent Depression Scale (KADS). *Child and Adolescent Psychopharmacology News*, 2004; 9(5), 4-6. https://mentalhealthliteracy.org/wp-content/uploads/2014/08/CAPN_11Item_KADS
33. Demoze MB, Angaw DA, Mulat H. Prevalence and Associated Factors of Depression among Orphan Adolescents in Addis Ababa, Ethiopia. *Hindawi Psychiatry Journal*, 2018; 1-5: <https://doi.org/10.1155/2018/5025143>
34. Eisenberg D, Gollust SE, Golberstein E, Hefner JL. Prevalence and Correlates of Depression, Anxiety, and Suicidality among University Students. *American Journal Orthopsychiatry*, 2007; 77(4), 534-42.
35. Hirschfeld RM, Dunner DL, Keitner G, Klein DN, Koran LM, et al. Does psychosocial functioning improve independent of depressive symptoms? A comparison of nefazodone, psychotherapy, and their combination. *Biological psychiatry*, 2002; 51, 123-133.
36. American College Health Association. American College Health Association-National College Health Assessment II: Reference Group Executive Summary Fall 2011. Hanover, MD: American College Health Assoc, 2012.
37. Bakermans-Kranenburg MJ, VanIjzendoorn MH, Juffer F. Earlier is better: a meta-analysis of 70 years of intervention improving cognitive development in institutionalized children. *Monogr. Soc. Res. Child Dev.*, 2008; 73, 279-293. doi:10.1111/j.1540-5834.2008.00498.x
38. Muhamedrahimov RJ, Palmov OI, Nikiforova NV, Groark CJ, McCall RB. Institution-based early intervention program. *Infant Ment. Health J*, 2004; 25, 488-501.
39. Van Ijzendoorn MH, Palacios J, Sonuga-Barke EJS, Gunnar MR, Vorria P, McCall RB, et al. Children in institutional care: delayed development and resilience. *Monogr. Soc. Res. Child Dev.* 2011; 76, 8-30.
40. Wright AC, Lamsal D, Ksetree M, Sharma A, Jaffe K. From maid to mother: transforming facilities, staff training, and caregiver dignity in an institutional facility for young children in Nepal. *Infant Ment. Health J*. 2014; 35, 132-143. doi:10.1002/imhj.21429.