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# Cognitive Behavioral Counseling for Depression in Orphans and Vulnerable Children: In Case of Dire Dawa Full Gospel Believers' Child Support Organization, Ethiopia

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#### Abstract

This study was aimed at examining effects of Cognitive Behavioral Counseling in treatment of depression among Orphan and Vulnerable Children. A quiz randomized experimental design; in which 53 eligible Children carefully selected and randomly assigned to either group was employed in this study. Children in treatment group attended six; three hour's weekly Cognitive-Behavioral Counseling sessions. While, children in placebo-control group participated in six-one hour weekly informal group discussions. They had never given formal counseling before completion of data collection. From both groups a total of 44 children (19 males and 25 females) aged between 11-18 years with mean of 15.05 and 1.843 standard deviation were successfully completed the study. Depression severity scores were assessed before and after the treatment program through Children's Depression Inventory. Within group pre-to-post treatment analysis of dependent t-tests revealed higher symptomatic depression mean score reduction in treatment group compared to placebo control group. Between groups symptomatic Depression mean scores difference was statistically insignificant before the treatment (t= .18, df= 42, p>.05, two tailed). Posttest analysis of independent t-test showed statistically significant depression mean scores difference between the groups (t= -2.24, df =42, p<.05, one tailed). Post intervention between groups effect size was found moderate (0.68). Cognitive behavioral counseling is potentially effective to treat depression in Children as compared to placebo treatment. However, further studies are needed to validate reliability of findings in this study.

Keywords: Cognitive behavioral counseling, depression, orphan and vulnerable children

#### 1. Introduction

Depression is a highly complex mental disorder that places tremendous psychological and physical burdens on those suffering. As a disorder; depression is so widespread that mental health professionals call it the common cold of psychiatry. It expected to be the second leading cause of disability in the world population by 2020 (Murray, J. and Lopez A., 1997). This complex and widespread mental disorder was believed to be absent in children and adolescents. Before forty years, many physicians doubted the existence of significant depressive disorders in children, primarily because they believed that children lacked the mature psychological and cognitive structure necessary to experience these problems (American Family Physician, 2006).

However, a growing body of evidence has confirmed that children and adolescents not only experience the whole spectrum of mood disorders but also suffer from the significant morbidity and mortality associated with them (Shugart, M., & Lopez, E., 2002, Voelker, R. (2003). The worst of it is manifested in the life of orphaned children (Family Health International, 2003). Of the many vulnerable members of society, young people who have lost one or both parents are among the most exposed of all. Orphans run greater risks of being malnourished and stunted than children who have parents to look after them. And this is particularly true in sub-Saharan Africa, where few social support systems exist outside of families and where basic social services are largely inadequate (UNAIDS 2004).

Death of parents makes children vulnerable and predisposes them to physical and psychological risks over which they have no control. The feeling of helplessness is very costly in terms of psychological well-being and may be reflected in lack of concern, involvement and vitality in social and school activities. Emotionally, it is indicated by sadness and depression. This experience can lead to serious psychological problems such as post-traumatic stress syndrome, and even suicide (Sengendo J, & Nambi J., 1997).

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In 2005 an estimated of 48 million children aged 0-18 years, 12% of all children in sub-Saharan Africa were orphans, and that number is expected to rise to 53 million by 2010 (Patrice Engle, 2008). By the year 2015 an estimated 20% of sub-Saharan Africa children 18 or younger will have lost one or both parents to HIV/AIDS alone (UNAIDS, UNICEF, & USAID, 2004). Ethiopia, counts one of the largest populations of orphans in the world; 13% of children throughout the country are missing one or both parents. This represents an estimated 4.6 million children (UNICEF, 2008).

The low level of socio-economic status of the country, aggravated by recurrent drought and HIV/AIDS pandemic has left millions of children in Ethiopia deprived of the basic survival and development rights (Innerdada Iddirs Association, 2008). These children are encircled with interwoven and complicated problems. Their life is entangled with all sorts of social, economic, emotional and psychological problems. They are living in extremely poor situation, suffering and dying from various diseases, not in school, working in hazardous conditions, exposed to various physical and sexual abuses, are trafficked, and/or infected by HIV/AIDS (Forum on Street Children Ethiopia, 2005).

In study of psychosocial perceptions of students orphaned by HIV/AIDS found that, 70.7% of the total children under study with moderate depression, 18.7% with severe depression and the rest 10.7% with low depression (Aemiro Taddesse, 2009). Despite this fact, currently it is becoming increasingly clear that there is little concern about the needs of orphan children for psychological support in Ethiopia. Many existing studies focus on numbers, age, and material needs of the children as the most pressing, neglecting the emotional needs. There is little research on quality of life, child care arrangements and psychosocial support needed. The attention given to the emotional needs of the Orphan children in Ethiopia is far from satisfying. Hence, many of the orphaned children continue to experience emotional problems and little is being done in the area of emotional support (Sengendo J, & Nambi J., 1997).

However, the researcher in this study is highly pressed with searching possible practical solutions for emotional problems of orphan children particularly, depression rather than simply reporting the existence and prevalence of the problems. Accordingly, this study was proposed to examine effects of cognitive behavioral counseling in treatment of depression among Orphan and Vulnerable Children. Cognitive behavioral therapy appear to be the logical choice for counselors working with adolescents who exhibit impairment in academic, vocational, social and/or behavioral domains due to ineffective management of depression (Weissman et el., 1980). Cognitive behavioral therapy has been proven to be successful in the treatment of child and adolescent depression (Oei, T.P.S. Dingle, G., 2008). The most common form of psychotherapy used to treat depression in children and adolescents is Cognitive behavioral therapy (Curry, J., 2001).

# 2. Objective

The main objective of this study was to examine effects of cognitive-behavioral counseling in treatment of depression among Orphans and Vulnerable Children. More specifically, the following research hypotheses were tested in order to accomplish the purpose of this study:-

- There will be statistically significant depression symptoms mean score difference between treatment group and placebocontrol group participants on pre-intervention assessment at alpha .05 as measured by Children's Depression Inventory.
- Posttest depression symptoms mean score of treatment group will be statistically less than the group's pretest depression's mean score as measured by Children's Depression Inventory at alpha .05.
- There will be statistically significant difference between pre-intervention and post-intervention depressions' mean scores of placebo-control group at alpha .05.
- The placebo control group posttest depression's mean score will be statistically greater than posttest depression's mean score of the treatment group at alpha .05.

#### 3. Materials and Methods

#### 3.1. Design

In this study randomized experimental design in which eligible participants were carefully selected and randomly assigned either to treatment group or placebo-control group was employed. Participants of both groups were assessed for depression prior and after intervention program as suggested by (Paul, D., 1983).

## 3.2. Research Site and Population

Participants of this study were selected from Dire Dawa Ketene-3 Full Gospel Believers' Child Support Organization, a legally registered religious humanitarian organization that had been providing materials, financial & educational support for about 119 orphaned & vulnerable children.

# 3.3. Data Collection Tools and Sampling Procedures

The sampling process was started with screening of all potential children for depression. Adopted form of Center for Epidemiological Studies Depression Scale for Children (CES-DC) was used for screening purpose. CES-DC is widely used to identify children with depressive symptomology, because its literacy is simple and the items were selected from a pool of items from previously validated depression scales (Radloff, L.S., 1977). The developers of the CES-DC have used the cutoff score of 15 as being suggestive of depressive symptoms in children and adolescents (Weissman et. el., 1980).

Accordingly, 32 of the total 119, children those who scored below cutoff score on CES-DC were automatically excluded from further process. The remaining, 87 children who scored 15 and higher on CES-DC were filled Demographic Questionnaire. Consequently, 26 more children; those who were under age of 11, previously identified with severe psychiatric disorder, and those who can't listen, speak, read and write in Amharic were excluded from the research process. The remained 61 Children were evaluated for Depression by Children's Depression Inventory. CDI is one of the most frequently used self-reports for the assessment of depressive symptomology in infancy and adolescents (Kovacs Maria., 1996).

This 27-item self- report questionnaire quantifies a wide range of depressive symptoms including disturbances in mood, pleasure capacity, self-evaluation, interpersonal behavior, eating and sleeping behaviors. Total scores on the CDI may range from 0-54. A cut-off value of 12 is suggested to differentiate clients with depression and without depression. A score of 13 indicates mild depression. A cutoff score of 19 indicates severe depression (Rosselo, J. and Jimenez-Chafey, I., 2006).

Finally, only 53 carefully selected eligible children were randomly assigned to treatment group (n=24) and control group (n=29). Participants of both groups were post tested by Children's Depression Inventory. That is, Children's Depression Inventory (CDI) was used for both diagnostic and outcome measuring purposes. Daily Mood Scale was completed weekly only by treatment group participants so as to see the ongoing change of depressive mood throughout the intervention period. From both groups a total of 44 participants (23 from treatment group and 21 from placebo control group) were completed posttest assessment.

#### 3.4. Intervention Program and Strategies

The treatment methods and strategies used in this study were adopted from a Cognitive Behavior Treatment Manual developed for Treatment of Depression in Adolescents (Rosselo, J. and Jimenez-Chafey, I., 2006). Accordingly, six weekly three hours a structured group cognitive-behavioral counseling sessions with various techniques were performed for treatment group participants from October 14, 2017 to November 26, 2017 G.C. The group was equally sub-divided in to two for management purpose. The sub-groups were visited every Saturday from 8:00am to 11:00am and from 14:00pm to 17:00pm respectively. Participants in Placebo-control group were not offered formal counseling session before post intervention assessment. They attended six weekly one hour informal group discussions. Participants in this group received one day two hours formal group cognitive-behavioral counseling session after outcome assessment. However, children in both groups asked not to share issues discussed during sessions outside group members in order to control interaction effect.

#### 3.5. Statistical Methods

Data from subjects who successfully completed all proposed assessments were analyzed through the statistical package for social science (SPSS) version 15.0 for windows. Frequencies, percentages, means and standard deviations were generated to describe their demographic variables. Depression mean scores were analyzed for pre- to post-treatment changes. Within groups' pre-to-post intervention change in level of depressive symptoms were analyzed with repeated measures of dependent t-tests. Depression mean scores were compared between the two subject groups before and after treatment program with t-tests (two-tailed) for independent samples in order to anchor the evaluation of the intervention effect. Alpha level of .05 has been applied to determine whether the mean score difference was statistically significant or not.

# 3.6. Ethical Approval

Major ethical issues were considered by the author. All subjects gave their informed consent for inclusion before they participated in the study. Confidentiality of communicated information was protected. Debriefing sessions were made for both groups regarding to the actual objective of the study. Placebo control group participants were offered one day two hours group Cognitive Behavioral Counseling after the completion of the post intervention assessment. Any form of physical and psychological harms were kept at minimum, even participants were informed of their choice to withdraw at any point during the study period, if they wished so.

#### 4. Results

#### 4.1. Participants' Demographic Characteristics

A total of 44 eligible children (23 from treatment group; 11 males and 12 females) and (21 from placebo control group; 8 males and 13 females) were completed the whole program. They were between 11-18 years old. The average age of treatment group was 15.14 years with 1.769 SD; and 14.95 years with 1.959 SD for the placebo control group. As to their educational attainment is concerned, 29 (66%) of the respondents are attending primary education (grade 1-8), while 14 (31%) of them are attending secondary education (grade 9-12). Only one child has joined college this year.

# 4.2. Pretest-Posttest Comparison of Depression Severity Scores

Before the intervention program, the treatment group was composed of 4 (17.4%) participants with mild depression, 16 (69.6%) of participants with moderate depression and 3 (13%) of participants with severe depression. Whereas, 5(23.81%) of the participants from the placebo control group were with mild depression, 15 (71.43%) with moderate and 1

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(4.76%) of participants were with severe depression severity levels. Thus, it can be said that, at pretest the depression severity scores on CDI were similar between Cognitive Behavioral group and placebo control group.

During post-intervention assessment 6 (26.1%) of participants in treatment group reported depression severity scores below 13 on Children's Depression Inventory. Relatively large number of participants in treatment group showed mild 11(47.8%) depression, 4 participants in treatment group were reported moderate level of depression. Only the remaining 2 participants in treatment group were reported severe depression. 7(33.3%) of participants in placebo control group were reported mild depression severity scores. Whereas, 12 (57.1%) and 1(4.8%) of them reported moderate and severe depression levels respectively. From the placebo control group only 1 (4.8%) of participants was reported CDI scores below 13 at post-test.

## 4.3. Within Groups Analysis of Dependent T-tests

# 4.3.1. Pre-To-Post Intervention Analysis of Dependent T-Tests for Treatment Group

The data from children's self- report of depression severity symptoms on CDI showed relatively greater mean reduction moving from mean= 29.74 and SD= 9.69 to Mean= 21.39 and SD= 9.1. The pre- to-post intervention depression symptoms mean scores difference of the group was 8.35. The p-value is less than .05 which indicates statistically significant pre-to-post intervention depression symptoms mean scores reduction in the group (t=4.89, df=22, p<.05, One tailed). Therefore, it can be concluded that the pretest depression mean score of Cognitive Behavioral group is statistically less than the group's post –test depression mean score.

Pretest		Post-Test		MD	STE	T-Test	Df	P-Value
Mean	SD	Mean	SD					
29.74	9.69	21.39	9.1	8.35	1.7	4.89	22	0.000

Table 1: Pre-to-Post Intervention Analysis of Dependent T-Test for Treatment Group Where \*MD= Mean Difference \*STE=Standard Error of the Mean \*DF=Degree of Freedom

# 4.3.2. Pre-to-Post Intervention Analysis of Dependent T-Tests for Control Group

As it is showed in table 2, there was small pre-to-post depression mean scores change in placebo control group, which was moved from 29.24 mean and 9.17 SD to 27.76 mean and 9.8 SD. The pre- to-post means score difference of the group was 1.48. The analysis of dependent t-test for the group showed that, statistically insignificant pre-to-post depression symptoms mean scores difference in placebo control group (t=, 1.94, df=20, p>.05, two tailed).

Pretest		Post-test		MD	STE	t-test	df	P-value
Mean	SD	Mean	SD					
29.24	9.17	27.76	9.8	1.48	0.761	1.94	20	<b>0</b> .067

Table 2: Pre-to-Post Intervention Analysis of Dependent T-Test for Placebo Group

#### 4.4. Between Groups Analysis of Independent T-Tests

As can be seen in table 3, before the treatment, the mean depression symptoms score of treatment group for the pretest was 29.74 while the mean depression symptoms score of placebo control group was 29.24. The between groups mean difference was small. Analysis of independent t-test indicated statistically insignificant depression mean score difference between treatment group and placebo control group before the intervention (t=, .18, df= 42, p=.05, two tailed).

After the treatment, the treatment group had the mean depression symptoms score of 21.39 while the placebo control had the mean depression symptoms score of 27.76. The p-value is less than .05 shows that t-test of the mean depression symptoms scores between the groups is statistically significant during the post intervention administration of CDI (t= -2.24, df=42, p-value <.05, one tailed). This implies that, the observed depression mean score difference between the groups after the treatment is occurred as a function of the treatment.

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		Gro	ups		STE of	T-Test	Degree	P-Value	Effect
	Treatment group		Control group		Difference		of		Size
	Mean	SD	Mean	SD			Freedom		
Pretest	29.74	9.69	29.24	9.17	2.47	0.18	42	0.861	
Posttest	21.39	9.1	27.76	9.68	2.39	-2.24	42	0.031	0.68

Table-3: Between Groups' Pre –to-Post Intervention Analysis of Independent T-Tests

#### 5. Discussion

As shown in the result section, most of children participated in the study were identified with more suggestible forms of depression to be treated with cognitive behavioral counseling (Weersing, V. R. and Brent, D.A., 2006, Curry, J., 2001). (87%) of participants in treatment group were reported mild and moderate depression with comparable proportions of participants (95.24%) from control group. Only, 13% of participants from treatment group and 4.76% of participants from control group were reported severe depression before treatment. Comparatively, the findings are consistent with previous findings (Aemiro Taddesse, 2009).

Eventually, the exaggerated number of depressed children might be found due to the cumulative psychosocial problems they faced, loss of family, emotional abuse, exploitation, starvation, ill health, adjustment problem, high frustration, trauma of parents', stigma and discrimination, absence of guidance and counseling services at place, and other hidden factors (Forum on Street Children Ethiopia, 2005). However, after implementation of the intervention plan, relatively large numbers of participants in treatment group were reported mild and normal level of depression. While, relatively large proportions of participants in the placebo control group were reported moderate and mild levels of depression. Results from analysis of dependent t-tests revealed statistically significant pre-to-post intervention depression mean scores difference (29.74-21.39) in treatment group. And statistically insignificant pre-post-depression mean scores difference (29.24 to 27.76) in placebo control group. Hence, there was higher depression mean score reduction in treatment group compared to placebo control group.

Analysis of independent t-test indicated statically insignificant depression symptoms mean scores difference between treatment group and control group before the treatment. Participants of both groups were similar in many respects; including in terms of their age, sex, ethnic composition, religion, educational attainment, and so on. Thus, it is possible to say, participants were comparatively and equally distributed between the groups. In the other side, posttest analysis of independent t-test showed statistically significant depression mean scores difference between the treatment group and control group where significantly less average score observed among treatment group as measured by CDI. This implied that Cognitive-Behavioral Counseling delivered in group format is more effective than the alternative placebo treatment.

Results of this study are strengthened by numerous early findings. Cognitive-Behavioral Counseling was widely proclaimed to be a highly effective intervention for youth depression (Children's Mental Health Ontario, 2001). Cognitive behavioral counseling for depression has been shown in numerous studies to be at least as effective as, or more effective than, other psychological and pharmacological treatments (Sheldon and Rose, 2002). Meta-analysis of psychotherapies that have been used in the treatment of child and adolescent depression revealed 63% of those receiving some form of Cognitive-Behavioral Counseling showed significant improvement of symptoms (Habib and Seif Al Din, 2007).

The overall findings of this study suggest that, cognitive behavioral counseling described in this article has significantly reduced level of depression in orphan and vulnerable children than placebo treatment as measured by Children's Depression Inventory. As far as the researcher's knowledge is concerned, this is the first trial in the area on effects of cognitive behavioral counseling as a therapeutic modality for depression in orphan and vulnerable children.

Thus, further studies must be conducted in more rigorous trial in order to validate reliability of these findings. Future researchers need to examine relative efficacy of cognitive behavioral counseling in depressive subtype (e.g. major depression, manic depression, etc) with more comprehensive and contextually adopted manual. Appropriate follow-up assessment should be conducted in order to detect any post-treatment effect of cognitive behavioral counseling. Furthermore, all concerned organs working on orphan and vulnerable children need to focus on their psychosocial concerns in addition to the basic physical needs.

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