# PREVALENCE OF DEPRESSION IN IRAQI REFUGEES CHILDREN LIVING IN KALAR CAMPS

*Abubaker Yusif Ahmad,*

Department of Psychology,
College of Education, University of
Garmian, Kalar, Kurdistan, Iraq.

## ABSTRACT

*The Iraqi civil war and conflicts since 2003, have created the largest population of middle-eastern refugees in the past 60 years. Since kids are the most vulnerable fugitives to psychological agitation during the war this study aims to investigate the depression prevalence in Iraqi refugee children in Kallar camps.*

*This study was a descriptive-analytic study an aimed to investigate the frequency of depression in Iraqi fugitive children(2016-2017). It also tries to determine the relationship between depression and such variables as age, gender, and children's custodianship. The sample included 295 children(144 boy 151 girl 9-12 years old) . They were randomly chosen through Morgan Table. The demographic data of participants were collected through a questionnaire designed by the author consisting of some questions about age, sex, school grade, and children's custody. The data concerning the depression symptoms were collected using Arabic version of Maria Kovacs Depression Inventory (CDI).Data were analysis by spss22 using descriptive statistics, Chi-Squared Test and one-way ANOVA.*

*Findings showed that 56.6% of the subjects were above cut point and 43.4% under it. The findings confirmed the research hypothesis stating that depression is highly prevalent in Iraqi refugee children. Also there is no significant relationship between depression and gender(p=0.29>0.05).This research find significant relationship between depression and the age of subjects (p=0.00<0.05), school grade (p=0.00<0.05) and type of the custody and the depression prevalence (p=0.00<0.05).*

*it can be concluded from this research that depression is prevalent disorder in Iraqi refugee children and it has most prevalent in 12-year old children, Grade 6 children).  The highly depressed children were the children without guardian or they  who were under the custody of relatives. According to this research Iraqi refugee children need more attention.*

**Keywords**: Depression, Refugee, Iraqi children, CDI.

## INTRODUCTION:

The Iraqi civil war and conflicts since 2003, have created the largest population of middle-eastern refugees in the past 60 years (Devi, 2007). Based on the previous studies, some of the consequences of war and fugitiveness are psychological agitations mainly depression and PTSD disorder (Hollifield, 2002). On the other hand, the studies of epidemiology have identified depression as the most prevalent psychological disorder (Segal, et al, 2002). The type 1 depression disorder includes a set of disorders which share sadness, feeling of emptiness, irritable mood, and cognitive or physiological alterations. All of these problems significantly affect the performance of the people. Suicide is the most catastrophic consequence of depression (Goldeny, 2007) threating the patients all through the period they suffer from this psychological disorder. This has urged us to study depression and its treatment techniques as one of the main objectives of the research.

The 12-month prevalence of major depression is reported in 7% of the American people, and the number of female patients is 1.5 to 3 times more than males (Segal, et al, 2002). Although all people are prone to suffer from psychological disorders, it is especially more common in the homeless, jobless, illiterate, violence victims, harassed women, and neglected senior citizens (Onyut et al, 2009).The same pattern can be found in Iraq, but the several decades of war and civil conflicts have increased the depression rate to 4.7%, as one the countries with the highest depression prevalence (Al-Hamzawi, et al, 2015).

This highlights the necessity of addressing the issue. Refugees, due to such factors as compulsory immigration, harmful events, and resettlement in unfamiliar environments, are more susceptible to high rate of psychological disorders (Boehnlein, et al, 2004). Refugee is a person who has fled from his home-country, because of torture and harassments imposed on him due to his religion, ethnicity, nationality, political opinion, membership of a certain group, and s/he is unable to return to his home-country because of the above reasons (United Nation, 2001). Based on previous studies, these people are in danger of psychological disorders, especially depression and stress disorders after acute harms, due to numerous and prolong hardships they have experienced (Grritsen, et al, 2006). In extensive studies devoted to prevalence of depression among homeless fugitives, the prevalence rates varying from 9/8% to 67/4 % are reported (Teodorescu, et al., 2012).

Kids are the most vulnerable fugitives to psychological agitation during the war, since they face the pressure of nativization with a totally unfamiliar environment, as well as, the stress and pressure of escaping from their own countries (Fazel, 2005). Consequently, it is anticipated that depression rate in refugees is higher than in non-refugees. Although few studies address this issue, they suffice to attest the remarkable prevalence of psychological disorders in refugee children (Bogic, et al., 2015; Fazel, 2005).

Naja et al. (2016) dealt with depression prevalence in Syrian fugitives. In this research on 310 Syrian fugitives out of Syrian boarders, depression was studied in shade of its relation with some demographic factors. The results indicated that 43% of those refugees suffered from various degrees of depression. This rate was 5.6% before the war. Based on this study, depression disorder was evident in Syrian fugitives, but no meaningful relationship was observed between the demographic features and depression.

Feyera (2015) conducted a similar study on 847 Somalian fugitives, and concluded that there were acute depression periods between refugees, and 38% of people suffered from varying degrees of depression. Further investigation indicated significant relationships between depression and such factors as gender, marital status, previous fugitiveness experience, witnessing the death of relatives or friends, experiencing traumatic events, and lack of shelter.

Tayler et al. studied the psychological and physiological status of Iraqi refugees living in the US. 366 people (over 18 years old) comprised the population. The results indicated that 43% of subjects reportedly suffered from no health problems, while 43% suffered from a chronic problem, and 37% xperienced two or more problems. The prevalence of emotional distresses of anxiety and depression was about 50%. 31% of the refugees were in danger of PTSD. Comprehensive studies, by Bogic (2015) and Fazel (2005), indicated that emotional and psychological distresses (PTSD depression as a whole), and anxiety disorder are especially more widespread in children.

Derluyn et al. (2008) revealed that anxiety disorder, depression, PTSD symptoms, emotional conditions, and growth problems are five times more common in fugitive children than in their non-fugitive peers. The risk was higher for fugitive children living without their parents. Anyway, we did not encounter any study devoted to the prevalence of depression in Iraqi refugee children. As a result, the present study aims to investigate the depression prevalence in Iraqi refugee children in Kallar camps.

## METHODOLOGY:

The present study (2016-2017) is descriptive-analytic. It aims to investigate the frequency of depression in Iraqi fugitive children. It also tries to determine the relationship between depression and such variables as age, gender, and children's custodianship.

The population of the study included all Arab refugee children (aged 9-12) living in Kallar camps. Population included 661 children who lived in 'Tazade' (227 males, and 191 females) and 'Quratoo' (115) camps, at the time of the study. The reason for choosing the age limit was the need for better comprehension and cooperation in CDI tests. The sample included 300 children. They were randomly chosen through Morgan Table, anticipating that some of the questionnaires were useless. Although the ratio of females to males was different, the equal number of participants were chosen from the either gender to facilitate comparison between two groups. The descriptive data of the sample are represented in table 1.

### Table 1: The descriptive data of the sample group

| | Gender | | Age | | | | Class | | | | Caretaker | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Boy | Girl | 9 Years old | 10 Years old | 11 Years old | 12 Years old | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Both of Parents | One of Parents | Relatives | Without caretaker |
| Frequency | 144 | 151 | 72 | 71 | 75 | 77 | 77 | 72 | 77 | 69 | 114 | 99 | 56 | 26 |
| Percent | 48.8 | 51.2 | 24.4 | 24.1 | 25.4 | 26.1 | 26.1 | 24.4 | 26.1 | 23.4 | 38.6 | 33.6 | 19.0 | 8.8 |

Data Collection Tools: The demographic data of participants were collected through a questionnaire designed by the author consisting of some questions about age, sex, school grade, and children's custody. The data concerning the depression symptoms were collected using Maria Kovacs Depression Inventury (CDI). Children Depression Inventory is a self-assessment tool to measure depression in people aged 7-17. It is composed of 27 items developed by Maria Kovacs (1977). It measures the limits of depression symptoms including low-mood, self-enjoyment, vegetative functions, self-assessment, and interpersonal behaviors. Each item contains 3 choices ranging from 0 to 2. The child should choose the best choice describing his/her mood. The total score is between 0 and 54. This scale has been examined by numerous researchers and at different levels. Its reliability and validity are attested in different studies. In this test, a positive score denotes to a score equal or higher than cut off limit, and a negative score refers to a score lower than cut off limit. In diverse studies, varying cut off limits (from 10 to 20) were investigated. The results indicated that 20 was the best cut off limit score in the population (Timbremony, 2004).

Since the sample was taken from an Arabic-speaking population, the Arabic translation of the questionnaire prepared and verified by Gharib and Bishaie (1989) was used in the study. The validity and reliability of the Arabic version were evaluated and attested in a study of 2029 male and female participants (aged 7-16). Its correlation with Beck Depression Inventory was 0.71, and Cronbach's α was 0.87. The re-test results confirmed its validity. Cronbach's α of 0.75 was obtained for the questionnaire utilized in our study, as well.

To collect the data, after referring to the first camp and coordination with the authorities, the sampled subjects completed the questionnaire in groups composed of 25 people. The reason for such kind of classification was a better control over the answering procedure by children. Firstly, the objective of the study was clarified to the children, and answering procedure was explained. The same procedure was repeated in the second camp. It took 35-50 minutes to fill out the questionnaire. Then, the questionnaires were scored. 5 questionnaires were omitted due to imperfection, 295 remaining ones were subjected to statistical analyses using SPSS-22 software.

The descriptive and inferential information were prepared. The descriptive data including mean, standard deviation, and frequency were used to characterize the research units and represent the depression rate. Chi-Squared Test was employed to investigate the relationship between the variables and depression prevalence, and one-way ANOVA, as well as Tukey Range Test, were used to test the relationship between the demographic features and depression.

**RESULTS:**

The obtained information showed that from 295 children participating in the study, 48.8% were male and 51.2% were female. 24.4% were 9, 24.1% were 10, 25.4 were 11, and 26.1% were 12 years old. 38.6% of the children lived with their parents, 33.6% lived with only one of the parents, 19% lived with their relatives, and 8.8% were under the custody of others. The average age of participants was 10.53, and the standard deviation was 1.12

The total mean depression score was 21.3, with a standard deviation of 5.59. The findings indicated that 56.6% of the subjects were above cut off limit and 43.4% under it. The findings confirmed the research hypothesis stating that depression is highly prevalent in Iraqi refugee children. Graph 1 illustrates the ratio of depressed to non-depressed subjects in the study, based on the cut off line (20).
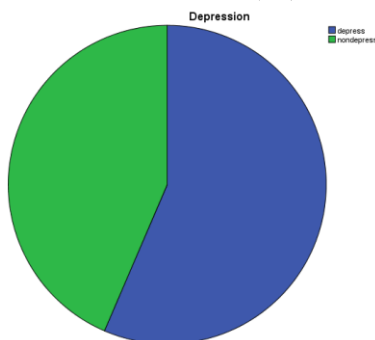


**Figure 1: The percentage of depressed and non-depressed subjects**

Based on the results obtained from Chi-squared Test, there is no significant relationship between depression and gender, and the depression prevalence is equal in both genders (p=0.29>0.05). Based on Chi-squared Test, there is a significant relationship between depression and the age of subjects (p=0.00<0.05). Depression was the most prevalent in 12-year old children (76.6) and the least prevalent in 9-year old kids (36.1). Based on the results obtained from Cramers's V Test, this relationship was significant (0.307).

Based on the same test, there is a significant relationship between depression prevalence and school grade (p=0.00<0.05). The 6th grade subjects suffered the most from depression (73.9%) and 3rd grade ones suffered the least (39.0%). Cramers's V Test also showed a strong relationship.

The Chi-squared Test showed a significant relationship between the type of the custody and the depression prevalence (p=0.00<0.05). The highly depressed children were under the custody of a relative (all 68 children were depressed), and least depressed ones lived with their parents (only 12% of 14 children were depressed). Here again, the results obtained from Cramers's V Test showed a significant relationship.

Based on the significant relationship between depression prevalence and the custody of Iraqi refugee children, one-way ANOVA was employed to study the relationship between the intensity of depression and the relevant variables. The results are reported in Table 2.

**Table 2: The one-way ANOVA test results comparing the intensity of depression in different groups**

|  |  | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Depression *age | Between Groups | 549.90 | 3 | 183.30 | 5.82 | .001 |
|  | Within Groups | 9165.01 | 291 | 31.49 |  |  |
|  | **Total** | 9714.91 | 294 |  |  |  |
| Depression* class | Between Groups | 432.44 | 3 | 144.14 | 4.51 | .004 |
|  | Within Groups | 9282.46 | 291 | 31.89 |  |  |
|  | **Total** | 9714.91 | 294 |  |  |  |
| Depression *caretaker | Between Groups | 6470.21 | 3 | 2156.73 | 19.42 | .000 |
|  | Within Groups | 3244.69 | 291 | 11.15 |  |  |
|  | **Total** | **9714.91** | **294** |  |  |  |

As can be seen in table 2, the one-way ANOVA test results for intensity of depression were significant for different age groups (f=5.82, p=0.001<0.05). Based on Tukey Range Test, there were significant differences between 9 and 10-year old subjects, as well as 11 and 12-year old refugee children. The depression intensity was higher in 11 and 12-year old children. The results also were significant when investigating depression

intensity in different school-grade children (f=4.51, p=0.004<0.05). Based on Tukey Test significant differences were observed between 3rd graders and 4th, 5th, and 6th grade students. Depression was more intense in higher grade students.

The one-way ANOVA indicated a significant relationship between depression and children's custody (f=19.42, p=0.000<0.05). The Tukey Test illustrated that depression was more intense in children without guardian or the children who were under the custody of relatives than children who lived with parents or at least with one of the parents. The children without guardian manifested the highest depression prevalence and intensity.

**DISCUSSION:**

The present study was intended to investigate the depression disorder prevalence in Iraqi refugee children living in Kallar camps (2016-2017). To this end, a sample was chosen from Tazade and Quratoo camps, based on Morgan Table. The findings revealed that depression disorder is so prevalent in these children that 56% of them suffer from different degrees of depression. These results agree with findings of previous studies (Fazel, 2005; Bogic, et al., 2015; Boehnlein, et al., 2004, and Onyut, et al., 2009).

After the attack of so called Islamic State of Iraq and Syria group (ISIS) to different Iraqi cities, the number of refugees entering Kurdistan realm was increased. In order to manage the existing condition, some camps were built in vicinity of fugitives' hometowns. Kallark city also sheltered more than one thousand refugee children into two large camps (Tazade, and Quratoo). Although these camps are much safer than areas under the threat of ISIS, there are such factors as escape shock, sudden separation from old familiar environment, loss of family members, relatives, and friends, over-populated camps, and lack of required facilities (especially for education, and hygiene) increase the risk of psychological disorders. In wars, the senior citizens and children suffer the most, due to their physiological and psychological conditions. They witness violence, terror, and the death of relatives and friends. They do not usually have access to educational facilities, or they may encounter unpleasant experience and disorders in such kind of educational centers (Fazel, M., & Stein, A., 2002). Even in the safe environment of developed countries, depression is prevalent in refugee children. Consequently, we expect higher frequency of depression in such kind of children.

The present study did not discover any relationship between gender and depression. The prevalence of depression is the same for the Iraqi children of either sex. The findings in the former studies are contradicting. While, some studies report higher frequency of depression and psychological disorders in females than males (whether for refugees (Veysi-Nasirog, 2016) or ordinary people (Worchel, F., Nolan, B., & Willson, V., 1987)), there are studies which found higher prevalence in males (e.g. Huntley, 1987).

This diversity may be attributed to instrument differences. CDI is a screening tool and it is not intended as a diagnostic tool by itself (Timbremont, 2004). Moreover, most of studies reporting higher depression prevalence in females were conducted on general population, or on refugees settled in developed counties equipped with special facilities. It seems that in present study, there is no gender bias in depression prevalence due to identical stressful condition.

After investigating the relation between depression and school grade, it was discovered that increase in age and school grade correlates to depression prevalence. These findings are consistent with the literature (Fazel, 2002, Nasiroqlu, 2016, and Sourander, 1998). For example, a research in England showed that older refugee children suffer from psychological disorders more often than their younger counterparts (Fazel, 2002). It is difficult to define the relationship between the age and infection, since numerous factors like the age at which immigration happened and the length of time they stayed in camps interact with age and affect the likelihood of depression. To explain the above findings, we can point out that older children have a deeper understanding of events and more often contemplate on these unfavorable conditions (Nasiroqlu, et al., 2016). It can be added that the older children are more supportive of their family and occasionally accept the functions which they are not prepared for. On the other hand, 11 and 12-year old children are on the verge of puberty process (one of the factors exerting more psychological pressure on them).

Finally, the last finding is aligned with literature. Previous studies show that children living with parents, or at least one of the parents, are less susceptible to suffer from depression than children without guardian (Derloin, et al., 2009; Bian, et al. 2007, Derloin & Brocrat, 2007, and Web, 1995). To explain it, we can say that regardless of losing parents as one of the main stress sources during the childhood, the children without guardian lose their support centers and isolate themselves from others. This isolation deprives them from social support. This problem keeps them in the negative cycle of more depression-more isolation, more isolation-more depression. Some of these children have to support the youngesters of the family. Since they are not prepared for this duty, the ever-increasing psychological pressure leads them more and more towards psychological disorders.

Although our findings revealed a striking rate of depression in refugee children of Kallark Camps, limitations like using a screening tool to measure depression make further studies necessary. We propose other instruments like clinical interviews to complement screening tools. We did not have access to samples from non-refugee Iraqi children suffering from similar war-afflicted conditions. We propose a comparison between refugee and non-refugee children. Hereby, we would like to express our gratitude and indebtedness to all children and authorities of Quratoo, and Tazade camps for their patience and cooperation. Our gratitude goes especially to Dr. Pegah Alimardan-Seidi for her insightful guidance and recommendations.

## REFERENCES:

Al-Hamzawi AO, Bruffaerts R, Bromet EJ, AlKhafaji AM, Kessler RC. (2015). The Epidemiology of Major Depressive Episode in the Iraqi General Population. *PLoS One*. Vol.(10) no.(7) pp.( 1-14).

Boehnlein JK, Kinzie JD, Sekiya U, Riley C, Pou K, Rosborough B. (2004). A ten-year treatment outcome study of traumatized Cambodian refugees. *J Nerv Ment Dis*. Vol. (192) no(10) pp. (658–63).

Bogic et al. (2015). Long-term mental health of war-refugees: a systematic literature review. *International Health and Human Rights*. Vol. (15). No. (29) pp. (1- 41).

Derluyn I, Broekaert E, Schuyten G. (2008). Emotional and behavioural problems in migrant adolescents in Belgium. *Eur Child Adolesc Psychiatry*. Vol. (17) no.(1) pp. (54–62).

Derluyn I1, Mels C, Broekaert E. (2009). Mental health problems in separated refugee adolescents. *J Adolesc Health*.  Vol. (44) p.(3) pp. (291-297).

Derluyn, I., Broekaert, E. (2007). Different perspectives on emotional and behavioural problems in unaccompanied refugee minors. *Ethnic Health*.  Vol. (12) pp. (141–162).

Devi S. (2007). Meeting the health needs of Iraqi refugees in Jordan. *Lancet*.  Vol. (370) no. (9602) pp.(1815–1816).

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries; A systematic review. *The Lancet*. Vol. (365) pp.  (1309-1314).

Feyera, F,. Mihretie, G., Bedaso, A., Gedleand, D., Kumera, G. (2015). Prevalence of depression and associated factors among Somali refugee at melkadida camp, *southeast Ethiopia: a cross-sectional study BMC Psychiatry*. Vol. (15) pp. (171)

Gerritsen AA, Bramsen I, Devillé W, Van Willigen LH, Hovens JE, Van Der Ploeg HM. (2006). Physical and mental health of Afghan, Iranian and Somali asylum seekers and refugees living in the Netherlands. *Soc Psychiatry Psychiatr Epidemiol*. Vol. (41) no. (1) pp. (18–26).

Goldeny RD . (2007). An historical note on suicide during the course of treatment for depression. *Suicide Life Threat Behav*. Vol. (37) no. (1) pp. (116-117).

Hollifield M, Warner TD, Lian N, Krakow B, Jenkins JH, Kesler J, et al.(2002) Measuring trauma and health status in refugees: a critical review. *JAMA*. Vol. (288) no.(5) pp.(611–21).

McKelvey RS1, Webb JA. (1995). Unaccompanied status as a risk factor in Vietnamese Amerasians. *Soc Sci Med*.  Vol. (41) no.(2) pp.(261-6).

Onyut LP, Neuner F, Ertl V, Schauer E, Odenwald M, Elbert T. (2009). Trauma, poverty and mental health among Somali and Rwandese refugees living in an African refugee settlement-an epidemiological study. *Conflict Health*. Vol. (3) no. (6) pp. (90–107).

Segal ZV, Williams JMG, Teasdale JD.(2002) *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New Yourk: Guilford press.pp. (120-250).

Teodorescu DS, Heir T, Hauff E, Wentzel Larsen T, Lien L. (2012)Mental health problems and post migration stress among multi traumatized refugees attending outpatient clinics upon resettlement to Norway. *Scandinavian Journal of Psychology*. Vol. (53) no. (4) pp. (316–32).

UNHCR.( 2001). Statistics. http://www.unhcr.ch/statist/main.htm.

Wadih J. Najaa,Michaelangelo P. Aouna, Eliane L. El Khouryb, Fabiola J. Bou Abdallah bRamzi S. Haddada. (2016). Prevalence of depression in Syrian refugees and the influence of religiosity. *Compr Psychiatry*.  Vol. (68) pp. (78-85).

----