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Predictors of Coping Strategies Employed by Iraqi Refugees in Jordan

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Abstract

The purpose of this study was to examine coping strategies employed by Iraqi refugees in Jordan, based on their demographic details. A cross-sectional design was used. A representative sample of 333 refugees living in Jordan participated in the study. The COPE inventory, and the demographic details were compiled in order to produce and collate the relevant data.

Being older, female, educated, single, and living with more than three family members was associated with greater use of the problem solving coping strategy. Being female, educated, and unemployed was associated with greater use of the active emotional coping strategy. In addition, being older, male, illiterate, unemployed, and living with less than three family members was associated with greater use of the avoidant emotional coping strategy. This study recommends a multidisciplinary approach as being the best method of addressing and fulfilling the health and socioeconomic needs of older, male, illiterate, unemployed people

Key words: Coping, Iraqi refugees, Health, Jordan, Vulnerable groups

Introduction and Background

The number of Iraqis immigrating into countries bordering Iraq, driven by reasons of safety and survival, has been steadily increasing. Iraqi civilians have had to pay a high price for the political and ethnic conflicts which have occurred in their own country. By 2015, nearly 58,050 Iraqis were registered with the United Nations High Commissioner for Refugees (UNHCR) in Jordan (UNHCR, 2015). In August and September 2015, on average, 120 Iraqis per day registered with UNHCR in Jordan; this was an increase from 65 per day in June and July 2015, and only 30 per day in the first five months of 2014 (UNHCR, 2015). Refugees reported that their homes had been damaged and even burned, there were fears of forced marriage, kidnapping and theft, and threats of compulsory conversion to Islam, as well as the danger of attacks in public places (Ferguson, 2015).

Refugees may also experience being socially excluded or face discrimination post migration, largely because of social isolation and their lack of social and economic status in the host countries. There are high rates of unemployment among refugees, and consequently they encounter severe financial difficulties (Araya et al., 2011; Crabtree, 2010; Gladden, 2012; Salman & Resick, 2014). Incidences of trauma and depression were also found among all groups of refugees, including Iraqis (Bjorling, 2009; Clemente, 2014; Gammou, 2015). The intensity and accumulation of such stressors may lead to psychological and physical problems, especially when refugees are not able to cope effectively with all the negative factors.

Coping is defined as “the constantly changing cognitive and behavioral efforts, to manage the specific external or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984. P.141). According to the literature, positive or effective coping is classified as the enactment of religious beliefs (praying, acting in faith),

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3 talking with friends, recognising the positive aspects of any situation, engaging in social
4 relationships, sharing cultural norms, laughing and feeling optimistic, not being afraid to show
5 emotion, taking exercise and reading. All of these can be effective in suppressing psychological
6 distress (Ferguson, 2015; Gladden, 2012; Tugade, 2004). Negative or ineffective coping
7 strategies include avoidant strategies, withdrawal, social isolation, dissociation, crying, sleeping,
8 being easily distracted and drug abuse. All of these may lead to various physical and mental
9 disorders (Auerbach et al., 2010; Finklestein, Laufer & Solomon, 2012; Gladden, 2012). It is
10 only to be expected that individuals experiencing stressful conditions, such as those in which
11 refugees are living, cannot cope effectively with the changes that have occurred in their lives.
12 Therefore this study has been constructed in order to examine the coping strategies that are being
13 used by those Iraqi refugees who have settled in Jordan.
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29 **Literature Review**

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31 Some studies have examined the relationship of the coping strategies to the demographics
32 of the refugees in their representative samples. In a mixed method study conducted with 106
33 refugees in Afghanistan, gender was found to be a significant contributor to the coping strategies
34 used. The sample comprised 84 males and 22 females. The results stated that the coping
35 strategies were different according to gender, in that the women coped by focusing on their
36 children and domestic chores, while the males coped by focusing on their jobs and by engaging
37 in social activities (Renner & Salem, 2009). In an ethnographic study of Iraqi women describing
38 the coping strategies they used to confront their traumatic experiences, a number of different
39 strategies were employed, such as recounting their own stories of what they had experienced as a
40 means of either remembering or forgetting, being able to relate to another person who has
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3 undergone similar traumatic experiences within the specific sociocultural and historical context
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5 of Iraq, and contacting their loved ones over the Internet (Clemente, 2014).
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8 The relationship between the refugees' ages and their coping strategies has been studied
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10 by many researchers. A study conducted in Norway in 2014, for example, of a sample of 223
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12 young, unaccompanied refugees indicated that they tended to use mainly enrolment and avoidant
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14 strategies to cope with their situation (Seglem et al., 2014). It appears that younger generations of
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16 refugees are more flexible than the older people in coping with the new environment; however,
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18 there is no strong evidence to support this idea. Financial status, employment, and income level
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20 is also of great significance in the coping process, because these are major resources that enhance
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22 refugees' ability to cope effectively (Gladden, 2012). A qualitative study conducted in
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24 Bangladesh in 2010 of a representative sample of 97 Rohingya Muslim refugees from Myanmar,
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26 revealed that refugees of low financial status and limited resources used negative coping
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28 strategies such as engaging in multi low-income, risky, illegal occupations, selling aid packages
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30 they had received from the international aid agencies, and also competing with the native
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32 population in the labour market (Crabtree, 2010). It can be concluded from this that refugees
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34 with higher incomes and in employment are more able to cope effectively under stressful
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36 conditions (Gladden, 2012; Crabtree, 2010).
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43 Families composed of many household members may experience further economic
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45 challenges that may inhibit their ability to cope effectively (Crabtree, 2010). Level of education
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47 is another demographic variable of great significance in refugees' ability to cope. In a literature
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49 review conducted in 2012, comprising 19 articles and book chapters, which addressed the
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51 problems of East African refugees, education was found to be an important factor in enhancing
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53 these refugees' capability of coping. In that they were able to alter their cognitive perception of
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3 the events and circumstances that had caused them to become refugees. This was particularly the
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5 case among young refugees (Gladden, 2012).
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8 Moreover, the presence of chronic diseases can affect refugees' ability to cope. A
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10 quantitative study conducted in Canada, to examine the mediators of coping strategies among 90
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12 Somali refugees, indicated that those refugees who had any kind of physical illness, including
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14 chronic illnesses, were more likely to use emotion-focused coping strategies, particularly
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16 avoidance (Matheson, Jorden & Anisman, 2008). Refugees who were free of chronic illnesses
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18 were more likely to cope effectively under stressful situations, because they were physically
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20 more capable of dealing with stressors. A few Jordanian studies have been conducted with
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22 refugees in Jordan. One study conducted by Gammoh, Al-smadi, Tawalbeh and Khouri (2015)
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24 assessed chronic disease, lack of medication and the occurrence of depression. In addition,
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26 another study by Alqudah (2013) assessed 86 Iraqi refugees' resilience levels and how these
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28 related to certain demographic variables. However, the study did not quantify the relationship
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30 between participants' demographic details and their resilience levels, and also did not measure
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32 different coping strategies; this limited the generalizability of the results. In contrast, this study
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34 uses a different size of sample, different settings and analytical tools to examine coping
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36 strategies employed by Iraqi refugees in Jordan based on their demographic details.
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43 Previous research has shown that culture plays an important role in determining the
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45 coping strategies that individuals use (Selmer, 2002). Little information is available on the
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47 coping strategies used by Iraqi refugees in Jordan and on the relationship between their
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49 demographics and the coping strategies adopted. Therefore, this study aimed to examine coping
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51 strategies employed by refugees in Jordan based on their demographic details.
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Method

Design

The current study used a cross-sectional design to examine the coping strategies employed by Iraqi refugees in Jordan based on their demographic details.

Sample, sampling technique and settings

A convenient sampling technique was used to recruit Iraqee refugees resident in Caritas churches in Jordan. The sample used in the current study was obtained from Iraqi refugees in Jordan. The sample size was calculated based on 95% confidence level, a confidence interval of 5 and a total population size of 2400 Iraqi refugees living in Caritas churches. The calculation showed that at least 331 participants were required. Refugees were recruited from five churches located in Amman, Zarqa, and Madaba. The inclusion criteria were: 18 years of age or older, resident in Jordan as a refugee for at least the last three months, and agreed to participate in the study. The researchers involved in this study contacted the participants during their residency as refugees in the churches mentioned above.

Data collection procedure

The researchers contacted the participants directly, explained the aims and objectives of the study, the methods that were to be used, and went through the study information sheet with each prospective participant to explain each point. Demographic details and a questionnaire were distributed to the participants who had agreed to take part in the study and who were asked to sign a consent form before completing the questionnaire. For illiterate participants who were unable to answer the questionnaire, the researcher read out the questions and choices of answers to them and then filled out the questionnaire. The data were collected in August 2015 in Amman, Zarqa, and Madaba.

Study instruments

These included a demographic data sheet, and the COPE inventory. The demographical details were age (i.e. age categorized into two categories based on life expectancy of 69 years among Iraqi individuals (Word Bank, 2014); 35 years old or less, and more than 35 years old), gender (i.e. male, and female), marital status (i.e. married, and single), employment status (i.e. employed and unemployed), number of family members (i.e. three or less, and more than three), previous chronic illness or not, and medication available or not.

The COPE inventory was utilized to assess participants' coping strategies (Carver, 1997) and consisted of 28 items to measure different coping strategies. Each item had four possible responses ranging from 1: I haven't been doing this at all, to 4: I have been doing this a lot). The scale showed adequate reliability with Cronbach's alpha of .83 (Carver, 1997). Based on previous literature (Schnider et al., 2007), the researcher in the current study compressed the fourteen coping strategies into three subscales with a higher score indicating greater ability to cope: problem-focus coping subscale, emotional support coping subscale, and avoidant emotional coping subscale.

The problem-focus subscale included active coping, planning, instrumental, and religious coping, with Cronbach's alpha of 0.72 in the current study. The active emotional coping subscale included venting, positive reframing, humour, acceptance, and emotional support, with Cronbach's alpha of 0.75. The avoidant emotional coping subscale included self-distraction, denial, behavioural disengagement, self-blame, and substance use, with Cronbach's alpha of 0.80. Previous research utilized the Arabic version of the COPE inventory that showed adequate reliability with Cronbach's alpha of 0.78 as one construct (Hamdan-Mansour, 2014). Based on the researcher's recommendations, no revised coding was considered necessary.

Ethical considerations

Ethical approval was obtained from the senior management of Caritas Jordan prior to conducting the study. The information sheet and consent form were distributed to each participant. Participants were informed that their participation in the study was voluntary and that they could withdraw from the study at any time. Code number for each participant was provided at the phase of data collection and analysis to protect participants' confidentiality. Study purposes, methods, data collection, time and number of contacts were explained to each participant in the study. No physical, psychological or economical harm affected the study participants since the study was dependent only on non-invasive data collection tool.

Data analysis

The IBM SPSS version 23 was used to analyse the data. Descriptive statistics were used to examine the demographic details and normal distribution of COPE inventory items. Linear regression was used to examine the ability of the demographic details to predict each coping strategy. Linear regression was carried out on each of the three coping strategies, each at a time. The significant level for all tests was far less than 0.05.

Results

Sample characteristics

A total of 360 individuals were asked to participate in the current study. Of these, 345 individuals agreed to participate, representing a response rate of 95.8% (i.e. the 15 individuals refused to participate without providing any reason for their refusal). However, 333 participants' data were included in the analysis as 12 participants did not answer the questions completely. As shown in Table 1, the majority of participants were aged 35 years or more (n= 185, 55.6%), male (n=211, 63.4%), married (n=187, 56.2%), had at least primary school education (n=210, 63.1%),

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3 employed (n=206, 61.9%), living with three or fewer family members (n=169, 50.8%), had no
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5 chronic illness (n=200, 60.1%), and had adequate medication (n=248, 74.5%).
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8 *Coping strategies*

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10 Coping scores were shown to be normally distributed. The mean scores of the three
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12 coping subscales showed that refugees in the current study had used each coping strategy more
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14 than the average (i.e. the possible mean score for each subscale ranged from 1 to 4, with 2.5 or
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16 less indicating average or less, and more than 2.5 indicating more than average). The mean
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18 scores of the subscales were as follows: problem solving coping (M=2.54, SD=1.21), active
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20 emotional coping (M=2.64, SD=1.04), and avoidant emotional coping (M=2.27, SD=0.86).
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25 As shown in Table 2, for the purpose of identifying the predictors of each coping
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27 strategy, multiple linear regression analysis was utilized. All demographic details were included
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29 as possible predictors of refugees' coping strategies. Linear regression was used to examine the
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31 three coping strategies, one at a time.
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35 The three coping strategy models were statistically significant. Predictors of the problem
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37 solving model were significant, $F(8,324) = 12.55, P = .001$, indicating that the model was
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39 capable of predicting problem solving. The full model explained 21.8% of the variance in
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41 problem solving. As shown in Table 2, five out of eight variables made a significant contribution
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43 to the model. Gender was the most significant predictor, $t(324) = -5.14, P = .001$, and explained
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45 6.56% of the variance in problem solving. Level of education was a statistically significant
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47 predictor, $t(324) = 5.22, P = .001$, and explained 6.4% of the variance. Also, age was a
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49 statistically significant predictor, $t(324) = 3.72, P = .001$, and explained 4.08% of the variance. In
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51 addition, the number of family members was a significant predictor, $t(324) = 3.881, P = .001$, and
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53 explained 3.53% of the variance in the problem solving coping strategy. Moreover, marital status
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3 was a significant predictor, $t(324) = 2.28, P = .023$, and explained 1.23% of the variance. Finally,
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5 chronic illness was a significant predictor, $t(324) = -3.76, P = .00$, and explained 2.20% of the
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7 variance. This indicated that refugees aged 35 years or more, female, educated, single, with more
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9 family members, and without chronic illness were those who had used a problem solving coping
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11 strategy the most.
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15 Predictors of active emotional coping model were significant, $F(8,324) = 4.25, P = .001$,
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17 indicating that the model was capable of predicting the use of a significantly active emotional
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19 coping strategy. The model as a whole explained 7.4% of the variance in emotional coping. As
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21 shown in Table 2, only three out of eight variables made a significant contribution to the model.
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23 Employment status, $t(8,324) = 3.286, P = .001$, explained 3.03% of the variance. Also, level of
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25 education, $t(8,324) = 2.843, P = .005$, explained 2.25% of the variance. Finally, gender, $t(8,324)$
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27 $= -2.679, P = .008$, explained 2.16% of the variance. These results indicated that female refugees,
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29 unemployed, and who had a higher level of education made greater use of an active emotional
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31 coping strategy.
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37 Predictors of the avoidant emotional coping model were significant, $F(8,324) = 6.66$,
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39 $P = .001$, indicating that the model was capable of significantly predicting the avoidant emotional
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41 coping strategy. The model as a whole explained 12% of the variance in the avoidant emotional
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43 coping strategy. As shown in Table 2, five variables made a significant contribution to the
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45 model. The most significant predictor was the number of family members, $t(8,324) = 3.578$,
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47 $P = .001$, which explained 3.8% of the variance in the avoidant emotional coping strategy. Also,
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49 gender was a statistically significant predictor, $t(8,324) = 3.019, P = .003$, and explains 2.72% of
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51 the variance. In addition, age was a statistically significant predictor, $t(8,324) = 2.82, P = .005$,
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53 and explained 2.4% of the variance. Level of education level was a significant predictor, t
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3 (8,324) = -2.778, $P = .006$, and explained 2.34% of the variance. Finally, employment status was
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5 the last significant predictor, $t(8,324) = 2.449$, $P = .015$, and explained 1.82% of the variance.
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7 These results indicated that refugees who are male, are aged 35 years or more, illiterate,
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9 unemployed, with fewer family members had used an avoidant emotional coping strategy more.
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12 Discussion

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15 The current study included 333 Iraqi refugees from three churches located in Amman,
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17 Zarqa, and Madaba – three major cities in Jordan. The majority of refugees were males; this
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19 could be due to accessibility limitations as the location chosen in which to recruit the refugees
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21 (Church) was attended by more males than females. Moreover, most refugees were married as
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23 they were 35 years of age and above and this is an age when most males in the Arabic culture are
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25 married. Also, high percentages of refugees were educated and employed. This figure can be
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27 justified by the fact that some of the Iraqi refugees had already been educated in their home
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29 country. Similar results appear in a report of a study conducted by the Center for Contemporary
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31 Arab Studies (Davis & Taylor, 2013).
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37 The purpose of the current study was to examine coping strategies employed by Iraqi
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39 refugees in Jordan, based on their demographic details. The results showed that the Iraqi refugees
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41 reported using higher problem solving, and active emotional, and lower avoidant emotional
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43 coping strategies. Similar results appeared in studies conducted by Gladden (2012); Khawaja and
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45 colleagues (2008); and Schweitzer (2007).
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49 The study results also indicated that refugees aged 35 years or more made more use of
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51 problem solving and avoidant emotional coping strategies compared to younger refugees. This
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53 could be due to the fact that those older than 35 years of age are more flexible than the younger
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55 ones in coping with a new environment, as they are more capable of dealing with problems and
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3 working towards eradicating them (Wanzer, Sparks & Frymier, 2009). However, unexpectedly,
4 the results of the current study showed that older refugees made more use of an avoidant
5 emotional coping strategy. This could be that elderly have had more experiences and tend to be
6 more cognitively complex which may lead them to utilize more complex ways of coping
7 compared to younger (Bethea, 2001). This result is inconsistent with a cross-sectional study
8 conducted with a sample of 112 Hindu refugees, which indicated that refugees of an older age
9 were more likely to experience stress and were less likely than younger people to adapt
10 effectively to a new situation (Benson et al., 2012). In addition, the categorization of age groups
11 in the current study was different from previous literature which might have led to different
12 results as compared to previous studies. Moreover, other variables that were not examined in the
13 current study, such as social support and psychological well-being, may have an impact on
14 coping strategies based on the refugees' ages.
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32 Educated refugees in the current study were shown to have a higher degree of usage of
33 problem solving strategies and a lower degree of avoidant emotional coping strategies compared
34 to those who were illiterate. Previous studies have shown that level of education level is a
35 significant determinant of effective coping (Alqudah, 2013; Gladden, 2012). It could be that
36 education fosters resilience, problem solving skills, an active planning approach, and cognitive
37 skills (Yakushko, Watson & Thompson, 2008).
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46 Female refugees in the current study proved to be more capable of adapting as they made
47 more use of problem solving coping and active emotional coping strategies, and a lower degree
48 of avoidant emotional coping strategies compared to male refugees. Previous literature has
49 shown that females use more emotional strategies compared to males (Renner, 2009). Consistent
50 with our results, Clarke and Borders (2014) reported that females use a higher degree of effective
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3 coping strategies compared to males. The results of the current study may be justified by the fact
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5 that females receive more social support than males, particularly in Arab culture, and this may
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7 boost the ability of females to adapt more effectively.
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11 Single refugees in the current study reported more use of problem solving strategies
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13 compared to those who were married. This result is consistent with a previous study which
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15 revealed that single refugees have more resilience, tolerance, and fewer burdens and
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17 responsibilities (Araya, 2007). This may influence positively a higher degree of use of problem
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19 solving coping strategies compared to married refugees.
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23 Refugees living with more than three family members made more use of problem solving
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25 strategies, and less use of avoidant coping strategies compared with those living with fewer than
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27 three family members. Khawaja and colleagues (2008) obtained inconsistent results as compared
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29 to the current study. In their study of Sudanese refugees in Australia, families with a greater
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31 number of household members suffered an additional financial burden and tended to be unable to
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33 cope effectively. The results of the current study may be justified by the fact that families with a
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35 greater number of family members are likely to receive greater social support and have more
36
37 stable relationships (Pumariega, Rothe & Pumariega, 2005). This may increase their ability to
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39 cope and be amenable to using positive and effective coping strategies. In addition, the majority
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41 of people with more family members normally live with their partners, and this may increase
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43 their ability to use effective coping strategies. Moreover, the current study sample was recruited
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45 from Christians living in churches who were provided with full support from Caritas and this
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47 may enable individuals with a higher number of family members to adapt effectively as
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49 compared with other refugee populations.
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Unemployed refugees in the current sample made more use of both active and avoidant emotional coping strategies as compared to employed refugees. Previous studies have shown that employed refugees have more coping strategies at their disposal as compared to those who are unemployed (Gladden, 2012; Crabtree, 2010). In addition, unemployment has been shown to have a negative impact on refugees' psychological well-being and use of coping strategies (Roberts & Browne, 2011). A study of coping strategies employed by Syrian refugees in Jordan showed that a lack of employment opportunities limits refugees' coping resources (Mackenzie, 2013). The higher degree of usage of both active and emotional coping strategies in the current study sample may be related to the emotional challenges that unemployed refugees face in Jordan. (Abdelkerim & Grace, 2012). In conclusion, the current study provided a description of coping strategies employed by Iraqi Christian refugees in Jordan. The results reveal that those who are older than 35 years of age, female, educated, single, living with more than three family members, and employed will make more use of adaptive strategies as compared to those who are younger than 35 years of age, male, illiterate, married, living with three or fewer family members, and unemployed.

39 **Limitations, Recommendation and Implications**

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The use of this particular sample and limiting the study to the north of Jordan will affect the generalizability of the findings. Future research should be conducted with a larger and heterogeneous sample in different settings in order to address the gaps and the limitations of the current study. In addition, further research is needed to examine other variables, such as social support, and physical and psychological well-being, that may affect the ability of Iraqi refugees to cope with their specific situation.

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3 The current study results illustrate the differences in use of coping strategies employed by
4 Iraqi refugees in Jordan. These differences should be taken into consideration when health care
5 providers included nurses providing services to this group of refugees. In addition, the results of
6 the current study have direct implications for nursing services, as these results could be used by
7 nurses to design programmes that could aim to improve usage of effective coping strategies and
8 to suppress/discourage or change the negative coping strategies.
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Table 1

Sample characteristics; categories, number and percent (%) for the Iraquee refugees in the north of Jordan (N=333)

Factors	Categories	Number (Percentage)
Age	35 years or less	148(44.4%)
	More than 35 years	185(55.6%)
Gender	Female	122(36.6%)
	Male	211(63.4%)
Marital status	Married	187(56.2%)
	Single	146(43.8%)
Education level	Illiterate	123(36.9%)
	School or higher	210(63.1%)
Employment	Yes	206(61.9%)
	No	127(38.1%)
Number of family members	3 or less	169(50.8%)
	More than 3	164(49.2%)
Previous chronic illness (s)	No	200(60.1%)
	Yes	133(39.9%)
Medication availability	No	85(25.5%)
	Yes	248(74.5%)

Table 2

Multiple linear regression to predict the coping strategies from demographics for Iraquee refugees in Jordan (N=333)

Demographics	Problem Solving			Emotional Coping			Avoidant Coping		
	B	t	P	B	t	P	B	t	P
Age	.466	3.720	.001**	-.011	-.098	.922	.267	2.820	.005**
Gender	-.665	-5.140	.001**	-.323	-2.679	.008**	.295	3.019	.003**
Educational level	.691	5.222	.001**	.351	2.843	.005**	-.278	-2.778	.006**
Marital status	.281	2.282	.023*	.166	1.442	.150	.128	1.374	.170
Employment status	-.110	-.812	.418	.415	3.286	.001**	.251	2.449	.015*
Number of Family member	.501	3.881	.001**	.141	1.170	.243	-.350	-3.578	.000**
Availability of Medication	.083	.573	.567	.264	1.948	.052	.107	.974	.331
Chronic illness	-.520	-3.762	.001**	-.240	-1.864	.063	-.047	-.448	.655
Constant	3.883	8.673	.001	4.093	9.795	0.001	3.965	11.703	0.001

* $p \leq .01$ level

** $p \leq .001$ level

Predictors of Coping Strategies Employed by Iraqi Refugees in Jordan

Abstract

The purpose of this study was to examine coping strategies employed by Iraqi refugees in Jordan, based on their demographic details. A cross-sectional design was used. A representative sample of 333 refugees living in Jordan participated in the study. The COPE inventory, and the demographic details were compiled in order to produce and collate the relevant data.

Being older, female, educated, single, and living with more than three family members was associated with greater use of the problem solving coping strategy. Being female, educated, and unemployed was associated with greater use of the active emotional coping strategy. In addition, being older, male, illiterate, unemployed, and living with less than three family members was associated with greater use of the avoidant emotional coping strategy. This study recommends a multidisciplinary approach intervention as being the best method of addressing and fulfilling the health and socioeconomic needs of older, male, illiterate, unemployed people.

Key words: Coping, Demographics, Iraqi refugees, Health, Jordan

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Introduction and Background

The number of Iraqis immigrating into countries bordering Iraq, driven by reasons of safety and survival, has been steadily increasing. Iraqi civilians have had to pay a high price for the political and ethnic conflicts which have occurred in their own country. By 2015, nearly 58,050 Iraqis were registered with the United Nations High Commissioner for Refugees (UNHCR) in Jordan (UNHCR, 2015). In August and September 2015, on average, 120 Iraqis per day registered with UNHCR in Jordan; this was an increase from 65 per day in June and July 2015, and only 30 per day in the first five months of 2014 (UNHCR, 2015). Refugees reported that their homes had been damaged and even burned, there were fears of forced marriage, kidnapping and theft, and threats of compulsory conversion to Islam, as well as the danger of attacks in public places (Ferguson, 2015).

Refugees may also experience being socially excluded or face discrimination post migration, largely because of social isolation and their lack of social and economic status in the host countries. There are high rates of unemployment among refugees, and consequently they encounter severe financial difficulties (Araya et al., 2011; Crabtree, 2010; Gladden, 2012; Salman & Resick, 2014). Incidences of trauma and depression were also found among all groups of refugees, including Iraqis (Bjorling, 2009; Clemente, 2014; Gammou, 2015). The intensity and accumulation of such stressors may lead to psychological and physical problems, especially when refugees are not able to cope effectively with all the negative factors.

Coping is defined as “the constantly changing cognitive and behavioral efforts, to manage the specific external or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984. P.141). According to the literature, positive or effective coping is classified as the enactment of religious beliefs (praying, acting in faith),

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3 talking with friends, recognising the positive aspects of any situation, engaging in social
4 relationships, sharing cultural norms, laughing and feeling optimistic, not being afraid to show
5 emotion, taking exercise and reading. All of these can be effective in suppressing psychological
6 distress (Ferguson, 2015; Gladden, 2012; Tugade, 2004). Negative or ineffective coping
7 strategies include avoidant strategies, withdrawal, social isolation, dissociation, crying, sleeping,
8 being easily distracted and drug abuse. All of these may lead to various physical and mental
9 disorders (Auerbach et al., 2010; Finklestein, Laufer & Solomon, 2012; Gladden, 2012). It is
10 only to be expected that individuals experiencing stressful conditions, such as those in which
11 refugees are living, cannot cope effectively with the changes that have occurred in their lives.
12 Therefore this study has been constructed in order to examine the coping strategies that are being
13 used by those Iraqi refugees who have settled in Jordan.
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29 **Literature Review**

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32 Some studies have examined the relationship of the coping strategies to the demographics
33 of the refugees in their representative samples. In a mixed method study conducted with 106
34 refugees in Afghanistan, gender was found to be a significant contributor to the coping strategies
35 used. The sample comprised 84 males and 22 females. The results stated that the coping
36 strategies were different according to gender, in that the women coped by focusing on their
37 children and domestic chores, while the males coped by focusing on their jobs and by engaging
38 in social activities (Renner & Salem, 2009). In an ethnographic study of Iraqi women describing
39 the coping strategies they used to confront their traumatic experiences, a number of different
40 strategies were employed, such as recounting their own stories of what they had experienced as a
41 means of either remembering or forgetting, being able to relate to another person who has
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3 undergone similar traumatic experiences within the specific sociocultural and historical context
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5 of Iraq, and contacting their loved ones over the Internet (Clemente, 2014).
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8 The relationship between the refugees' ages and their coping strategies has been studied
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10 by many researchers. A study conducted in Norway in 2014, for example, of a sample of 223
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12 young, unaccompanied refugees indicated that they tended to use mainly enrolment and avoidant
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14 strategies to cope with their situation (Seglem et al., 2014). It appears that younger generations of
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16 refugees are more flexible than the older people in coping with the new environment; however,
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18 there is no strong evidence to support this idea. Financial status, employment, and income level
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20 is also of great significance in the coping process, because these are major resources that enhance
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22 refugees' ability to cope effectively (Gladden, 2012). A qualitative study conducted in
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24 Bangladesh in 2010 of a representative sample of 97 Rohingya Muslim refugees from Myanmar,
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26 revealed that refugees of low financial status and limited resources used negative coping
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28 strategies such as engaging in multi low-income, risky, illegal occupations, selling aid packages
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30 they had received from the international aid agencies, and also competing with the native
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32 population in the labour market (Crabtree, 2010). It can be concluded from this that refugees
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34 with higher incomes and in employment are more able to cope effectively under stressful
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36 conditions (Gladden, 2012; Crabtree, 2010).
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43 Families composed of many household members may experience further economic
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45 challenges that may inhibit their ability to cope effectively (Crabtree, 2010). Level of education
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47 is another demographic variable of great significance in refugees' ability to cope. In a literature
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49 review conducted in 2012, comprising 19 articles and book chapters, which addressed the
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51 problems of East African refugees, education was found to be an important factor in enhancing
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53 these refugees' capability of coping. In that they were able to alter their cognitive perception of
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3 the events and circumstances that had caused them to become refugees. This was particularly the
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5 case among young refugees (Gladden, 2012).
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8 Moreover, the presence of chronic diseases can affect refugees' ability to cope. A
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10 quantitative study conducted in Canada, to examine the mediators of coping strategies among 90
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12 Somali refugees, indicated that those refugees who had any kind of physical illness, including
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14 chronic illnesses, were more likely to use emotion-focused coping strategies, particularly
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16 avoidance (Matheson, Jorden & Anisman, 2008). Refugees who were free of chronic illnesses
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18 were more likely to cope effectively under stressful situations, because they were physically
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20 more capable of dealing with stressors.
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24 A few Jordanian studies have been conducted with refugees in Jordan. One study
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26 conducted by Gammoh, Al-smadi, Tawalbeh and Khouri (2015) assessed chronic disease, lack of
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28 medication and the occurrence of depression. In addition, another study by Alqudah (2013)
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30 assessed 86 Iraqi refugees' resilience levels and how these related to certain demographic
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32 variables. However, the study did not quantify the relationship between participants'
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34 demographic details and their resilience levels, and also did not measure different coping
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36 strategies; this limited the generalizability of the results. In contrast, this study uses a different
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38 size of sample, different settings and analytical tools to examine coping strategies employed by
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40 Iraqi refugees in Jordan based on their demographic details.
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46 Previous research has shown that culture plays an important role in determining the
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48 coping strategies that individuals use (Selmer, 2002). Little information is available on the
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50 coping strategies used by Iraqi refugees in Jordan and on the relationship between their
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52 demographics and the coping strategies adopted. Therefore, this study aimed to examine coping
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54 strategies employed by refugees in Jordan based on their demographic details.
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Method

Design

The current study used a cross-sectional design to examine the coping strategies employed by Iraqi refugees in Jordan based on their demographic details.

Sample, sampling technique and settings

A convenient sampling technique was used to recruit Iraqee refugees resident in Caritas churches in Jordan. The sample used in the current study was obtained from Iraqi refugees in Jordan. The sample size was calculated based on 95% confidence level, a confidence interval of 5 and a total population size of 2400 Iraqi refugees living in Caritas churches. The calculation showed that at least 331 participants were required. Refugees were recruited from five churches located in Amman, Zarqa, and Madaba. The inclusion criteria were: 18 years of age or older, resident in Jordan as a refugee for at least the last three months, and agreed to participate in the study. The researchers involved in this study contacted the participants during their residency as refugees in the churches mentioned above.

Data collection procedure

The researchers contacted the participants directly, explained the aims and objectives of the study, the methods that were to be used, and went through the study information sheet with each prospective participant to explain each point. Demographic details and a questionnaire were distributed to the participants who had agreed to take part in the study and who were asked to sign a consent form before completing the questionnaire. For illiterate participants who were unable to answer the questionnaire, the researcher read out the questions and choices of answers

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3 to them and then filled out the questionnaire. The data were collected in August 2015 in Amman,
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5 Zarqa, and Madaba.
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7 *Study instruments*

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10 These included a demographic data sheet, and the COPE inventory. The demographical
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12 details were age (i.e. age categorized into two categories based on life expectancy of 69 years
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14 among Iraqi individuals (Word Bank, 2014); 35 years old or less, and more than 35 years old),
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16 gender (i.e. male, and female), marital status (i.e. married, and single), employment status (i.e.
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18 employeed and unemployeed), number of family members (i.e. three or less, and more than three),
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20 previous chronic illness or not, and medication available or not.
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25 The COPE inventory was utilized to assess participants' coping strategies (Carver, 1997)
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27 and consisted of 28 items to measure different coping strategies. Each item had four possible
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29 responses ranging from 1: I haven't been doing this at all, to 4: I have been doing this a lot). The
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31 scale showed adequate reliability with Cronbach's alpha of .83 (Carver, 1997). Based on
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33 previous literature (Schnider et al., 2007), the researcher in the current study compressed the
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35 fourteen coping strategies into three subscales with a higher score indicating greater ability to
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37 cope: problem-focus coping subscale, emotional support coping subscale, and avoidant
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39 emotional coping subscale.
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44 The problem-focus subscale included active coping, planning, instrumental, and religious
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46 coping, with Cronbach's alpha of 0.72 in the current study. The active emotional coping subscale
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48 included venting, positive reframing, humour, acceptance, and emotional support, with
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50 Cronbach's alpha of 0.75. The avoidant emotional coping subscale included self-distraction,
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52 denial, behavioural disengagement, self-blame, and substance use, with Cronbach's alpha of
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54 0.80. Previous research utilized the Arabic version of the COPE inventory that showed adequate
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3 reliability with Cronbach's alpha of 0.78 as one construct (Hamdan-Mansour, 2014). Based on
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5 the researcher's recommendations, no revised coding was considered necessary.
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8 *Ethical considerations*

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10 Ethical approval was obtained from the senior management of Caritas Jordan prior to
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12 conducting the study. The information sheet and consent form were distributed to each
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14 participant. Participants were informed that their participation in the study was voluntary and that
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16 they could withdraw from the study at any time. Code number for each participant was provided
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18 at the phase of data collection and analysis to protect participants' confidentiality. Study
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20 purposes, methods, data collection, time and number of contacts were explained to each
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22 participant in the study. No physical, psychological or economical harm affected the study
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24 participants since the study was dependent only on non-invasive data collection tool.
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29 *Data analysis*

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31 The IBM SPSS version 23 was used to analyse the data. Descriptive statistics were used
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33 to examine the demographic details and normal distribution of COPE inventory items. Linear
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35 regression was used to examine the ability of the demographic details to predict each coping
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37 strategy. Linear regression was carried out on each of the three coping strategies, each at a time.
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39 The significant level for all tests was far less than 0.05.
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43 **Results**

44 *Sample characteristics*

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46 A total of 360 individuals were asked to participate in the current study. Of these, 345
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48 individuals agreed to participate, representing a response rate of 95.8% (i.e. the 15 individuals
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50 refused to participate without providing any reason for their refusal). However, 333 participants'
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52 data were included in the analysis as 12 participants did not answer the questions completely. As
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3 shown in Table 1, the majority of participants were aged 35 years or more (n= 185, 55.6%), male
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5 (n=211, 63.4%), married (n=187, 56.2%), had at least primary school education (n=210, 63.1%),
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7 employed (n=206, 61.9%), living with three or fewer family members (n=169, 50.8%), had no
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9 chronic illness (n=200, 60.1%), and had adequate medication (n=248, 74.5%).
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12 *Coping strategies*

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15 Coping scores were shown to be normally distributed. The mean scores of the three
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17 coping subscales showed that refugees in the current study had used each coping strategy more
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19 than the average (i.e. the possible mean score for each subscale ranged from 1 to 4, with 2.5 or
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21 less indicating average or less, and more than 2.5 indicating more than average). The mean
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23 scores of the subscales were as follows: problem solving coping (M=2.54, SD=1.21), active
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25 emotional coping (M=2.64, SD=1.04), and avoidant emotional coping (M=2.27, SD=0.86).
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30 As shown in Table 2, for the purpose of identifying the predictors of each coping
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32 strategy, multiple linear regression analysis was utilized. All demographic details were included
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34 as possible predictors of refugees' coping strategies. Linear regression was used to examine the
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36 three coping strategies, one at a time.
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40 The three coping strategy models were statistically significant. Predictors of the problem
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42 solving model were significant, $F(8,324) = 12.55, P = .001$, indicating that the model was
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44 capable of predicting problem solving. The full model explained 21.8% of the variance in
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46 problem solving. As shown in Table 2, five out of eight variables made a significant contribution
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48 to the model. Gender was the most significant predictor, $t(324) = -5.14, P = .001$, and explained
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50 6.56% of the variance in problem solving. Level of education was a statistically significant
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52 predictor, $t(324) = 5.22, P = .001$, and explained 6.4% of the variance. Also, age was a
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54 statistically significant predictor, $t(324) = 3.72, P = .001$, and explained 4.08% of the variance. In
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3 addition, the number of family members was a significant predictor, $t(324) = 3.881, P = .001$, and
4 explained 3.53% of the variance in the problem solving coping strategy. Moreover, marital status
5 was a significant predictor, $t(324) = 2.28, P = .023$, and explained 1.23% of the variance. Finally,
6 chronic illness was a significant predictor, $t(324) = -3.76, P = .00$, and explained 2.20% of the
7 variance. This indicated that refugees aged 35 years or more, female, educated, single, with more
8 family members, and without chronic illness were those who had used a problem solving coping
9 strategy the most.
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20 Predictors of active emotional coping model were significant, $F(8,324) = 4.25, P = .001$,
21 indicating that the model was capable of predicting the use of a significantly active emotional
22 coping strategy. The model as a whole explained 7.4% of the variance in emotional coping. As
23 shown in Table 2, only three out of eight variables made a significant contribution to the model.
24 Employment status, $t(8,324) = 3.286, P = .001$, explained 3.03% of the variance. Also, level of
25 education, $t(8,324) = 2.843, P = .005$, explained 2.25% of the variance. Finally, gender, $t(8,324)$
26 $= -2.679, P = .008$, explained 2.16% of the variance. These results indicated that female refugees,
27 unemployed, and who had a higher level of education made greater use of an active emotional
28 coping strategy.
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40 Predictors of the avoidant emotional coping model were significant, $F(8,324) = 6.66,$
41 $P = .001$, indicating that the model was capable of significantly predicting the avoidant emotional
42 coping strategy. The model as a whole explained 12% of the variance in the avoidant emotional
43 coping strategy. As shown in Table 2, five variables made a significant contribution to the
44 model. The most significant predictor was the number of family members, $t(8,324) = 3.578,$
45 $P = .001$, which explained 3.8% of the variance in the avoidant emotional coping strategy. Also,
46 gender was a statistically significant predictor, $t(8,324) = 3.019, P = .003$, and explains 2.72% of
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3 the variance. In addition, age was a statistically significant predictor, $t(8,324) = 2.82, P = .005$,
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5 and explained 2.4% of the variance. Level of education level was a significant predictor, t
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8 $(8,324) = -2.778, P = .006$, and explained 2.34% of the variance. Finally, employment status was
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10 the last significant predictor, $t(8,324) = 2.449, P = .015$, and explained 1.82% of the variance.
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12 These results indicated that refugees who are male, are aged 35 years or more, illiterate,
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14 unemployed, with fewer family members had used an avoidant emotional coping strategy more.
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17 **Discussion**

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19 The current study included 333 Iraqi refugees from three churches located in Amman,
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21 Zarqa, and Madaba – three major cities in Jordan. The majority of refugees were males; this
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23 could be due to accessibility limitations as the location chosen in which to recruit the refugees
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25 (Church) was attended by more males than females. Moreover, most refugees were married as
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27 they were 35 years of age and above and this is an age when most males in the Arabic culture are
28
29 married. Also, high percentages of refugees were educated and employed. This figure can be
30
31 justified by the fact that some of the Iraqi refugees had already been educated in their home
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33 country. Similar results appear in a report of a study conducted by the Center for Contemporary
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35 Arab Studies (Davis & Taylor, 2013).
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41 The purpose of the current study was to examine coping strategies employed by Iraqi
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43 refugees in Jordan, based on their demographic details. The results showed that the Iraqi refugees
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45 reported using higher problem solving, and active emotional, and lower avoidant emotional
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47 coping strategies. Similar results appeared in studies conducted by Gladden (2012); Khawaja and
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49 colleagues (2008); and Schweitzer (2007).
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53 The study results also indicated that refugees aged 35 years or more made more use of
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55 problem solving and avoidant emotional coping strategies compared to younger refugees. This
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3 could be due to the fact that those older than 35 years of age are more flexible than the younger
4 ones in coping with a new environment, as they are more capable of dealing with problems and
5 working towards eradicating them (Wanzer, Sparks & Frymier, 2009). However, unexpectedly,
6 the results of the current study showed that older refugees made more use of an avoidant
7 emotional coping strategy. This could be that elderly have had more experiences and tend to be
8 more cognitively complex which may lead them to utilize more complex ways of coping
9 compared to younger (Bethea, 2001). This result is inconsistent with a cross-sectional study
10 conducted with a sample of 112 Hindu refugees, which indicated that refugees of an older age
11 were more likely to experience stress and were less likely than younger people to adapt
12 effectively to a new situation (Benson et al., 2012). In addition, the categorization of age groups
13 in the current study was different from previous literature which might have led to different
14 results as compared to previous studies. Moreover, other variables that were not examined in the
15 current study, such as social support and psychological well-being, may have an impact on
16 coping strategies based on the refugees' ages.
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36 Educated refugees in the current study were shown to have a higher degree of usage of
37 problem solving strategies and a lower degree of avoidant emotional coping strategies compared
38 to those who were illiterate. Previous studies have shown that level of education level is a
39 significant determinant of effective coping (Alqudah, 2013; Gladden, 2012). It could be that
40 education fosters resilience, problem solving skills, an active planning approach, and cognitive
41 skills (Yakushko, Watson & Thompson, 2008).
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50 Female refugees in the current study proved to be more capable of adapting as they made
51 more use of problem solving coping and active emotional coping strategies, and a lower degree
52 of avoidant emotional coping strategies compared to male refugees. Previous literature has
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3 shown that females use more emotional strategies compared to males (Renner, 2009). Consistent
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5 with our results, Clarke and Borders (2014) reported that females use a higher degree of effective
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7 coping strategies compared to males. The results of the current study may be justified by the fact
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9 that females receive more social support than males, particularly in Arab culture, and this may
10
11 boost the ability of females to adapt more effectively.
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15 Single refugees in the current study reported more use of problem solving strategies
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17 compared to those who were married. This result is consistent with a previous study which
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19 revealed that single refugees have more resilience, tolerance, and fewer burdens and
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21 responsibilities (Araya, 2007). This may influence positively a higher degree of use of problem
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23 solving coping strategies compared to married refugees.
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27 Refugees living with more than three family members made more use of problem solving
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29 strategies, and less use of avoidant coping strategies compared with those living with fewer than
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31 three family members. Khawaja and colleagues (2008) obtained inconsistent results as compared
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33 to the current study. In their study of Sudanese refugees in Australia, families with a greater
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35 number of household members suffered an additional financial burden and tended to be unable to
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37 cope effectively. The results of the current study may be justified by the fact that families with a
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39 greater number of family members are likely to receive greater social support and have more
40
41 stable relationships (Pumariega, Rothe & Pumariega, 2005). This may increase their ability to
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43 cope and be amenable to using positive and effective coping strategies. In addition, the majority
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45 of people with more family members normally live with their partners, and this may increase
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47 their ability to use effective coping strategies. Moreover, the current study sample was recruited
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49 from Christians living in churches who were provided with full support from Caritas and this
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3 may enable individuals with a higher number of family members to adapt effectively as
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5 compared with other refugee populations.
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8 Unemployed refugees in the current sample made more use of both active and avoidant
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10 emotional coping strategies as compared to employed refugees. Previous studies have shown that
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12 employed refugees have more coping strategies at their disposal as compared to those who are
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14 unemployed (Gladden, 2012; Crabtree, 2010). In addition, unemployment has been shown to
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16 have a negative impact on refugees' psychological well-being and use of coping strategies
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18 (Roberts & Browne, 2011). A study of coping strategies employed by Syrian refugees in Jordan
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20 showed that a lack of employment opportunities limits refugees' coping resources (Mackenzie,
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22 2013). The higher degree of usage of both active and emotional coping strategies in the current
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24 study sample may be related to the emotional challenges that unemployed refugees face in
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26 Jordan. (Abdelkerim & Grace, 2012). In conclusion, the current study provided a description of
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28 coping strategies employed by Iraqi Christian refugees in Jordan. The results reveal that those
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30 who are older than 35 years of age, female, educated, single, living with more than three family
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32 members, and employed will make more use of adaptive strategies as compared to those who are
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34 younger than 35 years of age, male, illiterate, married, living with three or fewer family
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36 members, and unemployed.
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43 **Limitations, Recommendation and Implications**

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46 The use of this particular sample and limiting the study to the north of Jordan will affect
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48 the generalizability of the findings. Future research should be conducted with a larger and
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50 heterogeneous sample in different settings in order to address the gaps and the limitations of the
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52 current study. In addition, further research is needed to examine other variables, such as social
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3 support, and physical and psychological well-being, that may affect the ability of Iraqi refugees
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5 to cope with their specific situation.
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8 The current study results illustrate the differences in use of coping strategies employed by
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10 Iraqi refugees in Jordan. These differences should be taken into consideration when health care
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12 providers included nurses providing services to this group of refugees. In addition, the results of
13
14 the current study have direct implications for nursing services, as these results could be used by
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16 nurses to design programmes that could aim to improve usage of effective coping strategies and
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18 to suppress/discourage or change the negative coping strategies.
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24 **Acknowledgments**

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27 The authors would like to thank all Caritas workers in Jordan for their dedication to and support
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29 of this study.
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For Peer Review

Table 1 *Sample characteristics; categories, number and percent (%) for the Iraquee refugees in the north of Jordan (N=333)*

Factors	Categories	Number (Percentage)
Age	35 years or less	148(44.4%)
	More than 35 years	185(55.6%)
Gender	Female	122(36.6%)
	Male	211(63.4%)
Marital status	Married	187(56.2%)
	Single	146(43.8%)
Education level	Illiterate	123(36.9%)
	School or higher	210(63.1%)
Employment	Yes	206(61.9%)
	No	127(38.1%)
Number of family members	3 or less	169(50.8%)
	More than 3	164(49.2%)
Previous chronic illness (s)	No	200(60.1%)
	Yes	133(39.9%)
Medication availability	No	85(25.5%)
	Yes	248(74.5%)

Table 2 Multiple linear regression to predict the coping strategies from demographics for Iraquee refugees in Jordan (N=333)

Demographics	Problem Solving			Emotional Coping			Avoidant Coping		
	B	t	P	B	t	P	B	t	P
Age	.466	3.720	.001**	-.011	-.098	.922	.267	2.820	.005**
Gender	-.665	-5.140	.001**	-.323	-2.679	.008**	.295	3.019	.003**
Educational level	.691	5.222	.001**	.351	2.843	.005**	-.278	-2.778	.006**
Marital status	.281	2.282	.023*	.166	1.442	.150	.128	1.374	.170
Employment status	-.110	-.812	.418	.415	3.286	.001**	.251	2.449	.015*
Number of Family member	.501	3.881	.001**	.141	1.170	.243	-.350	-3.578	.000**
Availability of Medication	.083	.573	.567	.264	1.948	.052	.107	.974	.331
Chronic illness	-.520	-3.762	.001**	-.240	-1.864	.063	-.047	-.448	.655
Constant	3.883	8.673	.001	4.093	9.795	0.001	3.965	11.703	0.001

* $p \leq .01$ level

** $p \leq .001$ level