An Investigation of the Psychological Distress of Muslim Migrants in Australia

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This is the author-version of a paper published as:

Khawaja, Nigar G. (2007) The predictors of psychological distress among Muslim migrants in Australia. . *Journal of Muslim Mental Health* 2: 39-56.

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Abstract

The present study investigates the psychological distress of Muslims migrants in Brisbane, Australia. Literature indicates that a range of demographic and psychosocial factors are related to the psychological distress of the migrants. Two hundred and eighty Muslims were asked to complete a variety of questionnaires in either English or Arabic language. A series of analyses of variances indicated that participants' psychological distress was affected by their marital and visa status. Further, hierarchical regression indicated that psychological distress of the participants was predicted by their perceived difficulties with the English language, lack of social support, and tendency to use emotional and avoidance coping. It is expected that the study's findings will assist mental health workers, working in a multicultural settings, to understand and treat the mental health issues of Muslim migrants in Australia.

Keywords: Muslim migrants and psychological distress

An Investigation of the Psychological Distress of Muslim Migrants in Australia

Australia is a multicultural society. Approximately 23% of the population were born overseas (Australian Bureau of Statistics, 2006). In recent years, a growing percentage of migrants to Australia come from Muslim countries. Between 1991 and 1996, the proportion of Australians who stated that they were Muslims grew by 36.2%, and now represents 1.1% of the population or more than 200 000 people (Australia Bureau of Statistics, 2002). This increase is partly due to trends in Australian immigration policy and political or social upheaval in the migrants' countries of origin.

Migration is a difficult process that can lead to mental health issues (Blair, 2000; Hinton, Tiet, Tran, & Chesney, 1997). Although there is information about the experiences of migrants in general, little is known and understood about the mental health concerns of Muslim migrants residing in western societies. One of the major limitations of the psychological research on migrants is that it is mostly based on Western populations and little is known about individuals from Eastern origins. Overall, there is limited understanding about the distresses and difficulties experienced by this population.

The limited research and clinical work that has being conducted indicates that migrants are more likely to experience depression (Blair, 2000), anxiety (Hinton, Tiet, Tran, & Chesney, 1997) and other adjustment problems (Carlson & Rosser-Hogan, 1991). Those from culturally and linguistically diverse communities are more likely to manifest physical symptoms than those from related backgrounds (Knox & Britt, 2002). Previous research indicated that, like western populations, increased risk of psychological distress for migrants is associated with demographic factors. For example, age, unemployment, lack of education (Beiser & Hou, 2001) and marital status (Steel, Silove, Phan, & Bauman, 2002) are also linked to migrants' psychological morbidity. Women are also indicated to be more isolated and depressed than men (Beiser & Hou, 2001; Chung, Bemak, & Wong, 2000). Further,

geographical regions to which these migrants originally belong may have an effect on their well-being. Migrants from countries that are politically unstable or culturally distant from Australia appear to exhibit higher rates of psychological morbidity (Stuart, Klimidis, & Minas, 1998). In general, migration is a difficult process. A number of migrants move without completing adequate paperwork. As a result they experience uncertainty and worries about their migration status (Aroian & Norris, 2003). Those who immigrate as refugees or on temporary visas are prone to emotional difficulties and stress (Pernice & Brook, 1994). A review of current psychological literature into the mental health status of immigrants highlights the paucity of research in this area and consequently very little is known about how the above mentioned demographic factors affect the psychological distress of Muslim migrants in Australia.

As well as demographic characteristics, a number of migration-related variables are known to be associated with adjustment difficulties. Migrants from non-English speaking countries, due to their lack of English skills, can be at higher risk of developing psychological problems in their English-speaking host country (Stuart et al., 1998). In a study of refugees in Australia, poor English skills were associated with increased risk of developing a mental disorder (Steel et al., 2002). Language barriers can hinder the recovery from war-related trauma for refugees (Miller, Worthington, Muzurovic, Tipping, & Goldman, 2002). Lack of language acquisition is also related to unemployment in migrant populations (Beiser & Hou, 2001). Learning English as a second language can be made more difficult by concentration and memory deficits that can be associated with PTSD and depression (Chung & Kagawa-Singer, 1995). Thus, some immigrants can be further distressed because of the difficulties in learning English, which further compounds the difficulties they experience in accessing services, such as necessary medical treatment (Knox & Britt, 2002). Lack of English fluency also restricts the development of new social contacts and a sense of belonging (Ying &

Akutsu, 1995). Recent data indicates that 31% of all immigrants to Australia did not speak English well or at all (Australian Bureau of Statistics, 2001). This is particularly marked for immigrants who have migrated on humanitarian grounds (89%) and, to a lesser extent, for family-reunification immigrants (55%). Yet there appears to be no research that has considered the relationship between language difficulties and psychological distress in Australian Muslim immigrants. Moreover, along with acquisition of language, a migrant has to familiarize him- or herself with numerous other skills in order to adapt to the new country (Chung et al., 2000). Migration is a difficult transition, involving tremendous adjustment to a new environment (Bhugra, 2004). Research indicates that the new arrivals, in their initial phase of settlement, tend to undergo intense negative emotional experiences due to the adaptation process and acquiring skills as well as other psychosocial factors (such as lack of social support) (Miller et al., 2002).

Many Muslim migrants come from interdependent cultures, where there is an emphasis on social support and a sense of belongingness (Al-Krenawi & Graham, 2000). This collectivistic orientation is reflected by mutual cooperation, commitment, shared responsibilities, and rewards. Members of such societies depend emotionally on their social system, institutions and organizations, which in turn provide them with expertise, order, and security (Buda & Elsayed-Elkhouly, 1998). Migration interrupts their social support network. For Bosnian migrants exiled by war, the resultant isolation was a contrast to previously existing networks of family, friends, and neighbors (Miller et al., 2002). May (1992) found that Arab parents frequently relied on support from family residing outside their country of resettlement for parenting advice and thus, highlights the importance of the family and support. Similarly, Arab women residing in Australia perceive a need for social support (Stuchbery, Matthey, & Barnett, 1998). Psychological distress can be buffered by living in a nuclear family (Miller et al., 2002), having family support (Blair, 2000), or close friends

(Pernice & Brook, 1996). However, deprivation of social support leads to psychological distress (Stuchbery et al., 1998). The role lack of social support plays in the psychological distress of Australian Muslims has not yet been investigated. It is important to examine how this hinders the process of resettlement and adjustment. Further, growing up in interdependent cultures may have an effect on Muslims' coping strategies.

Coping reflects the manner in which individuals manage stress and difficulties (Skinner, Edge, Altman, & Sherwood, 2003). Coping resources are relatively enduring personal and social characteristics of individuals that can affect their emotional well-being. Coping strategies depend on socialization processes and cultural factors (Jung, 1995) . Culture-specific norms can influence coping responses (Wasti & Cortina, 2002). History indicates that cultures deal with problems and stresses in different ways. Individuals from Western cultures, which are independent in nature, are self-oriented, emotionally independent, autonomous, and emphasize independent decision-making (Buda & Elsayed-Elkhouly, 1998). Investigations reveal that in order to adjust and maintain well-being, these individuals use active, operative, and rational coping strategies (Olah, 1995). However, collectivistic cultures emphasize interdependence over independence (Olah, 1995). Individuals from these cultures adopt an emotion-focused approach. They tend to receive ongoing support and assistance from their loved ones by emotionally sharing their concerns (Pines & Zaidman, 2003). Seeking ingroup support is the most important coping strategy during a crisis (Triandis, Leung, Villareal, & Clark, 1985). Therefore, an independent problem-solving approach is scarcely used. As harmony and good relations are important for social support and acceptance, individuals from interdependent cultures avoid conflict and confrontation with their ingroup and embrace an accommodating approach (Lam & Zane, 2004). There is a tendency to avoid, deny, or ignore the problem if social criticism or rejection is feared (Lam & Zane, 2004). In particular, any disclosure associated with

emotional well-being and psychological distress can be difficult due to the stigma attached to emotional problems (Fabrega, 1991). Studies with Arab migrants have indicated that their communication style is restrained and they refrain from divulging personal problems and feelings to someone outside the family and community (Al-Krenawi & Graham, 2000). Self-disclosure is difficult, as it is often perceived as risking damage to their family honor (Savaya & Malkinson, 1997). Further, religiosity in the form of increased dependence on God may influence the coping by either acting as a buffer against severe difficulties of life, or leading to avoidance coping style characterized by a decreased attempt to resolve the problems actively (Jamal & Badawi, 1993). Studies indicate that psychological distress is experienced when individuals from interdependent cultures move to independent cultures (Furnham & Bochner, 1986). They lack adequate problem-solving skills that are required for adjustment in to Western culture. Inadequate coping style is another factor leading to migrants' distress (Cheung & Spears, 1995).

It was therefore important to study the experiences of Muslim migrants; according to the author's knowledge, the psychological distress of Muslim migrants in Australia has not been investigated. The first goal of the study was to examine how the psychological distress of this population was related to demographic variables. It is hypothesized that psychological distress would be higher among women, older participants, those who had little or no formal education, were unemployed, single, with uncertain migration status, and from geographical regions culturally distant from Australia.

The second goal of the study was to explore the factors related to the psychological distress of this population. It was hypothesized that migration-related factors, such as duration of stay in Australia and English proficiency, as well as other psychosocial factors, such as lack of social support and coping, would predict the psychological distress of Muslim migrants.

Method

Participants

A total of 280 Muslims living in Brisbane, Australia participated in the study. The mean age of these participants was 33.77 years (*SD*: 12.31 years). The mean duration of their stay was 9.88 years (SD: 10.73 years). Demographic details of the sample are presented in Table 1. As seen by the table, the sample consisted of approximately equal numbers of men and women. Most of the participants were educated and their education levels ranged from high school completion to those with professional degrees. The majority of the participants were married. Overall, the participants originated from 43 different countries and were categorized into six geographical regions: Asia (25%), Middle East (24%), Africa (20%), Fiji (12%), Australia (11%), and Europe (6.4%). The highest numbers of participants were from Asia and Middle East, while the lowest were from Europe. Those who identified themselves as from Australia had either been in the country for a long period or time or were the Australian-born children of immigrants. It is important to note that on the demographic form they identified themselves as "migrants," therefore they were retained in the data set. The participants reported speaking 17 languages. The most common languages spoken were English (50%), Arabic (20%), Urdu (10%), Hindi (8%), Punjabi (3%), and Bosnian (2%).

[Please insert Table 1 here]

Measures

General Information. A checklist was used to gather general demographic information (age, gender, marital status, employment status, education level, country of origin, and migration status) and migration-related variables (time in Australia and perceived English language difficulties).

Social Support. The Support Functions Scale (Dunst & Trivette, 1988) is a 20-item scale that measures the need for different types of help and assistance. Responses are scored on a 4-point Likert scale, ranging from "Never" (1) to "Quite Often" (4). Five factors, which measure emotional, child, financial, instrumental and agency-related support, were identified by Dunst and Trivette (1988). Further, they reported satisfactory test-retest reliability (.62) with an interval of one month. The scale had high internal consistency ($\alpha = .87$) and split-half reliability (.88). The scale's satisfactory criterion validity was demonstrated by significant correlations with family ($r = .25$, $p < .01$) and personal well-being ($r = .33$, $p < .01$), and time demands on the respondent ($r = -.20$, $p < .05$).

Coping. The COPE is a 60-item scale developed by Carver, Scheier, and Weintraub (1989) to assess coping strategies people use in response to stressful situations. Responses are scored on a 4-point Likert scale ranging from "I usually don't do this at all" (1) to "I usually do this a lot" (4). A recent factor analysis (Lyne & Roger, 2000) suggested that the scale consisted of 3 sub-scales. Rational or Active Coping measures the degree to which respondents accept that a stressful situation has occurred and their willingness to take some action to resolve it. Emotion Coping assesses the extent to which respondents get upset and talk about their emotions. Avoidance Coping or Helplessness measures the degree to which respondents avoid dealing with a stressful situation or give up trying to solve it. Lyne and Roger (2000) reported satisfactory internal consistency for Rational, Emotional, and Avoidance coping ($\alpha = .89$, .83 & .69, respectively). They also investigated the construct validity of the scale. Their findings indicated that Rational or Active Coping was not correlated with sickness absence, psychological distress, or avoidance. However, it was correlated with Emotional Coping ($r = .21$, $p < .001$). Avoidance Coping and Emotional Coping were correlated to each other ($r = .17$, $p < .001$), and also related to psychological distress ($r = .35$, $p < .001$, & $r = .13$, $p < .01$, respectively).

Psychological Distress. The Hopkins Symptom Checklist (HSCL), which was developed by Derogatis, Lipman, Rickels, Uhlenhuth, and Covi (1974) was used to measure psychological distress. The HSCL comprises 58 items, which are rated on a 4-point Likert scale ranging from “Not at all” (0) to “Extremely” (3). The HSCL has five subscales, Somatization, Obsessive-compulsive, Interpersonal sensitivity, Depression, and Anxiety. Derogatis et al. (1974) reported adequate internal consistency for the subscales (ranging from .84 to .87). Acceptable test-retest reliability over a one-week period was reported (ranging from .75 to .84). Adequate interrater reliability was demonstrated (ranging from .64 to .80). Derogatis et al. (1974) reported sound criterion validity by demonstrating that HSCL is sensitive to treatment (i.e., expected reduction from pre-treatment to post-treatment). Construct validity was demonstrated by comparing HSCL clusters with ratings made by psychiatrists. They reported that agreement was very high. The full-scale score provides a reliable overall measure of psychological distress. It is a culturally robust measure, which has been successfully used in previous research including in Arabic-speaking populations (Gupta, Nayak, Khoursheed, & Roy, 1999).

Procedure

Ethical approval was obtained from an internal University Ethics Committee at the Queensland University of Technology to commence the data collection. Consistent with Mak and Nesdale (2001) methodology, written consent was not obtained from the participants, as the completion of the questionnaires was considered an indication of consent. Migrants from Eastern and non-English speaking backgrounds, who are also in a minority, are generally more inhibited in participating in research than Western populations. Using a consent form where participants have to sign their name may hinder their participation in the study. In order to increase the participation of people from non-English speaking and Eastern

backgrounds, there is now an inclination to provide them with a detailed explanation (written and verbal) and to ask them to return the completed questionnaires anonymously.

It was expected that the bulk of participants would be of Arabic-speaking origin, the questionnaires were translated into Arabic by a registered translator. The Arabic version was translated back to English by another registered translator. Overall, there was a very high similarity between the original and retranslated version. In order to find the most suitable Arabic version, a language expert, bilingual in English and Arabic, was consulted on points of difference between the two translations.

Local mosque leaders, as well as leaders of other Muslim cultural, social, and student organizations were contacted and informed about the study. These are the venues where a wide cross-section of the community gathers. With the permission of the leaders, the research team, consisting of the author and research assistants fluent in Arabic and English languages, first introduced themselves to the community members gathered at these venues for various religious or social events. Information was then provided about the study and those present were invited to participate. Those who volunteered to participate were fully informed about the maintenance of confidentiality, that they had the right to withdraw their participation at any time and that the study would take about 30-45 minutes to complete. The research team was available to answer queries before people actually participated. The research team distributed the questionnaire packages to those who volunteered to participate in their preferred language (Arabic or English). The research team stayed at these venues to collect the completed questionnaires or provided a self-addressed reply-paid envelope so that the participants could return the questionnaires after completing them at a convenient time.
The vast majority (95%) of the participants opted to return the questionnaires through the mail. One week after the distribution of the questionnaires, announcements were made at the venues of data collections, requesting participants to return the completed questionnaires.

Overall, 1400 sets of questionnaires were distributed. The return rate was 20%. Forty-seven participants completed the Arabic version, while the other 233 completed the English version.

Results

Preliminary Analyses

Data were screened and cleaned to ensure accurate data entry. Full data entry checks were conducted for a random sample of 10% of participants. Screening for missing values revealed that 15 participants had not answered a sequence of 25 questions on the COPE. The questionnaires for these participants were examined and it was discovered that in the process of randomizing the questionnaires, one page had been missed for some participants. These subjects were excluded from the regression analysis which included the COPE scales. The remaining missing data (less that 5%) were managed by prorating the variables. Preliminary examination of the data showed no violation of the basic assumptions of multivariate analysis.

Internal consistency of all measures was checked. The Cronbach's alphas obtained were similar to the earlier investigations conducted by the developers of these scales. The internal consistency of the COPE scales was adequate (α .77 for Avoidance coping, .82 for Emotional coping, and .77 for Rational/ Positive Coping). The Support Functions scale had high internal consistency ($\alpha = .93$). The factor structure of HSCL was explored as it measured the most salient feature of the study. Principle component analyses with varimax as well as oblique rotations were performed. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .94, which indicated an excellent level of intercorrelations among the items. Similarly, Bartlett's test of sphericity showed that there was significantly sufficient correlations between the items to perform factor analysis, approximate $\chi^2(496)=4928.17$, $p<.001$. The scree test, eigenvalues, and the percentage of variance explained by factors indicted one major factor with bulk of the variance (44%). Nevertheless, in order to

investigate the original factor structure, five factors were extracted by using varimax rotation as there was minimal inter-factor correlation. The five original factors were not supported by the data set. Numerous items cross loaded on more than one factor. Further, the communality values and factor loadings of some items were low. A decision was made to revert to the unidimensional structure identified by the factor analysis on the current data set. In order to refine the scale, items that had communality values lower that .3 and unique factor loadings less than .4 were excluded from the analysis. By using principal component analysis with varimax rotation, the remaining 30 items loaded on one factor. The communalities of these items ranged from .30 to .55. Further, factor loadings of all the 30 items ranged from .56 to .75. A careful examination indicated that some items from the five original factors loaded on this one factor (6 from the Depression subscale, 8 from the Anxiety subscale, 8 from the interpersonal subscale, 4 from the Obsessive-compulsive subscale, and 4 from the Somatization subscale. The Cronbach's alpha for this unidimensional version of HSCL was .95. The total score of these 30 items was used in the analyses. It is referred to as unidimensional HSCL. Descriptive statistics indicated that the participants mean score on unidimensional HSCL was 24 (*SD* = 18.61; range = 0 to 75). Frequency analysis revealed that the scores were positively skewed and 55% of the participants obtained a score between the ranges of 0 to 24.

Differences in Psychological Distress on the Basis of Demographic Variables

T-tests and one-way ANOVA were performed to examine whether the psychological experiences of participants varied on the basis of their demographic variables, such as gender, age, marital status, educational level, employment status, original geographical regions from where the participants had migrated, and their migration status.

By using median split, age of the participants was categorized as younger (32 years or younger) or older (33 years or older) participants. To examine "marital status," only married

participants were compared with unmarried. As there were very few cases falling in divorce or widow categories, these cases were deleted from the analysis. Further, some categorical variables were collapsed. In the analysis, "employment status," which ranged from home duties to full-time employment was collapsed as unemployed (home duties or student) or employed (part-time or full-time employed). "Educational level," which ranged from no formal education to a professional degree was collapsed as university education (university/professional degrees) or lower education (e.g., diploma/certificate, high school). On the "migration status" variable, there were only 9 cases falling in the refugee category. Therefore, this category was collapsed with the temporary visa category as conceptually they were similar and referred to as temporary visa. Table 2 shows the mean values and standard deviation for the demographic variables on the unidimensional HSCL. The presence of unequal sample sizes in the analyses was accounted for by adopting the type III sums of squares calculation in the general linear model.

Overall, the scores on unidimensional HSCL tended to be low. As can be seen from the Table 2, there was no significant difference between the psychological distress of men and women; a trend of women being slightly more distressed than men was observed. A comparison of younger with older participants indicated no significant difference in their distress levels. Marital status was significant, with participants who were married reporting lower levels of distress ($t(276) = 2.11$, $p = .03$). University-educated participants, when compared with those who had a lower level of education, indicated no significant differences on distress. Those employed were not significantly different from unemployed. In order to evaluate whether psychological distress is affected by the participants' country of origin, differences in psychological distress were investigated as a result of the six geographical regions: Africa, Asia, Europe, Australia, Fiji, and the Middle East. The result failed to show any significant difference. Comparison on the basis of migration status indicated significant

differences (F (2,273) = 4.43 $p < .01$). Further post-hoc analyses (pair-wise comparisons with Bonferroni adjustments) indicated that participants with a temporary visa were significantly more distressed that those with citizenship status ($p < .01$).

[Insert Table 2 here]

Hierarchical Multiple Regression

Hierarchical multiple regression was used to evaluate the association of various factors with psychological distress (total scores for unidimensional HSCL). The independent variables were entered in two steps. Variables were correlated to assess the relationships among the variables. Rational/Positive Coping was not correlated with psychological distress, therefore it was excluded from the analysis. Migration-related variables (difficulty speaking English and time in Australia) were entered in the first step due to their theoretical significance. Further, psychological factors (Support Functions, Emotional, and Avoidance Coping scales) were entered in the second step. Mean substitution was used to replace missing values and to maintain statistical power in the analysis.

Results of the multiple hierarchical regression analysis are presented in Table 3. With the migration-related variables entered in Step 1, the model was significant, $F(2,269) = 7.579$, $p < .01$. At this step, difficulty speaking English ($\beta = .17$ $p < .01$) and time in Australia ($\beta = .13$ $p < .05$ (both made significant contribution to the equation. With the addition of the psychological factors, the full model was significant, F (5,269) = 20.11, $p < .01$. The increase in R^2 related to the addition of the psychological factors was significant, $\Delta R^2 = .22$, $F_{ch}(3,264) = 27$, $p < .01$. Four variables, difficulty speaking English, the Need for Support, Emotional Coping, and Avoidance Coping were associated with the psychological distress significantly. The small differences between these significant β weights and the relevant sr^2 suggest that the contribution of these variables is mostly unique variance.

[Insert Table 3 here]

Discussion

The study aimed to investigate the psychological distress of Australian Muslim migrants. Further, it was of interest to explore the variables that were associated with the distress experiences of this population. A close examination of the items indicated that a diffused psychological distress was manifested by an amalgamation of a range of symptoms. Consistent with previous studies, findings revealed that some emotional difficulties were present in the form of sadness, (Blair, 2000), apprehension, worries (Hinton et al., 1997), somatic complaints (Knox & Britt, 2002), and feelings of personal inadequacy and social discomfort (Miller et al., 2002). Overall, the scores on the unidimensional HSCL were positively skewed; indicating that a bulk of the participants was reasonably adjusted members of this community. It was important to note that as indicated by the demographics, they were generally well educated, proficient with English language, employed, and, on average, had lived in Australia for a decade.

Psychological distress of the participants was evaluated on the basis of demographic variables. The results indicated that participants, who were single were more distressed than those who were married. Previous research has indicated that being married helped individuals obtain support in everyday life, and this support acts as a defence for stress (Steel et al., 2002). Further, migration status impacted the psychological well being of the participants. Individuals on a temporary visa status were significantly more distressed than those who had obtained a permanent residency status (Aroian & Norris, 2003; Pernice & Brook, 1994). Men and women were not statistically different on the basis of their psychological distress. However, in line with previous studies (Beiser & Hou, 2001; Chung et al., 2000), there was a trend of women being slightly more distressed than men. The geographical regions to which the participants originally belonged did not influence their psychological distress. It is unclear whether migrants from any particular part of the world

are more vulnerable to distress. Further, contrary to previous research, individuals who were older, unemployed, or had limited education did not show high levels of distress. This outcome could be a result of sampling problems. It is important to note that, due to data not being evenly distributed on these variables, various categories were collapsed to conduct the analyses. Age groups were categorized as “older” and “younger”, that is above or below the age of 32 years. Similarly, “unemployed” consisted of unemployed, students, and those with home duties. Further, “lower education” consisted of those with middle or lower-school education, diplomas, or certificates. There is a possibility that the expected differences were masked by the data which was not well-distributed. The new categories consisted of subgroups that might have revealed differences if well distributed. The present findings partially support the hypothesis, which predicted psychological distress to be affected by various demographic variables.

The results of the multiple hierarchical regression analysis indicated that for the migration-related variables, time in Australia, failed to contribute. A close examination of the data indicated that very few participants were new migrants. There is a possibility that this outcome may be a result of unevenly distributed sample. Difficulty speaking English appeared to be a significant predictor of psychological distress. This finding is consistent with previous studies, which have emphasized that inability to speak English in an English-speaking country is a major obstacle in the adjustment to the adopted country (Beiser & Hou, 2001; Miller et al., 2002; Steel et al., 2002). Moreover, social support needs and inadequate coping also significantly contributed to the distress levels of Muslim migrants. Thus, the hypothesis predicting the contribution of migration-related factors, lack of social support, and inadequate coping to psychological distress, is supported.

The findings of the present study indicated that separation from family and community was related to the Muslim migrants’ mental health. A sense of isolation from

people of similar ethnic cultural backgrounds, and marginalization from the mainstream population, was reflected (Stuchbery et al.,1998). In line with previous studies, the findings indicated the need for emotional (companionship and reassurance) and instrumental support (practical help, guidance, and advice) (Blair, 2000; Miller et al., 2002; Pernice & Brook, 1996; Stuchbery et al., 1998). Deprivation of these needs contributed to psychological distress. The findings are consistent with previous studies, which highlighted lack of social support as a factor leading to emotional problems of individuals from collectivistic cultures (Al-Krenawi & Graham, 2000; Buda & Elsayed-Elkhouly, 1998). Further, the emotional difficulties of Muslim migrants were associated with their coping strategies.

The outcomes of the study indicate that emotional and avoidant coping was related to the psychological distress of the Muslim migrants. Consistent with previous studies, the findings revealed that this population used expression and the sharing of emotions as a way of coping and getting support from significant others (Malachpines & Zaidman, 2003). On the other hand, there is a possibility that avoidance was used as a strategy to suppress conflicts where disclosure could lead to social stigma (Fabreka, 1991), rejection and disapproval (Lam & Zane, 2004), or damage to family honor (Savaya & Malkinson, 1997). It could also be an effect of religious beliefs to depend on God in times of difficulty (Jamal & Badawi, 1993). Thus, the emotional well-being of the participants may have been hindered by these coping strategies.

Limitations and Future Directions. The findings of the present study should be taken with some caution. The study was not free from limitations. The response rate was low in spite of the reminder and the request urging participants to return the completed questionnaires. One reason could be the language barrier, as the participants originated from a number of countries and spoke a range of languages. Those who returned the completed questionnaires emerged as educated and reasonably settled. It is possible that they had a

better command over the English and Arabic languages and therefore were keen to participate. However, it appears that they represent a selected portion of the Muslim community. There is a possibility that many others who took the questionnaires could either not fully understand the scales due to limited English and Arabic language or found them inappropriate. Some participants shared this sentiment with the author. They commented that they considered the questionnaires to be too long and abstract and indicated that short and direct questions would have been better. Many participants complained about not being paid for their cooperation. A number of people refrained from completing the questionnaires due to their overall inhibited nature. Some shared their concerns about how the outcome of the study may be used.

Methodological limitations of the present study offer suggestions for future studies with Muslim populations. Most of the measures currently in use are developed in English-speaking, Western populations and have not been fully evaluated in culturally and linguistically diverse populations. Firstly, future studies should evaluate and validate the current measures, originally developed on Western populations, by using various Eastern populations. Secondly, keeping in mind the differences between Eastern and Western cultures, it is better to devise new culturally sensitive measures for Eastern populations, in consultation with these communities, in order to reflect their experiences more accurately. Thirdly, as indicated by Miller et al. (2002), qualitative studies are more suitable in under-researched populations. The interpersonal contact, in the form of approaching participants individually, interviewing them in person or in a focus group, may help them to open up and share their problems more effectively than responding to questionnaires. These methods may also be more suitable for people without literacy skills and those with limited education. It may be more practical to attract participants by offering some payment or another incentive. Fourthly, in order to enhance the well-being of this population it is important to study their

coping styles extensively, in order to explore the strategies that work for them. Moreover, there is a need to evaluate the contribution of religion and spirituality in the coping of Muslims. Muslims come to Australia from a number of countries. It is important to keep in view the inter-group and intra-group diversity of Muslims. It may be valuable to repeat the study by using Muslims from a wide range of countries in order to explore their unique, as well as common, features. Finally, the study lacked a control group. It would be of interest to compare these migrants with the mainstream Australians.

Conclusion. Despite the limitations, results of the present study offer ideas that can be used to assist Muslim migrants in Australia. The study highlights some aspects of the psychological distress experienced by this population. Community-based programs that reduce isolation and facilitate the development of new social networks with individuals from their own cultures as well as from the host country are needed. From the intervention perspective, it is necessary for the mental health professionals to design strategies that focus on the Muslim migrants' well-being. Further, it is essential to augment their coping strategies by teaching effectively rational and problem-solving skills in a culturally sensitive manner. These skills may help this population to deal with problems rationally and to rely more on their own selves if there is a need. A combination of skills, which integrate Muslim migrants' cultural beliefs with the requirements of living in a Western society, may increase their adjustment. Finally, after taking care of the psychosocial and adjustment needs, it is crucial to continue the emphasis on teaching English language. Language proficiency helps in the acculturation process and environmental mastery. In conclusion, the psychological distress and its predictors were investigated for the first time with Muslim Australians. It is expected that the outcomes of this study may help mental and allied health professionals to better understand the mental health issues of Muslim migrants.

References

Al-Krenawi, A. & Graham, J.R. (2000). Culturally sensitive social work practice with Arab clients in mental health settings. *Health and Social Work, 25(1)*, 9-22.

Aroian, K.J. & Norris, A.E. (2003). Depression trajectories in relatively recent immigrants. *Comprehensive Psychiatry, 44(5),* 420-427.

Australian Bureau of Statistics (2001). 4102.0 *Australian Social trends. Population Composition: Asian Born Australians,* Retrieved 15 March 2007, from http://www.abs.gov.au/ausstats/abs@.nsf/2f762f95845417aeca25706c00834efa/666a320ed7736d32ca2570ec000bf8f9!OpenDocument

Australian Bureau of Statistics. (2002, January). *Year Book Australia, 2002 Population Religion*. Retrieved January 23, 2004, from http://www.abs.gov.au/Ausstats/abs%40.nsf/94713ad445ff1425ca25682000192af2/e989a36f23095a09ca256b350010b3fc!OpenDocument.

Australian Bureau of Statistics. (2006). 34120.0 *Migration, Australia, 2004-05*. Canberra: Australian Bureau of Statistics. Retrieved 15 March 2007, from http://www.abs.gov.au/Ausstats/abs@.nsf/lookupMF/2C6D9DB6B7EF7C97CA2568A9001393D5

Beiser, M., & Hou, F. (2001). Language acquisition, unemployment and depressive disorder among Southeast Asian refugees: a 10-year study. *Social Science & Medicine, 53(10)*, 1321-34.

Bhugra, D. (2004). Migration and mental health. *Acta Psychiatrica Scandinavica, 109(4)*, 243-58.

Blair, R.G. (2000). Risk factors associated with PTSD and major depression among Cambodian refugees in Utah. *Health & Social Work, 25(1)*, 23-30.

Buda, R. & Elsayed-Elkhouly, S.M. (1998). Cultural differences between Arabs and

Americans: individualism-collectivism revisited. *Journal of Cross-Cultural Psychology, 29(3)*, 487-92.

Carlson, E.B. & Rosser-Hogan, R. (1991). Trauma experiences, posttraumatic stress, dissociation, and depression in Cambodian refugees. *American Journal of Psychiatry, 148(11)*, 1548-51.

Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology*, *56(2)*, 267-83.

Cheung, P., & Spears, G. (1995). Psychiatric morbidity among New Zealand Cambodians: the role of psychosocial factors. *Social Psychiatry & Psychiatric Epidemiology, 30(2)*, 92-7.

Chung, R.C., Bemak, F., & Wong, S. (2000). Vietnamese refugees' levels of distress, social support, and acculturation: implications for mental health counseling. *Journal of Mental Health Counseling, 22(2)*, 150-61.

Chung, R. C., & Kagawa-Singer, M. (1995). Interpretation of symptom presentation and distress: A Southeast Asian refugee example. *The Journal of Nervous and Mental Disease, 183,* 631-639.

Derogatis, L.R., Lipman, R.S., Rickels, K., Uhlenhuth, E.H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): a self-report symptom inventory. *Behavioral Science, 19(1)*, 1-15.

Dunst, C.J., & Trivette, C.M. (1988). Support Functions Scale. In C.J. Dunst, C.M.Trivette, & A.G. Deal (Eds.) *Enabling and empowering families: principles and guidelines for practice*. Cambridge, MA: Brookline Books.

Fabrega, H. (1991). Psychiatric stigma in non-Western societies. *Comprehensive Psychiatry*, *32(6)*, 534-51.

Furnham, A., & Bochner, S. (1986). *Culture Shock.* New York: Methuen.

Gupta, R., Nayak, M.B., Khoursheed, M., & Roy, S. (1999). Emotional distress in women presenting for breast imaging. *Annals of Saudi Medicine, 19(6)*, 511-14.

Hinton, W.L., Tiet, Q., Tran, C.G., & Chesney, M. (1997). Predictors of depression among refugees from Vietnam: a longitudinal study of new arrivals. *Journal of Nervous and Mental Disease, 185(1)*, 39-45.

Jamal, M., & Badawi, J. (1993). Job stress among Muslim immigrants in North America: moderating effects of religiosity. *Stress Medicine, 9(3)*, 145-51.

Jung, J. (1995). Ethnic group and gender differences in the relationship between personality and coping. *Anxiety, Stress, and Coping, 8(2)*, 113-26.

Knox, S.A. & Britt, H. (2002). A comparison of general practice encounters with patients from English-speaking and non-English speaking backgrounds. *Medical Journal of Australia, 177(2)*, 98-101.

Lam, A..G. & Zane, N.W.S. (2004). Ethnic differences in coping with interpersonal stressors. A test of Self-Construals as cultural mediators. *Journal of Cross-Cultural Psychology, 35,* 446-459.

Lyne, K. & Roger, D. (2000). A psychometric re-assessment of the COPE questionnaire. *Personality and Individual Differences, 29(2)*, 321-35.

Malachpines, A., & Zaidman, N. (2003). Israeli Jews and Arabs: Similarities and differences in the utilization of social support. *Journal of Cross-Cultural Psychology, 34*, 465-480.

Mak, A.S., & Nesdale, D. (2001). Migrant distress: the role of perceived racial discrimination and coping resources. *Journal of Applied Social Psychology*, *31(12)*, 2632-47.

May, K.M. (1992). Middle-Eastern immigrant parents' social networks and

help-seeking for child health care. *Journal of Advanced Nursing, 17(8)*, 905-12.

Miller, K.E., Worthington, G.J., Muzurovic, J., Tipping, S., & Goldman, A. (2002). Bosnian refugees and the stressors of exile: a narrative study. *American Journal of Orthopsychiatry, 72(3)*, 341-54.

Olah, A. (1995). Coping strategies among adolescents: a cross-cultural study. *Journal of Adolescence, 18(4)*, 491-512.

Pernice, R., & Brook, J. (1994). Relationship of migrant status (refugee or immigrant) to mental health. *International Journal of Social Psychiatry, 40(3),* 177-88.

Pernice, R., & Brook, J. (1996). Refugees' and immigrants' mental health: association of demographic and post-immigration factors. *Journal of Social Psychology, 136(4)*, 511-19.

Pines, A.M. & Zaidman, N. (2003). Israeli Jews and Arabs: similarities and differences in the utilization of social support. *Journal of Cross-Cultural Psychology, 34(4)*, 465-80.

Savaya, R., & Malkinson, R. (1997). When clients stay away. *Social Service Review*, *71(2)*, 214-30.

Skinner, E.A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: a review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, *129(2)*, 216-69.

Steel, Z., Silove, D., Phan, T., & Bauman, A. (2002). Long-term effect of psychological trauma on the mental health of Vietnamese refugees resettled in Australia: a population-based study. *Lancet, 360(9339)*, 1056-62.

Stuart, G.W., Klimidis, S., & Minas, I.H. (1998). The treated prevalence of mental disorder amongst immigrants and the Australian-born: community and primary care rates. *International Journal of Social Psychiatry, 44(1)*, 22-34.

Stuchbery, M., Matthey, S., & Barnett, B. (1998). Postnatal depression and social supports in Vietnamese, Arabic and Anglo-Celtic mothers. *Social Psychiatry & Psychiatric Epidemiology, 33(10)*, 483-90.

Triandis, H.C., Leung, K., Villareal, M.J., & Clack, F.L. (1985). Allocentric versus idiocentric tendencies: convergent and discriminant validation. *Journal of Research in Personality, 19(4),* 395-415.

Wasti, S.A., & Cortina, L.M. (2002). Coping in context: Sociocultural determinants of responses to sexual harassment. *Journal of Personality and Social Psychology, 83(2)*, 394-405.

Psychology, 25(2), 125-39.

Ying, Y., & Akutsu, P.D. (1995). Psychological adjustment of South-East Asian refugees: The contribution of sense of coherence. *Journal of Community Psychology, 25*, 125-139.

Table 1.

Sample Demographics

Characteristics	Number of Participants	Percentage of Sample	Missing Data
Gender			2
Female	141	50	
Male	137	49	
Highest level of Education			4
Professional degree	32	11	
University degree	92	33	
Diploma or Certificate	65	23	
High school	80	29	
Middle school or lower	7	3	
Marital Status			2
Married	173	62	
Single	95	34	
Divorced	3	1	
Separated	3	1	
Widowed	4	1	

Table 2

Mean Unidimensional Hopkins Symptom Checklist Scores for Demographic Variables.

Variable		*n*	*M*	*SD*
Gender	Male	136	21.99	17.76
	Female	140	25.89	18.77
Age	32 years or younger	139	25.47	1.55
	32 years or older	135	22.63	1.58
Marital Status	Single	107	26.96	1.76
	Married	171	22.22	1.39
Education	Lower Education	122	23.79	1.68
	University Education	156	25.47	1.49
Employment Status	Unemployed	75	24.69	2.11
	Employed	203	23.80	1.28
Migration Status	Citizen	129	21.97	1.62
	Permanent Resident	72	24.34	2.17
	Temporary Visa	75	29.93	2.13
Regions	Middle East	67	28.71	2.25
	Africa	55	21.40	2.48
	Europe	17	27.88	4.47
	Asia	70	23.30	2.20
	Australia	31	24.12	3.31
	Fiji	33	21.97	3.21

Note. Estimated marginal means are reported.

Table 3

Hierarchical Multiple Regression Analysis Predicting Psychological Distress from Migration related and Psycho-social Variables

Variables	Zero order *r* with DV	R^2	R^2_{ch}	β	sr^2
Step 1		.05**	.06**		
Time in Australia	-.16*			-.07	-.07
Difficulty speaking English	.20**			.11*	.11
Step 2		.28**	.22**		
Need for social support	.43**			.24**	.20
Emotional coping	.36**			.20**	.18
Avoidance coping	.36**			.19**	.17

Note. * $p < .05$; ** $p < .01$. Beta weights are taken from the final model including all variables.

Acknowledgements

The author would like to thank Queensland Islamic Council, the Imams of the Brisbane Mosques, Islamic Women Association of Queensland, Islamic Student Association, the other Muslim cultural and social groups in Brisbane and those who participated in the study. A special thanks to all the research assistants, in particular Vincent Conway. The study was funded by QUT.