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Immigration and Attendant Psychological Sequelae: A Comparison of Three Waves of Iraqi Immigrants

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Acculturation, the process by which individuals or groups transition from one or more cultures into another, can be complex and often stressful. In many cases, reason for immigration can contribute, both positively and negatively, to levels of acculturative stress. Immigrants to the United States from Iraq over the past several decades have shifted in terms of prevalence, reason for and ease of immigration, and pre and postmigration trauma among individuals and groups. The authors examined the psychological by-products of acculturative stress by measuring posttraumatic stress disorder, anxiety, and depression among three distinct waves of immigrants from Iraq. The authors found support for the hypotheses that these variables were positively correlated with recency of immigration. Implications for psychological practitioners are discussed.

Keywords: Iraqi, immigrants, acculturation, stress, PTSD

Acculturation, the process by which individuals or groups transition from one or more cultures into another, can be a complex, lifelong endeavor. Past research suggests that factors such as length of residence in United States, age at immigration, traditionalism, time since last visit to homeland (Marsella, Bornemann, Ekblad, & Orley, 1994), language preference, place of birth, generation level, socioeconomic status, preferred ethnic identity, ethnic group social contacts (Ponterotto, 1987), and, for Arab Americans, racial and religious hostility and discrimination (Stockton, 1994) and racial-religious-ethnic identification (Jackson & Nassar-McMillan, 2006) may influence this transition process.

Arab American scholars have identified salient variables for Arab Americans in general as ethnic discrimination, country-of-origin (e.g., Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Palestine, etc.), length of U.S. residency, religion (e.g., Christian: Melkite, Maronite Catholic, Greek Orthodox, etc.; Muslim: Sunni, Druze, Shiite, etc.), reason for immigration, gender, language usage, and a number of other issues such as the prominence of collectivistic social values (Nassar-McMillan, 2003a; Nassar-McMillan, in press b; Hakim-Larson & Nassar-McMillan, in press).

Iraqi Americans comprise the fourth largest group of immigrants from the Arab Middle East since 1965. Iraqi Christians (including Assyrians and Chaldeans) typically characterize the earlier immigrants during this timeframe as relatives of earlier Arab American immigrant families and communities (for more information about Arab American immigration, please see AAI, http://www.aaiusa.org/aaif.htm; Nassar-McMillan, in press b). The more recent group is typified by more highly educated and Muslim Iraqis (Cainkar, 2000). We believe, based on personal experience and observation, that those who did emigrate during the 1980s, despite compulsory military service and the current economic upswing in Iraq, did so to escape the war with Iran.

The considerable increase in immigration from Iraq during the 1990s can be attributed to the 1990–1991 Gulf War (GW), during which Saddam Hussein, the then-Iraqi leader, invaded Kuwait in an attempt to reannex it with Iraq. Many from that group of immigrants represent political refugees or those fleeing the economic downturn via imposed sanctions from the United States and other world powerbrokers (Cainkar, 2002). The reign of Saddam Hussein in Iraq was characterized by ongoing intraethnic conflict between Sunni and Shiite Muslims. Shiite Muslims strove to hold onto diminished leadership and power within the Sunni dominated Hussein regime. Consequently, much of the immigration out of Iraq during post-1990 years was comprised of Shiite Muslims fleeing political domination and persecution. Despite the 2003 United States-led invasion of Iraq and subsequent deposition of Hussein, which may have served to ameliorate some of the symptoms we seek to examine, we believe that the further reaching effects of the post-GW era will be found in our population of study.

Differences in the utilization of acculturation strategies among earlier groups of Arab American immigrants, in general, have been noted by various scholars (e.g., Abudabbeh, 1996; Ammar, 2000). For example, Christian Arabs emigrating for predominantly economic reasons assimilated more quickly into educational, political,

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and religious arenas. Later groups of more educated and Muslim groups, seeking escape from regional political strife tended to maintain social and cultural ties with their nationality or region of origin. Finally, Iraqi refugees, like their non-Iraqi and non-Arab refugee counterparts worldwide, have been noted as least likely to forsake or compromise their ethnic traditions and values (Nassar-McMillan, in press b).

Acculturative Stress and Concomitant Outcomes

The concept of acculturative stress has evolved from a psychological perspective to a more holistic, social, and cultural one. Smart and Smart (1995) have summarized stages of loss, transition, and adaptational theories to include: (1) joy and relief; (2) post decisional regret; (3) stress with attending psychological symptoms; and (4) acceptance, adjustment, and reorganization. Psychological symptoms such as posttraumatic stress disorder (PTSD; e.g., Blair, 2000; Mollica, Wyshak, & Lavelle, 1987), depression (e.g., Blair, 2000, 2001), and anxiety (Lee, Lee, & Chun, 2001; Tang & Fox, 2001) represent ones typically found among groups of immigrants, particularly refugees and those from combat situations. Identifiable aspects of acculturative stress can include duration, pervasiveness, and intensity.

The changes new United States residents undergo during the immigration process can be overwhelming. Learning about new systems, such as educational and legal, for instance, may be coupled with the challenge of learning a new language. Because the immigration of Iraqi refugees from the GW is a relatively recent phenomenon spanning only a decade or so, it is possible that these individuals still encounter challenges with the adjustment to these new aspects of daily life.

Beyond basic immigration stressors, some factors may pose additional risks to individuals' mental health status (Smith, 1985). Socioeconomic status and unemployment have been identified as challenges faced by many recent immigrants, particularly from the Middle East (Al-Issa, 1997). Despite the socioeconomic status of immigrants upon entry, their ongoing status often depends upon their successful employment in their new country of residence. Due to barriers associated with new systems, including language and employment, satisfactory socioeconomic status may be difficult to attain.

In terms of ethnic or cultural identity issues, racial or minority status may be considered yet another immigration stressor because of the inherent prejudice, discrimination, and hostility that individuals may face. Anti-Arab sentiment in the United States is not a new phenomenon because the United States' relationship with the Middle East has been a strained one historically. Since the Twin Tower bombings in New York City on September 11, 2001, this relationship has taken a turn for the worse. Resulting from that global phenomenon, Arab Americans, regardless of their length of residence, have reported increased incidents of discrimination in the recent year (Arab American Institute, n.d.). More recent immigrants from the Middle East, in this case, Iraqi GW refugees, are likely to experience even more heightened discrimination because of the characteristics that identify them as recent immigrants from that region of the world. These physical characteristics make them more likely targets for the racial profiling spawned by recent government "antiterrorism" legislation (Arab American Institute, n.d.). Such hostility toward Arab Americans in the past has been found to affect their ability to assimilate successfully or to acculturate (Haddad, 1994; Stockton, 1994).

Refugee Acculturation Issues

Reason for immigration represents a critical aspect of individuals' acculturation experience. Whether the immigration was of a voluntary or involuntary nature may influence future adaptation (Kraut, 1997). In the case of refugees, particularly of the GW, the involuntary nature greatly affects the stress level of individuals. Grief over loss of homeland as well as all it represents poses a major trauma to be overcome.

Even more significant trauma in the case of GW Iraqi refugees is having experienced the horror of war. To have fought against the repression in their country of origin while simultaneously perceiving the new host country, the United States, as responsible for the demise of their homeland combined with experiencing discrimination of Arab stereotyping and profiling poses a complex paradox that is challenging to resolve.

Refugee status and the involuntary nature of the immigration may mean that the family pattern has been disrupted. In many cases, only the nuclear family unit or individual members of it have immigrated. If so, individuals may fear for the physical or economic security of loved ones "back home" in a land still under siege. In still other cases, the actual GW survivor may be so traumatized that he cannot play the role of head of household to which he and his family is accustomed, also posing challenges for mental health professionals (Hakim-Larson & Nassar-McMillan, in press).

Relatedly, the involuntary nature of the immigration of Iraqi refugees of the GW may pose a challenge to individuals' perception of residency with regard to its relative permanence. Acculturation may become a more difficult process for individuals who expect to return to their homelands because they may not feel invested in relearning new systems, including educational and legal, and even employment systems. For some, desiring a return to the homeland when in fact that possibility is remote may further complicate the grieving process.

At times, the stress from the exile status of individuals may cause them to compromise their own basic religious or cultural values (Kira, Templin, & Lewandowski, 2006). The necessity and desperation of having to learn the new system, in light of their internal resistance, may be related to a type of "paradoxical morality" status, in which they may decide, for example, that "cheating the system" is acceptable, through lying, cheating, or malingering, culminating in intensified mental health issues.

Learning the new system of employment, particularly for individuals who may perceive their residency in the United States as temporary, may prove frustrating. For those with professional careers or credentials, an easy transition into the "host" employment sector is not only unrealistic, but often also impossible, due to vast differences in educational facilities coupled with language barriers. Such disappointments may lead to depression and self-esteem issues (Nassar-McMillan & Hakim-Larson, in press). Substance abuse, while not a common malady among Arab Americans, is one that plagues this unique group of exiled refugees, as does pathological gambling (Hakim-Larson & Nassar-McMillan, in press). Finally, PTSD among this group has been reported in

alarming numbers (Jamil et al., 2002; Jamil, Nassar-McMillan, & Lambert, 2004; Kira, et al., 2006).

According to federal statistics, the number of Iraqi refugees resettled in Michigan during the period of 1991 to 1999 totaled 5302 (Weinstien, 2001). The phenomena of secondary migration occurred during this period because many Iraqis moved from their original state of resettlement to the Detroit Metropolitan area to enjoy the support of the largest Arab American concentration in the United States. According to the resettlement agencies in the Detroit area, 40–60% of all resettled Iraqi in other states found their way to the Detroit Metroplitan area (ACCESS, 1998). It is estimated that Iraqi refugees in Michigan at this time range between 16300–21800. About 15000–17000 of those live in the Detroit Metropolitan area. Also, there are thousands of Iraqis (about 80000) who immigrated to the United States before the Gulf War for different reasons, mainly economic ones. Many Iraqi immigrants of the post-GW period suffered a sequence of serious traumas in Iraq after the GW in 1991, in refugee camps in the Saudi Arabian desert, and after coming to the United States. Thousands of Iraqi people who served in the GW or who were in Iraq during the GW time period have reported symptoms attributed to the Gulf War.

Methods

Our study sought to extend the limited empirical examination on Iraqi immigrant and refugee populations (e.g., Gorst-Unsworth & Goldenberg, 1998; Jamil et al., 2002; Jamil, et al., 2004; Takeda, 2000; Via, Callahan, Barry, Jackson, & Gerber, 1997) by comparing levels of PTSD, depression, dysthymia, anxiety, and panic among various waves of Iraqi immigrants. We examined differences between a pre-1980 Iraqi immigrant group, a 1980–1990 Iraqi immigrant group, and a post-1990, post-GW immigrant group. Based on the existent literature, we hypothesized that (1) there would be a difference in the frequency of PTSD, depression, dysthymia, anxiety, and panic between the three groups, (2) that the post-1990 group would yield the highest scores on all the measures, and (3) that the 1980–1990 group would yield higher scores than the pre-1980 group.

Participants

Participants were solicited through educational advertisements on the local radio and TV stations as well as flyers at Arab and Chaldean American community centers in areas most heavily populated by Iraqis. Several religious facilities (two churches and one mosque) also promoted the study and asked for volunteers. Participants were targeted to represent various geographic areas and cities that differ on demographic characteristics such as socioeconomic status and other variables. Once participants contacted the research group, they were classified as either pre-1980, 1980–1990, or post-1990 waves of immigrants.

The post-1990 group was comprised of 205 participants; the 1980–1990 group, 80 participants; and the pre-1980 group, 65 participants. Mean ages across all groups ranged from 43 to 49, with standard deviations ranging from 5.7 to 7.6. In the overall group, males represented 56.0% or 196 participants; while females comprised 44.0% with 154 participants. There was a fairly even gender distribution across the three immigration groups (106, 49, and 41 males in the post-1990 group, 1980–1990 group, and pre-1980 group; 99, 31, and 24 females in the same respective groups). See Table 1 for detailed information on gender, ethnicity, marital status, military service, and participation in Gulf War.

Measures

The overall interview process involved administration of a comprehensive questionnaire assessing physical and psychological symptoms. The questionnaire was based largely on one developed by the Iowa Persian Gulf War Study Group (1997) and utilized in several large-scale studies involving several thousands of U.S. veterans of the GW (Barrett et al., 2002; IPGSG, 1997). The present study is based upon participant scores on items comprising the PTSD Checklist-Military Version (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1993) and the Primary Care Evaluation of Mental Disorders (PRIME-MD; Spitzer et al., 1996). In addition, several questions regarding demographic and background information were included, such as the region of service during the Gulf War.

The PTSD Checklist-Military Version (PCL-M; Weathers et al., 1993) is comprised of 17 items. The items are scaled on an ordinal scale (1 = *no*, 2 = *a little bit*, 3 = *moderately*, 4 = *quite a bit*, and 5 = *extremely*) and are summed for a possible total of 85 points. The cut-off score indicating the presence of absence of PTSD is 50 points. The items prompt participants to rate the magnitude of their experience with 17 specific symptoms (e.g., "having repeated, disturbing memories of their military experiences," "being overly alert, watchful, or on guard"). Psychometrics for the PCL-M are well-established within military populations. A study on 123 male Vietnam veterans yielded test–retest reliability of .96, an alpha coefficient of .97. A second study of 1006 male and female Gulf veterans yielded an alpha coefficient of .96 (Weathers et al., 1993). Table presents the reliability coefficients for each of the outcome measures.

Table 1
Participant Demographics by Group

Variable	Group			Total sample	%
	Pre 1980	1980–90	Post 1990		
Gender					
Male	41	49	106	196	56.0
Female	24	31	99	154	44.0
Ethnicity					
Arab	9	30	145	184	52.6
Chaldean	50	43	48	141	40.3
Asyrian/Other	6	7	12	25	7.1
Marital status					
Married	48	55	177	280	80.0
Single	9	19	15	43	12.3
Other	8	6	13	27	7.7
Military service					
Yes	8	16	86	110	31.4
No	57	64	119	240	68.6
GW participation					
Yes	0	0	36	36	10.3
No	65	80	169	314	89.7

Note. The values reported in this table represent counts of respondents in each category unless otherwise noted.

The Primary Care Evaluation of Mental Disorders (PRIME-MD; Spitzer et al., 1996) is a well established psychometric instrument utilized with both clinical and nonclinical populations. Validated on a sample of 1000 adult patients of primary care clinics, yielded an overall accuracy rate of 88%, and strong agreement with diagnoses of independent mental health professionals ($\kappa = .71$). All items utilized in our study for examination of depression and dysthymia (chronically depressed mood, a subscale of depression), anxiety, and panic (a subscale of anxiety) were either based upon or directly extracted from the PRIME-MD.

Depression. A series of 11 yes-or-no questions such as, "Have you had problems with feeling tired?" were asked regarding symptoms experienced by respondents. Totals of two to four symptoms indicate the presence of minor depression, while five or more indicate major depression. A second set of three questions to further identify dysthymia, such as "Over the past 2 years, have you often felt down or depressed, or had little interest or pleasure in doing things?" An affirmative response to any one of these symptoms suggests the presence of dysthymia.

Panic. In order to be classified as having panic disorder, a participant's responses needed to represent one of each of three separate item groups. For example, the first group, comprised of one item (e.g., "During the past month, have you had an anxiety attack—where you suddenly felt fear or panic?"), needed to be present, along with at least one of the two symptoms composing the second group (e.g., "Have you ever had four attacks in a 4-week period"), and four or more symptoms from the third group consisting of 13 items (e.g., "The last time you had a really bad anxiety attack, were you short of breath?").

Anxiety. The General Anxiety Disorder measure was comprised of an additional eight items in two additional item groups. Two or more symptoms from the first group composed of six items (e.g., "In the past month, have you had trouble falling or staying asleep?") plus both items comprising the second group (e.g., "In the past month, have you been bothered by feeling restless so that it is hard to sit still?"), needed to be present in order for participants to be classified as anxious.

Procedure

Medical personnel affiliated with a comprehensive community service facility located in the heart of the local Arab American community were trained, as outreach interviewers, to verbally administer the survey questionnaire. They asked participants a series of questions, either in their native language of Arabic, or in some cases, in English, regarding their experiences during the war. The extensive interview questionnaire included questions about a variety of physical and psychological symptoms, onset, and treatment. Prior to engaging in the actual questionnaire administration, each participant was required to complete an informed consent procedure, during which they were assured that their participation was voluntary, that they would be allowed to take breaks as needed, and that they were free to discontinue their participation. In addition, the outreach interviewers were mindful of fatigue, dampening of attention, or increased emotionality of participants, and were able to refer them to appropriate service providers if needed. The interviews took between two and three hours each. Participants received a gift certificate for $25.00 at the completion of the interview. Participant questionnaires were identified by a code number only; individual identifying information was not recorded.

Results

PTSD

We first computed scale scores for the PCL-M items based on the PCL-M scoring protocol. Among the 350 participants, 28 (8%) scored above the cut-score for PTSD, while 322 (92%) scored below. As shown in Table 2, among the three groups, 25 participants (12.2%) of the post-1990 group were classified as having PTSD; 3 (3.8%) of the 1980–1990 group were classified as having PTSD; and of the pre-1980 group, 0 participants were classified as having PTSD. Of the total PTSD group, 89.3% emerged from the post-1990 group and 10.7% were from the 1980–1990 group. We employed chi-square tests of association to examine the relationship between each outcome and the immigration group classification variable. These results are reported in Table 2.

We examined Pearson correlations between the four measures of psychological dysfunction to determine the extent to which the scores were related within our participant group (see Table 3). Given the modestly high and statistically significant correlations between all possible pairs of these measures, we performed a multivariate analysis of variance to examine the group mean differences between the immigrant groups on a linear composite of the outcome variables. This analysis yielded a statistically significant result ($\lambda = .80$, $F_{(8,\ 688)} = 10.31$, $p < .001$). This analysis was followed by univariate analysis for each outcome measure.

The univariate analysis of variance (ANOVA) for the PTSD scores indicated a statistically significant difference among three

Table 2
Participants Meeting Diagnostic Criteria by Group

Variable	Group			Total sample	%	χ^2
	Pre 1980	1980–90	Post 1990			
PTSD						
Yes	0	3	25	28	8.0	12.52*
No	65	77	180	322	92.0	
Scale score mean	17.4	21.5	30.3			
Scale score *SD*	1.6	10.8	16.4			
Anxiety						
Yes	1	7	50	58	16.6	23.23**
No	64	73	155	292	83.4	
Scale score mean	0.6	1.2	2.6			
Scale score *SD*	0.8	1.5	2.0			
Panic						
Yes	6	11	65	82	23.4	19.31**
No	59	69	140	268	76.6	
Scale more mean	1.9	2.4	4.4			
Scale score *SD*	1.5	2.4	3.8			
Depression						
Major	1	13	85	99	28.3	59.04**
Minor	12	14	48	74	21.1	
No	52	53	72	177	50.6	
Scale score mean	0.8	1.9	3.7			
Scale score *SD*	1.2	2.5	3.0			

Note. The values reported in this table represent counts of respondents in each category unless otherwise noted.
* $p < .05$. ** $p < 01$.

Table 3
Outcome Variables: Correlations and Reliability Coefficients

Measure	PTSD	Depression	Panic	Anxiety
PTSD	*.89*/**.95**			
Depression	.67	*.78*/**.88**		
Panic	.50	.69	*.89*/**.85**	
Anxiety	.70	.85	.69	*.84*/**.79**

Note. Values on the diagonal are Cronbach alpha reliability coefficients from the previous study by these authors (in *italics*) as well as for the current study (in **bold**). PTSD = posttraumatic stress disorder.

groups ($F_{(2,347)} = 27.46$, $p < .001$). Following the ANOVA, the Tukey post hoc comparison procedure was used to compare all possible pairs of cell means. The post-1990 group PTSD scores were statistically significantly higher than both of the other two groups ($M = 30.2878$, $SD = 14.62$). The 1980–1990 group mean score ($M = 21.50$, $SD = 10.82$) was not statistically significantly different than that of the pre-1980 group ($M = 17.40$, $SD = 1.59$).

Anxiety

Among the total participant group of 350, 58, or 16.6% met the criteria for anxiety. Of those, 50 (86.2%) came from the refugee post-1990 group, 7 (12.1%) from the 1980–1990 group, and 1 (1.7%) from the pre-1980 group. ANOVA for the anxiety scale scores indicated a statistically significant difference among three groups ($F_{(2,347)} = 39.44$, $p < .001$). Following the ANOVA, the Tukey post hoc comparison procedure was used to compare all possible pairs of cell means. The post-1990 group PTSD mean was statistically significantly higher than both of the other two groups ($M = 2.58$, $SD = 1.98$). The 1980–1990 group mean score ($M = 1.24$, $SD = 1.51$) was not statistically significantly different than that of the pre-1980 group ($M = .65$, $SD = .84$).

Panic

For panic, 82 (23.4%) participants met the criteria. Among those, 65 (79.3%) emerged from the refugee post-1990 group, 11 (13.4%) from the 1980–1990 group, and 6 (7.3%) from the pre-1980 group.

ANOVA for the panic scale scores indicated a statistically significant difference among three groups ($F_{(2,347)} = 22.52$, $p < .001$). Following the ANOVA, the Tukey post hoc comparison procedure was used to compare all possible pairs of cell means. The post-1990 group PTSD mean was statistically significantly higher than both of the other two groups ($M = 4.44$, $SD = 3.35$). The 1980–1990 group mean score ($M = 2.41$, $SD = 2.37$) was not statistically significantly different than that of the pre-1980 group (M = 1.86, $SD = 1.49$).

Depression

The results indicated high levels of both minor and major depression. Among the 74 (21.1%) participants classifying for minor depression, 48 (64.9%) emerged from the refugee post-1990 immigration group, 14 (18.9%) from the 1980–1990 group, and 12 (16.2%) from the pre-1980 group. Among those 99 participants (28.3%) classifying for major depression, 85 (85.9%) came from the refugee post-1990 group, 13 (13.1%) from the 1980–1990 group, and 1 (1.0%) from the pre-1980 group. A chi-square test of association examined the relationship between depression level and immigration group, and yielded a statistically significant association ($\chi^2 = 59.04$, $p < .01$). ANOVA for the symptoms of depression scale scores indicated a statistically significant difference among three groups ($F_{(2,347)} = 34.82$, $p < .001$). Following the ANOVA, the Tukey post hoc comparison procedure was used to compare all possible pairs of cell means. The post-1990 group PTSD mean was statistically significantly higher than both of the other two groups ($M = 3.71$, $SD = 3.04$). In addition, the 1980–1990 group mean score ($M = 1.85$, $SD = 2.48$) was statistically significantly higher than that of the pre-1980 group ($M = .83$; $SD = 1.15$).

Discussion

The hypotheses that the groups would differ in their overall frequencies on variables of PTSD, anxiety, panic, depression, and dysthymia were supported. Further, the hypotheses that the frequencies would be differentially progressive statistically for PTSD, anxiety, panic, depression, and dysthymia also were supported. Finally, the hypothesis that mean scores would be differentially progressive by immigration group was also supported.

These results suggest numerous points. The three groups we identified based upon varied demographic and background variables also seem to characterize three separate psychological profiles. The earliest immigration group, the pre-1980 group, reported the lowest levels of each of the psychological variables, as well as yielding the lowest mean scores on each. For this group, remember that the primary reason for immigration was likely economic. Because of the enhanced level of economic opportunity in the United States, the new home country, it is likely that, according to Smart and Smart's model of coping with acculturation related transitions, the joy and relief of such economics did not lead to much postdecisional regret. Moreover, although the educational levels may be lower in comparison to their demographic Iraqi immigrant group counterparts, the opportunities for next generations may also have mediated that regret. It seems that stress over psychological symptoms, whether it had ever posed a major issue for this group, was currently not an issue of consequence. Again, perhaps due to time in the United States, the acculturation and reorganization phases of transition appear to have already occurred. Thus, although the aspects of acculturation stress are lifelong and pervasive, their intensity among this particular group appears to be minimal.

The 1980–1990 group appears to be somewhat more adjusted to life in the United States. Although for them, relief from the cessation of the environmental and contextual conditions in their country of origin at the time of their emigration may have been less-than-joyful, and the postdecisional regret been lessened by the onset and ongoing reality that return may never be possible or likely. In any case, our participant group, as a whole, appears not to be stressed by overwhelming psychological challenges. Thus, it appears that they, too, have become acculturated and adjusted into U.S. culture and society. The large standard deviations yielded from the data analyses reflect the positively skewed nature of the distributions for the outcome variables. For each of the psychological outcomes, many respondents had low scores and the higher

scores were less frequent. Overall, anywhere between 10 and 15% of the respondent group represented each of the psychological classifications.

For the pre-1980 group, the small standard deviations across all three diagnostic categories are due to the consistently lower scores. We should note that these results should be taken with caution because we have both unequal sample sizes and unequal variances, raising question about the accuracy of the F statistic. However, the size of these differences is generally so large that they are likely to be meaningful, nonetheless.

With regard to the third group, or the post-1990, post-GW group, it seems clear that the intensity, along with the likelihood of lifelong and pervasive impacts of the immigration and overall transition experience, is prevalent. For these individuals, psychological issues such as PTSD, anxiety, panic, depression, and dysthymia may represent a reality that is indeed pervasive. Although it is clear that this group has the highest frequencies and means on all the psychological variables, the standard deviations, again, are high for this group. This suggests again higher variability in experience within this group, which may also point to treatment implications.

Implications for Practice

It is clear that there are differences in psychological symptomologies between various groups of Iraqi immigrants. For practitioners, it is critical to recognize stages of acculturative stress such as joy and relief, post-decisional regret, stress with attending psychological symptoms, and acceptance, adjustment, and reorganization. Duration, pervasiveness, and intensity at any stage of such a model also must be taken into consideration. Within that context, as overviewed by Smart and Smart in their research on Hispanic populations (1995), several counseling implications emerge. Accurate assessment of stress level represents the first of these potential interventions. Within a culturally sensitive perspective, psychosocial stressors such as immigration, as well as gender-linked stressors, such as sexual exploitation, should be explored. Preferred language usage will likely come into play, and clinicians without verbal skills in the clients' native language must engage competent and ethical translators to support the counseling process. Smart and Smart (1995) also speak to the importance of helping clients to develop social support networks and social skills, along with using a loss and adaptation perspective of coping. In the case of refugees in particular, many familial patterns have been interrupted and in some cases severed. In some Arab and Iraqi enclaves, despite an apparent potential to easily develop new networks within a familiar ethnic environment, Iraqi refugees may have been, until and perhaps beyond the 2003 deposition of Saddam Hussein, prone to suffering from paranoia of surveillance (Nassar-McMillan & Hakim-Larson, 2003). An "adaptation" approach implies a developmental process through which the clinician can help the client navigate (Jamil, Nassar-McMillan, & Lambert, 2004; Nassar-McMillan, in press a).

Finally, Smart and Smart (1995) speak to the importance of familiarity of immigration law. In contemporary times, mental health practitioners are charged with playing the role of advocate, as well as counselor, to their clients (Nassar-McMillan, 2003b). For Arab Americans in particular, immigration laws are fluid and ever changing, as are their effects on various groups individuals. Clinicians need to seek out accurate sources of information such as the Arab American Institute, as well as to become aware of advocacy efforts on national levels. They need to be willing to initiate legislative advocacy on behalf of their client population as well (Nassar-McMillan, in press a).

According to the American Psychiatric Associations's current *Diagnostic and Statistical Manual*, several points should be considered in clinicians' cultural formulation of individuals' issues, in addition to traditional multiaxial diagnostic assessment: (1) cultural factors related to psychosocial environment and levels of functioning, (2) cultural elements of the relationship between the individual and the clinician, and (3) overall cultural assessment for diagnosis and care. In applying this model perspective to work with Iraqi immigrant clients, relevant cultural factors could include social stressors related to their wave of immigration, their immigration status, their employment status, their English language speaking ability, their current family structure, gender, marital status, and religion. Once such factors were assessed, one could begin to expand clients' current levels of support, as well as begin treatment interventions to improve level of functioning. It is important for clinicians to openly address any cultural similarities and differences with the client, and to utilize the client as a source of information about his or her culture, as opposed to making assumptions. At times, it may be appropriate to seek out and confer with colleagues to determine whether assessments are indeed made with appropriate cultural considerations. For example, when working with a female client, it may be culturally appropriate to include the husband in the session. In this and other ways, utilization of family structure within therapy would be considered, appropriately, collectivistic versus individually focused, as traditional western approaches might prescribe.

Finally, with regard to diagnosis and treatment, it is critical to be aware of cultural implications in overall assessment. Any psychological assessments conducted, if not normed appropriately, must be interpreted with caution, and ideally with consultation from a more knowledgeable colleague.

In addition to being cognizant of such models, it is important to recognize how the circumstances around the immigration process may influence the acculturation and resulting adaptation process for individuals, families, and groups. Multiculturally competent practitioners in contemporary society recognize the impact of sociopolitical histories of their clients (Nassar-McMillan, in press a), and take responsibility for learning more about sociopolitical facts as well as perceptions and experiences.

Further, it is clear from our study, although certainly not generalizable to all Iraqi immigrant groups or communities, that differences exist that appear to be relative to many variables, such as length of time in the United States, as well as other more ambiguous ones such as the relative impacts of sociopolitical regimes, relationships with the United States as the new host country, and exposure to preimmigration traumas. For example, the recent Iraqi immigrant groups are likely to suffer more discrimination based on both lower levels of acculturation as demonstrated by variables such as language acquisition, as well as the current post-911 climate in the United States, characterized by controversies of civil liberties versus homeland security.

Immigrants from Iraq, because of their potential fragility related to both acculturation stresses and the hostility of their postimmi-

gration environment, are in need of appropriate health care policy and practice.

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