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The Impact of Bias and Cultural Competence on Therapists’ Clinical Judgment of Arab American Clients
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IMPACT OF BIAS

Acknowledgments

I would like to dedicate this dissertation to my father, David F. Maxwell. Thank you for your support and drive to help me through this arduous process. It means the world to me and I would not be where I am today without you.

Thank you to those in my academic community for your support. Anna Ghee, Ph.D., I would especially like to thank you for your immense support, encouragement, and belief in me. I appreciate all your help throughout these past six years in all of our undertakings together. You have helped me to blossom into the clinician and researcher I am today. I would also like to thank those who helped me to see my ideas come to fruition, Dalia Diab, Ph.D., and W. Michael Nelson, Ph.D., ABPP. I truly appreciate the dedication you have shown to my project and professional growth. Thank you to my fellow students who assisted me throughout this process and provided their expertise. I would also like to acknowledge the faculty of Xavier University’s Clinical Psychology Doctoral Program. You have helped me to grow both professionally and personally in ways that I never imagined.

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A. Institutional Review Board Authorization

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Abstract

The present study investigated the relationship among explicit biases against Arabs/Arab Americans, diagnosis, prognosis, and perceived cultural competence. Individuals of Arab descent are at heightened risk for prejudice and discrimination due to events such as those that occurred on September 11, 2001 (Moradi & Hasan, 2004; The Leadership Conference on Civil Rights Education Fund, 2009). The participants for this study included 161 advanced psychology graduate students and predoctoral interns. For participants who were of the traditional age (25-34 years old) for advanced graduate psychology training, a small negative relationship was found between perceived cultural competence and less explicit biases towards Arab individuals in the predicted direction. This negative relationship between perceived cultural competence and explicit biases towards Arabs was also found within the ethnic minority participants. Higher perceived cultural competence predicted a lower severity of diagnosis of a hypothetical Arab client, but only for the 25-34 years old participants. Higher levels of explicit biases against Arabs predicted a better prognosis of a hypothetical Arab client, but only for the male participants. This relationship had a small effect size and it was not in the predicted negative direction. These results contribute to the current literature, as this topic has previously been unexamined in the literature. These findings may offer implications for diversity education for graduate programs and internships.
The Impact of Bias and Cultural Competence on Therapists’ Clinical Judgment of Arab American Clients

Biases, prejudices, and stereotypes remain prevalent in the United States of America despite the concerted effort of a subset of the population. These negative attitudes and related behaviors can appear in many forms and can affect individuals in numerous ways (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002). Today, the Arab American community, recognized as a cultural group, experiences high rates of discrimination (Elia, 2006; Moradi & Hasan, 2004). It is estimated that between 2 to 3.5 million people of Arab descent are currently residing in the United States (Arab American Institute, 2011; Henry & Fouad, 2007; Nobles & Sciarra, 2000). In the year following the September 11th attacks, hate crimes towards Arab Americans increased to 481 reported incidences. Even six years after those traumatic events, hate crimes towards this population remain more than four times greater than prior to September 11th (The Leadership Conference on Civil Rights Education Fund, 2009). While the number of reported hate crimes remain high, these numbers are significant underestimates of the actual number of violent acts committed against Arab Americans (The Leadership Conference on Civil Rights Education Fund, 2009).

Stereotyping and Discrimination

Images of Arabs/Arab Americans that are perpetuated through the media that include the stereotypes of intolerance, oppression, and terrorism help to create a negative worldview of the Arab community (Abouchedid & Nasser, 2006; Nobles & Sciarra, 2000; Sabbah et al., 2009). As a whole, a generalized prejudice against Arab people appears to be consequential and justified by the terrorist events on September 11th. According to the Just World Hypothesis theory, individuals who attribute responsibility of the September 11, 2001 attack to people of
Arab descent would feel bias against Arab Americans and may feel compelled to instigate their own form of justice for these attacks, which can include varied acts of discrimination.

Targeted groups are susceptible to many different kinds and severities of discrimination, including institutionalized discrimination and hate crimes. Discrimination can affect individuals in a negative way such as increasing the susceptibility to chronic medical conditions, including cardiovascular problems, chronic pain disorders, and respiratory difficulties (Okazaki, 2009). Research on college students provides evidence of explicit (Abouchedid & Nasser, 2006) and implicit (Park, Felix, & Lee, 2007) prejudice and discrimination. There appears to be a significant number of negative attitudes towards the Arab culture occurring within the United States, yet, there is limited research that has examined how these negative attitudes and prejudices affect Arabs/Arab Americans. Moradi and Hasan (2004) found that the majority of the Arab Americans who participated in their study experienced both implicit and explicit discrimination and prejudice due to their ethnicity or religion. These results have been found in other minority or oppressed groups such as females and African Americans (Moradi and Hasan, 2004). These studies indicate that discrimination does have negative effects on individuals, including decreasing their self-esteem and increasing their psychological distress.

The American Psychological Association (APA; 2002) stated in their ethical code of conduct that psychologists must minimize the effects of their own personal biases and prejudices when they are working with minority clients. One way for psychologists and therapists to minimize their biases is to first become aware of their prejudices. Being aware that one has biases can precipitate the individual to begin to correct them (Baker, 1999; Sabbah et al., 2009; Vasquez, 2007). It is important to examine the effects of prejudices and biases on Arabs/Arab Americans as psychologists are held to an ethical standard of minimizing these biases. An initial
step for researchers is to determine if therapists hold biased attitudes towards their Arabs/Arab American clients and to what extent. These questions are the premise for this study.

**Cultural Competence of Therapists and the Mental Health of Ethnic Minorities**

According to Baker (1999), “therapy does not happen in a vacuum. Rather it happens in social and cultural contexts and encounters” (p.55). Therefore, it is imperative to practice in a culturally competent manner, which includes examining the cultural context of the client and their environment. Cultural competency is established through the development of three different competencies. These competencies include: awareness of the therapists’ own biases and limitations, development of knowledge and understanding of the client’s culture and worldview, and culturally appropriate techniques and interventions (Sue & Sue, 2008; Sue, Zane, Hall, & Berger, 2009). Cultural competence includes not only the clinician’s overall competence, but his/her ability to provide quality services to ethnic minority and other minority individuals as well. These abilities include holding knowledge about other cultures and values, integrating this knowledge into treatment, and knowing the necessary skills to provide the best treatment (Imel et al., 2011; Kristofco, Stewart, Vega, 2007; Sue et al., 2009).

Therapists bring in their own cultural lens in which they view their clients, which is why it is necessary for therapists to be aware of their own biases. This lens can then affect how the therapist conceptualizes the client. Therapists who are not culturally competent may perpetuate the client’s feelings of discrimination and shame. The use of microaggressions, stereotypes, and implicit and explicit biases can deepen an oppressed client’s feelings of discrimination (Bermudez, 1997; Vasquez, 2007).

Stereotypes based on race can affect clinical judgment. Sabbah et al. (2009) caution therapists about internalizing stereotypes for Arab Americans. They state that the internalization
of the negative stereotypes of Arab Americans portrayed in today’s media “may directly influence the counselors’ assumptions and perspectives about clients of Arab descent, something that may be harmful to the therapeutic interaction” (p. 35). Vasquez (2007) also cautions therapists against utilizing stereotypes in therapy such that the therapist may have difficulty staying in the present and developing empathy for the client if the therapist holds negative stereotypes about the client.

Sabbah et al. (2009) examined the question regarding therapists’ competence in treating Arab Americans. The mental health practitioners they surveyed stated they felt it was important to be culturally competent in treating Arab Americans but they held perceptions they were the least competent in treating clients of Arab descent than other ethnic minorities. Participants also reported knowing very little factual information regarding the Arab world. In fact, they reported the majority of their information regarding Arab culture and worldviews comes from mass media, which has been shown to perpetuate negative images and stereotypes of Arab Americans. The authors encourage therapists to become more culturally competent with treating clients of Arab descent.

**Prejudice and Discrimination in Diagnosis**

The existing research findings on client ethnicity and race and how these factors affect the diagnostic process are inconclusive. Some studies show there is a bias effect in clinicians’ diagnoses, whereas other studies do not show these effects (Kristofco et al., 2007; Nguyen, Arganza, Huang, & Liao, 2007; Simpson, Krishnan, Kunik, & Ruiz, 2007). In a literature review conducted by Simpson et al. (2007), there were inconclusive results on these effects. Some studies reviewed found no significant differences in the diagnosis of depression between ethnic minorities and Caucasians. However, other studies noted differences in the rates of depression
with Hispanics and African Americans and Caucasians, such that the lower rates of depression were noted for ethnic minorities.

Another literature review conducted by Kristofco et al. (2007) concluded that disparities of diagnosis between ethnic minorities and Caucasian clients are evident. Clinicians are more likely to underdiagnose depression within the African American population than in the White population, though the diagnosis of schizophrenia appears to be overdiagnosed in this population as compared to Whites. It also appears that within the Hispanic population, depression may be overdiagnosed as compared to both Caucasian and African American clients.

Other studies have examined therapist race and ethnicity, which have been shown to impact bias. Bamgbose, Edwards, and Johnson (1980) found that when therapists were matched with clients on their race, then bias of clinical judgment disappeared. Wampold, Casas, and Atkinson (1981) found that Caucasian therapist trainees were more likely to make clinical judgment errors based on stereotypes than ethnic minority trainees. Strickland, Jenkins, Myers, and Adams (1988) conducted a study examining the effects of the client’s race and the therapist’s race on clinical judgment. The results showed that African American and Caucasian student therapists rated their clients differently on the items. Regarding African American clients, the Caucasian student therapists had a tendency to underestimate their psychopathology, whereas the African American therapists rated them as more inappropriate for therapy than the Caucasian clients. With regards to Caucasian clients, the African American student therapists showed a tendency to overstate their psychopathology.

Race and ethnicity may also play a role in the psychotherapists’ prognosis of their clients. Arroyo (1996) conducted a study that examined the effects of a client’s Hispanic race on Caucasian non-Hispanic psychotherapists’ diagnoses and prognoses of hypothetical Hispanic and
non-Hispanic White clients. The psychotherapists diagnosed the two hypothetical clients similarly; however, the psychotherapists rated the prognosis of the Hispanic client significantly lower than the prognosis of the non-Hispanic White client. These psychotherapists also reported significantly less empathy for the Hispanic client than the non-Hispanic White client (Arroyo, 1996). This study shows that while clinicians may not diagnose the similar clients differently, they may still conceptualize the clients differently, which could lead to treatment differences.

Negative attitudes have been shown to affect therapists’ clinical judgments regarding their clients. This link has been drawn for some members of targeted groups, but there is a lack of literature regarding Arabs/Arab American clients. Sabbah et al (2009) and Moradi and Hasan (2004) noted that in addition to the dearth of literature, there is a lack of measures regarding attitudes and biases towards Arab Americans. In order to understand how to prevent biases from interfering with the treatment of clients of Arab descent, we need to understand the extent that clinicians are biased against Arab Americans. This study examined whether therapists have biases against people of Arab descent and if these biases affect the clinician’s judgment and treatment of the client. When clinicians are aware of their prejudices, they are then able to correct these negative attitudes. It is imperative to understand the factors related to such biases and to seek ways to prevent these attitudes from harming Arab/Arab American clients (Imel et al., 2011; Sabbah et al., 2009; Sue & Sue, 2008).

Hypotheses

Hypothesis I: It was hypothesized that there would be a negative relationship between clinician’s level of explicit bias, as measured by the Anti-Arab Prejudice Scale (AAPS), and perceived competence to work with Arab/Arab American clients, as measured by the Perceived
Competence to Work with Arab Clients scale (PCAC). It was expected that as bias increased, perceived competence would decrease.

**Hypothesis II:** It was hypothesized that there would be a negative relationship between Anti-Arab Prejudice Scale (AAPS) scores and GAF scores. Participants with higher Anti-Arab Prejudice Scale (AAPS) scores would rate the hypothetical client with a lower GAF score as compared to participants with lower AAPS scores.

**Hypothesis III:** Hypothesis III predicted a positive relationship between perceived cultural competence and the GAF scores. Participants with higher Perceived Competence to Work with Arab Clients (PCAC) would rate the hypothetical client with a higher current GAF score as compared to the participants with lower PCAC scores.

**Hypothesis IV:** Hypothesis IV predicted a positive relationship between Anti-Arab Prejudice Scale scores and diagnostic rating scale scores. Participants with higher Anti-Arab Prejudice Scale (AAPS) scores would rate the hypothetical client with a higher (more severe) diagnosis total score as compared to participants with lower AAPS scores.

**Hypothesis V:** Hypothesis V proposed that participants with higher Perceived Competence to Work with Arab Clients (PCAC) scores would rate the hypothetical client with a lower (less severe) diagnosis total score as compared to participants with lower PCAC scores.

**Exploratory Analyses:** Due to the dearth of literature in this area, exploratory analyses were also conducted. Cultural competence and the number of diversity training experiences have also been shown in other ethnic minority groups to affect clinician’s judgment. This has been demonstrated with ethnic minority youth (Imel et al., 2011) and adults (Bhui, Warfa, Ednova, McKenzie, & Bhugra, 2007; Sehgal et al., 2011) and explored with Arab American clients (Sabbah et al., 2009). Therefore, this study examined if increased diversity education and
training would be related to higher levels of perceived cultural competence when working with clients of Arab descent. Similarly, this study examined if greater numbers of diversity education and training were related to lower levels of explicit bias, as measured by the Anti-Arab Prejudice Scale. Another area that was explored was the effect of explicit bias on the participants’ rating of the V-code diagnosis (acculturation problem). Lastly, it has been shown that therapist-related demographic factors, including ethnicity and gender, may affect the diagnostic process (Castillo et al., 2006; Strickland et al., 1988). Therefore exploratory analysis in this study examined if ethnicity, gender, and age of the participant impacted the diagnostic total score and the Global Assessment of Functioning Score that were provided by the participants.

Method

Participants

The participants for this study were 161 advanced graduate students and predoctoral interns in psychology. This group was chosen as they are the most likely group to be providing psychological services while still maintaining close ties to their doctoral studies. The participants were recruited through a list (listserv) of directors of clinical psychology trainings for both Ph.D. and Psy.D. programs throughout the United States and Canada, as well as, internship training directors in the United States and Canada, obtained through the Association of Psychology Postdoctoral and Internship Centers (APPIC). An email was sent to the directors from the listserv requesting they forward the information regarding this study to their clinical psychology advanced graduate students and doctoral students who are currently on their pre-doctoral internship.
Measures

**Demographic survey.** After entering the website, the participants completed questions regarding demographic information. Participants provided information regarding their age, sex, ethnicity, nationality, and religion.

**Vignette.** The participants read a short vignette of a hypothetical client, based on modifications to the vignette developed by Eubanks-Carter and Goldfried (2006) in their research that examined diagnostic discrepancies due to client sexual orientation. The current study’s vignette summarizes an intake therapy session with a hypothetical male client of Arab ancestry. The name of the hypothetical client was changed to reflect a name of Arab descent, as well as, information regarding the client’s immigration to the United States. The vignette was then divided into four sections. Cultural modifications were made to each section to make the vignette culturally appropriate to the client of Arab ancestry instead of the presumed Caucasian client in the original vignette. Stereotypes of Arab/Arab American males were included as well in the vignette. There are four sections within the vignette.

1. The Introduction and Presenting Issue section contains an introduction to a client -- who is a college student with presenting problems that include some distress and symptoms of anxiety. The cultural elements describe a desire to manage his problems within the family, feeling uncomfortable about discussing his emotions, and immigration to the United States (Erickson & Al-Timimi, 2001; Nobles & Sciarra, 2000; Sabbah et al., 2009). The issue of feeling like a different person could be considered as a feature consistent with a dissociative disorder but not significant or detailed enough to meet a diagnosis. The presenting symptoms are anxiety-related behavioral observations and feeling like a different person.
2. The Relationship and Family section describes relationship and family issues. These issues are heated arguments with his brother, avoidance of his family, and difficult romantic and sexual relationships, possibly consistent with some of the criteria for the diagnoses of a personality disorder, though not sufficient to meet the diagnostic criteria. The cultural elements include the importance of his familial relationships and the expectation of women’s chastity prior to marriage (Erickson & Al-Timimi, 2001; Sabbah et al., 2009). The stereotypes of Arab/Arab Americans that are included in this section include his desire to control his girlfriend and his promiscuity.

3. The School and Work section describes his recent behaviors and experiences since arriving at college and work. The stereotypes of an Arab/Arab American included are his major in college and the loss of his temper (Erickson & Al-Timimi, 2001; Sabbah et al., 2009). These experiences and behaviors are his difficulty studying, his grades significantly declining, and losing his temper at a customer, possibly consistent with some of the criteria for the diagnoses of a mood disorder, or personality disorder, though not sufficient to meet the diagnostic criteria. However, the possibility of consideration of the diagnostic criteria for an adjustment disorder is more plausible.

4. The Emotions and Behaviors section contains his feelings of moodiness, irritability, anxiety, loneliness and problematic drinking. The cultural elements indicated in this section include his consumption of alcohol (Arfken, Arnetz, Fakhouri, Ventimiglia, & Jamil, 2011). These elements could be consistent with a diagnosis of a mood disorder or anxiety disorder, though not sufficient to make a diagnosis.

**The Diagnostic Rating Scale.** The participants rated diagnostic categories based on the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM IV-
TR; American Psychiatric Association, 2000) based on the likelihood that the hypothetical client is experiencing a disorder from the diagnostic category. The participants rated each diagnostic category, from a list of six Axis I and II categories, on a 4-point Likert-type scale on the likelihood (1 = highly unlikely, 4 = highly likely) that the participant would diagnose the hypothetical client with a disorder from the category. The options of diagnostic categories include mood disorder, dissociative disorder, adjustment disorder, personality disorder, alcohol/substance abuse disorder, and a no diagnosis selection. The adjustment disorder and no diagnosis selections were reverse coded, as these categories are the areas of interest for this study and indicate less severity of psychological dysfunction. Following the ratings of the diagnostic categories, the participants then rated the likelihood that the hypothetical client is suffering with other conditions that are of clinical concerns (V-code). The V-code examined in the exploratory analyses was acculturation problem, and was rated on the same 4-point Likert-type scale as the diagnostic categories and it was also reverse coded. This scale was adapted from a study conducted by Eubanks-Carter and Goldfried (2006).

**Global Assessment of Functioning.** The participants rated the hypothetical client’s psychological functioning based on the Global Assessment of Functioning (GAF) on the survey. The GAF is a measure of an individual’s current functioning and is described in the DSM IV-TR’s diagnostic criteria (American Psychiatric Association, 2000). The participant assessed the hypothetical client’s level of psychosocial functioning utilizing this scale. The GAF is rated on an interval scale beginning with 1, which is the lowest level of functioning, and up to 100 as the highest level of functioning. The GAF has been shown to be correlated with other psychosocial functioning measures (Mohr et al., 2009; Startup, Jackson, & Bendix, 2002). The GAF has also been shown to have good inter-rater reliability (Mohr et al., 2009; Ramirez, Ekselius, &
Ramklint, 2008; Startup et al., 2002) and has evidenced an ability to predict treatment outcome (Ramirez et al., 2008).

**Anti-Arab Prejudice Scale.** The Anti-Arab Prejudice scale was developed by Echebarria-Echabe and Guede (2007) to assess explicit prejudice against individuals of Arab descent in Europe. The scale contains 42 statements, 31 of which have a negative connotation and 11 of which have a positive connotation and thus are reverse-scored. Participants identified their level of agreement with the statements on a 7-point Likert-style scale ranging from 1 (strongly disagree) to 7 (strongly agree). This scale has been shown to be highly correlated with the Modern Racism Scale ($r = .87$), which is a measure of explicit bias. The scale has also been shown to have excellent internal consistency ($\alpha = .95$). The Anti-Arab Prejudice Scale has also been shown to have predictive validity by identifying high and low prejudiced individuals towards people of Arab descent. A focus group of 3 graduate students reviewed the scale and reworded items to make them relevant for participants in the United States.

**Perceived Competence to Work with Arab Clients Scale.** This measure contains 13 items and is condensed from the survey developed by Sabbah et al. (2009) for their research that examined the perceived levels of competence of clinicians when working with Arab American clients. The original survey was included in their published article and contained four sections; however, this research only utilized three of the original sections: Importance of Cultural Competence in Counseling Specific Racial/Ethnic Groups (Section I), Counselors’ Perceived Competence Level in Counseling Specific Racial/Ethnic Groups (Section II), and Counselors’ Knowledge of Arab Worldview (Section III). The demographic section of the original survey was excluded as these questions pertained to clinicians who are already licensed, and the target sample for this current study does not include individuals who have obtained their licensure.
In Section I, the participants reported the degree of importance they place on cultural competency when working with specific racial/ethnic groups. The participants rated each statement on a 5-point Likert-type scale, where 1 is not important and 5 is highly important. Section II measured the participant’s perceived level of cultural competence of the specific racial/ethnic groups specified in the first section. The participants rated each statement on a 5-point Likert-type scale, where 1 is not competent and 5 is highly competent. Lastly, Section III examined the participant’s knowledge of general Arab worldview, including language, family structure, religion, gender role, and communication style. The participants rated each statement on a 5-point Likert-type scale, where 1 is not knowledgeable and 5 is highly knowledgeable.

Procedure

The participants for this study were 161 advanced graduate students and predoctoral interns in psychology. Approval of the research was obtained from the Institutional Review Board (IRB) of Xavier University (Appendix A). Listservs of directors of clinical training for clinical psychology doctoral programs, including Ph.D. and Psy.D. programs and internship training directors in the United States and Canada, were obtained through the Association of Psychology Postdoctoral and Internship Centers. An email was sent to all the directors on the listservs requesting they forward the email to their current clinical psychology advanced graduate students and predoctoral interns. The participants, via the email, were provided with a link to the web-based study, as well as, a short description of the study including the time demand. Participants who clicked on the link were provided with the informed consent form. Consenting participants then clicked on a “continue” button in order to connect to the study materials through the allocated website Survey Gizmo. Follow up emails were sent two weeks after the initial email to remind and encourage the interns and students to participate in the study.
After accessing the online study materials, the participants provided demographic information. In order to maintain confidentiality in the study, the participants were not asked their name or address. Next, the participants read the vignette of the hypothetical client. After reading the vignette, the participants completed the Diagnostic Rating Scale (DRS) where they rated each of the five diagnostic categories on the likelihood the hypothetical client was experiencing each category. Next, the participants rated the likelihood that the hypothetical client is suffering from other conditions of clinical concern, including an acculturation problem. Then the participants provided a rating of the hypothetical client’s current psychosocial functioning by providing a current GAF score. Once this was completed, the participants completed the Anti-Arab Prejudice Scale (AAPS). Following that, they completed the Perceived Competence to Work with Arab Clients Scale (PCAC). When the participants finished the PCAC, a screen appeared which thanked participants for their involvement, as well as, debriefed them about the study. A message then informed the participants to click on a link that took them to a different survey in order to be entered in a drawing for the $50 gift card as an incentive for participation. This section was provided separately from the other study results so that the research results remain anonymous.

Results

Preliminary Analyses

Prior to the conduction of statistical analyses, designated items on the AAPS (items 3, 6, 18, 19, 21, 31-33, 35, 38, 40, and 42) and the DRS (adjustment disorder and no diagnosis) were reverse-scored. In addition, all measures were examined for outliers. Two outliers (one participant provided a GAF score of 500 and one participant reported 100 diversity training experiences) were noted and removed based on recommendations provided by Pedhazur (1997).
Preliminary analyses also included the examination of descriptive statistics. Frequencies were calculated based on participant’s reported age, sex, and ethnicity. See Table 1 for demographic frequency results. Along with the demographic information, descriptive statistics (mean, standard deviation, median) were calculated regarding previous training experiences (Table 2). In addition, Cronbach’s alpha was calculated for the modified version of the AAPS utilized in this study. The AAPS was found to have good internal consistency ($\alpha = .94$).

**Descriptive Statistics**

There were 86% of respondents who identified with the 25-34 age group, which is the traditional age for psychology predoctoral interns (Keilin, 2014). As listed in Table 1, 76% of the participants were female and 24% were male, which appears to be similar to the sample of applicants for the 2012 predoctoral internship match (Keilin, 2014), of which, 79% of the sample was female and 20% were male. The majority of the sample (85%) identified as Caucasian, which is somewhat higher than the sample of applicants from the 2012 internship match, where 77% of the applicants identified as Caucasian (Keilin, 2014). The mean number of diversity training experiences in this sample was $M = 7.21$ classes, workshops, and/or seminars, with a standard deviation of $SD = 7.84$. See Table 3 for the means and standard deviations of the study variables for the overall sample and Table 4 for each demographic subgroup. See Table 5 for participants’ rankings of knowledge sources of the Arab worldview. All statistical analyses were conducted utilizing SPSS software.

**Results - Hypothesis I**

Hypothesis I predicted a negative relationship between participants’ PCAC and their scores on the AAPS. This hypothesis was tested utilizing a linear correlation using the Pearson
product-moment correlation. Hypothesis I was not supported when the entire sample was examined, though, further analyses revealed the hypothesis was supported for certain demographic subgroups of the sample. Initial correlational analyses of the entire sample indicated that there was no relationship between PCAC and AAPS scores, $r(159) = -0.11, p = 0.161$. However, when examining only the participants aged 25-34, which is the age of the traditional psychology predoctoral intern (Keilin, 2014), there is a small negative relationship, as predicted, $r(136) = -0.20, p = 0.019$. These results indicate that as advanced graduate students and interns in psychology’s ratings of perceived competence to work with Arab/Arab American clients increase, scores on the Anti-Arab Prejudice scale decrease as well. There was also a significant negative relationship with a moderate effect size when examining this hypothesis with ethnic minorities, $r(23) = -0.48, p = 0.016$. Ethnic minorities included in this sample were participants who identified their ethnicity as other than Caucasian.

Results - Hypothesis II

Hypothesis II predicted that participants who endorsed higher AAPS scores would rate the hypothetical client with a lower GAF score. Bivariate linear regression analyses revealed that participants who endorsed high or low prejudice scores did not differ in their ratings of the hypothetical client on the GAF scale, $R^2 = 0.003, p = 0.513$. Hypothesis II was not supported for the entire sample. Although not in the predicted direction, when only the male sample was examined, those who endorsed higher AAPS scores rated the hypothetical client with a significantly higher GAF score, $R^2 = 0.125, p = 0.027$ with a moderate effect size. The results indicate that for male participants who were advanced graduate students or interns in psychology, higher AAPS predicted higher GAF scores, $\beta = 0.354, t(37) = 2.30, p = 0.027$.

Results - Hypothesis III
Hypothesis III predicted that participants who endorsed high PCAC scores would rate the hypothetical client with a higher GAF score. Bivariate linear regression analyses revealed that participants who endorsed high or low PCAC scores did not differ in their ratings of the hypothetical client on the GAF scale $R^2 = .007, p = .292$. Therefore, Hypothesis III was not supported in this study, $\beta = .084, t(158) = 1.06, p = .292$. Also, this hypothesis was not supported for the demographic subgroups examined.

**Results - Hypothesis IV**

Hypothesis IV predicted that participants who endorsed higher AAPS scores would rate the hypothetical client with a higher (more severe) DRS score. Bivariate linear regression analyses revealed that participants who endorsed high or low AAPS scores did not differ in their ratings of the hypothetical client on the DRS $R^2 = .002, p = .558$. Therefore, Hypothesis IV was not supported in this study, $\beta = .046, t(159) = .59, p = .558$. This hypothesis was also not supported for the demographic subgroups examined.

**Results - Hypothesis V**

Hypothesis V predicted that participants who endorsed higher PCAC scores would rate the hypothetical client with a lower (less severe) DRS score. Bivariate linear regression analyses revealed that participants who endorsed high or low PCAC scores did not differ in their ratings of the hypothetical client on the DRS, $R^2 = .017, p = .101$. Hypothesis V was not supported when the entire sample was examined; however, further analyses revealed the hypothesis was supported when examining only the age group of 25-34. Participants aged 25-34 years old who endorsed higher PCAC scores rated the hypothetical client with a significantly lower DRS score, $R^2 = .035, p = .028$ with a small effect size. The results indicate that for participants between the
age of 25-34, higher perceived competence to work with clients of Arab descent may predict less severe diagnostic ratings, $\beta = -0.187$, $t(136) = -2.22$, $p = 0.028$.

**Exploratory Results**

Several exploratory analyses were conducted, as proposed, to examine additional relationships with the independent variables of demographic variables, AAPS scores, PCAC scores, and diversity training experiences, and the dependent variable of the V-code diagnosis (acculturation problem).

**V-codes and diversity training experiences.** Bivariate linear regression analyses revealed that participants with higher levels of diversity training experiences were significantly more likely to endorse a diagnosis of the V-code “acculturation problem,” $R^2 = 0.036$, $p = 0.017$. These results suggest that advanced psychology graduate students and predoctoral interns with higher amounts of diversity training tend to be more likely to diagnose the V-code of acculturation problem, $\beta = 0.189$, $t(158) = 2.42$, $p = 0.017$.

**PCAC and diversity training experiences.** Bivariate linear regression analyses also revealed that participants who rated higher PCAC scores reported significantly greater number of diversity training experiences than those who endorsed lower PCAC scores, $R^2 = 0.037$, $p = 0.014$. This indicates that advanced graduate students and interns in psychology who have participated in more diversity training experiences perceive themselves to be more culturally competent to work with Arab and Arab American clients, $\beta = 0.193$, $t(158) = 2.48$, $p = 0.014$.

**AAPS and diversity training experiences.** Bivariate linear regression analyses revealed that participants who reported higher AAPS scores did not differ in the number of diversity training experiences than those who endorsed lower AAPS scores, $R^2 = 0.094$, $p = 0.236$. 
Therefore, diversity training hours does not predict explicit bias against Arabs/Arab Americans, $\beta = -0.094$, $t(158) = -1.19$, $p = .236$.

**Sources of knowledge regarding Arab worldview.** Participants ranked their sources for information regarding the Arab worldview. Educational courses were the top source for knowledge, though this was only true for 39% of the participants. This indicates that clinicians in training obtain their information about the Arab worldview from a variety of sources.

**Discussion**

The present study sought to evaluate the presence of clinician biases against Arab/Arab American clients. First, this study examined the relationship between clinicians’ perceived cultural competence to work with Arab clients and their reported bias against Arabs/Arab Americans. Second, the study sought to examine the relationship between diagnosis, perceived cultural competence, and bias against Arabs/Arab Americans. Lastly, exploratory analyses were conducted on the number of diversity training experiences received and its relationship with diagnosis, perceived cultural competence and bias against Arabs/Arab Americans.

**Perceived Competence and Explicit Bias**

The predicted negative relationship between perceived cultural competence to work with Arab clients and biases towards Arabs/Arab Americans, was present for the age group of 25-34 year olds and for ethnic minorities. For the overall sample of psychology graduate students and interns, there was a non-significant relationship between these two variables. These findings suggest that among the advanced psychology graduate students and predoctoral interns who are 25-34 or ethnic minorities, bias against people of Arab descent is related to perceived competence to work with Arab clients, such that as one variable increases the other decreases. Whereas correlational findings do not distinguish cause and effect, it is unclear whether a
decrease in perceived competence to work with Arab/Arab American clients leads to an increase in explicit bias towards Arabs/Arab Americans, or whether an increase in this explicit bias precipitates a decrease in perceived competence to work with clients of Arab descent.

The age group with significant findings in particular is expected, as the majority of psychology interns fall into the 25-34 year old age bracket (Keilin, 2014). Although statistically significant, it may not be clinically significant due to a small effect size. The results of this study corroborate the findings of Keyser, Gamst, Meyers, Der-Karabetian, and Morrow (2014), who examined predictors for perceived cultural competence within psychology graduate students and psychologists who worked with children. These authors found that clinical providers who endorsed greater levels of ethnic identity and more positive racial attitudes were more likely to report higher levels of perceived cultural competence. As the authors assessed both psychology graduate students and psychologists, it is difficult to determine if training status may play a role in the relationship between racial attitudes and perceptions of cultural competence. The current study provides further support for the relationship between clinician race, racial attitudes/biases, and perceived cultural competence. However, there is a dearth of literature regarding the roles and relationships between various demographic variables, racial attitudes/biases, and perceived cultural competence. Further research is needed to clarify these relationships in order to better understand how clinician variables, such as age and ethnicity, may affect perceived cultural competence and explicit biases, as these may impact mental health treatment utility and outcomes for Arab/Arab American clients. Negative biases and insufficient cultural competence could impact the development of the therapeutic alliance and consequently impact treatment and treatment outcomes for Arab/Arab American clients.

**Explicit Bias and Prognosis**
For the overall sample, there was no relationship found between explicit biases against Arabs/Arab Americans and prognosis for the hypothetical client who was portrayed as Arab/Arab American. However, for the male participants, as their explicit biases increased, their ratings of the hypothetical client’s prognosis were increasingly better. These findings suggest that male clinicians in training who report explicit bias against individuals of Arab descent may identify better prognoses for Arab clients, i.e., clinicians may attempt to overcome their biases by providing better therapeutic outlooks for their Arab/Arab American clients or may miss important cultural implications that lend themselves to poorer prognoses. There are potentially negative implications for these findings, such as these clinicians may attempt to overcome their biases by providing better therapeutic outlooks for their Arab/Arab American clients, or they may miss important cultural implications that lend themselves to poorer prognoses. However, the sample size of male participants was small; the effect size was small, and the positive relationship between biases and prognosis was not in the predicted negative direction. Therefore, additional research is necessary to clarify this relationship and explain how gender-relevant factors may play a role in biases and prognosis for an Arab/Arab American client. Although there is limited literature regarding other clinician-related factors such as gender and their effect on prognosis, previous studies have found discrepancies in client prognosis based on the client and clinician’s race (Arroyo, 1996; Zaya, Cabassa, Perez, & Howard, 2008). While the authors did not report the effect sizes from their studies, Arroyo (1996) cautioned that her results may have been influenced by a small sample size. The results may also have been impacted by interactions of clinician- and client-related gender factors between the hypothetical male client and the male participants. These variables should be further examined in the literature, as it is
important to identify how these factors play a role in the clinical conceptualizations of Arab/Arab American clients.

**Perceived Competence and Prognosis**

In addition, the current study did not provide evidence to support a significant relationship between perceived competence to work with Arab clients and the rating of the hypothetical client’s prognosis. Further examination may provide clarification of the role that perceived cultural competence plays in regards to prognosis, due to the limited research in this area.

**Explicit Bias and Diagnosis**

There was no relationship found between explicit biases towards Arabs/Arab Americans and diagnostic severity. This finding that training clinicians’ diagnostic ratings of a hypothetical Arab client were not related to explicit biases against Arabs/Arab Americans differs from previous studies (Kristofco et al., 2007; Smedley, Stith, & Nelson, 2003) that have shown that biases against ethnic minorities impacts diagnosis, though it is important to note that the authors did not specify if the studies they reviewed examined implicit or explicit bias. Further studies should be conducted to examine the relationship between explicit biases against clients of Arab descent and diagnostic discrepancies. The results of the current study suggest that explicit biases, or prejudices, may not have a relationship with the diagnostic process for Arab/Arab American clients.

**Perceived Competence and Diagnosis**

For the overall sample, no relationship was found between perceptions of cultural competence and diagnostic severity. However, among the advanced psychology graduate students and predoctoral interns aged 25-34 years, having higher perceived cultural competence
to work with Arab/Arab American clients predicted less severe diagnosis. These findings suggest that as clinicians in training’s perceptions of cultural competence increase, they identify less severe diagnoses for clients of Arab descent. Perceptions of cultural competence may have an impact on the diagnostic process for clinicians in training of the typical age. It is unclear if this relationship is of clinical significance. Based on previous studies, higher levels of cultural competence and diversity education have been shown to decrease diagnostic disparities with ethnic minority clients (Adeponle, Groleau, & Kirmayer, 2014; Whaley, 2011), though these studies were qualitative in nature and, thus, unable to make conclusions regarding causation. Further research is necessary to understand how perceived cultural competence affects the diagnostic process, particularly for clients with Arab backgrounds. Understanding the role of perceived cultural competence may have implications in multicultural competence education which may impact mental health treatment for ethnic minorities, and in particular, Arabs/Arab Americans.

**Exploratory Analyses**

The results revealed that increased number of diversity training experiences was related to increased diagnosis of the V-code of “acculturation problem,” as well as increased perceived cultural competence to work with Arab/Arab American clients. Participants who reported higher levels of diversity education were more likely to endorse the V-code of acculturation problem than participants with fewer diversity training experiences. Along with this, participants who reported more diversity educational experiences were more likely to report higher levels of perceived competence to work with Arab clients. These exploratory results highlight the importance of diversity education within psychology graduate programs and internship programs.
and how diversity training experiences play a role in the diagnostic process and perceptions of cultural competence.

However, the results indicated that there was no relationship between diversity training experiences and clinicians’ explicit biases against individuals of Arab descent. Thus, diversity education may not have a relationship with biases or prejudices that psychology clinicians in training hold against Arabs/Arab Americans. Although the quantity of diversity training experiences is related to perceptions of competence to work with clients of Arab descent, it appears that the training is not related to the way that participants feel about Arab/Arab Americans. This finding suggests that the type of diversity education also warrants research attention.

Participants also completed rankings regarding where the majority of their information about individuals of Arab descent is obtained. Educational courses were ranked as the main source of information, though; this was only true for 39% of the respondents. The other knowledge sources reported were personal interactions with an individual of Arab descent (32.2%), the internet (23%), books (22.5%), newspapers (14.7%), and lastly, movies (9.7%). This finding indicates that the majority of clinicians in training are not obtaining information regarding individuals of Arab descent through education, including diversity courses.

**Limitations**

Social desirability effects may have impacted the results of the current study. An explicit bias measure, which is susceptible to social desirability, was utilized. Psychology graduate students and predoctoral interns, who are expected to not hold prejudice or biases towards others (American Psychological Association, 2002). For those who may have internalized this expectation, an explicit measure of prejudice is unlikely to reveal their actual biases. Therefore,
it is recommended that future studies include both explicit and implicit bias measures, such as the Arab-Muslim Implicit Association Test (Park et al, 2007), to ameliorate potential biases due to social desirability and to examine the relationship between implicit and explicit bias against Arabs/Arab Americans. The results may also have been impacted due to the time period in which data was collected, as there was an increase in media coverage of Arab-related violence linked to terrorism during this time.

This study was conducted utilizing self-reported measures via online survey methods; therefore, a response bias may have impacted the results of the study. The design of this study was correlational, and therefore, unable to make conclusions about causation. The study was developed prior to the publication of the Diagnostic and Statistical Manual of Mental Disorders-5 (American Psychiatric Association, 2013), which excluded the utilization of the Global Assessment of Functioning (GAF) scale due to “questionable psychometrics in routine practice” (p. 16). Therefore, future research may want to utilize a different measure of prognosis. This study also examined diversity educational experiences and not the number of diversity training hours, thus future studies should examine training hours in addition to number of experiences.

Further studies should be conducted to examine causation and to identify which factors play a role in perceptions of cultural competence, biases against Arabs/Arab Americans, and the diagnostic process. Future research may want to utilize both male and female Arab hypothetical clients to examine the implications of client ethnicity and gender in racial attitudes, perceptions of cultural competence, and the diagnostic process. This study did not examine the implications of religion on racial attitudes and the diagnostic process. Thus, future studies may want to examine the effects that religion may have in racial attitudes and prejudices, perceptions of cultural competence, and diagnosis.
Taking the limitations into account, a major strength of the study is examining a topic that has previously been unexamined in the literature, i.e., the investigation of clinician biases against Arab/Arab American clients. This study contributes to the literature regarding how biases towards individuals of Arab descent are related to the diagnostic process, and provides information regarding the importance of diversity education within psychology graduate programs and internships.

**Conclusion**

It is important to understand the factors that play a role in diagnosis and clinical therapeutic work for clients of Arab descent. Studies have shown that Arabs/Arab Americans are likely to experience prejudice and bias, particularly following the events of September 11, 2001 (Arab American Institute, 2001, 2002; Moradi & Hasan, 2004; The Leadership Conference, 2011). This study investigated advanced psychology graduate students and predoctoral interns and found significant relationships between variables that are involved in clinical judgment for a hypothetical Arab client, including level of biases towards individuals of Arab descent, perceived competence to work with Arab/Arab American clients, and number of diversity training experiences. Whether these variables were related or not depended on participants’ age, gender, and ethnicity. In addition, this study found a significant relationship between a higher number of diversity training experiences and the likelihood of a diagnosis of the V-code “acculturation problem” and increased perceptions of cultural competence to work with Arab/Arab American clients. However, there was no relationship between diversity training experiences and the levels of explicit biases towards individuals of Arab descent.

Although correlational, these findings suggest important implications in both clinical and diversity education and training. For clinicians in training who are of the traditional age (25-34
years old) for graduate psychology education, relationships between explicit biases towards individuals of Arab descent and perceived cultural competence, as well as, perceived cultural competence and diagnosis were found. For male participants only, a relationship between explicit biases against Arabs/Arab Americans and prognosis of a hypothetical Arab client was found. For ethnic minority participants, a relationship between increased explicit biases towards Arabs/Arab Americans and perceived cultural competence was found, and these results were the same as for participants aged 25-34 years old, which had a small effect size, however there was a medium effect size for ethnic minorities.

Currently, there are no internship programs that are designed to provide clinical experiences with individuals of Arab descent (Baker, Mendoza-Newman, & Cornish, 2014). Diversity education in graduate training programs, internships, and continuing education programs may also be useful to provide further training regarding Arab psychology. Further research will be important to examine if diversity training experiences focused on individuals of Arab descent plays a role in decreasing biases towards this population, increasing perceptions of cultural competence, and decreasing the relationships found in this study on the diagnostic process.
References


Table 1

Demographic Variables of Participants

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
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<tr>
<td><strong>Race/Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>Arab/Arab American</td>
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<td>Asian/Asian American</td>
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</tr>
<tr>
<td>Black or African American (Non-Hispanic)</td>
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<tr>
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<td>136</td>
<td>84.5</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
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<td>5.0</td>
</tr>
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<td>1.2</td>
</tr>
<tr>
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<td>0.0</td>
</tr>
<tr>
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<td>1.2</td>
</tr>
<tr>
<td>Prefer Not to Answer</td>
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<td>0.6</td>
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<td></td>
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<td>18-24 years old</td>
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</tr>
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<td>25-34 years old</td>
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<td>85.7</td>
</tr>
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<td>35-44 years old</td>
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<td>8.1</td>
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<td>45-54 years old</td>
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<td>1.9</td>
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### Table 2

*Descriptive Statistics for Diversity Training Experiences*

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<th>$M$</th>
<th>$SD$</th>
<th>Median</th>
<th>Mode</th>
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<td>Number of Diversity Training Experiences</td>
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<td>7.84</td>
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</table>
Table 3

**Descriptive Statistics for Study Variables**

<table>
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<th>Variable</th>
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<th>SD</th>
<th>Possible Score Ranges</th>
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<tbody>
<tr>
<td>Anti-Arab Prejudice Scale</td>
<td>99.68</td>
<td>29.34</td>
<td>42-294</td>
</tr>
<tr>
<td>Perceived Competence to Work with Arab Clients</td>
<td>2.70</td>
<td>0.89</td>
<td>1-5</td>
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<tr>
<td>Global Assessment of Functioning</td>
<td>57.66</td>
<td>8.07</td>
<td>0-100</td>
</tr>
<tr>
<td>Diagnostic Rating Scale</td>
<td>12.99</td>
<td>2.13</td>
<td>6-24</td>
</tr>
<tr>
<td>V-code: Acculturation Problem</td>
<td>3.19</td>
<td>0.77</td>
<td>1-4</td>
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Table 4

Descriptive Statistics for Study Variables for Demographic Subgroups

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<th>Subgroups</th>
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<th>GAF</th>
<th>DRS</th>
<th>V-Code</th>
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</thead>
<tbody>
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<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Age 25-34</td>
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<td>27.80</td>
<td>2.65</td>
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<tr>
<td>All Ages Except 25-34</td>
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<td>35.64</td>
<td>2.96</td>
<td>1.02</td>
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<tr>
<td>Caucasians</td>
<td>100.31</td>
<td>28.38</td>
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<td>.83</td>
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<td>Ethnic Minorities</td>
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<td>1.16</td>
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<tr>
<td>Females</td>
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<td>.89</td>
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<tr>
<td>Males</td>
<td>103.64</td>
<td>26.24</td>
<td>2.77</td>
<td>.90</td>
<td>59.10</td>
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Table 5

*Knowledge Sources of Arab Worldview*

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<th>Mode</th>
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<td>Educational Courses</td>
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<td>1.05</td>
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<tr>
<td>Personal Interaction with an individual of Arab descent</td>
<td>2</td>
<td>2.26</td>
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<td>2</td>
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<tr>
<td>Internet</td>
<td>3</td>
<td>2.45</td>
<td>1.07</td>
<td>2</td>
<td>2</td>
</tr>
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<td>Books</td>
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<td>2.48</td>
<td>1.04</td>
<td>3</td>
<td>3</td>
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<td>Newspapers</td>
<td>5</td>
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<td>1.08</td>
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<td>4</td>
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<td>Movies</td>
<td>6</td>
<td>3.13</td>
<td>.95</td>
<td>3</td>
<td>4</td>
</tr>
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</table>
Appendix A

Institutional Review Board Authorization Forms

August 29, 2013

Melissa Switzer

[Address omitted]

Dear Ms. Switzer:

The IRB has completed the review of your protocol #13-008, *The Impact of Bias and Cultural Competence on Therapists’ Clinical Judgment of Arab American Clients* using expedited review procedures. We appreciate your thorough treatment of the issues raised and your timely response. Your study is approved in the Expedited category under Federal Regulation 45CFR46. Approval expires August 29, 2014. A progress report, available at http://www.xavier.edu/irb/forms.cfm, is due by that date.

If you wish to modify your study, including any changes to the approved Informed Consent form, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

We wish you success with your research!

Sincerely,

Morell E. Mullins, Jr., Ph.D.

Chair, Institutional Review Board Xavier University

MEM/sb
c: Anna Ghee, Advisor

enclosure: stamped informed consent
September 23, 2014

Melissa Switzer
[Address omitted]

Re: Protocol #13-008, The Impact of Bias and Cultural Competence on Therapists’ Clinical Judgment of Arab American Clients

Dear Ms. Switzer:

The IRB has received your Progress Report for the above mentioned protocol and understand that you wish to extend your approval for another year. Therefore your above-referenced study has been re-approved in the Expedited category under Federal Guidelines 45CFR46. Your approval expires on September 23, 2015 and a progress Report is due by that date. The form can be found online at www.xavier.edu/irb/forms.

Since the original approval had expired, any data collected between August 29, 2014 and the present date will need to be discarded.

Please note that if you wish to modify your study, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately. We truly appreciate your efforts and attention to compliance within the spirit of human subject’s protection. We wish you great success with your research.

Sincerely,
Morell E. Mullins, Jr., Ph.D.
Chair, Institutional Review Board
Xavier University
MEM/sb

enclosure: stamped informed consent