**Analysis Report**

The analysis was carried out using SPSS Version 27.

**Demographic Characteristics of Participants.**

The study enrolled 217 participants from Muslim communities around Hungary/Europe. The age of participants ranged from 19 to 58, with a mean of 34 (SD = 8.54). There were more females (55.3%) than males (44.2), and more than half of the women (52.5%) reported that they wear hijab. Most of the participants had attended technical/community college (43.8%) and completed high/secondary school (43.3%). Regarding their occupation, 32.3% work in professional jobs, 23.0% are students, 17.1% work white collar jobs, 10.1% reported that they’re not currently working, 6.5% are homemakers, 5.1% do skilled work, 3.2% do unskilled work, 1.8% are unemployed, and 11.5% do other jobs while 1 (.5%) person was retired. Most of the participants are Arabs (94.5%), followed by Amazigh (2.8%), Kurdish (1.4%) and others (1.4%). Around a half of the participants were single (50.8%), with 6.0% reporting that they were previously married. Among the married participants (48.8%), 90 (41.5%) of them reported that their spouses were from the same ethnicity. Among those that reported otherwise (40, 18.4%), 4 (1.8%) reported they were European, 3 (1.4%) were Hungarian, 3 (1.4%) were Polish and 15 (15, 6.9%) were from another country/ethnicity. Among the participants that were single, 49 (22.6%) highlighted that they would prefer to marry from their own ethnic group, while 44 (20.3%) stated otherwise, with 13 (6.0%) stating that they have no preference. When asked about the ethnicity of people in their locale, 36.9% reported that almost all the people living around them are from a different ethnic group than theirs, 37.8% reported that majority of the people are from a different ethnic group, 12.9% reported that there is about an equal mix of ethnic groups, 6.5% reported that majority of the people around them are from the same ethnic background as them and 5.1% reported that almost all the people living around them are from the same ethnic background as them. In terms of their birth country, 43 (19.8%) were born in Syria, 29 (13.4%) in Jordan, 23 (10.6%) in Egypt, 17 (7.8%) in Palestine, 14 (6.5%) in Iraq, 13 (6.0%) in Algeria, 10 (4.6%) in Lebanon, 10 (4.6%) in Morocco, 10 (4.6%) in Tunisia, and 54 (24.9%) were born in other countries. Among the participants, 27 (12.4%) reported that they lived in another country before moving to Hungary/Europe, and the average age at relocation was 26 years (SD = 12.0). Majority (172, 79.3%) of the participants spoke Arabic as the primary language at home, 21 (9.7%) spoke English and 5 (2.3%) spoke Hungarian as the primary language at home. In terms of level of understanding of the local language in their host country, 12.4% reported that they understand the local language all the time, 18.0% reported they understand it a lot of the time, 11.1% reported that they understand about half of the time, 29.5% reported that they understand a little while 21.7% reported that they do not understand the local language at all. When asked about the level of usage of the local language, 5.1% reported that they use it all the time, 31.3% reported that they us it a lot, 30.0% reported that they use it about half of the time, 20.7% reported that they use it a little while 11.1% reported that don’t use it at all. When the participants were asked about how religious they were, 11.5% reported they were very religious, 13.4% reported that they were religious, 15.7% reported they were somehow religious, 25.8% reported they were a little religious and 30.% reported that they were not religious at all.

*Table 1: Demographic characteristics of the study participants.*

|  |  |  |
| --- | --- | --- |
| Characteristics | Frequency  (M) | Percentage  (S.D) |
| Age | 33.56 | 8.5 |
|  |  |  |
| Gender |  |  |
| Female | 120 | 55.3 |
| Male | 96 | 44.2 |
|  |  |  |
| Hijab (N=120) |  |  |
| Yes | 63 | 52.5 |
| No | 57 | 47.5 |
|  |  |  |
| Highest Education |  |  |
| Completed primary/grade School | 18 | 8.3 |
| Some High/secondary school | 10 | 4.6 |
| Completed high/Secondary school | 94 | 43.3 |
| Some technical/community college | 95 | 43.8 |
|  |  |  |
| Occupation |  |  |
| Professional | 70 | 32.3 |
| Student | 50 | 23.0 |
| White collar | 37 | 17.1 |
| Others | 25 | 11.5 |
| Not currently working | 22 | 10.1 |
| Homemaker | 14 | 6.5 |
| Skilled work | 11 | 5.1 |
| Unskilled work | 7 | 3.2 |
| Unemployed | 4 | 1.8 |
| Retired | 1 | .5 |
|  |  |  |
|  |  |  |
| Ethnicity |  |  |
| Arab | 205 | 94.5 |
| Amazigh | 6 | 2.8 |
| Kurdish | 3 | 1.4 |
| Other | 3 | 1.4 |
|  |  |  |
| Marriage Status |  |  |
| Married | 106 | 48.8 |
| Single | 109 | 50.2 |
| Previously Married | 13 | 6.0 |
|  |  |  |
| Spouse Ethnicity same as self |  |  |
| Yes | 90 | 41.5 |
| No | 40 | 18.4 |
|  |  |  |
| Spousal Ethnicity |  |  |
| European | 4 | 1.8 |
| Hungarian | 3 | 1.4 |
| Polish | 3 | 1.4 |
| Others | 15 | 6.9 |
|  |  |  |
| Spousal Ethnicity Preference same as self |  |  |
| Yes | 49 | 22.6 |
| No | 44 | 20.3 |
| No Preference | 13 | 6.0 |
|  |  |  |
| Neighborhood/city/village ethnicity |  |  |
| Almost all people are from a different ethnic group than mine | 80 | 36.9 |
| Majority of the people is from a different ethnic group than mine | 82 | 37.8 |
| There is about an equal mix of people from my ethnic group and   other groups | 28 | 12.9 |
| Majority of the people are from my ethnic group | 14 | 6.5 |
| Almost all people are from my ethnic group | 11 | 5.1 |
|  |  |  |
| Birth Country |  |  |
| Syria | 43 | 19.8 |
| Jordan | 29 | 13.4 |
| Egypt | 23 | 10.6 |
| Palestine | 17 | 7.8 |
| Iraq | 14 | 6.5 |
| Algeria | 13 | 6.0 |
| Lebanon | 10 | 4.6 |
| Morocco | 10 | 4.6 |
| Tunisia | 10 | 4.6 |
| Others | 54 | 24.9 |
|  |  |  |
| Did you live somewhere else before Hungary/Europe? |  |  |
| Yes | 27 | 12.4 |
| No | 115 | 53.0 |
|  |  |  |
| How old were you when you came to Hungary/Europe | 26.13 | 12.0 |
|  |  |  |
| Primary language at home |  |  |
| Arabic | 172 | 79.3 |
| English | 21 | 9.7 |
| Hungarian | 5 | 2.3 |
|  |  |  |
| Local Language – Level of understanding |  |  |
| All the time | 27 | 12.4 |
| A lot | 39 | 18.0 |
| Half the time | 24 | 11.1 |
| A little | 64 | 29.5 |
| Not at all | 47 | 21.7 |
|  |  |  |
| Local Language – Level of usage |  |  |
| All the time | 11 | 5.1 |
| A lot | 68 | 31.3 |
| Half the time | 65 | 30.0 |
| A little | 45 | 20.7 |
| Not at all | 24 | 11.1 |
|  |  |  |
| Religiosity |  |  |
| Very religious | 25 | 11.5 |
| Religious | 29 | 13.4 |
| Somehow religious | 34 | 15.7 |
| A little religious | 56 | 25.8 |
| Not religious at all | 67 | 30.9 |

**Descriptive Statistics**

Table 2 below shows the summary statistics (mean, standard deviation, ranges, skewness and kurtosis) of the scales used in the analysis. These include the two subscales of *The Acculturation Index*, the *Host* *Country* *Acculturation Scale*, the *Socio-Cultural Adaptation Scale (SCAS),* the *Brief Psychological Adaptation Scale*, the *Adult Attachment Scale (AAS)*, the two subsets of discrimination, the *Perceived Islamophobia Scale* and the *Misrecognition Scale*, the *Multidimensional Scale of Perceived Social Support*, The *Psychological Wellbeing Scale (PWB)* asubscale of the *Mental Health Inventory (MHI)*, and the *Immigrant Acculturation Scale (IAS)*.

The possible scores for the two subscales of the Acculturation Index, the Co-National and host national identification ranges from 10 to 70. For the co-national identification, the mean score of 41.51 (SD = 15.48) was higher than the 30.79 (SD = 13.46) mean of the host national identification, indicating that the participants had higher acculturation towards their national origin countries than the host countries. This means that the participants showed a stronger level of Islamic culture orientation compared to their European culture orientation.

The immigrant acculturation scale score had a range between 10 and 30, with a mean score of 16.41 (SD = 3.96) PROVIDE CONTEXT OF MEANING/INTERPRETATION FROM LITERATURE and the Host country acculturation scale, with score ranges from 11 to 35 had a mean score of 18.43 (SD = 4.48) PROVIDE CONTEXT OF MEANING/INTERPRETATION FROM LITERATURE.

The Sociocultural adaptation scale with a score range between 29 and 132, had a mean score of 66.49 (SD = 21.56) PROVIDE CONTEXT OF MEANING/INTERPRETATION FROM LITERATURE and the Psychological Adaptation scale, with score range from 10 to 29 had a mean score of 19.06 (SD = 4.09) PROVIDE CONTEXT OF MEANING/INTERPRETATION FROM LITERATURE.

The IAS contains the attachment secure, attachment anxiety and the attachment avoidance subscales with possible score ranges from 6 to 30. The attachment security scale had scores ranging from 7 to 30, with a mean score of 18.50 (SD = 8.87). A higher score here indicates a higher level of attachment security, and a lower level indicates a lower level of attachment security. The attachment anxiety scale had scores ranging from 6 to 29, with a mean score of 15.67 (SD = 5.75). A higher score here indicates a higher level of attachment anxiety, and a lower level indicates a lower level of attachment anxiety. The attachment avoidance scale had scores ranging from 7 to 28, with a mean score of 17.85 (SD = 4.55). A higher score here indicates a higher level of attachment avoidance, and a lower level indicates a lower level of attachment avoidance. MAY WANT TO IMPROVE ON MEANING FROM LITERATURE.

Regarding perceived discrimination, the perceived Islamophobia scale has a possible score range from 1 to 72 and the misrecognition scale ranged from 7 to 35. The perceived islamophobia scale had a score range of 15 to 66, with a mean score of 46.82 (SD = 9.60) while the misrecognition scale had a score range of 12 to 35, with a mean score of 23.50 (SD = 5.18). High score on these scales indicates a high level of discrimination is experienced by these immigrants. The mean score of the total discrimination scale (70.24, SD = 13.05) thus indicates that the participants experience a high level of discrimination.

The perceived social support scale, with a possible score range of 12 to 84. The scale had a score of 12 to 84, with a mean score of 60.98 (SD = 18.16). The high score in this scale indicates that the participants have a high level of social support from family and friends. MAY WANT TO IMPROVE ON MEANING FROM LITERATURE

The psychological wellbeing scale has a possible score range of 14 to 84. The scale had a score range of 14 to 80, with a mean score of 47.82 (SD = 15.70). This indicates that the participants had an average level of psychological wellbeing. MAY WANT TO IMPROVE ON MEANING FROM LITERATURE.

The check for normality in this study utilizes the skewness and kurtosis metric. The acceptable limit used in this study is the common ±1.96 level. As shown in table 2 below, all the skewness and kurtosis measured in the scales were within the set ±1.96 level, suggesting that the sample data in this study were drawn from a normally distributed population.

Table 2:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Minimum | Maximum | Mean | Standard Deviation | Skewness | Kurtosis |
| Acculturation Index |  |  |  |  |  |  |
| Co-National identification | 10 | 70 | 41.51 | 15.48 | -.16 | -.77 |
| Host national identification | 10 | 70 | 30.79 | 13.46 | .59 | -.25 |
| Immigrant Acculturation | 10 | 30 | 16.41 | 3.96 | 1.01 | 1.15 |
| Host country Acculturation | 11 | 35 | 18.43 | 4.48 | .89 | .99 |
| Sociocultural Adaptation | 29 | 132 | 66.49 | 21.56 | .36 | -.35 |
| Psychological Adaptation | 10 | 29 | 19.06 | 4.09 | -.03 | -.45 |
| Total Attachment | 27 | 79 | 52.49 | 8.87 | -.03 | .69 |
| Security | 7 | 30 | 18.50 | 4.81 | .03 | -.26 |
| Anxiety | 6 | 29 | 15.67 | 5.75 | .26 | -.86 |
| Avoidance | 7 | 28 | 17.85 | 4.55 | .08 | -.52 |
| Total Discrimination | 36 | 101 | 70.24 | 13.05 | -.22 | -.56 |
| Perceived Islamophobia | 15 | 66 | 46.82 | 9.60 | -.59 | .02 |
| Misrecognition | 12 | 35 | 23.50 | 5.18 | -.12 | -.28 |
| Perceived Social Support | 12 | 84 | 60.98 | 18.16 | -.76 | -.11 |
| Psychological Wellbeing | 14 | 80 | 47.82 | 15.70 | -.04 | -.69 |

**Bivariate analysis**

Table 3 below shows the results of bivariate correlations among variables and scales employed in the study. Age was found to be significantly positively correlated with host national identification (*r* = .21, *p* < .01), indicating that people who were older demonstrated a level of Hungarian/European orientation. Similarly, Attachment avoidance was also found to significantly positively correlated with gender (*r* = .18, *p* < .05), indicating that females were more likely to have a higher level of attachment avoidance. Host national identification was found to be significantly negatively correlated with sociocultural adaptation (*r* = -.42, *p*<.01), psychological adaptation (*r* = -.49, *p* < .01), attachment avoidance (*r* = -.28, *p* < .01) and psychological wellbeing (*r* = -.42, *p* < .01), but significantly positively correlated with attachment security (*r* = .28, *p* < .01). This means that participants who had lower level of Hungarian/European orientation demonstrated higher levels of sociocultural adaptation, psychological adaptation, attachment avoidance and psychological wellbeing, while demonstrating lower level of attachment security. Co-national identification was found to be significantly negatively correlated with psychological wellbeing (*r* = -.21, *p* < .05), but significantly positively correlated with perceived social support (*r* = .30, *p* < .01). This means that participants with higher level of Islamic cultural orientation demonstrated lower levels of psychological wellbeing but demonstrated higher level of perceived social support. Sociocultural adaptation was found to be significantly positively correlated with psychological adaptation (*r* = .50, *p* < .01), attachment anxiety (*r* = .40, *p* < .01), attachment avoidance (*r* = .33, *p* < .01), psychological well-being (*r* = .52, *p* < .01), misrecognition (*r* = .31, *p* < .01) and host country acculturation (*r* = .21, *p* < .05), but significantly negatively correlated with perceived social support (*r* = -.34, *p* < .01). This suggested that participants with high level of sociocultural adaptation also demonstrated high levels of psychological adaptation, attachment anxiety, attachment avoidance, psychological well-being, misrecognition and host country acculturation, but demonstrated low levels of perceived social support. Psychological adaptation was found to be significantly positively correlated with attachment avoidance (*r* = .17, *p* < .01), psychological well-being (*r* = .52, *p* < .01) and misrecognition (*r* = .19, *p* < .05). This suggested that participants who had higher level of psychological adaptation also demonstrated high levels of attachment avoidance, psychological well-being, and misrecognition. Attachment security was found to be significantly negatively correlated with attachment anxiety (*r* = -.27, *p* < .01), attachment avoidance (*r* = -.34, *p* < .01) and psychological well-being (*r* = -.36, *p* < .01), but significantly positively correlated with perceived social support (*r* = .34, *p* < .01). This suggested that participants with high levels of attachment security also demonstrated high levels of perceived social support but demonstrated lower levels of attachment anxiety, attachment avoidance and psychological wellbeing. Attachment anxiety was found to be significantly positively correlated with attachment avoidance (*r* = .48, *p* < .01), psychological wellbeing (*r* = .43, *p* < .01), and host country acculturation (*r* = .26, *p* < .01) but significantly negatively correlated with perceived social support (*r* = -.41, *p* < .01). This suggests that individuals with high levels of attachment anxiety also demonstrated higher levels of attachment avoidance, psychological well-being and host country acculturation, but demonstrated lower levels of perceived social support. Attachment avoidance was found to be significantly positively associated with psychological well-being perceived social support (*r* = .34, *p* < .01), but significantly negatively associated with perceived social support perceived social support (*r* = -.26, *p* < .01). This suggested that participants with high levels of attachment avoidance also demonstrated high levels of psychological well-being but demonstrated low levels of perceived social support. Islamophobia was found to be significantly positively correlated with misrecognition perceived social support (*r* = .48, *p* < .01), immigrant acculturation (*r* = .20, *p* < .05) and host country acculturation (*r* = .21, *p* < .05). This suggests that participants with high levels of perceived islamophobia also demonstrated high levels of misrecognition, immigrant acculturation and host country acculturation. Psychological well-being was found to be significantly negatively correlated with perceived social support (*r* = -.45, *p* < .01), suggesting that participants with low levels of psychological well-being also demonstrated lower levels of perceived social support. Perceived social support was found to be significantly positively correlated with misrecognition (*r* = .19, *p* < .05), suggesting that participants with high levels of perceived social support also demonstrated high levels of misrecognition. Misrecognition was found to be significantly positively correlated with host country acculturation (*r* = .22, *p* < .05), suggesting that participants with high levels of misrecognition also demonstrated high levels of host country acculturation. Immigrant acculturation was also found to be significantly positively correlated with host country acculturation (*r* = .52, *p* < .01), suggesting that participants with high levels of immigrant acculturation also demonstrated high levels of host country acculturation.

Table 3: *Bivariate correlations among demographics, independent and dependent variables.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 1. Age | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Gender | -.128 | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3. Host national identification | .211\*\* | -.136 | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |
| 4. Co-National identification | -.131 | .018 | .004 | 1.00 |  |  |  |  |  |  |  |  |  |  |  |
| 5. Sociocultural Adaptation | -.137 | .137 | -.424\*\* | .001 | 1.00 |  |  |  |  |  |  |  |  |  |  |
| 6. Psychological Adaptation | -.035 | .136 | -.490\*\* | .088 | .500\*\* | 1.00 |  |  |  |  |  |  |  |  |  |
| 7. Attachment Security | .118 | -.146 | .276\*\* | .028 | -.168 | -.155 | 1.00 |  |  |  |  |  |  |  |  |
| 8. Attachment Anxiety | -.085 | .006 | -.112 | -.082 | .403\*\* | .090 | -.271\*\* | 1.00 |  |  |  |  |  |  |  |
| 9. Attachment Avoidance | -.085 | .176\* | -.278\*\* | .002 | .326\*\* | .170\* | -.344\*\* | .481\*\* | 1.00 |  |  |  |  |  |  |
| 10. Islamophobia | .067 | -.036 | .046 | -.013 | .162 | .127 | -.019 | .139 | .167 | 1.00 |  |  |  |  |  |
| 11. Psychological Wellbeing | -.167 | .131 | -.415\*\* | -.208\* | .562\*\* | .520\*\* | -.364\*\* | .431\*\* | .374\*\* | .079 | 1.00 |  |  |  |  |
| 12. Perceived Social Support | .060 | .095 | .166 | .296\*\* | -.340\*\* | -.150 | .341\*\* | -.402\*\* | -.261\*\* | .103 | -.453\*\* | 1.00 |  |  |  |
| 13. Misrecognition | .089 | .156 | -.144 | .175 | .312\*\* | .193\* | -.099 | .091 | .112 | .476\*\* | .124 | .192\* | 1.00 |  |  |
| 14. Immigrant Acculturation | .115 | -.179 | .154 | -.075 | -.037 | -.148 | .043 | .117 | .018 | .196\* | -.156 | -.052 | .005 | 1.00 |  |
| 15. Host country Acculturation | .054 | -.017 | .037 | .074 | .205\* | .127 | .048 | .260\*\* | -.095 | .205\* | -.017 | -.080 | .216\* | .515\*\* | 1.00 |
| \*\*. Correlation is significant at the 0.01 level (2-tailed).  \*. Correlation is significant at the 0.05 level (2-tailed). | | | | | | | | | | | | | | |  |

**ANOVA**

For the categorical variables, one way ANOVA was conducted to the influence of group differences on psychological well-being. As described in Table 4 below, there was no statistically significant differences between the different groups in the gender (*F* = 2.20, *p* > .05), usage of hijab (*F* = .09, *p* > .05), highest education (*F* = .25, *p* > .05), ethnicity (*F* =1.20, *p* > .05), primary language at home (*F* = 2.62, *p* > .05), neighborhood characteristics (*F* = 0.02, *p* > .05), and religiosity (*F* = 0.13, *p* > .05) based on psychological well-being.

Table 4:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Type III sum of squares | df | F | Sig. |
| Gender | 537.50 | 1 | 2.20 | .14 |
| Hijab | 19.03 | 1 | .09 | .77 |
| Highest Education | 64.36 | 1 | .25 | .61 |
| Ethnicity | 294.83 | 1 | 1.20 | .28 |
| Primary language at home | 644.98 | 1 | 2.62 | .11 |
| Marital status | 3148.29 | 1 | 14.07 | <.01\* |
| Neighborhood characteristics | 5.96 | 1 | 0.02 | .57 |
| Religiosity | 32.25 | 1 | 0.13 | .87 |

\*Significant at the 0.01 level

The ANOVA analysis showed a statistically significant difference in psychological wellbeing between the participants’ marital status (*F* = 14.07, *p* < .01). An ad-hoc Turkey test showed that the groups’ psychological well-being differs significantly (p < .01, CI =[4.69, 15.15] ) indicating that marital status may play a role in influencing psychological well-being in the study population.

**Hypothesis Testing**

**H1: Attachment anxiety is significantly negatively correlated with Muslim immigrants’ psychological well-being.**

Bivariate correlation analysis was used to explore the relationship between attachment anxiety and psychological well-being. The findings showed a statistically significant positive correlation between attachment anxiety and psychological well-being (r = .431, p < .01). This suggests that Muslim immigrants with higher levels of attachment anxiety generally exhibit higher levels of psychological well-being, while those with lower levels of attachment anxiety tend to exhibit diminished psychological well-being. The result obtained is contrary to the initial hypothesis, as the results did not support a statistically significant negative correlation between attachment anxiety and psychological well-being.

**H2: Attachment avoidance among Muslim immigrants is significantly negatively correlated with psychological well-being.**

Bivariate correlation analysis was used to explore the relationship between attachment avoidance and psychological well-being. The findings showed a statistically significant positive correlation between attachment avoidance and psychological well-being (r = .374, p < .01). This suggests that Muslim immigrants with higher levels of attachment avoidance generally exhibit higher levels of psychological well-being, while those with lower levels of attachment avoidance tend to exhibit diminished psychological well-being. The result obtained is contrary to the initial hypothesis, as the results did not support a statistically significant negative correlation between attachment avoidance and psychological well-being.

**Hierarchical Multiple Regression Analyses for Hypotheses 3 to 8**

Hypotheses 3 to 9, exploring the moderating effects of Acculturation towards European/Hungarian orientation, Acculturation towards Islamic cultural values, Perceived discrimination, and Adult Attachment on the relationship between Attachment Anxiety and Psychological well-being and that between Attachment Avoidance and Psychological Well-being were analyzed using hierarchical multiple regression as per Weng et al (2016). The first model utilized Attachment Anxiety and Attachment Avoidance as predictor variables with Psychological Well-being as the target variable with some demographic variables selected as control variables. The second model utilized all the main variables, Acculturation towards European/Hungarian orientation, Acculturation towards Islamic cultural values, Perceived discrimination, Adult Anxiety and Adult Attachment. The third model examined the moderating effect by utilizing the following interaction variables: (Attachment Anxiety x Acculturation towards European/Hungarian orientation), (Attachment Avoidance x Acculturation towards European/Hungarian orientation), (Attachment Anxiety x Acculturation towards Islamic cultural values), (Attachment Avoidance x Acculturation towards Islamic cultural values), (Attachment Anxiety x Perceived Discrimination), (Attachment Avoidance x Perceived Discrimination). Results showed that including the demographic variables in as control, the main variables accounted for an additional 34% of the variance in psychological wellbeing, which resulted in a significant increment in *R2*, *F* (11, 94) = 5.95, *p* <.01 *∆R2* = .41. However, when the interaction variables were entered, they accounted for 32% of the variance in psychological wellbeing, which also resulted in a significant *R2*, *F* (19, 86) = 3.67, *p* <.01 *∆R2* = .45. In the final model, only the marriage status had significant impact on the psychological well-being, so it will be included as the only control variable in the following HMR analysis.

**H3: Participation in the Hungarian culture (acculturation towards Hungarian orientation) moderates the relationship between Muslim immigrants’ attachment anxiety and psychological well-being. H4: Participation in the European culture (acculturation towards Hungarian orientation) moderates the relationship between Muslim immigrants’ attachment avoidance and psychological well-being.**

Hypothesis 3 and 4, exploring the moderating effect of Acculturation towards European/Hungarian orientation on Attachment Anxiety and Attachment Avoidance with respect to Psychological Well-being will be test together through hierarchical multiple regressions analyses, with Attachment Anxiety and Attachment Avoidance as the independent variables, Marital Status as the control variable and psychological well-being as the dependent variable. Acculturation towards European/Hungarian orientation was entered as the moderating variable as shown in table 5 below. The result showed that attachment anxiety and attachment avoidance contributed significantly to the Model 1 (*F* (3, 118) = 14.92, *p* <.01, *∆R2* = .28), explaining 28% of the variance in psychological wellbeing. When the moderating variable was introduced in Model 2 (*F* (4, 114) = 14.62, *p* <.01, *∆R2* = .34), it explained an additional 6% of the variance in Psychological Well-being, a significant change in variation. The introduction of the interaction variables (Attachment Anxiety x Acculturation towards European orientation) and (Attachment Avoidance x Acculturation towards European orientation) in model 3 (*F* (6, 112) = 10.16, *p* > .05, *∆R2* = .35) did not lead a significant increment, explaining only an additional 1% in variance of psychological well-being.

The moderating variable (Acculturation towards European/Hungarian orientation) was found to significantly influence psychological well-being (*p* < .01), but it did not moderate the relationship between attachment anxiety or attachment avoidance and psychological well-being among Muslim immigrants, therefore ***hypotheses 3 and 4 were not supported***.

Table 5: *HMR Analysis for moderating effect of Acculturation towards European/Hungarian orientation on the relationship between Adult Attachment and Psychological wellbeing*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hierarchical step/variable | R | R2 | Adjusted R2 | Change in R2 | ∆F | Df | B | SE | B | t |
| 1. Main variables (model 1) | .52 | .28 | .26 | .28 | 14.92 | 3,118 |  |  |  |  |
| 2. Moderating variables (model 2) | .58 | .34 | .32 | .34 | 14.62 | 4,114 |  |  |  |  |
| 3. Interactions (model 3) | .59 | .35 | .32 | .35 | 10.16 | 6,112 |  |  |  |  |
| Final Model | | | | | | | | | | |
| Main effects (block 1) |  |  |  |  |  |  |  |  |  |  |
| Attachment Anxiety |  |  |  |  |  |  | .77 | .31 | .22 | 2.46\*\* |
| Attachment Avoidance |  |  |  |  |  |  | .80 | .25 | .29 | 3.20\*\* |
| Moderating variable (block 2) | | | | | | |  |  |  |  |
| Acculturation towards European orientation | | | | | | | -.33 | .10 | -.28 | -3.44\*\* |
| Interactions (block 3) | | | | | | |  |  |  |  |
| Attachment Anxiety x Acculturation towards European orientation | | | | | | | .02 | .02 | .32 | 1.12 |
| Attachment Avoidance x Acculturation towards European orientation | | | | | | | .01 | .03 | .12 | .32 |
| *\* p < .05 \*\* p < .01* | | | | | | | | | | |

**H5: The** **association with Islamic cultural values moderates the relationship between Muslim immigrants’ attachment anxiety and psychological well-being. H6: Islamic cultural values moderate the relationship between Muslim immigrants’ attachment avoidance and psychological well-being.**

Hypothesis 5 and 6, exploring the moderating effect of association with Islamic cultural values on Attachment Anxiety and Attachment Avoidance with respect to Psychological Well-being will be test together through hierarchical multiple regressions analyses, with Attachment Anxiety and Attachment Avoidance as the independent variables, Marital Status as the control variable and psychological well-being as the dependent variable. Association with Islamic cultural values was entered as the moderating variable as shown in table 6 below. The result showed that attachment anxiety and attachment avoidance contributed significantly to the Model 1 (*F* (3, 118) = 14.92, *p* <.01, *∆R2* = .28), explaining 28% of the variance in psychological wellbeing. When the moderating variable was introduced in Model 2 (*F* (4, 115) = 13.18, *p* <.01, *∆R2* = .31), it explained an additional 3% of the variance in Psychological Well-being, a significant change in variation. The introduction of the interaction variables (Attachment Anxiety x Association with Islamic cultural values) and (Attachment Avoidance x Association with Islamic cultural values) in model 3 (*F* (6, 113) = 9.06, *p* > .05, *∆R2* = .33) did not lead a significant increment, explaining only an additional 2% in variance of psychological well-being.

The moderating variable (Association with Islamic cultural values) was found to significantly influence psychological well-being (*p* < .01), but it did not moderate the relationship between attachment anxiety or attachment avoidance and psychological well-being among Muslim immigrants, therefore ***hypotheses 5 and 6 were not supported***.

Table 6: *HMR Analysis for moderating effect of Association with Islamic Cultural Values on the relationship between Adult Attachment and Psychological wellbeing*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hierarchical step/variable | R | R2 | Adjusted R2 | Change in R2 | ∆F | Df | B | SE | B | t |
| 1. Main variables (model 1) | .52 | .28 | .26 | .28 | 14.92 | 3,118 |  |  |  |  |
| 2. Moderating variables (model 2) | .56 | .31 | .29 | .31 | 13.18 | 4,115 |  |  |  |  |
| 3. Interactions (model 3) | .57 | .33 | .29 | .33 | 9.06 | 6,113 |  |  |  |  |
| Final Model | | | | | | | | | | |
| Main effects (block 1) |  |  |  |  |  |  |  |  |  |  |
| Attachment Anxiety |  |  |  |  |  |  | .77 | .31 | .22 | 2.46\*\* |
| Attachment Avoidance |  |  |  |  |  |  | .80 | .25 | .29 | 3.20\*\* |
| Moderating variable (block 2) | | | | | | |  |  |  |  |
| Islamic Cultural Values | | | | | | | -.18 | .08 | -.17 | -2.13\*\* |
| Interactions (block 3) | | | | | | |  |  |  |  |
| Attachment Anxiety x Islamic Cultural Values | | | | | | | -.02 | .01 | -.37 | -1.28 |
| Attachment Avoidance x Islamic Cultural Values | | | | | | | .02 | .02 | .34 | .815 |
| *\* p < .05 \*\* p < .01* | | | | | | | | | | |

**H7: Perceived discrimination mediates the relationship between Muslim immigrants’ anxious attachment and psychological well-being. H8: Perceived discrimination does not have a mediating factor on the relationship between Muslim immigrants’ attachment avoidance and psychological well-being.**

Hypothesis 5 and 6, exploring the moderating effect of Perceived Discrimination on Attachment Anxiety and Attachment Avoidance with respect to Psychological Well-being will be test together through hierarchical multiple regressions analyses, with Attachment Anxiety and Attachment Avoidance as the independent variables, Marital Status as the control variable and psychological well-being as the dependent variable. Perceived Discrimination was entered as the moderating variable as shown in table 7 below. The result showed that attachment anxiety and attachment avoidance contributed significantly to the Model 1 (*F* (3, 118) = 14.92, *p* <.01, *∆R2* = .28), explaining 28% of the variance in psychological wellbeing. When the moderating variable was introduced in Model 2 (*F* (4, 105) = 10.60, *p* >.05, *∆R2* = .29), it explained an additional 1% of the variance in Psychological Well-being, a non-significant change in variation. The introduction of the interaction variables (Attachment Anxiety x Perceived Discrimination) and (Attachment Avoidance x Perceived Discrimination) in model 3 (*F* (6, 103) = 7.07, *p* > .05, *∆R2* = .29) did not lead a significant increment (1%) in variance of psychological well-being.

The moderating variable (Association with Islamic cultural values) was **not** found to significantly influence psychological well-being (*p* > .05) or moderate the relationship between attachment anxiety or attachment avoidance and psychological well-being among Muslim immigrants, therefore ***hypothesis 7 was not supported. However, Hypothesis 8 was supported***.

Table 7: *HMR Analysis for moderating effect of Perceived Discrimination on the relationship between Adult Attachment and Psychological wellbeing*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hierarchical step/variable | R | R2 | Adjusted R2 | Change in R2 | ∆F | df | B | SE | B | t |
| 1. Main variables (model 1) | .52 | .28 | .26 | .28 | 14.92 | 3,118 |  |  |  |  |
| 2. Moderating variables (model 2) | .54 | .29 | .26 | .29 | 10.60 | 4,105 |  |  |  |  |
| 3. Interactions (model 3) | .54 | .29 | .25 | .29 | 7.07 | 6,103 |  |  |  |  |
| Final Model | | | | | | | | | | |
| Main effects (block 1) |  |  |  |  |  |  |  |  |  |  |
| Attachment Anxiety |  |  |  |  |  |  | .77 | .31 | .22 | 2.46\*\* |
| Attachment Avoidance |  |  |  |  |  |  | .80 | .25 | .29 | 3.20\*\* |
| Moderating variable (block 2) | | | | | | |  |  |  |  |
| Perceived discrimination | | | | | | | -.01 | .10 | -.01 | -.125 |
| Interactions (block 3) | | | | | | |  |  |  |  |
| Attachment Anxiety x Perceived discrimination | | | | | | | -.02 | .02 | -.48 | -.77 |
| Attachment Avoidance x Perceived discrimination | | | | | | | .01 | .03 | .30 | .39 |
| *\* p < .05 \*\* p < .01* | | | | | | | | | | |

**H9A: Adult attachment moderates the impact of perceived discrimination on the acculturation of Muslim immigrants.**

Hypothesis 9A, exploring the moderating effect of Adult Attachment on the relationship between Perceived Discrimination and Psychological Well-being was tested through hierarchical multiple regressions analyses, with Perceived Discrimination as the independent variable and acculturation of Muslim immigrants as the dependent variable. Attachment Anxiety and Attachment Avoidance as the moderating were entered as the moderating variable as shown in table 7 below. The result showed that Perceived Discrimination did **not** contribute significantly to the Model 1 (*F* (1, 110) = 1.92, *p* > .05, *∆R2* = .02), explaining 2% of the variance in acculturation of Muslim immigrants. When the moderating variables were introduced in Model 2 (*F* (3, 102) = 1.50, *p* >.05, *∆R2* = .04), it led to a 2% increment in explained variance in Psychological Well-being. The introduction of the interaction variables (Attachment Anxiety x Perceived Discrimination) and (Attachment Avoidance x Perceived Discrimination) in model 3 (*F* (5,100) = .91, *p* > .05, *∆R2* = .04) did not lead to any increment in variance of psychological well-being.

The moderating variable (Adult Attachment) was **not** found to significantly influence psychological well-being (*p* > .05) or moderate the relationship between attachment anxiety or attachment avoidance and psychological well-being among Muslim immigrants (*p* >.05), therefore ***hypothesis 9A was not supported.***

Table 8: *HMR Analysis for moderating effect of Perceived Discrimination on the relationship between Adult Attachment and Psychological wellbeing*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hierarchical step/variable | R | R2 | Adjusted R2 | Change in R2 | ∆F | df | B | SE | B | t |
| 1. Main variables (model 1) | .13 | .17 | .01 | .02 | 1.92 | 1,110 |  |  |  |  |
| 2. Moderating variables (model 2) | .21 | .04 | .01 | .04 | 1.50 | 3,102 |  |  |  |  |
| 3. Interactions (model 3) | .21 | .04 | <-.01 | .04 | .91 | 5,100 |  |  |  |  |
| Final Model | | | | | | | | | | |
| Main effects (block 1) |  |  |  |  |  |  |  |  |  |  |
| Perceived discrimination | | | | |  |  | .04 | .03 | .13 | 1.38 |
| Moderating variable (block 2) | | | | | | |  |  |  |  |
| Attachment Anxiety | | | | | | | .09 | .07 | .13 | 1.19 |
| Attachment Avoidance | | | | | | | -.09 | .09 | -.10 | -.93 |
| Interactions (block 3) | | | | | | |  |  |  |  |
| Attachment Anxiety x Perceived discrimination | | | | | | | <.01 | .01 | -.24 | -.34 |
| Attachment Avoidance x Perceived discrimination | | | | | | | <.01 | .01 | -.04 | -.05 |
| *\* p < .05 \*\* p < .01* | | | | | | | | | | |

**H9B: Adult attachment moderates the impact of perceived discrimination on the psychological well-being of Muslim immigrants.**

Hypothesis 9B, exploring the moderating effect of Adult Attachment on the relationship between Perceived Discrimination and Attachment Avoidance and Psychological Well-being of Muslim Immigrants was tested together through hierarchical multiple regressions analyses, with Perceived discrimination as the independent variable, Marital Status as the control variable and psychological well-being as the dependent variable. Attachment Anxiety and Attachment Avoidance were entered as the moderating variable as shown in table 9 below. The result showed that Perceived Discrimination did **not** contribute significantly to the Model 1 (*F* (3, 118) = 6.45, *p* > .05, *∆R2* = .10), explaining 10% of the variance in psychological wellbeing. When the moderating variable were introduced in Model 2 (*F* (4, 105) = 10.60, *p* <.01, *∆R2* = .29), it explained an additional 19% of the variance in Psychological Well-being, a statistically significant change in variation. The introduction of the interaction variables (Attachment Anxiety x Perceived Discrimination) and (Attachment Avoidance x Perceived Discrimination) in model 3 (*F* (6, 103) = 7.07, *p* > .05, *∆R2* = .29) did not lead a significant increment in explained variance of psychological well-being.

The moderating variable (Association with Islamic cultural values) was found to significantly influence psychological well-being (*p* < .05) but **not** significantly moderate the relationship between perceived discrimination and psychological well-being among Muslim immigrants, therefore ***hypothesis 9B was not supported***.

Table 9: *HMR Analysis for moderating effect of Perceived Discrimination on the relationship between Adult Attachment and Psychological wellbeing*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hierarchical step/variable | R | R2 | Adjusted R2 | Change in R2 | ∆F | df | B | SE | B | t |
| 1. Main variables (model 1) | .32 | .10 | .09 | .10 | 6.45 | 3,118 |  |  |  |  |
| 2. Moderating variables (model 2) | .53 | .29 | .26 | .29 | 10.60 | 4,105 |  |  |  |  |
| 3. Interactions (model 3) | .54 | .29 | .25 | .29 | 7.07 | 6,103 |  |  |  |  |
| Final Model | | | | | | | | | | |
| Main effects (block 1) |  |  |  |  |  |  |  |  |  |  |
| Perceived discrimination | | | | |  |  | .10 | .11 | .08 | .92 |
| Moderating variable (block 2) | | | | | | |  |  |  |  |
| Attachment Anxiety | | | | | | | .78 | .27 | .27 | 2.91\* |
| Attachment Avoidance | | | | | | | .93 | .34 | .25 | 2.77\*\* |
| Interactions (block 3) | | | | | | |  |  |  |  |
| Attachment Anxiety x Perceived discrimination | | | | | | | -.02 | .02 | -.48 | -.77 |
| Attachment Avoidance x Perceived discrimination | | | | | | | .01 | .03 | .30 | .39 |
| *\* p < .05 \*\* p < .01* | | | | | | | | | | |