Results

Participants

There were 40 participants; six men (15%) and 34 women (85%). The mean age was 33.9, SD =10.6 and the range was 20 to 63. Participants were recruited from local communities using posters in local shops as well as recruited on line on polish forums. Participants varied in education – from secondary education to postgraduate education. The majority of participants were in full time employment. The mean length of stay in UK was 5.31 years, ranging between 0.1 and 9.5 years. Overall knowledge of English was average, with only 13 (33%) participants declaring poor or very poor English competency.

Statistics

Analysis of the results was carried out with usage of Excel and SPSS 21. The mean, medians and standard deviations of the variables tested then further analysis: ANOVA for coping strategies and t-test to compere mean score of anxiety and depression from present study to the norms of British population. Furthermore correlation was carried out to analyse relationships between coping strategies and anxiety and depression.

HADS

HADS score for anxiety: combined gender: M = 8.6, SD = 4.3; males: M = 6.7, SD = 4.78; females: M = 9.1, SD = 4.6. Anxiety: range of 17 with a minimum of 2 and a maximum of 19, mode = 8. The results achieved in the (using cut off point of 8) HADS-A subscale indicate a high intensity of anxiety symptoms among the Polish population. The percent of participants who had results of between 8 and 10 was 11 (27.5%). The number of participants with a score between 11 and 15, indicating possible clinical risk, was 8 (10%). Finally, the percentage of participants who got results of 16 or higher was 3 (13.3%) - this result indicated clinical level of anxiety.

HADS score for depression: combined gender: M = 5.65, SD = 4.0; range = 17 with a minimum of 1 and a maximum of 18, mode = 3. Males: M = 5.87, SD = 5.3; females: M = 5.6, SD = 4. The percentage of participants who had results of between 8 and 10 was 22.5% (9). The number of participants with a score between 11 and 15, indicating possible clinical risk, was 2 (5%). Finally, the percentage of participants who got results of 16 or higher was 5% (2) - this result indicated clinical levels of depression.

To test the hypothesis that Polish migrant population is significantly more depressed and anxious then UK population - mean score of depression M =3.71, SD 3.17= and anxiety 6.42,SD = 4.00 (data from Crawford at al. , 2009). Two one sample t-tests were conducted to investigate if there is a difference in means. Significant scores were found for both anxiety (*t(39)* = 3.186, *p* = .003) and depression (t(39) = 3.031, p = .004)

Stress Scale

The mean of stress was M= 249.75, SD = 208.20. The results show that the 30% of participants between 150 and 299, a score that suggests moderate stress levels. The number of participants who scored above 299 is 12 (30%), suggesting high stress levels. What was interesting the correlation between Stress and Anxiety and Depression was not significant, In addition there was a significant inter-correlation between HADS-A and HADS-D subscales as calculated by Pearson's correlation coefficient r(38) = .601, p < .000. See table below for details.

(Score of 300+ = at risk of illness/very high stress; 150-299 = risk of illness is moderate/moderate stress; <150 = only has a slight risk of illness/normal levels of stress.) Description FYI

Brief Cope

 Table 1 presents the means and standard deviations of all fourteen coping strategies. One way repeated measures ANOVA was conducted to determine whether any strategies were used significantly more than others. The results, the three most frequently used coping strategies were: planning, active coping, and acceptance – the ANOVA reviled that these strategies were not significantly different from each other in their frequency of use. Additionally ANOVA revealed that the three strategies that were not used very often are: humour, substance use, and behavioural disengagement – were also not significantly different from each other Table 2 (Appendix ZZ) shows which coping strategies were significantly different from each other.

*Table 1* *Mean and standard deviations of coping strategies.*

|  |  |  |
| --- | --- | --- |
| Coping strategy | M | SD |
| Acceptance  | 5.75 | 1.30 |
| Active coping  | 5.75 | 1.30 |
| Behavioural disengagement  | 3.68 | 1.42 |
| Denial  | 3.98 | 1.58 |
| Emotional support  | 5.28 | 1.81 |
| Humour  | 3.15 | 1.25 |
| Instrumental support  | 5.15 | 1.64 |
| Planning  | 6.10 | 1.15 |
| Positive reframing  | 5.60 | 1.37 |
| Religion  | 3.80 | 1.86 |
| Self-blame  | 5.35 | 1.78 |
| Self-distraction  | 5.55 | 1.48 |
| Substance use  | 3.45 | 1.57 |
| Venting  | 4.98 | 1.12 |

The 14 coping strategies were divided into groups according to model proposed by Carver and Sheier (1994): The three coping strategies, and their associated sub-scales, were: problem-focused coping (active coping, planning, instrumental support, and religion scales); active emotional coping (venting, positive reframing, humour, acceptance, and emotional support scales); and avoidant emotional coping (self-distraction, denial, behavioural disengagement, self-blame, and substance use scales). The table in Appendix XX shows the correlation of the factors with these groups – overall the data support this model, except that religion did not correlate well with any of the groups. However religion was rarely used strategy and therefore it should not impact results too much.

Furthermore correlational analysis compered these groups with anxiety depression and stress .Results are shown it Table 2. Correlations were found between depression and avoidance coping (r=.356, p=.024) and between anxiety and avoidance coping (r=.708, p=.000) only. Additionally not significant correlation was found between stress and anxiety and depression scores.

*Table 3 presents the correlations between different coping strategies and stress, anxiety, depression.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Active EmotionalCoping | Problem Focused Coping | Avoidance Coping | Total Stress | Total Depression | Total Anxiety |
| Active EmotionalCoping | - | .372\* | .083 | .195 | -.160 | .085 |
| Problem focused coping | - | - | -.003 | .283 | -.097 | -.013 |
| Avoidance coping | - | - | - | .119 | .356\* | .708\*\* |
| Total stress | - | - | - | - | .129 | .147 |
| Total depression | - | - | - | - | - | .601\*\* |
| Total anxiety | - | - | - | - |  | - |

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Interpretation of quantitative results

It was hypothesised that Polish people experienced high levels of stress and depression than the British population. The t-test that was conducted confirmed this hypothesis, being especially salient for anxiety scores. This means that Polish migrants may be at heightened risk of mental health problems- which has been reported in large body of literature (ref). This illuminates the following question: does migration stress cause Polish people to be anxious and depressed or depression and anxiety are related Polish culture on deeper level as suggested by a number of studies previously conducted in Poland and showing increased levels of anxiety and depression among Polish population.

Another hypothesis was that increased stress would be associated with increased anxiety and depression. This hypothesis was not confirmed, which rises a discussion point whether that was due to the small sample size or the measures used (objective stress measure was used as opposed to subjective stress measures). This can be understood well when we take into account examples, e.g. pregnancy. The same event (getting pregnant) may have strikingly different perceived stress levels associated with it –young single woman may feel highly distressed about the possibility of bringing the child up on her own contrary to a married woman who could be overjoyed at the prospect of becoming a mother.

Although it was not hypothesised, depression and anxiety scales were found to be highly correlated. This goes in line with previous research reporting these scales as being substantially correlated.

To test the hypothesis that certain coping strategies lead to more negative outcomes that others (in terms of depression and anxiety) the data was correlated with the factors proposed by \*. by Carver and Sheier (1994). Overall the data supported the model; however the religion scale did not fit any of the factors proposed by the model, not fitting into any of the categories. Although Polish society is known as being strongly Catholic (ref), the data from the current sample did not confirm this notion. Religion was one of the least used coping strategies. Interestingly, the least frequently used coping strategy was substance use, despite the common stereotype of Polish migrants being prone to overusing alcohol and cigarettes (ref). This could be explained by the fact the sample was predominantly consisting of females and alcohol consumption is generally associated with males (ref).

 The results indicated that avoidant coping which consisted of self-distraction, denial, behavioural disengagement, self-blame and substance use scales , were significantly related with anxiety and depression with particularly salient effect in case of anxiety. The direction of the association is not clear though: high anxiety levels might influence the individual’s choice of coping strategies while certain coping strategies could also affect one’s anxiety levels.