Supplement A: Critical Appraisal Skills Programme (CASP) Analysis

|  |  |  |
| --- | --- | --- |
| CASP Criteria | Article 1: Gammouh, et. al. (2015) | Article 2: Chung, et. al. (2017) |
| Statement of aim of research | Clear | Clear |
| Appropriateness of methodology | Clear: Use of cross-sectional design. | Clear: Use of cross-sectional design. |
| Research design appropriate to address research aim | Adequate. The relevance of self-report cross-sectional design evident. | Adequate. The relevance of self-report cross-sectional design evident. |
| Population recruitment strategy was appropriate for the research | No clear population recruitment design. Information provided on the nature of recruitment, research participants, and those who did not complete the study. Choice of community setting provided. | Convenience sampling design approach choice evident. Information provided on the nature of recruitment and research participants. Specific camp and community settings provided. |
| Data collection was done in a way that addressed the research issue | Comprehensive assessment of prevalence of depression and chronic disease through validated measures. Additionally, clarity was lacking in questions regarding chronic diseases and chronic diseases were not diagnosed or confirmed clinically. Also, it is unknown for how long patients lacked medications. (The study did not focus on other physical health issues and disabilities such as pain or musculoskeletal disorders that may contribute to refugees’ mental health.) Is this necessary | Data collection was comprehensive through a reliable and valid instrument to assess depression and a survey to address prevalence of PTSD in Syrian refugees across multiple settings. |
| Ethical concerns were considered | Yes | Yes |
| Data analysis sufficient and rigorous | Yes | Yes |
| Clear statement | Yes | Yes |
| Value of research | The findings demonstrate an elevated level of depression (one-third) in Syrian refugees and indicate a connection to lack of medications and chronic disease. | The findings demonstrate high numbers (43%) of Syrian refugees met the cut off for PTSD and refugees who witnessed horror, life threat or had family or friends die, tended to have elevated psychological distress. Levels of distress among resettled refugees can vary depending on country of resettlement. |

|  |  |  |
| --- | --- | --- |
| CASP Criteria | Article 3: Kazour, et. al. (2017) | Article 4: Ibrahim & Hassan (2017) |
| Statement of aim of research | Clear | Clear |
| Appropriateness of methodology | Clear: Use of cross-sectional design. | Clear: Use of cross-sectional design. |
| Research design appropriate to address research aim | Adequate. The relevance of self-report cross-sectional design evident. | Adequate. The relevance of self-report cross-sectional design evident. |
| Population recruitment strategy was appropriate for the research | No clear population recruitment design. Information provided on the nature of  recruitment, research participants, and those who did not complete the study. Choice of camp setting provided. | No clear population recruitment design. Information provided on the nature of recruitment, research participants, and those who did not complete the study. Choice of camp setting provided. |
| Data collection was done in a way that addressed the research issue | Comprehensive assessment of prevalence of post-traumatic stress disorder, through a reliable and valid instrument interview to assess mental health characteristics. | Comprehensive assessment of association of PTSD symptoms with torture and other traumatic events through validated measures that targeted mental health characteristics. However, the participants were Syrian Kurdish refugees but the instruments used in this study were presented in the Arabic language. |
| Ethical concerns were considered | Yes | Yes |
| Data analysis sufficient and rigorous | Yes | Yes |
| Clear statement | Yes | Yes |
| Value of research | The findings demonstrate high numbers (27.2%) of Syrian refugees met the cut off for PTSD, whereas levels of SUD were low (0.66%). The results showed Syrian hometown as a significant predictor of lifetime PTSD. | The findings demonstrate high numbers of Syrian refugees met the cut off for PTSD (between 35% and 38%). The results showed that both the number of traumatic events and instances of torture experienced was positively correlated with PTSD, The results did not show significant gender differences in the experience of PTSD symptoms. |

|  |  |  |
| --- | --- | --- |
| CASP Criteria | Article 7: Naja. et. al. (2016) | Article 8: Euteneuer & Schäfer (2018) |
| Statement of aim of research | Clear | Clear |
| Appropriateness of methodology | Clear: Use of retrospective (cross-sectional) design. | Clear: Use of cross-sectional design. |
| Research design appropriate to address research aim | Adequate. The relevance of self-report and interview cross-sectional design evident. | Adequate. The relevance of an online self-report cross-sectional design evident. |
| Population recruitment strategy was appropriate for the research | Convenience sampling design approach choice evident. Information provided on the nature of recruitment and research participants. Setting information provided. | Convenience sampling design approach choice evident. Information provided on the nature of recruitment and research participants. Setting information provided. |
| Data collection was done in a way that addressed the research issue | Comprehensive assessment of mental health characteristics through using a reliable and valid instrument interview. However, the religiosity questionnaire used was originally developed and validated in Arabic on a different local, non-refugee, population. Additionally, religiosity is a continuous variable, subject to significant fluctuations, which is not accounted for by the cross-sectional design of the study. | Comprehensive assessment of whether downward mobility in SSS among male refugees is associated with depression through validated measures in an online survey. |
| Ethical concerns were considered | Yes | Yes |
| Data analysis sufficient and rigorous | Yes | Yes |
| Clear statement | Yes | Yes |
| Value of research | The findings demonstrate a substantial emergence of depressive disorders (43.9%) with no meaningful correlation with the level of religiosity. | The findings demonstrate high numbers of Syrian refugees met the cut off for depression (28.7%). |

|  |  |  |
| --- | --- | --- |
| CASP Criteria | Article 5: Al Ibraheem, et. al. (2017) | Article 6: Keri, S. (2015) |
| Statement of aim of research | Clear | Clear |
| Appropriateness of methodology | Clear: Use of cross-sectional design. | Clear: Use of cross-sectional design. |
| Research design appropriate to address research aim | Adequate. The relevance of self-report cross-sectional design evident. | Adequate. The relevance of self-report and interview cross-sectional design evident. |
| Population recruitment strategy was appropriate for the research | Convenience sampling design approach choice evident. Information provided on the nature of recruitment, research participants, and those who did not complete the study. | Random sampling design approach evident. Information provided on the nature of recruitment, research participants, and those who did not complete the study. Specific setting information provided. |
| Data collection was done in a way that addressed the research issue | Comprehensive assessment of the physical and mental health toll of Syrian experience, an intergroup trauma through valid and reliable measures. | Comprehensive assessment of the occurrence of Posttraumatic Stress Disorder through reliable and validated measures that targeted. However, due to limitations in interview conditions, study was not able to carry out a formal diagnostic procedure for co-morbid disorders such as major depression and other anxiety disorders. Moreover, the assessment was carried out according to the DSM-IV criteria because new instruments for DSM-5 were not readily available. |
| Ethical concerns were considered | Yes | Yes |
| Data analysis sufficient and rigorous | Yes | Yes |
| Clear statement | Yes | Yes |
| Value of research | The findings demonstrate high numbers of Syrian refugees met the cut off for PTSD (24%), depression (44.1%), and suicidality (11.3%). | The findings demonstrate high numbers of Syrian refugees met the cut off for PTSD (65%). |

|  |  |  |
| --- | --- | --- |
| CASP Criteria | Article 9: Tinghög, et. al. (2017) | Article 10: Chung, AlQarni, Al Muhairi, & Mitchell (2017) |
| Statement of aim of research | Clear | Clear |
| Appropriateness of methodology | Clear: Use of cross-sectional design. | Clear: Use of cross-sectional design. |
| Research design appropriate to address research aim | Adequate. The relevance of postal questionnaire cross-sectional design evident. | Adequate. The relevance of self-report cross-sectional design evident. |
| Population recruitment strategy was appropriate for the research | Random sampling design approach evident. Information provided on the nature of recruitment, and research participants. | Quasi-random sampling design approach evident. . Information provided on the nature of recruitment, research participants, and those who did not complete the study. Specific camp and community settings provided. |
| Data collection was done in a way that addressed the research issue | Comprehensive assessment of the prevalence of and associations between anxiety, depression, post-traumatic stress disorder (PTSD), low subjective well-being (SWB), potential traumas and post migration stress among refugees through validated measures that targeted assess mental health characteristics. | Data collection was comprehensive through a reliable and valid instrument interview to assess mental health characteristics. |
| Ethical concerns were considered | Yes | Yes |
| Data analysis sufficient and rigorous | Yes | Yes |
| Clear statement | Yes | Yes |
| Value of research | The findings demonstrate high numbers of Syrian refugees met the cut off for depression (40.2%), anxiety (31.8%), and PTSD (29.9%), and other mental health disorders. | The results showed high numbers (52%) met the cut-off for PTSD. The findings highlight inter-relationship between trauma centrality, self-efficacy, posttraumatic stress disorder (PTSD) and psychiatric co-morbidity, and whether gender would moderate the meditational effect of self-efficacy on the impact of trauma centrality on distress. |

|  |  |  |
| --- | --- | --- |
| CASP Criteria | Article 11: Kira, I. A., et. al. (2017) | Article 12 Alpak, G., et. al. (2015) |
| Statement of aim of research | Clear | Clear |
| Appropriateness of methodology | Clear: Use of cross-sectional design. | Clear: Use of cross-sectional design. |
| Research design appropriate to address research aim | Adequate. The relevance of self-report and interview cross-sectional design evident. | Adequate. The relevance of self-report and interview cross-sectional design evident. |
| Population recruitment strategy was appropriate for the research | Convenience sampling (snowball or chain referral) design approach evident. Information provided on the nature of  recruitment and research participants characteristics. Specific community settings provided. | Random sampling design approach evident. Information provided on the nature of recruitment and research participants characteristics. Specific camp settings provided. |
| Data collection was done in a way that addressed the research issue | Data collection was comprehensive through a reliable and valid instrument interview and self-report measures to assess mental health characteristics. However, the results only reflect symptoms and not diagnostic categories. | Data collection was comprehensive through a reliable and valid instrument interview and self-report measures to assess mental health characteristics. However, this study used DSM-IV diagnostic criteria for PTSD. |
| Ethical concerns were considered | Yes | Yes |
| Data analysis sufficient and rigorous | Yes | Yes |
| Clear statement | Yes | Yes |
| Value of research | The findings demonstrated high levels of PTSD (33.5%), complex PTSD (47.4%), and a high rate of suicidal plans or attempts (13.7%). | The findings demonstrated high levels of PTSD (33.5%). Researchers calculated that the probability of having PTSD among Syrian refugees in the sample was 71%, if they had the following features: with female gender; being diagnosed with psychiatric disorder in the past; having a family history of psychiatric disorder; and experiencing 2 or more traumas. |

|  |  |  |  |
| --- | --- | --- | --- |
| CASP Criteria | Article 13: Acarturk, C., et. al. (2017). | Article 14 Kliem et. al., (2016) | Articel 15: Chung et. al. (2018) |
| Statement of aim of research | Clear | Clear | Clear |
| Appropriateness of methodology | Clear: Use of cross-sectional design. | Clear: Use of cross-sectional design. | Clear: Use of cross-sectional design. |
| Research design appropriate to address research aim | Adequate. The relevance of self-report cross-sectional design evident. | Adequate. The relevance of self-report cross-sectional design evident. | Adequate. The relevance of self-report cross-sectional design evident. |
| Population recruitment strategy was appropriate for the research | Random sampling design approach evident. Information provided on the nature of recruitment and research participants characteristics. | Convenience sampling design approach evident. Information provided on the nature of recruitment and research participants characteristics. | Convenience sampling design approach evident. Information provided on the nature of recruitment and research participants characteristics. Specific community settings provided. |
| Data collection was done in a way that addressed the research issue | Data collection was comprehensive through reliable and valid self-report measures to assess mental health characteristics. | Data collection was comprehensive through reliable and valid self-report measures to assess mental health characteristics. | Data collection was comprehensive through reliable and valid self-report measures to assess mental health characteristics. |
| Ethical concerns were considered | Yes | Yes | Yes |
| Data analysis sufficient and rigorous | Yes | Yes | Yes |
| Clear statement | Yes | Yes | Yes |
| Value of research | Probable PTSD prevalence was 83.4%, with predictors being female sex, previous mental health problems, life threat, and injury of a loved one. Probable depression prevalence was 37.4%, with predictors being female sex, previous mental health problems, having a loved one who was tortured, and not being satisfied at the camp. | Internal consistency was good. Confirmatory factor analyses revealed good to excellent fit. Measurement invariance was demonstrated for sex. Prevalence of depression was 20%, Generalized anxiety was 19.3%. | Of the participants, 30% met the cut-off for PTSD. Trauma exposure characteristics were associated with trauma centrality, which was associated with emotional suppression, which was associated with PTSD and psychiatric co morbidity. |

Supplement B: Data Extraction Forms

|  |  |  |
| --- | --- | --- |
| Article 1 | | |
| Title | | Chronic diseases, lack of medications, and depression among Syrian refugees in Jordan |
| Authors | | Gammouh, O. S., Al-Smadi, A., Tawalbeh, L. I., & Khoury, L. S. |
| Year | | 2015 |
| Country | | Jordan |
| Aim/Objective | | Determine depression tendency in Syrian refugees in Jordan in the light of chronic diseases and medication availability as well as depression prevalence and depression co morbidity with chronic diseases. |
| Population Information: | | Syrian refugees attending Caritas centres in 6 Jordanian cities from November 2013- June 2014. |
|  | N | 765 |
| Asylum Status | Refugee |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: N/A  % Male: 44.4  Marital Status: Married: 85.8% Single 14.2%  Employment Status: Employed: 8.8% Unemployed: 91.2%  Education Level: Illiterate: 12.7% Education in school: 87.3%  Average Time Since Arrival:: Less than 1 year 59.9%  Number of Traumatic Experiences: N/A |
| Research Methodology |  | Multicenter, cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Beck Depression Inventory- Arabic Version |
| Results |  |  |
|  | Mental Health Prevalence | Depression: 29.50 |
| Other Outcomes  Measured | Chronic disease  Lack of medication |
| Key Findings | Descriptive analyses showed that depression was co-morbid in 35% of participants with previously diagnosed chronic diseases and in 40% of participants with newly diagnosed chronic diseases. Newly diagnosed chronic diseases and lack of medications significantly contributed to depression, but the regression model as a whole explained less than 5% of the variance. |
| Limitations |  | Because entry to refugee camps is prohibited, data were collected only from Syrian refugees in urban areas. Self-report data. Chronic disease records: Participants were asked if they had chronic diseases in general without specifying chronic disease type or reporting co morbidity with other chronic diseases. moreover, Chronic diseases were not diagnosed or confirmed clinically. Also it is unknown for how long patients lacked medications. The study did not focus on other physical health issues and disabilities such as pain or musculoskeletal disorders that may contribute to refugees’ mental health. |

|  |  |  |
| --- | --- | --- |
| Article 2 | | |
| Title | | The impact of trauma exposure characteristics on post-traumatic stress disorder and psychiatric co-morbidity |
| Authors | | Chung et. al. |
| Year | | 2017 |
| Country | | Turkey and Sweden |
| Aim/Objective | | This study investigated the impact of trauma exposure characteristics on post-traumatic stress disorder (PTSD) and psychiatric co-morbidity among Syrian refugees. |
| Population Information: | | Refugees residing in Turkey and Sweden participated in the research. |
|  | N | 1197 |
| Asylum Status | Refugee |
| Camp or Community | Camp (26%) and Community (74%) |
| Participant Characteristics | Mean Age: 33.24  % Male: 59.7  Marital Status: Married: 56% Single: 37%  Employment Status: N/A  Education Level: Secondary: 55% University: 43%  Average Time Since Arrival (in months): Mean=23.04 SD=13  Number of Traumatic Experiences: N/A |
| Research Methodology |  | Cross-sectional survey across multiple locations. Measures distributed by site workers and completed by refugees. |
| Measures Used |  | Harvard Trauma Questionnaire |
| Results |  |  |
| Mental Health Prevalence | PTSD: 43% |
| Other Outcomes | Traumatic exposure characteristics  Country of resettlement |
| Key Findings | After adjusting for location of residence, witnessing horror and exposure to life threat and assault were significantly correlated with PTSD and psychiatric co-morbidity respectively. Death of, or life threat to family members or friends was significantly correlated with both distress outcomes. Refugees residing in Turkey had significantly higher levels of PTSD, psychiatric co-morbidity and trauma characteristics than those living in Sweden. |
| Implications |  | Syrian refugees who witnessed horror, life threat or had family or friends die, tended to have elevated psychological distress. Levels of distress among resettled refugees can vary depending on country of resettlement. Recommended systematic mental health screening and implementation of psychotherapeutic interventions to address issues pertaining to subjective experience of resettlement and trauma exposure for Syrian refugees. |
| Limitations |  | Convenience sampling method was used which could have contributed to sample bias. Secondly, a self-report screening instrument was used to assess the prevalence of PTSD. This prevalence therefore needs to be verified using structured clinical interview. Thirdly, whilst they noted the poor living conditions for the refugees from Turkey, the evidence was anecdotal. Arguably, this formed another limitation of the study in that the discrepancy between the locations could have contributed to the problem of homogeneity of the sample. Lastly, they could have measured resettlement or post-migration stress more systematically. The extent to which resettlement or post-migration factors other than living conditions contributed to the psychological distress of these refugees remains unknown. |

|  |  |  |
| --- | --- | --- |
| Article 3 | | |
| Title | | Post-traumatic stress disorder in a sample of Syrian refugees in Lebanon. |
| Authors | | Kazour, F., Zahreddine, N. R., Maragel, M. G., Almustafa, M. A., Soufia, M., Haddad, R., & Richa, S. |
| Year | | 2017 |
| Country | | Lebanon |
| Aim/Objective | | The objective of this study was to determine the prevalence of post-traumatic stress disorder (PTSD), and identify its possible predictors, in a sample of Syrian refugees living in camps in Lebanon. |
| Population Information: | | Syrian refugees between 18 and 65 years old in 6 camps of the Central Bekaa region |
|  | N | 452 |
| Asylum Status | Refugee (registered by the UNHCR at least 3 months before the interview) |
| Camp or Community | Camp |
| Participant Characteristics | Mean Age: 35.05  % Male: 44.2  Marital Status: Married: 81.7% Single: 15.6% Divorced: .5% Widowed 2.3%  Employment Status: Employed: 24.9% Unemployed: 75.1%  Education Level: None: 37.5% Elementary School: 49.2% Secondary school: 9% University 4.3%  Average Time Since Arrival: 10.2  Number of Traumatic Experiences: Mean: N/A |
| Research Methodology |  | Multi-site, cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Mini International Neuropsychiatric Interview - Arabic Version |
| Results | Mental Health Prevalence | PTSD: 27.20% |
| Other Outcomes | Hometown  Seeking mental health support  Lifetime v point-prevalence PTSD  Substance Abuse Disorder |
| Key Findings | Lifetime prevalence of PTSD of 35.4%, and a point prevalence of 27.2%. The lifetime prevalence of SUD was 1.99% and the point prevalence 0.66%. Multivariate logistic regression could not identify any predictor of current PTSD among a list of demographic variables, but identified the Syrian hometown as a significant predictor of lifetime PTSD (p = .013), with refugees from Aleppo having significantly more PTSD than those coming from Homs (adjusted OR 2.14, 95% CI [1.28, 3.56], p = .004). |
| Implications |  | PTSD was a significant mental health issue in this sample of adult Syrian refugees in Central Bekaa camps, but not SUD. |
| Limitations |  | Data was not collected from Syrian refugees in urban areas. Self-report measures. Cross-sectional design. Convenience sampling. |

|  |  |  |
| --- | --- | --- |
| Article 4 | | |
| Title | | Post-traumatic stress disorder symptoms resulting from torture and other traumatic events among Syrian Kurdish refugees in Kurdistan Region, Iraq |
| Authors | | Ibrahim, H., & Hassan, C. Q. |
| Year | | 2017 |
| Country | | Iraq |
| Aim/Objective | | This study examines the association of PTSD symptoms with torture and other traumatic events among Syrian Kurdish refugees living in Kurdistan Region, Iraq. |
| Population Information: | | Syrian Kurdish refugees in the Arbat camp in the Sulaymaniyah Governorate of the Kurdistan Region of Iraq were assessed. |
|  | N | 91 |
| Asylum Status | Refugee (Registered as a refugee by UNHCR at least 3 months before the interview). |
| Camp or Community | Camp |
| Participant Characteristics | Mean Age: 29.91  % Male: 55  Marital Status: Married: 60.4% Single: 37.4% Divorced/Separated: 2.2%  Employment Status: Employed: 36.3 Unemployed: 63.7  Education Level: None: 5.5% Mean years= 8.68 SD=3.95  Average Time Since Arrival: N/A  Number of Traumatic Experiences: Mean=11.12 SD=7.37 |
| Research Methodology |  | Single-site, cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Harvard Trauma Questionnaire - Arabic Version |
| Results |  |  |
|  | Mental Health Prevalence | PTSD: 35% |
| Other Outcomes | Traumatic events and gender  Gender differences in types of trauma  Missing family members  Seeking mental health services |
| Key Findings | There were no significant gender differences in the occurrence of PTSD symptoms. However, men reported more general traumatic experiences than women. There were significant positive correlations between PTSD symptoms with traumatic events and torture (r = 0.500, r = 0.366, respectively). |
| Implications |  | Examining the mental health impact of torture and other traumatic events among refugees. |
| Limitations |  | The number of participants was small and only those refugees living in Arbat Camp in Sulaymaniyah Governorate, one of the smaller camps for Syrian refugees in the KRI, were examined. The findings of this study may have also been limited by the instruments used, given that the participants were Syrian Kurdish refugees but the instruments used in this study were presented in the Arabic language. |

|  |  |  |
| --- | --- | --- |
| Article 5 | | |
| Title | | The health effect of the Syrian conflict on IDPs and refugees |
| Authors | | Al Ibraheem, B., Kira, I. A., Aljakoub, J., & Al Ibraheem, A. (2017). |
| Year | | 2017 |
| Country | | Syria and The Netherlands |
| Aim/Objective | | The goal of this study was to assess the physical and mental health toll of Syrian experience, an intergroup trauma, on Syrians as individuals. |
| Population Information: | | 195 internally displaced and 111 Syrian refugees in the Netherlands. |
|  | N | 306 (195 ID P111 Netherlands) |
| Asylum Status | Internally Displaced Persons (IDP) and Refugees resettled in The Netherlands |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: 35.52  % Male: 67.3  Marital Status: Married 64.1% Single 23.2% Widows 8.5%  Divorced 2.9% Other 1.3%  Education Level: Read and write: 16.3% Elementary: 9.2% Intermediate: 12.1% High school 17.3% College/University 34.3% Post-graduate 10.8%  Employment Status: N/A  Average Time Since Arrival: N/A  Number of Traumatic Experiences: Mean=8.52 SD=4.83 |
| Research Methodology |  | Multi-country, cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Clinician-Administered PTSD Scale,  Post-Cumulative Trauma Related Disorders Measure  Existential Annihilation Anxiety Scale (EAA)  Physical Health Scale  Cumulative Trauma Scale - Arabic Version  Syrian Oppressive Experience (SOE) Scale. |
| Results |  |  |
|  | Mental Health Prevalence | PTSD:2 4.9% (31.8% of IDPs and 23.4% of Syrian refugees in the Netherlands) |
| Other Outcomes | Gender differences in types of trauma experienced |
|  |  | Results showed high suicide rates, with 11.3% of participants stated that they have a plan or history of attempting suicide. Also, the level of co-morbid depression was reported at 44.1%. |
| Implications |  | This study is the first study that provided accurate measurement of trauma and post trauma spectrum disorders (PTSD, complex PTSD, and EAA), and physical health in IDPs and refugees in the Nederland. |
| Limitations |  | The study used mostly convenient (snowballing or chain referral sampling) samples and collected under difficult continuous war conditions, that may have limited and biased representation. Cross-sectional design. Self-report measures. |

|  |  |  |
| --- | --- | --- |
| Article 6 | | |
| Title | | Suffering has no race or nation: The psychological impact of the refugee crisis in Hungary and the occurrence of posttraumatic stress disorder. |
| Authors | | Keri, S. |
| Year | | 2017 |
| Country | | Hungary |
| Aim/Objective | | The aim of this study was to explore the occurrence of Posttraumatic Stress Disorder among refugees arriving in Hungary. |
| Population Information: | | Participants were enrolled at a Hungarian state border zone (Hungary-Serbia border near to Röszke) and urban transit zones (areas in Budapest at the three main rail stations) between June 2015 and September 2015. Participants included non-Syrian refugees, but study was included as Syrian mental health prevalence was parsed. Random sampling. |
|  | N | 127 |
| Asylum Status | Asylum seeker |
| Camp or Community | Community |
| Participant Characteristics  \*Based on entire sample | Mean Age: 32  % Male: 57%  Marital Status: 57% of men and 72% of women were married  Employment Status: N/A  Educational Level: Mean : 11.0 (SD= 7.3 range= 5-17)  Average Time Since Arrival: N/A  Number of Traumatic Experiences: 9.4 (range: 5–26) |
| Research Methodology |  | Multisite, cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Harvard Trauma Questionnaire - Arabic Version optional  Mini-International Neuropsychiatric Interview - Arabic Version optional |
| Results |  |  |
|  | Mental Health Prevalence | PTSD: 65% |
| Other Outcomes | Comparison of variables by country of origin |
|  | Key Findings | There was no significant difference in PTSD rate and the number of potentially traumatic events among the three large subsamples (N > 100): asylum seekers from Syria, Afghanistan, and Iraq plus other countries. |
| Implications |  | High occurrence of PTSD in asylum seekers. |
| Limitations |  | Some participants didn't report country of origin. Cross-sectional design. Serious limitations in interview conditions (lack of time and resources, constant pressure, stress and even ongoing trauma-exposure at borders and transit zones), prevented study from carrying out a formal diagnostic procedure for co-morbid disorders such as major depression and other anxiety disorders. |

|  |  |  |
| --- | --- | --- |
| Article 7 | | |
| Title | | Prevalence of depression in Syrian refugees and the influence of religiosity. |
| Authors | | Naja, W. J., Aoun, M. P., El Khoury, E. L., Abdallah, F. J. B., & Haddad, R. S. |
| Year | | 2016 |
| Country | | Lebanon |
| Aim/Objective | | The aim of this study is to assess for the onset of new depressive disorders following the Syrian war, and to investigate the correlation of religiosity with depression. |
| Population Information: | | Syrian forced migrants, who were solely Muslim and majority of low SES. |
|  | N | 310 |
| Asylum Status | Refugee (used the term “forced migrants” interchangeably) |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: N/A  % Male: 38.8  Marital Status: Single 10% Married 84.5% Widowed/divorced/separated 5.5%  Employment Status: Student 1.9% Employed 30.3% Unemployed: 53.2% Retired 14.5%  Education Level:  None: 16.8 Elementary School: 64.2% Secondary school: 14.5% University 3.9% Post graduate .6%  Average Time Since Arrival: N/A  Number of Traumatic Experiences: N/A |
| Research Methodology |  | Cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Mini International Neuropsychiatric Interview - Arabic Version |
| Results |  |  |
|  | Mental Health Prevalence | Depression: 43.9% |
| Other Outcomes | Influence of religion  Dysthymia  Pre-war depression rates  Alcohol consumption  Negative emotions change over time |
|  | Key Findings | No difference in PTSD prevalence across all socio- demographic factors, including gender. The overall mean for religiosity for the current sample was moderate (mean = 9.76; standard deviation SD = 2.34). No substantial correlation was found with religiosity. The prevalence rate for pre-war depression was 6.5% (95% CI: 4.2–9.8%) following the global pattern of socio-demographic epidemiological characteristics. Prevalence for past depression was 27.1% (95% CI: 22.5–32.3%); for current dysthymia: 4.5% (95% CI: 2.7–7.4%); for pre-war and past dysthymia: 1% (95% CI: 0.3–2.8%), all with no significant differences detected across all demographic variables. |
| Limitations |  | Cross-sectional design. The use of convenience sampling resulted in a selected representation of a rather homogenous group of participants. (here is no mention of the data on religion – which makes sense) |

|  |  |  |
| --- | --- | --- |
| Article 8 | | |
| Title | | Brief Report: Subjective Social Mobility and Depressive Symptoms in Syrian Refugees to Germany. |
| Authors | | Euteneuer, F., & Schäfer, S. J. |
| Year | | 2018 |
| Country | | Germany |
| Aim/Objective | | This study examined whether downward mobility in SSS among male refugees from Syria to Germany is associated with depression |
| Population Information: | | Male refugees resettled in Germany recruited in June and July 2017. |
|  | N | 164 |
| Asylum Status | Refugee |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: 28.84  % Male: 100%  Marital Status: N/A  Employment Status: N/A  Education Level: Mean: 13.59 (SD= 2.73)  Average Time Since Arrival: N/A  Number of Traumatic Experiences: N/A |
| Research Methodology |  | Cross-sectional, self report online survey. |
| Measures Used |  | Patient Health Questionnaire - 9 - Arabic Version  MacArthur Scale of Subjective Social Status (SSS) |
| Results |  |  |
|  | Mental Health Prevalence | Depression: 38.7% |
| Other Outcomes | Loss of Social Status |
| Key Findings | Found that refugees who experience stronger downward mobility in SSS exhibit more severe depressive symptoms and were more likely to fulfil provisional DSM-IV criteria for a diagnosis of Major Depression. |
| Implications |  | The results highlight the importance to consider dynamic aspects of social status Second, the observed associations of changes in SSS with depression corroborates the profound link between perceived social inequality and depression. |
| Limitations |  | Cross-sectional design. Although experimental work suggests that a reduction in SSS increases depressive thinking, future research in refugees should ideally use prospective designs to examine the longitudinal relationship between subjective social mobility and depression. Self-report measures. Although the PHQ-9 is a reliable and valid instrument of depression severity, clinician-rated diagnoses of depression would have been an advantage. Finally, it is important to note that they have focused on one aspect of migration-related stress but did not assess the full range of stressors which may be related to depressive symptoms in refugees (i.e., traumatic events, poor housing conditions) |

|  |  |  |
| --- | --- | --- |
| Article 9 | | |
| Title | | Prevalence of mental ill health, traumas and post migration stress among refugees from Syria resettled in Sweden after 2011: a population-based survey |
| Authors | | Tinghög, P., Malm, A., Arwidson, C., Sigvardsdotter, E., Lundin, A., & Saboonchi, F |
| Year | | 2017 |
| Country | | Sweden |
| Aim/Objective | | To estimate the prevalence of and associations between anxiety, depression, post-traumatic stress disorder (PTSD), low subjective well being (SWB), potential traumas and post migration stress among refugees from Syria resettled in Sweden. |
| Population Information: | | 1215 individuals (response rate 30.4%) from Syria aged 18–64 years that were granted residency in Sweden on grounds of asylum between 2011 and 2013. |
|  | N | 1215 |
| Asylum Status | Permanent residency permit |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: N/A  % Male: 62.8  Marital Status: Unmarried 31.8% Married 63.5% Widowed/divorced/separated 4.8%  Employment Status: N/A  Education Level: 0-9 years: 40.2% >9: without university degree: 21% >12 years with a university degree 38.7%  Average Time Since Arrival: 5 years or more: 6.5% 2012: 4 years: 27.5% 3 years: 66.0%  Number of Traumatic Experiences: Mean 4.2 of 8 offered |
| Research Methodology |  | Cross-sectional, self report postal questionnaire. |
| Measures Used |  | Harvard Trauma Questionnaire - Arabic Version  Hopkins Symptom Checklist - Arabic Version |
| Results |  |  |
|  | Mental Health Prevalence | PTSD: 29.9%  Depression: 40.2%  Anxiety: 31.8% |
| Other Outcomes | Post-migration stressors  Social well-being |
| Key Findings | A majority of participants met the criteria for at least one of the studied types of mental ill health, and co morbidity was high. Low SWB prevalence was 37.7% (95% CI 34.8% to 40.1%). Refugee-related potentially traumatic events (PTEs) experienced before or during migration were common as was substantial levels of post migration stress. Most types of refugee-related PTEs, especially being exposed to interpersonal violence, and post migration stress were associated with increased risks for anxiety, depression, low SWB and PTSD. |
| Implications |  | Increased attention from multiple societal sectors to adequately support Syrian refugees’ mental health needs, promoting recovery and reducing post migration stress are needed. |
| Limitations |  | Substantial non-response rate. |

|  |  |  |
| --- | --- | --- |
| Article 10 | | |
| Title | | The relationship between trauma centrality, self-efficacy, posttraumatic stress and psychiatric co-morbidity among Syrian refugees: Is gender a moderator? |
| Authors | | Chung, M. C., AlQarni, N., Al Muhairi, S., & Mitchell, B |
| Year | | 2017 |
| Country | | Turkey |
| Aim/Objective | | This study examined the inter-relationship between trauma centrality, self-efficacy, posttraumatic stress disorder (PTSD) and psychiatric co-morbidity among a group of Syrian refugees living in Turkey, and whether gender would moderate the meditational effect of self-efficacy on the impact of trauma centrality on distress |
| Population Information: | | Refugees recruited from a town inside Turkey near the border with Syria where refugees had been housed in temporary accommodation. |
|  | N | 792 |
| Asylum Status | Refugee |
| Camp or Community | Camp (51%) and Community (49%) |
| Participant Characteristics | Mean Age: 28.27  % Male: 47.2  Marital Status: Married (48) Single (43)  Employment Status: N/A  Education Level: None: 4% Secondary school 74% University 22%  Average Time Since Arrival: Mean=22.64 (SD 10.11)  Number of Traumatic Experiences:N/A |
| Research Methodology |  | Cross-sectional, self-report study. Questionnaires distributed by relief workers. Questionnaires then back-translated. |
| Measures Used | All scales back-translated | Harvard Trauma Questionnaire  General Health Questionnaire  Centrality of Event Scale  Generalizes Self-Efficacy Scale |
| Results |  |  |
|  | Mental Health Prevalence | PTSD: 52% |
| Other Outcomes | Trauma centrality and self efficacy  Depression and somatic complaints |
| Key Findings | Trauma centrality was positively correlated with PTSD, psychiatric co-morbidity and self-efficacy. Self-efficacy was negatively correlated with PTSD only. Gender did not moderate the meditational effect of self-efficacy on the path between trauma centrality and distress outcomes. To conclude, following exposure to traumatic events, more than half reported PTSD. Perception of the future and identity construction was affected. Signs of psychological distress were evident, alongside resilience, regardless of gender. |
| Limitations |  | Convenience sampling. Resettlement stress was not influenced the level of PTSD. Although a meditational relationship was found in this cross-sectional study, a longitudinal design would have enabled comment on causality between psychological constructs. |

|  |  |  |
| --- | --- | --- |
| Article 11 | | |
| Title | | A threatened identity: The mental health status of Syrian refugees in Egypt and its etiology. |
| Authors | | Kira, I. A., Shuwiekh, H., Rice, K., Al Ibraheem, B., & Aljakoub, J. (2017) |
| Year | | 2017 |
| Country | | Egypt |
| Aim/Objective | | This study aimed to examine the cumulative effects of trauma on the identities of Syrian refugees. |
| Population Information: | | Refugees residing in Cairo, Egypt. |
|  | N | 196 |
| Asylum Status | Refugee |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: 35.99  % Male: 68.4  Marital Status: Married 68.9% Single: 20.9% Divorced/Widowed/Other 10.2%  Employment Status: Employed: 77% Student 17.3% Unemployed 5.7%  Average Time Since Arrival: TSA  Number of Traumatic Experiences: Mean=17.19 |
| Research Methodology |  | Cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | The Clinician Administered PTSD Scale (CAPS-2) - Arabic Version  Post cumulative Traumatic Stress Disorders Measure  Cumulative Stressors and Traumas Scale – Short Form (CTS-S)  The Identity Salience Scale (ISS)  The Existential Annihilation Anxiety Scale (EAA Scale) |
| Results |  |  |
|  | Mental Health Prevalence | PTSD: 33.5 |
| Other Outcomes | Complex PTSD  Co morbidity (suicidality, psychotic/dissociative symptoms)  Identitity trauma  Existential annihilation anxiety  Religion prevalence  Types of trauma |
| Key Findings | The level of co morbidity was high with a high rate of suicidal plans or attempts (13.7%) and 9.7% scored above cut-off for co morbid psychotic and dissociation symptoms. Analyses indicated that existential annihilation anxieties, moderated by identity salience, mediated the effects of cumulative trauma on mental health |
| Implications |  | The results confirmed the utility and validity of the identity trauma model. |
| Limitations |  | The results only reflect symptoms and not diagnostic categories. Used a convenience sample, self-report measures, and a cross-sectional design. |

|  |  |  |
| --- | --- | --- |
| Article 12 | | |
| Title | | Post-traumatic stress disorder among Syrian refugees in turkey: A cross-sectional study. |
| Authors | | Alpak, G., Unal, A., Bulbul, F., Sagaltici, E., Bez, Y., Altindag, A., . . . Savas, H. A. |
| Year | | 2015 |
| Country | | Turkey |
| Aim/Objective | | This study aimed to examine the cumulative effects of trauma on the identities of Syrian refugees |
| Population Information: | | Conducted in a tent city. Sample size calculation yielded 352 and the participants of the study were determined randomly. |
|  | N | 352 |
| Asylum Status | Refugee |
| Camp or Community | Camp (tent city) |
| Participant Characteristics | Mean Age: 37.58  % Male: 50.9  Marital Status: Single 13.1% Married 86.4% Widowed/divorced/separated .5%  Employment Status: Unemployed: 49.1% Student 4.3% Employed: 59.1%  Education Level: None 23.5% Primary (1-6 yrs) 35.8% Secondary (7-9) 22.5% High School: 11.9% College 6.3%  Average Time Since Arrival: 6.52 months  Number of Traumatic Experiences: 3.71 (SD=1.97) |
| Research Methodology |  | Cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Diagnostic psychiatric interview - DSM-IV - Arabic Version  Stressful Life Events Screening Questionnaire |
| Results |  |  |
|  | Mental Health Prevalence | PTSD:33.5% |
| Other Outcomes | Alcohol use  Acute, chronic, late onset PTSD |
| Key Findings | Through the binary logistic regression analysis, researchers calculated that the probability of having PTSD among Syrian refugees in the sample was 71%, if they had the following features: with female gender; being diagnosed with psychiatric disorder in the past; having a family history of psychiatric disorder; and experiencing 2 or more traumas. |
| Limitations |  | The study used a cross-sectional and only interviewed participants at one refugee camp in Turkey. Used DSM-IV diagnostic criteria for PTSD. |

|  |  |  |
| --- | --- | --- |
| Article 13 | | |
| Title | | Prevalence and predictors of posttraumatic stress and depression symptoms among Syrian refugees in a refugee camp. |
| Authors | | Acarturk, C., Cetinkaya, M., Senay, I., Gulen, B., Aker, T., & Hinton, D. |
| Year | | 2017 |
| Country | | Turkey |
| Aim/Objective | | The current study investigates the prevalence of probable posttraumatic stress disorder (PTSD) and depression among adult Syrians residing in a camp and potential predictors. |
| Population Information: | | Random sampling. |
|  | N | 781 |
| Asylum Status | Refugee |
| Camp or Community | Camp |
| Participant Characteristics | Mean Age: 35.2  % Male: 37  Marital Status: Single 7.8% Married 80.4% Widowed/divorced/separated 4.2% Other .6%  Employment Status: N/A  Education Level: Mean= 6 years  Average Time Since Arrival: Mean 14.1 (SD=5.9)  Number of Traumatic Experiences: N/A |
| Research Methodology |  | Cross-sectional, self-report and interview-based mental health screening measures (collected in-person). |
| Measures Used |  | Impact of Event Scale–Revised - Arabic Version  Beck Depression Inventory- Arabic Version |
| Results |  |  |
|  | Mental Health Prevalence | PTSD:83.4%  Depression: 37.4% |
| Other Outcomes | Details/types of trauma  Details about post migration life |
| Key Findings | Predictors of PTSD were female sex, previous mental health problems, life threat, and injury of a loved one. Predictors of depression were female sex, previous mental health problems (OR, 2.9), having a loved one who was tortured, and not being satisfied at the camp. |
| Implications |  | Highlights vulnerabilities such as great risk for women of having psychopathology. |
| Limitations |  | The study used a cross-sectional and only interviewed participants at one refugee camp in Turkey. |

|  |  |  |
| --- | --- | --- |
| Article 14 | | |
| Title | | Psychometric evaluation of an Arabic version of the PHQ-4 based on a representative survey of Syrian refugees] |
| Authors | | Kliem, S., Mößle, T., Klatt, T., Fleischer, S., Kudlacek, D., Kröger, C., . . . Wiltink, J. |
| Year | | 2016 |
| Country | | Germany |
| Aim/Objective | | This study addresses the psychometric evaluation of the PHQ-4 in Arabic. |
| Population Information: | | Syrian refugees in the state of Lower Saxony in Germany. |
|  | N | 864 |
| Asylum Status | Refugee |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: 31.5 (range 16-93)  % Male: 68  Marital Status:  Employment Status:  Average Time Since Arrival:  Number of Traumatic Experiences: |
| Research Methodology |  | Psychometric evaluation, cross-sectional. |
| Measures Used |  | Patient Health Questionnaire -4 - Arabic Version |
| Results |  |  |
|  | Mental Health Prevalence | Depression: 20%  Anxiety: 19.3% |
| Other Outcomes |  |
| Key Findings | Internal consistency was good. Confirmatory factor analyses revealed good to excellent fit. Measurement invariance was demonstrated for sex. |
| Implications |  | The Arabic version of the PHQ-4 is an ultra short and valid screening procedure suitable for refugees from Arabic countries. Prevalence of depression and anxiety symptoms was moderate. |
| Limitations |  | Sample was predominantly young men. Additional symptoms beyond the scope of the study can be expected. |

|  |  |  |
| --- | --- | --- |
| Article 15 | | |
| Title | | Posttraumatic Stress Among Syrian Refugees: Trauma Exposure Characteristics, Trauma Centrality, and Emotional Suppression |
| Authors | | Chung MC, Shakra M, AlQarni N, AlMazrouei M, Al Mazrouei S, Al Hashimi S. |
| Year | | 2018 |
| Country | | Sweden |
| Aim/Objective | | Revisited the prevalence of PTSD and examined a hypothesized model describing the interrelationship between trauma exposure characteristics, trauma centrality, emotional suppression, PTSD and psychiatric co morbidity among Syrian refugees. |
| Population Information: | | Syrian Refugees in a city southwest of the Swedish capital. |
|  | N | 564 |
| Asylum Status | Refugee |
| Camp or Community | Community |
| Participant Characteristics | Mean Age: 56.4  % Male: 67.6  Marital Status: Married 53.2% Single 37.2% Divorced/Separated 3.7%  Employment Status: Unemployed: 100%  Education Level: Secondary: 39.2% University: 60.3%  Average Time Since Arrival: Mean=2 years since fleeing, 14 months in Sweden  Number of Traumatic Experiences: Mean=8.3 |
| Research Methodology |  | Cross-sectional, self-report study. Questionnaires distributed by researchers. Questionnaires then back-translated. |
| Measures Used |  | Harvard Trauma Questionnaire - Back translated  The Centrality of Event Scale  The Courtauld Emotional Control Scale |
| Results |  |  |
|  | Mental Health Prevalence | PTSD: 30% |
| Other Outcomes | Trauma centrality  Types of traumatic events  Emotional suppression  Fleeing with family |
| Key Findings | Trauma exposure characteristics were associated with trauma centrality, which was associated with emotional suppression, which was associated with PTSD and psychiatric co morbidity. |
| Implications |  | A traumatized identity can develop leading to suppression of depression with associated psychological distress. |
| Limitations |  | Cross sectional. Convenience sampling. |