

Causes and Risk Factor of Posttraumatic Stress Disorder in Adult Asylum Seekers and Refugees

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Abstract:

Objectives Firstly, to assess the causes and risk factors of PTSD in asylum seekers and refugees. Secondly, to explore whether there are differences of causes and risk factors of PTSD, between male and female refugees and asylum seekers.

Study design Systematic review of current literature.

Data Sources PubMed, Web of Science, Scopus and Google Scholar up until February 2019

Method A structured systematic search was conducted in the relevant databases. Papers were excluded, if they failed to meet the inclusion and exclusion criteria. Afterwards a qualitative assessment was performed on the selected papers.

Results 12 Studies were included for the final analysis. All papers were either case studies, report or cross sectional studies. The most frequently reported pre-migration for PTSD development, in asylum seekers/refugees, is the number of traumatic events they experience. Whilst acculturation stress is the most common post migration stressor. Mixed reports were reported, regarding the causes of PTSD between both genders of refugees/asylum seekers.

Conclusion This reviews' findings, have potential clinical application into helping clinicians, to stratify refugees/asylum seekers for PTSD development and thus to embark on earlier intervention measures. However, more rigorous research similar to this one, is needed for it to be implemented into clinical practice.

Keywords: causes; risk factors; post-traumatic stress disorder; refugees/asylum seekers

Introduction

Asylum seekers and refugees

The terms refugees and asylum seekers are too often confused and used interchangeably. Under the 1951 United Nations Convention on the Status of asylum seekers, a refugee is a person seeking protection from other countries because of an established fear or prosecution

due to a variety of reasons ranging from religion, race or politics¹. Where war is by far the leading cause for refugees to move to other countries¹. Whilst asylum seekers are those who have applied for a sanctuary and international protection but are yet to be granted one². The number of refugees is increasing at an alarming and unprecedented rate. As of the end of 2015, the prevalence of refugees forced to leave and flee their homes and countries has reached 66 million³. A 5 million jump compared to the previous year (2016). That is nearly 20 people all over the world seeking refugee per minute. Currently, there are 22 million refugees seeking new homes (a 2 million increase)⁴. Whilst the U.K alone has on average around 40,000 refugees per year^{1 5}. On the other hand, there are 1.8 million asylum seekers globally and around 200,000 new ones yearly². Today, Syria leads the way in terms of forcibly displaced citizens, currently peaking at around 12 million followed by Colombia (8 million), Afghanistan and Iraq (4 million)⁶. To be all this in perspective, Europe in 2016 has seen the greatest surge of refugees since the end of World War 2⁶. Moreover, more than three quarters of those refugees are aged 35 or younger, with most of them having families of their own.

Demography

The general demographic of refugees and asylum seekers across European countries has been slightly in favour of males, with a steady increase from 67% (2013) to 71% (2014) and 73% (2015). Again this difference and slight favouritism towards males is also present within the minor population (defined as under the age of 17), where 20% of asylum seekers are boys whilst approximately 10% are girls⁷. The proportion of unaccompanied minors peaked in 2015 reaching 7%. Afghanistan has seen the largest representation of unaccompanied adolescents (40% of all unaccompanied minors). With most of them making dreaded and torturous trips towards Sweden, Germany and the U.K⁸. Thus, the statistics provided above imply that the epidemic of refugees and asylum seekers is showing no signs of slowing down, therefore making this topic a worthwhile endeavour to dive and delve in. The recent surge of refugees and asylum seekers around the world, has consequently led many countries to revisit their asylum seeking policies and legislations. The U.K for example has passed 6 pieces of legislation over the span of 15 years. The newest of these policies involved restricting and reducing state support for asylum seekers (2015)^{8,9}. This pattern of change is also evidential within the policies of other European countries. Traditionally, the EU have always abided by the Dublin 11 system which regulates refugees and asylum seekers' applications. The Dublin's system 'point of first entry' policy - asylum applications are only to be made at the first point of entry to the EU - has been under severe scrutiny by countries mostly affected by it such as Italy and Greece¹⁰. Thus with the ever reforming refugee policies of hosting countries, the need to address their mental vulnerabilities and underlying causes has become ever so urgent - which this paper endeavours to do.

Post-Traumatic Stress Disorder

According to the NHS, Post Traumatic stress Disorder is defined as a 'severe anxiety disorder due to either very stressful, frightening or distressing events'¹¹. This can be either a single event or a consequence of continuous exposure such as in childhood rape. The 4 main PTSD symptoms are re-experiencing the traumatic event, avoidance or numbing behaviour, hyper

arousal and negative alterations¹². These symptoms need to have lasted for more than a month, in order to diagnose PTSD. The diagnostic criteria for PTSD is provided by the diagnostic and statistical manual of mental disorders (DSM 5)¹³. PTSD sufferers are more likely to self-neglect, indulge in suicidal thoughts and are at a higher risk of co morbidities such as chronic depression and anxiety¹⁴. PTSD is most notoriously and classically known to affect war veterans. However, recent events of hardship and war-especially in Middle Eastern countries- has seen a large number of people flee their homeland, and consequently rates of PTSD has significantly increased among those vulnerable groups. Asylum seekers and refugees are 10 times more prone to suffer from mental health conditions compared to the general population¹⁴. PTSD currently leads the way against other psychological issues such as depression, suicide and excessive substance abuse. Moreover, it has been estimated that the overall average prevalence of PTSD among asylum seekers is between 28%-30% with some studies reporting it to be as high 66% followed by depression and anxiety (26%-29%)¹⁵. Accurate and definite percentages were difficult to conclude because of the varying designs and structure adopted by researchers in order to collect PTSD prevalence rates among refugees. Furthermore, inconsistent diagnostic criteria's and language barriers may have hindered accurate articulation of PTSD symptoms and hence explain the high variability of PTSD prevalence rates between different studies¹⁵. Most of the epidemiological and interventional studies published in relation to refugees, focus mainly on PTSD as opposed to other mental health such as depression or anxiety¹¹. Therefore building on this background, PTSD is the ideal mental condition for further exploration in terms of causes and risk factors¹⁵.

Why is the study needed?

Media (150)

'Illegal immigrants', 'Living off our taxes' and 'Unwanted invaders'. These are just a few of the headlines from the printed media. As the number of refugees and asylum seekers continues to grow globally, an opposing right-winged counterparty has emerged in parallel. Hatred, marginalisation and 'we and them' were at the heart of many newspaper -as concluded by a report conducted on the perception and representation of asylum seekers and refugees the Australian Newspapers.¹⁶ This negative portrayal of refugees is also present across the European mainstream media.¹⁷ However, a second, more sympathetic group has also emerged- namely the Swedish press. Which takes a more inclusive and positive approach to incoming asylum seekers.¹⁸ This bipolar split across various newspapers and media outlets is what initially sparked the interest into refugees and asylum seekers

Others papers/previous research

Surprisingly, as more and more media attention is being turned to asylum seekers, there were relatively few systematic reviews explicitly dealing with the causes and risk factors of PTSD in refugees and asylum seekers. A quick research scope using the Mesh terms 'Causes' OR 'Risk factors' AND 'PTSD' 'Asylum seekers OR Refugees' with an inclusion criteria of 'systematic review' in PubMed, identified 16 studies concerning PTSD, asylum seekers and refugees. Most studies focused and compared the efficacy of different psychological treatment of PTSD in

asylum seeker and refugees such as in the Nosè M, Ballette F, study¹⁹ Whilst other studies looked at the epidemiology and prevalence of PTSD among refugees (Reavell J, Fazil Q.)²⁰

The Michele Hyne study was the closest to what we are achieving however, her study focused on the social determinant and post migration causes, whilst this study takes a more general look at the causes behind PTSD in refugees.²¹ Thus this study was made with the intention of filling this gap in research. Jurist Henry De Bracton (d. 1268) a 17th century Englishmen cleric once famously said 'Prevention is better than cure' with this in mind, the exploration of PTSD causes within the refugee community will hopefully in the future, make the prevention, diagnoses and treatment of PTSD a lot simpler.

Aim of study

Primary aim- to explore and compare the causes and risk factors of PTSD within the adult refugee and asylum seeker population.

Secondary aim - To evaluate if causes/risk factors of PTSD differ between male and female adult refugees and asylum seekers.

Methodology

Search Methods

3 Databases -PubMed, Scopus and Web of Science were the primary search engines used .In addition, Google scholar was the secondary source. We followed the PRISMA (preferred reporting items for systematic reviews and Meta –analyses) checklist for carrying out a systematic review and meta-analysis²².

The search methodology and process used is broken up into two stages. The initial/first stage encompasses applying relevant search terms into the databases mentioned above and identifying the most appropriate papers. The second stage can be described as a 'filter' stage which involves selecting the most applicable studies from stage one, through the aid of the quality assessment PRISMA checklist.

The search was conducted at the end of February 2019. A quick research scope using the Mesch terms 'Causes' OR 'Risk factors' AND 'Post Traumatic Stress Disorder' AND 'Asylum seekers' OR 'Refugees' looking at just the abstract, title and author name in PubMed In addition, a more focused search was carried out in order to scope out the most relevant papers. Which included the MESCH terms '((cause* OR risk factor*)) AND ((post-traumatic stress disorder) AND ('refugee*' OR 'Asylum seeker*')). Moreover the terms= (cause*) OR risk factor*) AND (post-traumatic stress disorders) AND ('asylum seeker*' OR refugee*) NOT (Children) NOT (Adolescent) NOT (Teens) NOT (treatment) NOT (intervention) were applied. Furthermore, the inclusion and exclusion criteria mentioned below were then applied, this yielded less papers.

. Most of those papers excluded, focussed on treatment and intervention efficacies of PTSD within the refugee population as opposed to the causes and risk factors for developing PTSD.

Similar search methodology and terms were implemented, in Web of Science and Scopus

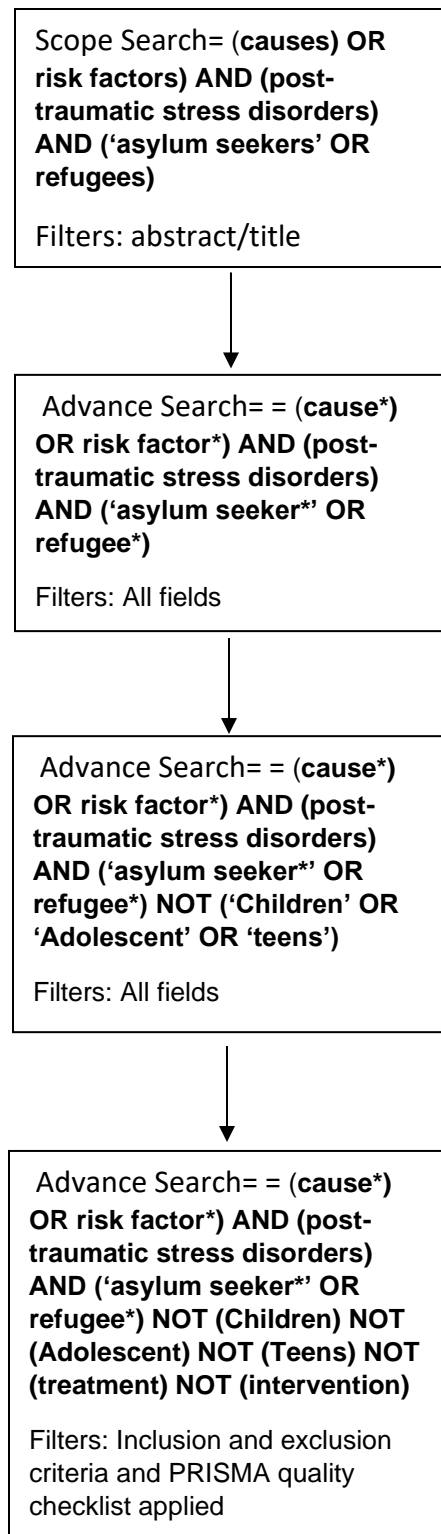


Figure 1. A Step by step guide to search terms and Boolean operators applied in PubMed/Web of science/Scopus

Inclusion exclusion criteria

Various inclusion and exclusion criteria were applied in order to extract the most fitting and suitable papers and studies to this research. The papers had to meet certain criteria to be included. The inclusion criteria is as follows the articles had to be in English, full text was available, had to be a primary research/study, and it should have focussed on adults. On the other hand, articles and papers were omitted if they were not in English, full text was unavailable, was a systematic review as opposed to a clinical trial and focused on adolescent and children. These criteria were applied throughout the search process.

Table 1: Inclusion and exclusion criteria

Limitation	Inclusion criteria	Exclusion criteria
Accessibility	Free Full text	Full text not available
Age	Adults(over 18)	Less than 18
Relevance	Causes and risk factors of PTSD in asylum seekers and refugees	Treatment and interventions of PTSD in asylum seekers and refugees
Study design	Primary research	Systematic review

Quality assessment

The evaluation tool for qualitative studies²², recommended by the Cochrane handbook for systematic reviews, was used to critically appraise the quality of the 12 included studies. This assessment tool, focussed on 6 domains, study overview, study setting, ethical approval, data collection and analysis, potential sources of bias, practical transferability of results and number of references used.

Results

Search Results

A final literature search was lead on the 2nd of February 2019. This was conducted on 3 different databases (PubMed, Scopus and Web of Science) and other external sources, such as reading the references of papers and google scholar. The initial scope search, yielded 126 papers from the databases and 3 additional papers from other sources. This then stemmed down to 120 papers after removal of duplicates. Of those 120 papers, 80 were excluded after applying the relevant inclusion and exclusion criteria. From the 40 articles retrieved, 28 were excluded after the full paper was read and. Most of the papers excluded focused on prevalence rates and intervention efficacies of refugees with PTSD. Thus, 12 articles were selected for this systematic.

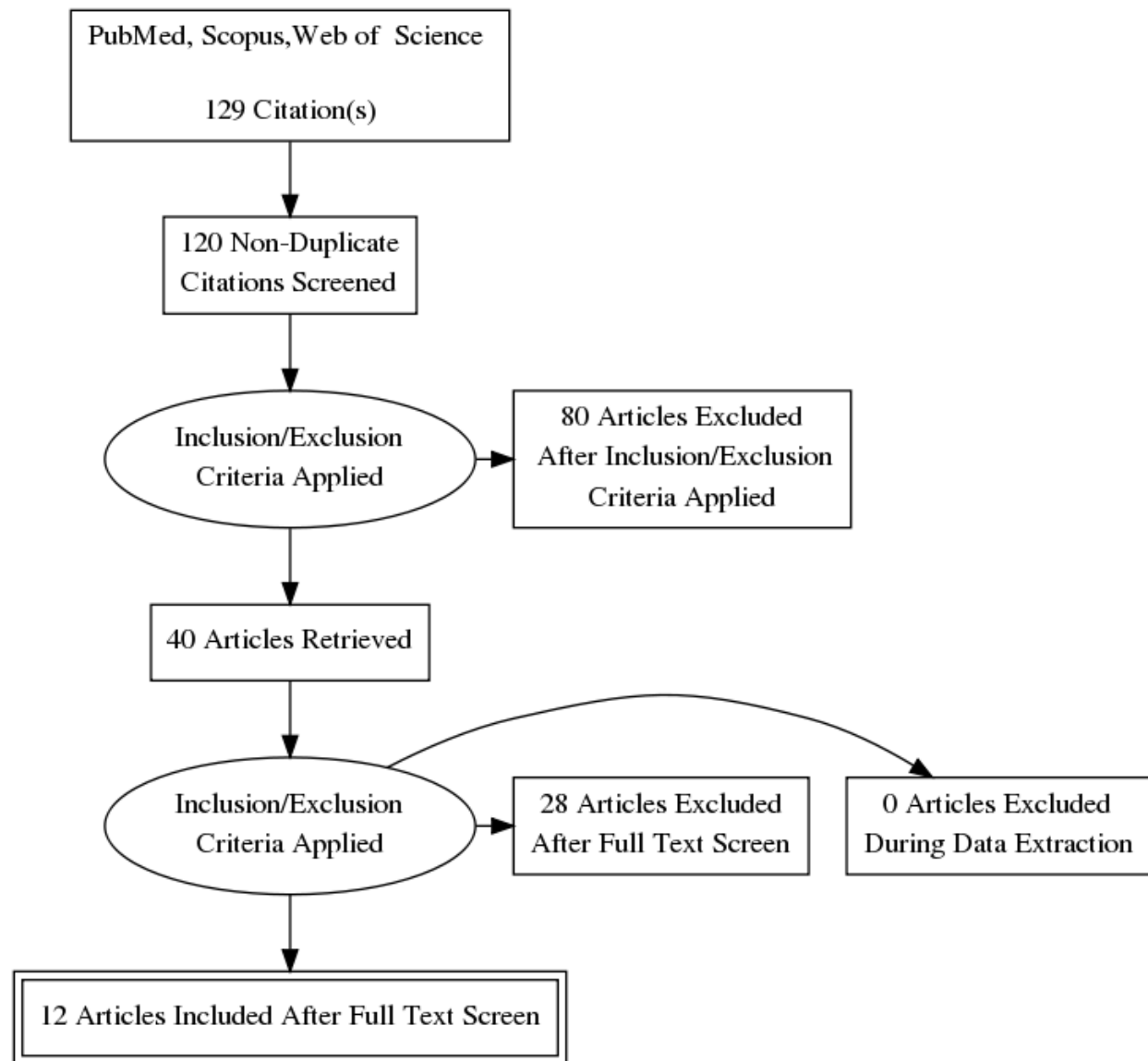
Figure 2. PRISMA Flowchart of results²³

Table 2: Study characteristics and major findings

Study Number	Author(s) & year	Study Type	Study sample ,Gender & mean Age	Participants country of origin	location of study	Title/Aim of study	Main causes/ findings
1	Lindokuhle et al ²⁴ . (2017)	Case study interview/ questionnaire	Study sample =355 Males= 188 Females= 167 Mean age= 32.8	Democratic republic of Congo, Zimbabwe, Rwanda, Malawi,	South Africa	Finding out the extent of post-migration factors on 3 mental health outcomes	1-Shorter duration since migrating increased the likelihood of PTSD

				Ghana, Uganda Populations		(depression, anxiety, PTSD)	2- Prolonged exposure to discrimination increased the likelihood of PTSD
2	Silove et al ²⁵ .(1998)	Case study questionnaire	Study sample= 62 Males= 48 Females= 14 Mean age= 35.3	Tamil population	Australia	Comparison of post migration stress factors, Anxiety, depression and PTSD levels between asylum seekers and refugees	1-larger number of post migration stress factors (i.e. delays in processing application and no permission to work) were found in asylum seekers compared to refugees 2- Higher prevalence of torture in asylum seekers (6.7±3.3) compared to refugees (6.3±5.7)
3	Knipscheer et al ²⁶ .(2006)	Case study interview/ questionnaire	Sample size=78 Males=48 Females=30 Mean age= 42.9	Bosnian population	Holland	The contribution of post trauma and acculturation stress to subject health among the Bosnian refugees in Holland	1-War experiences increase likelihood of developing mental health problems 2- Inability to practice and preserve religious traditions was associated with an increase in mental health problems
4	Rasmussen et al ²⁷ .(2011)	Case study Questionnaire/ interview in the context of United Nations High	Sample size= 848 Males= 296 Females=552	Darfuri population	Eastern Chad	Impact of past trauma and everyday stressors to mental/	1-Lack of basic needs and feeling of being safe were strongly associated with PTSD

		Commissioner for Refugees (UNHCR) psychosocial programme	Mean age= Not specified			psychological wellbeing	2-Premigration stressor such as witnessing or being chased, shot or bombed were strongly associated with PTSD
5	Steel et al ²⁸ .(2005)	case study questionnaire	Sample size= 196 Males =135 Females=61 Mean age=43.7	Tamil population	Australia	The role of Pre migration and post migration stressor in developing PTSD symptoms in Tamil population living in Australia	1-Being held in detention and had endured sexual/physical abuse were the strongly linked to PTSD symptoms. 2-Inability to adapt to new surrounding/ country increases symptoms of PTSD
6	Hinton et al ²⁹ .(2013)	Case report/questionnaire/interview in psychiatric clinic	Not specified Mean age=49.4	Cambodian population	U.S.A	How grief and complicated bereavement of Cambodian refugees play a role in PTSD symptoms	1-Recall of dead and its connotations in Cambodian culture is a strong indicator for PTSD
7	Oren et al ³⁰ .(2010)	Case study questionnaire	Sample size=326 Males=114 Females=212 Mean age=32.5	Evacuated Israelis	Western Bank	The role of ideology as a cause for PTSD symptoms and severity	1-Firm Ideologies and political stances within a stressful environment, owned to the development of PTSD symptoms 2- The older the person of strong ideological beliefs the more likely that they will develop PTSD
8	Hinton et al ³¹ .(2009)	Case report	Not specified	Cambodian population	U.S.A	The role of nightmares within the	1-Those that suffer from nightmares/

						Cambodian refugee population and its potential part in causing PTSD	flashback within the Cambodian population, exhibit higher levels of PTSD
9	Slewa-Younan et al ³² .(2017)	Case study questionnaire	Sample size=375 Males= 169 Female= 206 Mean age= 32.5	Iraqi and Afghanistan population	Australia	The viewpoints and beliefs of the Iraqi and Afghan refugees concerning the causes and risk factors of PTSD	1-Prolonged exposure to being beaten up and abused either physically or mentally was the commonest beliefs to cause PTSD 2- Being born in a 'war-filled environment' was also a common belief between the refugee population(Iraqi and Afghan) to cause PTSD
10	Ibrahim et al ³³ .(2017)	Case study questionnaire	Sample size=91 Males=51 Females=40 Mean age=29.9	Syrian Kurdish	Kurdistan (Iraq)	The link between traumatic events and development of PTSD in the Syrian Kurdish population living in Kurdistan	1- Positive correlation between number of time being tortured and severity of PTSD 2-Strong link between number of trauma events(near death experiences or witnessing death) and PTSD symptoms
11	Aragona et al ³⁴ .(2012)	Cross sectional study	Sample size=339 Males=245 Females=94 Mean age=	Mostly Romanian, Chinese and Bangladesh populations	Italy	Link between post migration stressors and PTSD development in immigrants	1-Inability to work was the commonest reported link to developing PTSD (from survey

			37.8				results) 2- The higher the number of post migration stressors the stronger the association with PTSD
12	Gerritsen et al ³⁵ .(2006)	Cross sectional study/population based study	Sample size=410 Males=241 Females=169 Mean age=37.0	Afghanistan, Iran and Somalia	Hollands	Prevalence rates and risk factors for physical and mental wellbeing (including PTSD)	1-Female gender was strongly linked to the development of PTSD 2- Strong link between number of trauma events and PTSD symptoms 3- Asylum seekers had a higher prevalence rate than the refugee population

Study characteristics

Table 2 encompasses the major findings and characteristics of the included studies. 8 out of the 12 study designs were case based ones^{24, 25, 26, 27, 28,30,32,33}. Whilst the remaining 4 were split into case reports^{29, 31} and cross sectional studies^{34, 35}. 9 studies included refugees with an Asian background^{25,28,29,30,31,32,33,34,35}. 2 studies focussed on refugees from africa^{24,27} and one study examined the situation in Bosnia²⁶. The majority of the studies were conducted in high GDP countries(Australia,Holland,U.S.A and Italy). Most papers looked at the causes and risk factors of PTSD. whereas, 2 studies focussed on post migration stressor of PTSD^{24,34} and 2 studies directly compared the risk factors of PTSD between refugees and asylum seekers. The sample size of the included studies, ranged from 62-848 and the mean age range from 29.9 to 49.4. All studies recruited males and female refugees, except the Hinton et al^{29,31} which did not specify.

6 studies used the Harvard trauma questionnaire to gauge the refugees' PTSD symptoms^{24,25,28,33,34,35}. Whilst, 4 studies used the PTSD checklist^{27,29,30,31}, 1 study made use of the impact of events scale²⁶ and 1 study adopted the mental health literary survey³². Only 3 studies employed randomisation to their recruitment policy^{27,34,35}. All studies were conducted via non-government organisations.

Main causes of PTSD in asylum seekers and refugees: Primary aim

The leading cause of pre-migration stressor is the total number of traumatic events experienced i.e. near death encounters as concluded from the literature. In regards to post migration risk factors, the ability to adapt to the new surrounding is the strongest cause linked to PTSD. Some notable causes, were reported in the Hinton et al^{29,31}, which found that nightmares (dreaming of the dead) interpreted within a cultural/spiritual context was associated with PTSD.

Comparison of risk factors between male and female refugees: Secondary aim

2 studies found, that men are more likely to experience traumatic events compared to women (Men=2.85 events Women=2.28 events)^{27,33}. Oren et al found, women with a strong ideological stance and who were involuntarily evacuated from the Gaza settlement, had a higher odds of developing PTSD (OR=2.24 CL 95% 1.12-4.47). Gerritsen et al found higher prevalence rates of PTSD in females in comparison to males. (OR=3.45 CL 1.53-7.780)

Discussion

Summary of findings

This systematic review was conducted, with the aim of searching the existing literature, for studies investigating the causes and risk factors of PTSD in asylum seekers and refugees. The intensity and frequency of traumatic events encountered by refugees/asylum seekers, is by far the most widely reported risk factor for PTSD development. Moreover, it was found that asylum seekers were more likely to develop PTSD, this in part, because of the addition stressor such as lack of work permission and uncertainty surrounding their legal status, placed upon them. Conflicting conclusion were drawn between the studies, as to whether gender itself, is a risk factor for PTSD. Furthermore, there were mixed results concerning age, marital status and socioeconomic background as being causes of PTSD. Overall, a cloud of uncertainty surround these findings, due to the non-randomisation nature of these studies- only 3 studies reported the use of randomisation when sampling refugees/asylum seekers.

Limitations of study

This review has limitations. Firstly, there was a limited number of studies (12) to review, coupled with the non-randomisation sampling process adopted by 9/12 studies, makes a definitive conclusion difficult. Secondly, most studies equated symptoms of PTSD to diagnoses without adopting formal diagnostic algorithm, which may overestimated PTSD diagnoses and skew causality of PTSD. Thirdly, the language barrier and word count are intrinsic limitations of this review. Fourthly, all studies relied on self-reporting which enhances recall bias. Fifthly, all studies were either case studies/report or cross sectional studies, and because of their retrospective nature, making a definitive causality link between cause and disease not possible. Sixthly, the Rasmussen et al²⁷, is the only study that satisfies a margin of error of less than 5%³⁶, as they used a sample size greater than 500. Therefore, a small sample size of the studies included, is another limitation of this review. Seventhly, asylum seekers/refugees may have tailored their responses, in hope of receiving financial benefits or advances on their asylum status. Eighthly, no study except one³⁰, used a specifically designed sampling instrument for their selected population.

What this study adds/ comparison with other studies

This study adds to the current literature, as it derived the most common cause/risk factors of PTSD in asylum seekers and refugees. Where the magnitude and number of traumatic experiences by any one refugees/asylum seeker emerged as the strongest predictor of PTSD development. Another important

finding to add to the literature, is the role of cultural connotations and interpretation of events, as a potential risk factor for pre-disposing displaced persons to develop PTSD, as concluded by the Hinton et al^{29,31} and Oren et al³⁰ studies. Most research concerning PTSD and refugees/asylum seekers focussed on the efficacy of various psychological interventions, such as cognitive behavioural therapy and neuro-emotional therapy. However, some reviews are in line with this one, such as the Hameed and colleagues study³⁶, which looked at risk-factors concerning PTSD, depression and anxiety disorder manifestations. Furthermore, a Susan et al study³⁷, which explored the relationship between post-migration stressors and PTSD in the asylum seekers/refugee populations, came to similar conclusions. But, the slight difference is that this systematic review, looked at the wider causes of PTSD.

Practical application of findings

Our findings, have potential practical applications to clinical practice. Knowing that the number of traumatic events and their intensity is heavily linked to PTSD, provides clinicians with a strong evidence base, to identify high risk patients and initiate earlier intervention and possible better prognosis. Furthermore, in light of the finding, that lack of cultural preservations and traditions of refugees/asylum seekers, may further pre-dispose them to PTSD. Helps guide the addition of, social integration and adaptation in these vulnerable population, as part of the treatment options provided to them by psychologists. However, as there is a very limited number of systematic reviews of the same ilk to this one, more is needed for our findings to be translated to a clinical setting.

Future research

- 1-The need for more randomised studies investigating the causes/risk factors of PTSD in the asylum seekers/refugees, to reduce recall bias.
- 2- The use of questionnaire/sampling instrument that is specifically designed for the chosen population, in order to increase confidence in the results
- 3- The need for more studies, comparing the risk factors of non-immigrants with PTSD and asylum seekers/refugees.
- 4- Adoption of a validated diagnostic algorithm, when assessing potential PTSD diagnosis.
- 5- Research into the exact mechanism and pathway of how relevant causes of PTSD manifest. Which could further advance intervention options.
- 6- A larger sample size, preferably more than 500 participants, when examining displaced persons for PTSD causes/risk factors.
- 7- More research/studies is needed that has similar objectives to this review. To further enhance confidence in our findings.

Conclusion

The magnitude and number of traumatic events coupled with acculturation stress, are the most commonly reported pre and post migration causes of PTSD in asylum seekers/refugee respectfully. Moreover, there are conflicting conclusions in the current literature, in regards to the causes/risk factors of PTSD in refugees and asylum seekers between both genders. The results of this systematic review, have possible clinical implications into the advances of PTSD treatment in this jeopardised group. However, more robust research similar to this review, examining the relationship of PTSD and its causality in the asylum seekers/ refugee population is needed, for it to be incorporated into day to day clinical practice.

What is already known on this topic

Many case control and cross sectional studies, only explored the causality of PTSD in asylum seekers and refugees in their selected countries.

Many studies reported that being a female refugee/asylum seeker, increased the likelihood of PTSD manifestation

Previous systematic reviews, concluded that loss of cultural identity is a strong predictor of PTSD development.

What this study adds

This systematic review searched all primary research, concerning the causes of PTSD in asylum seekers and refugees. Therefore, the results produced should be fairly representative of most ethnic groups, as opposed to one country or ethnicity.

Conflicting data, regarding whether or not gender related causes of PTSD in asylum seekers and refugees exists

This review focussed on a wider array of causes of PTSD in asylum seekers/refugees, the findings concluded that the number of traumatic events (pre migration) and acculturation stress (post migration) are the leading stressors of PTSD in this vulnerable group

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