THE MENTAL HEALTH OF REFUGEES AND ASYLUM SEEKERS IN GERMANY

APPLYING TRANSCULTURAL METHODS AND CONSIDERING INTERSECTIONAL ASPECTS IN CLINICAL RESEARCH

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ABSTRACT

Background: Among immigrants in Germany, refugees and asylum seekers represent a particularly vulnerable sub-population that is at high risk of developing depression and symptoms of post-traumatic stress disorder (PTSD). Research on culturally sensitive mental health care for this group is urgently needed but still limited.

The general aim: The present dissertation focuses on the mental health of refugees and asylum seekers in Germany by conducting three different studies. The research questions are concerned with the assessment of depression among refugees and asylum seekers (study I), and the investigation of explanatory models of PTSD among asylum seekers from Sub-Saharan Africa (studies II & III).

Methods: To this end, the studies apply key methodological approaches of transcultural clinical research, such as a measurement invariance analysis (study I), a qualitative-quantitative methodological triangulation, the combined emic–etic approach, and the explanatory model approach (studies II & III). Intersectional aspects such as gender, education, age, and religion were taken into consideration while analyzing the data (studies II & III).

Study I: The first study investigates the measurement invariance of the Patient Health Questionnaire-9 (PHQ-9), a widely used screening instrument for depression. Data from asylum seekers living in Germany and Germans without a migration background was analyzed. Configural, scalar, and metric invariance was investigated, and test functioning was determined. The analyses show that the PHQ-9 is not measurement invariant across both groups and differences were found regarding metric and scalar invariance. The results demonstrate that, even with the same latent level of depression, asylum seekers may have higher scores on several items and, consequently, a higher sum score.

Studies II & III: The second and third studies are concerned with explanatory models of PTSD among asylum seekers from Sub-Saharan Africa, predominantly asylum seekers from Eritrea, Somalia, and Cameroon. Following the combined emic-etic approach, quantitative and qualitative methodological triangulation strategies were applied in both studies, analyzing data derived from a questionnaire survey and focus group discussions. In study II, we focused on beliefs about causes of PTSD. Quantitative analyses demonstrated that asylum seekers predominantly attributed symptoms to psychological and religious causes, and rather disagreed on supernatural causes. Compared to the sample of

Germans without a migration background, asylum seekers attributed symptoms less strongly to terrible experiences, but more strongly to religious and supernatural causes. Qualitative analyses identified six attribution categories of participants' causal beliefs: (a) traumatic life experiences, (b) psychological causes, (c) social causes, (d) post-migration stressors, (e) religious causes, and (f) supernatural causes. In study III, we focused on help-seeking intentions and lay beliefs about cures. Quantitative analyses demonstrated that asylum seekers showed high intentions to seek religious, medical, and psychological treatment. They indicated higher preferences for seeking help from religious authorities and general practitioners, and lower preferences for enlisting psychological and traditional help sources compared to the German group. Moreover, asylum seekers addressed structural and cultural barriers to seeking medical and psychological treatment.

Concluding remarks: By considering thematically multifaceted and methodologically diverse studies, the present dissertation emphasizes that refugees and asylum seekers need special consideration in transcultural clinical research and mental health care. The findings underline that special awareness for the needs of refugees and asylum seekers is important in terms of the culturally-sensitive adaptation of assessment instruments and treatment practices. When diagnosing and treating asylum seekers and refugees of diverse cultural backgrounds, practitioners should explore different demographic, religious, and cultural frameworks for healing and recovery in order to signal understanding and acceptance of varying cultural contexts and the intersectionality of influences on mental health and illness.

Key words: Asylum seekers, Causal attributions, Explanatory Models, Depression, Help-seeking, Mental health, Patient Health Questionnaire-9, Post-traumatic Stress Disorder, Refugees, Transcultural clinical psychology, Trauma

ZUSAMMENFASSUNG

Hintergrund: Innerhalb der Gruppe der MigrantInnen in Deutschland gelten Geflüchtete als Hochrisikogruppe für die Ausbildung von Depressionen und Posttraumatischen Belastungsstörungen (PTBS). Forschung zu kultursensibler psychotherapeutischer Versorgung von Geflüchteten wird daher dringend benötigt, ist allerdings weitestgehend begrenzt.
Zielsetzung: In drei Studien untersucht die vorliegende Dissertation Themenbereiche der psychischen Gesundheit von Geflüchteten und Asylsuchenden in Deutschland. Die Forschungsfragen beschäftigen sich mit der psychometrischen Messung von Depressionen bei Geflüchteten (Studie I) sowie der Erfassung von Erklärungsmodellen der PTBS von Asylsuchenden aus Subsahara Afrika (Studien II & III).
Methoden: Zur Untersuchung der Fragestellungen werden grundlegende methodische Ansätze der transkulturellen klinischen Forschung angewandt: Es wird eine Messinvarianzanalyse durchgeführt (Studie I), kombiniert emisch-etische Forschungsperspektiven eingenommen, qualitativ-quantitative Methodentriangulationen durchgeführt, sowie das Konzept der Erklärungsmodelle vorgestellt (Studien II & III). Zudem werden intersektionale Aspekte wie Alter, Geschlecht, Bildung und Religion bei der Datenanalyse berücksichtigt (Studien II & III).
Studie I: Die erste Studie untersucht die Messinvarianz des Patient Health Questionnaire-9 (PHQ-9), einem häufig angewandten Screeninginstrument für Depressionen. Hierzu wurden Daten von Geflüchteten in Deutschland und Deutschen ohne Migrationshintergrund analysiert. Konfigurale, skalare, und metrische Messinvarianz wurden getestet. Die Analysen zeigen, dass keine Messinvarianz für den PHQ-9 vorliegt und Unterschiede hinsichtlich der metrischen und skalaren Invarianz bestehen. Die Ergebnisse verdeutlichen, dass bei einem gleichen latenten Ausmaß depressiver Symptomatik in beiden Gruppen, Geflüchtete höhere Werte in einigen Items und somit auch im Gesamtsummenwert aufweisen.
Studien II & III: Studien II und III befassen sich mit Erklärungsmodellen der PTBS von Asylsuchenden aus Subsahara Afrika, größtenteils aus Eritrea, Somalia und Kamerun. In beiden Studien wurden kombinierte emisch-etische Forschungsperspektiven, durch die Triangulation einer quantitativen mit einer qualitativen Methodik, eingenommen. Hierzu wurden Fragebogenstudien gepaart

mit Fokusgruppeninterviews durchgeführt. Studie II beschäftigt sich mit Überzeugungen zu möglichen Ursachen der PTBS Symptomatik. Die quantitativen Analysen zeigen, dass Asylsuchende die Symptomatik überwiegend psychologischen und religiösen Ursachen zuschreiben, weniger aber übernatürlichen Ursachen. Im Vergleich jedoch zur deutschen Vergleichsstichprobe ohne Migrationshintergrund attribuieren Asylsuchende die Symptomatik stärker auf religiöse und übernatürliche Ursachen und weniger stark auf schlimme Erlebnisse. Mit Hilfe der qualitativen Auswertungen konnten sechs Kategorien der Ursachenzuschreibung identifiziert werden, die die Asylsuchenden anführten: (a) Traumatische Lebensereignisse, (b) psychologische Ursachen, (c) soziale Ursachen, (d) Post-Migrations Stressoren, (e) religiöse Ursachen sowie (f) übernatürliche Ursachen.
Studie III befasst sich mit Intentionen der Hilfesuche und Überzeugungen zur Behandlung einer PTBS Symptomatik. Quantitative Analysen zeigen, dass Asylsuchende höhere Intentionen erkennen lassen eine religiöse, medizinische und psychotherapeutische Behandlung aufsuchen zu wollen. Verglichen mit der deutschen Vergleichsstichprobe lassen Asylsuchende eine höhere Intention erkennen, religiöse und medizinische Hilfe in Anspruch nehmen zu wollen, dafür allerdings eine geringere Intention, eine psychotherapeutische oder eine traditionelle Behandlung zu konsultieren. Zudem formulierten Asylsuchende strukturelle und kulturelle Barrieren im Bereich der medizinischen und psychotherapeutischen Versorgung in Deutschland.
Fazit: Auf Grundlage thematisch facettenreicher und methodisch vielfältiger Studien, betonen die Ergebnisse der vorliegenden Dissertation die Wichtigkeit einer speziellen Berücksichtigung von Geflüchteten und Asylsuchenden innerhalb transkultureller klinischer Forschung und Psychotherapie. Die Ergebnisse verdeutlichen, dass besondere Aufmerksamkeit für die Bedürfnisse von Geflüchteten und Asylsuchenden hinsichtlich der kultursensiblen Anpassung von Diagnostikinstrumenten sowie der Behandlung der Symptomatik nötig ist. Bei der Arbeit mit Geflüchteten und Asylsuchenden sollten BehandlerInnen die vielfältigen demographischen und kulturellen Kontexte berücksichtigen, in denen der Behandlungsprozess eingebettet sein kann. Zudem sollte Verständnis und Akzeptanz für die diversen kulturellen Hintergründe signalisiert werden und intersektionale Einflussaspekte auf die psychische Gesundheit in Betracht gezogen werden.

Suchbegriffe: Asylsuchende, Geflüchtete, Kausalattributionen, Erklärungsmodelle, Depression, Hilfesuche, Patient-Health Questionnaire-9, Posttraumatische Belastungsstörung, Psychische Gesundheit, Transkulturelle klinische Psychologie, Trauma

RESUME

Contexte : Parmis les immigrés d'Allemagne, les réfugiés et les demandeurs d'asile représentent une sous population particulièrement vulnérable et soumise à un risque de développement de dépression ainsi que des symptômes de trouble de stress post-traumatique (PTSD). La recherche sur les soins de santé mentale sensible aux particularités culturelles de ce groupe paraît indispensable, mais reste limitée.

Objectif général : Dans trois études différentes, les travaux de cette thèse se focalisent sur la santé mentale chez des réfugiés et des demandeurs d'asile en Allemagne. Les questions de recherche concernent l'évaluation de la dépression chez les réfugiés et les demandeurs d'asile (étude I) ainsi que l'investigation des modèles explicatifs du PTSD chez des demandeurs d'asile issues des pays d'Afrique Subsaharienne (études II & III).

Méthodes : À cet effet, des approches fondamentales de la recherche clinique transculturelle sont appliquées : une analyse d'invariance de mesure (étude I), des triangulations méthodologiques qualitatives et quantitatives, des approches émique et étique combinées (études II & III), ainsi que l'approche des modèles explicatifs (études II & III). Des aspects intersectionnels comme le genre, l'éducation, l'âge, et la religion ont été pris en considération pendant l'analyse des données (études II & III).

Etude I : La première étude examine l'invariance de mesure du Patient Health Questionnaire-9 (PHQ-9), un instrument de dépistage de la dépression fréquemment utilisé. Les données des demandeurs d'asile en Allemagne ainsi que celles des Allemands sans origine migrante ont été analysé. Les invariances de configuration, scalaire et métrique ont été examiné. Les analyses montrent que le PHQ-9 n'est pas invariant dans les deux groupes, et des différences sont apparues au niveau des invariances scalaire et métrique. Les résultats montrent que même s'il y a le même niveau latent de dépression, les demandeurs d'asile peuvent afficher un score supérieur sur plusieurs items, et en conséquence une somme plus élevée.

Etudes II & III : La deuxième et troisième étude se focalisent sur les modèles explicatifs du PTSD chez des demandeurs d'asile originaires d'Afrique Subsaharienne, principalement l'Érythrée, la Somalie et le Cameroun. Des perspectives de recherche émique et éthique combinées ont été pris en compte dans les deux études. À cette fin, des méthodes quantitatives et qualitatives ont

été triangulé à l'aide d'une étude par questionnaire couplée à des entretiens avec des groupes de discussion. L'étude II concernait les idées de causalité du PTSD. Les analyses quantitatives montrent que les demandeurs d'asile attribuent largement les symptômes à des causes psychologiques et religieuses, mais moins à des causes surnaturelles. Comparé aux Allemands sans origine migrante, les demandeurs d'asile attribuent les symptômes davantage à des causes religieuses et surnaturelles et moins à de mauvaises expériences vécues. Selon les analyses qualitatives, six catégories d'attribution ont été identifiées chez des demandeurs d'asile : (a) les expériences traumatiques, (b) les causes psychologiques, (c) les causes sociales, (d) les facteurs de stress post-migratoires, (e) les causes religieuses, ainsi que (f) les causes surnaturelles. L'étude III concerne les intentions de demander de l'aide et les croyances au sujet du traitement du PTSD. Les analyses quantitatives montrent que les demandeurs d'asile affichent plus d'intentions de demander un traitement religieux, médical et psychothérapeutique. Comparé aux Allemands sans origine migrante, les demandeurs d'asile affichent plus d'intention de demander une aide religieuse et médicale, mais beaucoup moins de consulter un traitement psychothérapeutique ou traditionnel. De plus, les demandeurs d'asile perçoivent des barrières structurelles ainsi que culturelle dans le domaine des soins psychothérapeutiques et médicaux en Allemagne.

Conclusion : En considérant les études thématiquement diversifiées et méthodologiquement variées, les résultats de cette thèse soulignent l'importance d'une considération particulière des réfugiés et des demandeurs d'asile dans la recherche clinique transculturelle et la psychothérapie. Les résultats montrent qu'une attention particulière est nécessaire pour les besoins des réfugiés et des demandeurs d'asile en ce qui concerne l'adaptation culturelle des outils d'évaluation et le traitement des symptômes. Dans le diagnostic ainsi que dans le travail clinique avec les demandeurs d'asile et les réfugiés, les cliniciens doivent tenir compte des divers contextes démographiques et culturels dans lesquels le processus de traitement peut être intégré. De plus, la compréhension et l'acceptation des divers antécédents culturels devraient être signalé, et les influences intersectionnelles sur la santé mentale devraient être pris en considération.

Mots-clefs : Attribution causale, Demandeurs d'asile, Dépression, Modèles explicatifs, Patient-Health Questionnaire-9, Recherche d'aide, Réfugiés, Santé mentale, Trauma, Trouble de stress posttraumatique, Psychologie clinique transculturelle

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LIST OF ABBREVIATIONS

CFA	Confirmatory Factor Analysis
DSM-5	5th Diagnostic and Statistical Manual of Mental Disorders
EU	European Union
GHSQ	General Help-Seeking Questionnaire
ICD-10	10th International Classification of Diseases
IPQ-R	Revised Illness Perception Questionnaire
PHQ-9	Patient Health Questionnaire 9
PTSD	Post-traumatic stress disorder
UNHCR	United Nations High Commissioner for Refugees

BACKGROUND

INTRODUCTION

In 2018, the world witnessed an unprecedented number of 68.5 million forcibly displaced people, among them 25.4 million refugees and 3.1 million asylum seekers (United Nations High Commissioner for Refugees; UNHCR, 2019). Even though the majority of refugees and asylum seekers live in neighboring countries (UNHCR, 2019), and the European Union (EU) is promoting an increasingly isolationist migration policy, the numbers of arriving asylum seekers in the EU remain persistently high (Eurostat, 2019; Fröhlich, 2018). With regard to the African continent, global displacement and migratory movements have grown annually. Within the last 5 years, the total number of displaced people in Africa doubled to approximately 20 million (UNHCR, 2016). Multiple crises across the continent remain unresolved, and displacement and massive resettlement are highly likely to continue (UNHCR, 2015; 2016). In 2018, around 581,000 asylum seekers applied for international protection in the Member States of the EU, with 165 thousand people seeking protection in Germany (Eurostat, 2018; Federal Office for Migration and Refugees, 2018). A majority of these asylum applicants came from countries in the Middle East, with Syrian, Iraqi, and Iranian citizens representing the largest groups of asylum seekers (Federal Office for Migration and Refugees, 2018). However, since 2009, the numbers of asylum seekers from Sub-Saharan African countries in Germany have remained persistently high, with Nigerian, Eritrean, and Somalian citizens constituting the three major groups of origin (Federal Office for Migration and Refugees, 2018).

Although a significant percentage of refugees and asylum seekers in countries of transition and resettlement are mentally ill and in need of treatment; currently, too few receive support and professional help (Byrow, Pajak, Specker, & Nickerson, 2020; Munz & Melcop, 2018; Sijbrandij et al., 2017). Therefore, the present thesis is concerned with the mental health needs of refugees and asylum seekers in Germany within three different studies. The research questions are concerned with the assessment of depression among refugees and asylum seekers (study I) and the investigation of explanatory models of PTSD among asylum seekers from Sub-Saharan Africa (studies II & III).

CHALLENGES IN MENTAL HEALTH CARE FOR REFUGEES AND ASYLUM SEEKERS

Among immigrant populations, refugees and asylum seekers represent a particularly vulnerable sub-population of forcibly displaced individuals with unique mental health issues (Efird & Bith-Melander, 2018; Knaevelsrud, Stammel, & Olff, 2017; Munz & Melcop, 2018). Many refugees and asylum seekers have been subjected to extremely traumatic experiences in their homelands and during their migratory pathways, including war, physical and sexual violence, torture, and abduction (Munz & Melcop, 2018). Estimating prevalence data for mental health conditions among refugees and asylum seekers has been described as methodologically challenging (Kiselev et al., 2020). However, the traumatic nature of forced displacement, flight, and resettlement can increase the vulnerability to mental distress, and a high prevalence of depression, anxiety, post-traumatic stress disorder (PTSD), and substance abuse have been documented among refugees and asylum seekers (Barbieri et al., 2019; Fazel, Wheeler, Danesh, 2005; Gangamma, & Shipman, 2018; Jamil et al., 2002; Lie, 2002; Nesterko, Jäckle, Friedrich, Holzapfel, & Glaesmer, 2020). Continuing war and traumatic events in home countries as well as separation from families still in danger may precipitate and perpetuate the development of symptoms and mental distress (Gangamma & Shipman, 2018; Lie, 2002; Rousseau, Rufagari, Bagilishya, & Measham, 2004).

Regardless of country of origin, refugees and asylum seekers are often confronted with institutionalized racism, xenophobia, discrimination, and a complex web of legal barriers in resettlement countries (Efird & Bith-Melander, 2018). Furthermore, post-migration stressors such as acculturation stress, weak social support, loss of social roles, unemployment, and cultural bereavement have a great negative impact on health, especially from a long-term perspective (Lie, 2002; Mewes, Reich, Skoluda, Seele, & Nater, 2017; Silove, Sinnerbrink, Field, Manicavasagar, & Steel, 1997; Teodorescu et al., 2012). In comparison to other migrant groups, refugees and asylum seekers are particularly at higher risk for mental disorders. Several studies have reported a higher prevalence of PTSD and depressive disorders, with a rate almost twice as high among refugees and asylum seekers than among economic migrants in Europe (Fazel et al., 2005; Jamil et al., 2002; Lie, 2002; Lindert et al., 2009; Steel et al., 2009). However, with regard to reliable assessments of mental health disorders in refugees and asylum seekers, as well as valid comparisons across different groups, there is an urgent need for evidence on the validity and reliability of commonly used measurement instruments (e.g. Galenkamp, Stronks, Snijder, & Derks, 2017). Moreover, providing appropriate mental health care for refugees and asylum seekers requires particular consideration and has been described as a challenge for the healthcare systems of countries of transition and resettlement (Byrow et al., 2020; Munz & Melcop, 2018).

Studies have documented disparities in mental health care between refugees and populations without a migration background, with asylum seekers and refugees being less likely than native-born populations to seek or be referred to mental health services, even when they experience comparable levels of distress (Kirmayer et al., 2011; Lindert et al., 2009). Besides psychological and psychiatric dimensions, mental health care for refugees and asylum seekers includes dimensions of the political, ethical, cultural, religious, and sociological realms (Papadopoulos, 2001). Generally, services are poorly equipped to meet these complex mental health needs (Thomson, Chaze, George, & Guruge, 2015; Wylie et al., 2018). Addressing these dimensions within mental health care for refugees and asylum seekers is still unfamiliar and often not yet routine for care providers and health care organizations (Sturm, Baubet, & Moro, 2010; Wylie et al., 2018). To ensure the effective treatment of common mental disorders in refugees and asylum seekers, clinicians in the receiving countries need knowledge about the complexities involved in understanding and diagnosing patients with refugee backgrounds (Marsella, 2010). Since perceptions of mental disorders have been shown to vary between individuals from different cultures (Knettel, 2016), specific knowledge can be crucial for preventing an unfavorable treatment outcome (Huey, Tilley, Jones, & Smith, 2014). Yet, professionals across Western countries express particular challenges and insecurities in the treatment of immigrant populations, particularly those with refugee backgrounds (Sandhu et al., 2013), and mental disorders are frequently underdiagnosed (Maier, Schmidt, & Mueller, 2010). Therefore, disparities have been attributed partly to clinicians' lack of familiarity and cultural competences as well as deficits in knowledge regarding health beliefs and practices of refugees and asylum seekers from diverse backgrounds (Arthur & Whitley, 2015; Markova & Sandal, 2016; Priebe, Giacco, & El-Nagib, 2016; Sandhu et al., 2013).

In addition to structural barriers that impede access to mental health care, refugees and asylum seekers themselves might experience barriers to using Western mental health services. These might originate from a lack of a perceived norm of psychotherapeutic treatment in their countries of origin, where institutional mental health care might be less common or access to such care may be impeded (Ellis et al., 2010; Saechao et al., 2012). This often results in a distrust of Western psychotherapeutic treatment as a foreign concept (Palmer, 2006). In many cultures, mental illness is highly stigmatized, and concerns about stigmatization might hinder the help-seeking behaviors of refugees and asylum seekers (Fung & Wong, 2007; Saechao et al., 2012). Furthermore, refugees and asylum seekers might suffer from a lack of knowledge regarding available mental health care services (Donnelly et al., 2011), concerns regarding the confidentiality of professional interpreters (Bhatia & Wallace, 2007), and fears that their problems will not be understood by practitioners due to cultural distance and unfamiliarity (De Anstiss & Ziaian, 2010; Sandhu et al., 2013). Thus, research has identified the

mental health of refugees and other forcibly displaced persons as a key challenge in European and global mental health (Byrow et al., 2020).

MENTAL HEALTH RESEARCH WITH REFUGEES AND ASYLUM SEEKERS

Clinical research within the field of refugee mental health presents unique epistemological, methodological, and conceptual challenges, and requires multidisciplinary and methodologically diverse approaches (Kirmayer & Ban, 2013). By challenging traditional approaches, the field of transcultural clinical psychology provides a valuable methodological framework for the research on refugees and asylum seekers. Moreover, in recent years, intersectional considerations in clinical psychology have offered novel perspectives that present new opportunities for understanding the particular mental health needs of refugees and asylum seekers (Weber & Fore, 2007). Therefore, the methodological framework of the present thesis is based on key methodological approaches of transcultural clinical research, such as measurement invariance analyses (study I), the combined emic–etic approach, qualitative-quantitative methodological triangulation, and the explanatory model approach (studies II & III). The thesis took aspects such as gender, education, age, and religion into consideration while analyzing the data (studies II & III). The following section introduces these key methodological approaches of transcultural clinical research and outlines their relevance for refugee mental health research.

TRANSCULTURAL CLINICAL APPROACHES IN REFUGEE MENTAL HEALTH RESEARCH

The field of transcultural clinical psychology is concerned with the ways in which psychopathology and healing are shaped by cultural knowledge and practices. Thereby, cultural differences between individuals and groups are associated with differences in illness behavior and experience (Kirmayer & Ban, 2013). Therefore, mental disorders, diseases, and healing may manifest differently in different cultures (Kleinman, Eisenberg, & Good, 2006), and culture influences health beliefs, help-seeking behaviors, coping, and treatment responses (Kleinman et al., 2006; Kirmayer & Ban, 2013; Snowden & Yamada, 2004). Recognizing these differences is important to provide equitable and appropriate health care for refugees and asylum seekers, which constitute a culturally and demographically diverse group.

Scholars in the field of transcultural psychology define culture as a process created by human interactions that manifests in a more or less coherent system of shared meanings and practices, such as beliefs, attitudes, and values (Kirmayer & Ban, 2013; Moro, 1998; Rohner, 1984; Sturm et al., 2010). *Cultural dynamic*

approaches recognize that culture endures as well as changes, that culture is both context-general and locally situated, and that individuals' meaning-making activities in specific situations generate collective patterns that can be interpreted as a globally enduring system (Kashima, 2000; Kirmayer & Ban, 2013). Marsella (2010) proposes a differentiation of *distal* cultural factors that can be represented by roles, rituals, settings, and institutions, and *proximal* cultural factors that may include norms, values, beliefs, identities, self-concepts, expectations, and worldviews. In this regard, culture produces a variety of identities tied to specific aspects of social life including language, religion, ethnicity, or racial groups. Therefore, culture has to be comprehended as the interactions between different symbolic universes that are situated within concrete social, historical, political, and economic contexts (Moro, 1998; Sturm et al., 2010).

Older approaches in transcultural clinical psychology were largely shaped by colonial ways of thinking, in which concepts were based on a universal system of knowledge grounded in science that was viewed as universal and acultural (Kirmayer, 2013; Schouler-Ocak et al., 2019). However, the postcolonial turn in scholarship clearly showed that all knowledge systems, including science, bear traces of their social, cultural, and historical origins (Kirmayer, 2013; Schouler-Ocak et al., 2019). Present research in transcultural clinical psychology focuses on different objectives that include the exploration of cultural differences in the manifestations of mental illness as well as the study of treatment practices and preferences in different cultural settings (Schouler-Ocak et al., 2019). In the past decades, the field of migrant and minority mental health has received increasing attention in countries of the global North by focusing on the delineation of mental health and illness among immigrants and, more recently, among refugees and asylum seekers (Wintrob, 2013). Moreover, it has been an ongoing effort to establish cross-cultural comparisons in order to compare the incidence and prevalence of major mental disorders, illness concepts, and behaviors across minority groups and among refugees and asylum seekers (Wintrob, 2013). Another major focus of transcultural clinical research is on underlying methodological questions that require particular consideration.

The following presents a range of key transcultural clinical approaches and outlines their relevance for research on refugees and asylum seekers.

COMPARABILITY OF QUANTITATIVE MEASUREMENT INSTRUMENTS – THE MEASUREMENT INVARIANCE ANALYSIS

Mental health research on refugees and asylum seekers widely applies quantitative measurement instruments such as mental health questionnaires in order to assess the mental health status of refugees and asylum seekers (Hollifield et al., 2002; Wind, van der Aa, de la Rie, & Knipscheer, 2017). These questionnaires

can help clinicians to triage a patient's target symptoms and assess treatment outcomes (Rasmussen, Verkuilen, Ho, & Fan, 2015; Wind et al., 2017). Moreover, mental health assessments provide valuable information about sub-populations that need particular treatment resources and therapeutic modalities (Rasmussen et al., 2015; Wind et al., 2017).

Past research has documented a high prevalence of depression, PTSD, and anxiety disorders in asylum seekers and refugees compared to host populations and other migrant populations (Barbieri et al., 2019; Fazel et al., 2005; Gangamma, & Shipman, 2018; Jamil et al., 2002; Lie, 2002; Lindert et al., 2009). One key methodological question that emerges from these differences in prevalence is whether they reflect actual differences in the occurrence of mental distress or whether they appear due to differences in the interpretation of symptoms in the measurement instruments used (Galenkamp et al., 2017). It is not unlikely that true differences in the prevalence of mental disorders between refugees, asylum seekers, and host populations exist, as the former are exposed to higher burdens of distress before, during, and after migration, such as differential exposure to violence, repression, and discrimination, which are known to be associated with mental ill-health (Galenkamp et al., 2017; Lindert et al., 2009). On the other hand, these differences might appear because of methodological difficulties, such as translation and cultural differences (Hollifield et al., 2002).

Despite evidence for an underlying universality in the experience of common mental health complaints, differences in the salience, manifestation, and expression of symptoms may be substantial across cultures and demographic groups (Sweetland, Belkin, & Verdeli, 2014; Wind et al., 2017). This might, in turn, influence diagnostic procedures, measurement instruments, and outcomes (Baas et al., 2011). Therefore, measurement validity and reliability cannot be assumed to generalize across populations with different cultural and demographic backgrounds, as assessment instruments are most commonly based upon Western health and illness concepts. Consequently, the danger of misdiagnosis and misclassification may occur (Alegria et al., 2010; Huang, Chung, Kroenke, Delucchi, & Spitzer, 2006; Van Ommeren, 2003; Radjack, Baubet, El Hage, Taïeb, & Moro, 2012). One key methodological focus within the field of transcultural clinical research concerns the quantitative comparability of measurement instruments, namely measurement invariance (Baas et al., 2011). The establishment of measurement invariance is a prerequisite for valid health comparisons across cultural and demographic groups (Milfont & Fischer, 2010). A comparison of different groups is considered methodologically valid when the instrument used measures the same latent construct in all groups. When this assumption holds, differences and similarities between groups can be interpreted without reservation (Milfont & Fischer, 2010). If this assumption does not hold, comparisons and interpretations are not fully meaningful. Scales are considered methodologically comparable when the measurement relationship between the

observed indicators and their underlying latent variables is the same in different groups (Vandenberg & Lance, 2000). Miller and Sheu (2008) describe the establishment of configural, metric, and scalar invariance as the most frequently applied ways of assessing levels of measurement invariance in multicultural research. Configural invariance is the most basic level of invariance and assesses whether the pattern of factor loadings is the same across different groups (Vandenberg & Lance, 2000). It means that similar factors are measured in different groups and the same items are associated with the same factors in each group (Romppel et al., 2017). This appears to be a prerequisite for conducting further invariance analyses (Vandenberg & Lance, 2000). Metric invariance assesses the degree to which items are interpreted in the same way across different groups and appears to be of particular importance in multicultural research (Byrne, Shavelson, & Muthén, 1989; Miller & Sheu, 2008). Scalar invariance assesses the equivalence of item intercepts (point of origin) across groups and is a requirement for comparisons of latent means (Cheung & Rensvold, 2002).

However, even though measurement invariance is established with regard to the reliability of a measurement instrument, cultural or demographic differences might still influence the item interpretation and culture bound interpretations of the latent construct itself might be more relevant to a particular group. In this regard, the inclusion of more than one research perspective might offer useful insights into the manifestation and expression of symptoms of mental distress within different cultural and demographic groups.

METHODOLOGICAL TRIANGULATION AND THE COMBINED EMIC-ETIC APPROACH

Traditionally, transcultural research approaches have been polarized into two seemingly dichotomous schools of thought: The quantitatively derived *etic perspective* and the qualitatively derived *emic perspective*, which were first introduced by the linguistic anthropologist Kenneth Pike (1967; Patel, 1995).

The emic perspective focuses on the intrinsic cultural distinctions that are meaningful to the members of a given society (Okello, 2006). A construct is considered emic if it is in accord with the perceptions and understandings deemed appropriate by an insider's culture. Therefore, an emic approach advocates that mental illness concepts need to be generated from within cultures, aiming to understand their significance and relationship with other intra-cultural elements (Niblo & Jackson, 2004; Okello, 2006; Patel, 1995). Most commonly, emic studies use qualitative measures that tend to explore *what*, *how*, and *why*, to identify potentially important variables or concepts, to recognize patterns and relationships, and to generate coherent theories and hypotheses (Okello, 2006). Research on mental health and illness concepts of refugees and asylum seekers

has predominantly preferred an emic perspective as it allows for focusing on the particular cultural and demographic components that are encountered in a specific group (Voulgaridou, Papadopoulos, & Tomaras, 2006). However, research conducted within an emic approach is ill-suited for providing generalizable data that can be used for the assessment of the mental health status of refugees and asylum seekers, or comparisons with host populations (Patel, 1995; Wind et al., 2017). Therefore, purely derived emic studies have been criticized since they remain at a purely descriptive level (Karasz & Singelis, 2011).

The etic perspective, however, can be understood as the perspective of the outsider who is interested in generalizations and universals (Voulgaridou et al., 2006). Thereby, it relies upon extrinsic concepts and categories that have meaning for the scientific community (Okello, 2006). A construct is regarded as etic if it is in accord with the epistemological principles deemed appropriate by science (i.e. precise, logical, comprehensive, replicable, falsifiable, and observer independent) (Helfrich, 2013; Okello, 2006). Purely derived etic studies traditionally use quantitative measurement instruments and postulate the universality of concepts of mental illness and global applicability of instruments without reservation (Niblo & Jackson, 2004; Patel, 1995). Therefore, they have been criticized for claiming the universality of diagnostic categories, classification systems, and psychological measures developed by and based upon Western values, assumptions, and norms. Thereby, they might fail to capture differences in the understanding of mental health and illness in populations of non-Western backgrounds (Ahearn, 2000; Alegria et al., 2010; Splevins, Cohen, Bowley, & Joseph, 2010; Tempany, 2009). In the past, their tendency to run the risk of the *category fallacy* has been pointed out (Kleinman, 1977): that is, based on the erroneous assumption that a measured outcome is genuinely ubiquitous in any culture simply because the population can respond to the instrument and achieve a determined score (Vázquez et al., 2014).

In recent years, scholars in the field of transcultural clinical research have emphasized that emic and etic approaches should not be conceptualized as opposite ends of a continuum, and rather be comprehended as two complementing perspectives (Berry, 1989; Niblo & Jackson, 2004). Separately, they might project a flat (but different) perspective of reality; together, they may provide a rich three-dimensional understanding of cultural influence on mental health and illness (Berry, 1989; Niblo & Jackson, 2004). Especially with regard to refugee mental health research in countries of the global North, the aims of both emic and etic research approaches are considered to be important and valuable as refugee populations of non-Western backgrounds need to be integrated into local health care systems (Berry, 1989; Niblo & Jackson, 2004). In this regard, more scholars have advocated for the *triangulation* of emic and etic research perspectives and different methodological approaches (Bartholomew & Brown, 2012; De Jong & Van Ommeren, 2002; Gómez, 2014; Karasz & Singelis, 2009; Niblo

& Jackson, 2004). Thereby, the concept of *methodological triangulation* refers to the application and combination of several research methodologies in the study of the same phenomenon (Denzin, 2007; Flick, 1992). It can be understood as an extension of the research program which includes a systematic selection of different methods and the systematic combination of research perspectives (Flick, 1992). In this regard, a triangulation strategy that combines an emic with an etic approach seems particularly suitable for mental health research on refugees and asylum seekers residing in countries of the global North. In the so-called *combined emic–etic approach*, an etic construct is chosen and emic ways are developed to measure it. Through such an approach, an emically defined etic construct can be obtained and used for comparisons across different cultural and sociodemographic groups (De Jong & Van Ommeren, 2002). As most research involves the use of Western research instruments not validated for specific cultural settings, qualitative data can increase the understanding of the specific context, allowing for an easier validation of measurements and improved interpretability of results (De Jong & Van Ommeren, 2002). Therefore, the combination of qualitative and quantitative methodological approaches provides an integration of depth and breadth of knowledge and allows researchers to intimately explore constructs within cultures and generalize these constructs to the same cultural context (Bartholomew & Brown, 2012). In concurrent methodological triangulation, researchers collect qualitative and quantitative data simultaneously yet independently before converging the data (Bartholomew & Brown, 2012). It requires the independent components to be merged in order to find ways the data sets support one another or emphasize paradox and divergence in the findings (Bartholomew & Brown, 2012). Findings of each method may complement each other and provide a more complete and culturally sensitive understanding and interpretation of the investigated phenomena (Bartholomew & Brown, 2012; Bekhet & Zauszniewski, 2012).

THE EXPLANATORY MODEL APPROACH

*Explanatory model*s were first introduced by the medical anthropologist and psychiatrist Arthur Kleinman (1980) and are defined as clusters of culturally shaped belief systems that contain concepts of health and illness organized around causal attributions (Dinos, Ascoli, Owiti, & Bhui, 2017; Kleinman, 1980; Knettel, 2016; Patel, 1995). They can be understood as fluid and multilayered constructs that reflect the cultural knowledge of each individual (Kirmayer & Bhugra, 2009; Taïeb, Heidenreich, Baubet, & Moro, 2005). They shape and are shaped by culture specific expectations of individual illness behavior, models of causality, and help-seeking (Dinos et al., 2017; Kirmayer & Bhugra, 2009; Taïeb et al., 2005). Past research has emphasized a seemingly dichotomous view regarding explanatory models of mental distress, dividing cultures into belonging to the global South or

the global North (Teferra & Shibre, 2012). Accordingly, explanatory models of mental disorders in cultures of the global North are strongly influenced by the Western biomedical model and predominantly shaped by multi-causal beliefs combining biological, genetic, and psychosocial explanations with environmental factors and stressful life events (Furnham & Igboaka, 2007; Kokanovic, et al., 2013; McCabe & Priebe, 2004). In cultures of the global South, religious, magical, and supernatural causal beliefs can be encountered as well (Bhikha, Farooq, Chaudhry, Naeem, & Husain, 2015; Hagmayer & Engelmann, 2014; Ikwuka, Galbraith, & Nyatanga, 2014).

With regard to refugees and asylum seekers, culturally shaped explanatory models might play a crucial role in their recognition of mental illness on the one hand, and a clinician's detection on the other hand (Alegria et al., 2010). Coming predominantly from non-Western cultures, asylum seekers' explanatory models about mental illness are widely assumed to differ from those held by Western host populations (e.g. Markova & Sandal, 2016; Melamed, Chernet, Labhardt, Probst-Hensch, & Pfeiffer, 2019). Moreover, traditional explanatory models may vary due to immigration and acculturation processes (Markova & Sandal, 2016). Additionally, post-migration stressors, social isolation, and living in exile may emerge as new causes of mental distress (Markova & Sandal, 2016; Bettmann, Penney, Clarkson Freeman, & Lecy, 2015; Este, Simich, Hamilton, & Sato, 2017). Since explanatory models and causal attributions are known to influence help-seeking behavior in Western populations (Hagmayer & Engelmann, 2014), they might be even more important in the search for help for refugees living in foreign transition and resettlement countries with unfamiliar health care systems (Byrow et al., 2020). With regard to refugees and asylum seekers from Sub-Saharan Africa, past research has emphasized the importance of spirituality and religion for explanatory models of mental distress in refugees from Somalia, Sudan, Eritrea, and Ethiopia (Carroll, 2004; Clarkson Freeman, Penney, Bettmann, & Lecy, 2013; Fenta, Hyman, & Noh, 2006; Ellis et al., 2010; Melamed et al., 2019; Palmer, 2006; Papadopoulos, Lees, Lay, & Gebrehiwot, 2004; Pavlish, Noor, & Brandt, 2010). Furthermore, differences from the Western biomedical model were reported regarding the supernatural realm (e.g. Carroll, 2004). Consequently, rather than seeking mental health care services, this group relied on alternative sources of help, such as family, friends, and the ethnic and religious community, and preferred religious and spiritual sources as a first-line treatment for mental health issues (Ellis et al., 2010; Melamed et al., 2019; Markova & Sandal, 2016; Palmer, 2006).

CONSIDERING THE INTERSECTIONALITIES OF INFLUENCES IN REFUGEE MENTAL HEALTH

Among immigrant populations from diverse cultural backgrounds, refugees and asylum seekers might constitute a group that requires special consideration in mental health care and assessment. Mental health problems are more prevalent among refugees and asylum seekers than in the native population and other migrant populations, with some studies reporting the rate of mental disorders as twice as high among refugees and asylum seekers as among economic migrants in Europe (Bhurga, 2004; Lindert et al., 2009; Missinne & Bracke, 2012). Moreover, research has shown that, among refugees and asylum seekers, some sub-populations are particularly vulnerable and at higher risk for mental disorders, such as women, adolescents, the elderly, those lacking documentation, persons with disabilities, survivors of various forms of violence, and those in extreme poverty (Hassan, Ventevogel, Jefee-Bahloul, Barkil-Oteo, & Kirmayer, 2016; Schouler-Ocak et al., 2019; Kirmayer et al., 2011). Thereby, sociodemographic dimensions such as age, gender, education, and ethnicity affect the chances of being exposed to stressful situations and the availability of personal and social resources (Fenta et al., 2006).

In order to address these variations in the burden of disease and illness experience of particularly vulnerable sub-populations, a more recently applied approach in clinical research is the recognition of the *intersectionalities of influence* (Guruge & Khanlou, 2004). Intersectionality was first introduced to understand the complex ways in which identities of race and gender simultaneously interacted in Black women's lives (Gangamma, & Shipman, 2018; The Combahee River Collective, 1977). Since then, the framework has expanded to include other identities of class, sexuality, age, nationality, ethnicity, and similar categories that are best understood in relational terms rather than in isolation from one another (Collins, 2015; Gangamma, & Shipman, 2018).Within the intersectional approach, scholars consider how structural and political factors affect mental health and attempt to simultaneously examine aspects of context and identity in ways that create a new understanding of these factors and a more accurate reflection of lived experiences (Griffith, 2012). Within this approach, mental health and illness experiences are influenced by the intersection of multiple sources that come together in distinct ways and lead to different health outcomes for members of certain demographic groups (Khanlou, 2003). Besides taking the cultural background into account, clinicians must create space for the exploration of how various dimensions of social identity, such as race, gender, age, skin color, education, religious affiliation, and migration history intersect in influencing illness behavior and experience (Guruge & Khanlou, 2004). Refugees and asylum seekers, in particular, may occupy multiple, and sometimes contradictory, social dimensions within a host country (Anthias, 2008; Gangamma, & Shipman, 2018). Their social dimensions are different in various

stages before, during, and after their flight; their experiences of marginalization based on the social identity markers of gender, age, and ethnicity, among others, can also vary at these different stages (Gangamma, & Shipman, 2018). Moreover, in comparison to other migrant groups, differences in residential status and residential permit conditions, citizenship, national identity, accommodation, and living conditions might lead to different expectations of clinical services (Anthias, 2008; Gangamma, & Shipman, 2018; Powell Sears, 2012). Accordingly, ways of inquiry into the mental health needs of refugees and asylum seekers must locate individual health and illness experiences within the complex socio-economic, historical, political, and institutional structures and dynamics in the pre and post-migration context (Guruge & Khanlou, 2004; Moro, 1998; Papadopoulos, 2001). Therefore, a uniquely medicalized approach emphasizing the diagnosis of a mental disorder, may fall short on a patient whose immediate concerns relate to social, economic, or residency issues (Watters, 2001).

THE PRESENT THESIS

GENERAL AIMS OF THE THESIS

Within three thematically multifaceted studies, the present thesis is concerned with the mental health of refugees and asylum seekers in Germany. The particular research questions focus on the assessment of depression among refugees and asylum seekers (study I) and the investigation of explanatory models of PTSD among asylum seekers from Sub-Saharan Africa (studies II & III). To this end, the study performed a triangulation of the above outlined transcultural clinical approaches.

SPECIFIC AIMS AND SUMMARIES OF THE STUDIES

Study I: For the assessment of depression, the PHQ-9 is a widely used instrument that has shown high validity and reliability. Study I aimed to investigate the measurement invariance of the PHQ-9 across asylum seekers in Germany and Germans without a migration background.

Study II: The objective of study II was to provide insights into lay beliefs about causes of PTSD held by asylum seekers from Sub-Saharan Africa living in Germany.

Study III: Study III aimed to investigate help-seeking intentions and lay beliefs about cures for PTSD held by asylum seekers from Sub-Saharan Africa living in Germany.

STUDY I: THE INVESTIGATION OF MEASUREMENT INVARIANCE OF THE PHQ-9

With countries of the global North receiving a growing number of refugees and asylum seekers, there is a need for evidence on the reliability of instruments for studying their mental health (Galenkamp et al., 2017). Epidemiological studies report a high prevalence of depressive disorders within this group. However, these results seem complex, resulting in broad ranges from 5% up to 75% (Fazel et al., 2005; Lindert et al., 2009; Hollifield et al., 2002; Slewa-Younan, Guajardo, Heriseanu, & Hasan, 2015; Steel et al., 2009). On the one hand, this might be due

to the heterogeneity of the population characteristics and differential exposure to violence, repression, and discrimination, which are known to be associated with mental ill-health and depression (Galenkamp et al., 2017; Lindert et al., 2009; Mewes et al., 2015). On the other hand, this has been attributed to a large variety of assessment instruments used and, moreover, to methodological difficulties such as translation and cultural differences (Hollifield et al., 2002). However, despite these conflicting findings, the investigation of measurement invariance of commonly used mental health questionnaires for refugees and asylum seekers has mainly focused on questionnaires assessing PTSD (e.g. Rasmussen et al., 2015; Wind et al., 2017). Until today, only little attention has been drawn to the investigation of measurement invariance of questionnaires assessing depressive disorders in asylum seekers or refugee samples and Western host populations without a migration background.

For assessing depressive disorders, several screening instruments exist that vary regarding their number of items, mode of administration, and proximity to diagnostic criteria (Familiar et al., 2015). Among self-reporting assessment instruments, the nine-item Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer, & Williams, 2001) is one of the most widely used measures (Familiar et al., 2015; Kroenke, Spitzer, Williams, & Löwe, 2010). It has proven its diagnostic validity in different settings (Kroenke et al., 2001; Martin, Rief, Klaiberg, & Braehler, 2006; Spitzer et al., 1999) and the DSM-5 has recommended its use as a general measure of depression severity (5th Diagnostic and Statistical Manual of Mental Disorders, American Psychiatric Association, 2013.). The PHQ-9 contains nine items assessing: (1) anhedonia; (2) depressed mood; (3) trouble sleeping or sleeping too much; (4) feeling tired; (5) change in appetite; (6) guilt or worthlessness; (7) trouble concentrating; (8) feeling slowed down or restless; and (9) suicidal thoughts (Kroenke et al., 2001, 2010). It has been translated into over 70 languages (Pfizer Inc., 2020) and has been validated in different non-Western settings (e.g. Adewuya, Ola, & Afolabi, 2006; Crane et al., 2010; Monahan et al., 2009; Omoro, Fann, Weymuller, Macharia, & Yueh, 2006). Some studies recommended its utilization for the detection and monitoring of depression in diverse populations such as in the four largest ethnic groups in the United States (Huang et al., 2006) and ethnically diverse populations in the Netherlands (Galenkamp et al., 2017). Regarding immigrant populations in Germany, past research demonstrated that PHQ-9 sum scores could be compared between Turkish immigrants, a heterogeneous sample of immigrants living in Germany, and Germans without a migration background (Mewes et al., 2010; Reich, Rief, Brähler, & Mewes, 2018). However, taking into consideration the intersectionalities of influence, samples of refugees and asylum seekers require separate consideration, even though invariant assessment of depression using the PHQ-9 seems applicable to a variety of different cultural groups and diverse samples of immigrants in Western countries. It is still unknown whether the PHQ-

9 assesses the same construct in populations of refugees and asylum seekers, and Western populations without a migration background. Therefore, the objective of the first study was to investigate whether PHQ-9 scores are comparable between a heterogeneous sample of refugees and asylum seekers living in Germany and Germans without a migration background.

SUMMARY OF STUDY I

Title: *Is depression comparable between asylum seekers and native Germans? An investigation of measurement invariance of the PHQ-9*

Grupp, F., Piskernik, B., & Mewes, R. (2020). Is depression comparable between asylum seekers and native Germans? An investigation of measurement invariance of the PHQ-9. *Journal of Affective Disorders, 262*(1), 451-458.

Background: Asylum seekers show a high prevalence of depressive disorders compared to native populations. For the assessment of depression among refugees and asylum seekers, the PHQ-9 is a widely used instrument. However, it is largely unknown whether PHQ-9 scores are comparable between asylum seekers living in Western countries and native populations, and whether results can be interpreted without reservation.
Objective: Therefore, we aimed to investigate the measurement invariance of the PHQ-9 across asylum seekers in Germany and Germans without a migration background.
Method: Data from asylum seekers living in Germany (n = 243) and Germans without a migration background (n=171) were used to analyze measurement invariance of the PHQ-9. We conducted all invariance analyses within a confirmatory factor analysis (CFA) framework. Moreover, we investigated configural, scalar, and metric invariance and determined test functioning.
Results: The PHQ-9 was not measurement invariant across Germans without a migration background and asylum seekers living in Germany. Differences were found regarding metric invariance and scalar invariance. The items anhedonia, depressed mood, appetite changes, psychomotor changes, and suicidal ideation had lower loadings and lower thresholds in asylum seekers compared to Germans without a migration background. That led to an overestimation translated into approximately one point on the sum-score.
Limitations: To our knowledge, this study is the first to assess measurement invariance of the PHQ-9 in a sample of refugees and asylum seekers and their Western host population without a migration background. However, the study limitations include a heterogeneous sample of asylum seekers regarding countries

of origin and the utilization of the different language versions of the PHQ-9. Furthermore, while controlled by the statistical method, the two investigated groups differed in terms of age, gender, and severity of depressive symptoms. Future research might investigate measurement invariance of the PHQ-9 in more homogenous samples of asylum seekers/refugees.

Conclusion: The results may have implications for studies comparing levels of depression between asylum seekers and native Western samples. Even with the same latent level of depression, asylum seekers may have higher scores on several items and, consequently, a higher sum score. Therefore, the present results suggest a new determination or differentiation of the cut-off scores that were derived from Western samples.

STUDIES II & III: LAY EXPLANATORY MODELS OF PTSD AMONG ASYLUM SEEKERS FROM SUB-SAHARAN AFRICA

Since 2009, numbers of asylum seekers from Sub-Saharan African countries in Germany have remained persistently high (Federal Office for Migration and Refugees, 2018; UNHCR, 2015; 2016). Refugees and asylum seekers from Sub-Saharan Africa arriving in Western countries constitute a particularly vulnerable group which might have been confronted with an exceptionally high number of traumatizing events. Therefore, a high prevalence of PTSD was reported in this group (Carta et al., 2005; Jaranson et al., 2004; Neuner et al., 2004; Onyut et al., 2009; Tempany, 2009).

However, past research on explanatory models within this group focused mainly on schizophrenia, depression, or mental disorders in general (Furnham & Igboaka, 2007; McCabe & Priebe, 2004; Napo, Heinz, & Auckenthaler, 2012). Therefore, little is known about explanatory models of PTSD in asylum seekers from Sub-Saharan African countries. Moreover, research on explanatory models concerning this group has predominantly preferred an emic perspective in the use of a qualitative methodology (e.g. Carroll, 2004; Clarkson Freeman et al., 2013; Melamed et al., 2019). Thereby, findings remain mostly on a descriptive level and are not suitable to provide generalizable and comparable data. However, differences in explanatory models of mental distress in asylum seekers from Sub-Saharan Africa and Western host populations are widely assumed, but empirical evidence is broadly lacking (e.g. Markova & Sandal, 2016). As refugees and asylum seekers in countries of the global North need to be included in local health care systems in order to ensure an appropriate treatment of symptoms, it is of crucial importance to incorporate an etic perspective in the use of a quantitative methodology as well. This might be of special significance when quantitative differences with regard to host populations need to be displayed in order to emphasize the importance of culturally sensitive treatments. In order to close this gap in the actual research, studies II and III combined an emic research approach

with an etic approach. Thereby, we determined PTSD as an etic construct derived out of the Western clinical perspective and we employed etic as well as emic ways of measurement. We applied a qualitative and quantitative methodological triangulation strategy, and conducted the investigation of explanatory models via questionnaire surveys and focus group discussions. Moreover, in studies II and III, we analyzed the association between different sociodemographic variables, such as gender, age, religion, education, and PTSD symptomatology, on the one hand and explanatory models on the other hand, in order to account for the intersectionalities of influences on explanatory models of PTSD. Thereby, the perceptions of the general population rather than a clinical population were promoted as we employed case vignette designs. We operationalized explanatory models by causal attributions and beliefs about causes of PTSD as well as help-seeking intentions and beliefs about cures for PTSD.

SUMMARY OF STUDY II

Title: *"It's That Route That Makes Us Sick": Exploring Lay Beliefs About Causes of Post-traumatic Stress Disorder Among Sub-Saharan African Asylum Seekers in Germany*

Grupp, F., Moro, M. R., Nater, U. M., Skandrani, S. M., & Mewes, R. (2018). "It's that route that makes us sick": Exploring lay beliefs about causes of post-traumatic stress disorder among Sub-Saharan African asylum seekers in Germany. *Frontiers in Psychiatry, 9*, 628.

Background: Many asylum seekers have been confronted with traumatizing events, leading to high prevalence rates of PTSD. Within the diagnostic context, clinicians should take into account patients' culturally shaped presentation of symptoms.
Objective: Therefore, we sought to provide insights into beliefs about causes of PTSD held by asylum seekers from Sub-Saharan Africa living in Germany.
Method: To this aim, we used a quantitative and qualitative methodological triangulation strategy based on a vignette describing symptoms of PTSD. In the first part of the study, asylum seekers (n=119), predominantly from Eritrea (n=41), Somalia (n= 36), and Cameroon (n = 25), and a German comparison sample without a migration background (n=120) completed the Revised Illness Perception Questionnaire (IPQ-R). In the second part, asylum seekers reviewed the results within eight focus group discussions (n=26), sampled from groups of the three main countries of origin.
Results: Descriptive analyses of the first part demonstrated that asylum seekers predominantly attributed PTSD symptoms to psychological and religious causes, and rather disagreed with supernatural causes. In comparison to the German sample without a migration background, asylum seekers attributed symptoms less

strongly to terrible experiences, but more strongly to religious and supernatural causes. Within the focus group discussions, we identified six attribution categories of participants' causal beliefs: (a) traumatic life experiences, (b) psychological causes, (c) social causes, (d) post-migration stressors, (e) religious causes, and (f) supernatural causes.

Limitations: To our knowledge, this study is the first to investigate lay beliefs about causes of PTSD held by asylum seekers from Sub-Saharan Africa in Germany. However, limitations include the diverse sample of asylum seekers with regard to countries of origin, cultural groups of Sub-Saharan Africa, and religion. Moreover, characteristics of the two investigated groups in the quantitative part differed in terms of age, gender, education, religion, traumatic experiences, and PTSD symptoms.

Conclusion: Our findings suggest that the current Western understanding of PTSD is as relevant to migrants as to non-migrants in terms of psychological causation, but might differ regarding the religious and supernatural realm. While awareness of culture-specific belief systems of asylum seekers from Sub-Saharan Africa regarding PTSD is important, our findings underline that cultural differences should not be overstated.

SUMMARY OF STUDY III

Title: *"Only God can promise healing": Help-seeking intentions and lay beliefs about cures for post-traumatic stress disorder among Sub-Saharan African asylum seekers in Germany*

Grupp, F., Moro, M. R., Nater, U. M., Skandrani, S., & Mewes, R. (2019). 'Only God can promise healing.': help-seeking intentions and lay beliefs about cures for post-traumatic stress disorder among Sub-Saharan African asylum seekers in Germany. *European journal of psychotraumatology*, *10*(1), 1684225.

Background: Epidemiological studies have reported high rates of PTSD among asylum seekers from Sub-Saharan Africa. However, levels of mental health help-seeking in this population are low. In order to provide appropriate and culturally sensitive mental health care for this group, further knowledge about treatment preferences might be necessary.

Objective: We aimed to provide insights into help-seeking intentions and lay beliefs about cures for PTSD held by asylum seekers from Sub-Saharan Africa living in Germany.

Methods: To address this objective, we used a quantitative and qualitative methodological triangulation strategy based on a vignette describing symptoms of PTSD. In the quantitative part of the study, asylum seekers (n=119),

predominantly from Eritrea (n=41), Somalia (n= 36), and Cameroon (n = 25), and a German comparison sample without a migration background (n=120) completed the General Help-Seeking Questionnaire (GHSQ). In the qualitative part, asylum seekers (n=26) reviewed the results of the questionnaire survey within eight focus group discussions sampled from groups of the three main countries of origin.
Results: Asylum seekers showed a high intention to seek religious, medical, and psychological treatment for symptoms of PTSD. However, compared to Germans without a migration background, asylum seekers indicated a higher preference to seek help from religious authorities and general practitioners, and a lower preference to enlist psychological and traditional help sources. Furthermore, asylum seekers addressed structural and cultural barriers to seeking medical and psychological treatment.
Limitations: Limitations include a diverse group of asylum seekers with regard to countries of origin, cultural groups of Sub-Saharan Africa, and religion. Characteristics of the two investigated groups in the quantitative part differed in terms of age, gender, education, religion, traumatic experiences, and PTSD symptoms. Moreover, this study incorporates a rather male perspective on cures for PTSD as participants were predominantly male, and an impact of gender on our results cannot be ruled out.
Conclusion: To facilitate access to local health care systems for asylum seekers and refugees, it might be crucial to develop public health campaigns in collaboration with religious communities. When treating asylum seekers and refugees from Sub-Saharan Africa, practitioners should explore different religious and cultural frameworks for healing and recovery in order to signal understanding and acceptance of varying cultural contexts.

OVERALL DISCUSSION

In the following, the findings of the present thesis will be integrated into an overall discussion. Therefore, this section will begin with a discussion of the results of the three different studies. This will be followed by a reflection on the applied methodological framework. Finally, the methodological design will be discussed by reflecting on limitations of the three studies, and implications for further research will be presented.

ON THE RESEARCH QUESTIONS AND THE PRESENT RESULTS

By considering thematically multifaceted and methodologically diverse studies within the field of transcultural clinical psychology, the present work contributes novel findings with regard to the mental health needs of refugees and asylum seekers in Germany. The research questions were concerned with the assessment of depression among refugees and asylum seekers (study I) and the investigation of explanatory models of PTSD among asylum seekers from Sub-Saharan Africa in Germany (studies II & III).

THE INVESTIGATION OF MEASUREMENT INVARIANCE OF THE PHQ-9

Study I focused on the assessment of depression among refugees and asylum seekers with the PHQ-9, an often-used measurement for depressive symptoms in clinical practice or for research purposes (Galenkamp et al., 2017). Thereby, study I aimed to investigate whether depression levels measured with the PHQ-9 are comparable between a heterogeneous sample of refugees and asylum seekers living in Germany and Germans without a migration background. This research aim was addressed by conducting invariance analyses within a CFA framework. The analyses revealed that the PHQ-9 was not measurement invariant for asylum seekers living in Germany and Germans without a migration background. Although both versions of the PHQ-9 show configural invariance and seemed to measure the same construct with high internal reliability, metric and scalar invariance were not fully existent. The items anhedonia, depressed mood, appetite

changes, psychomotor changes, and suicidal ideation had different loadings and/or thresholds. Consequently, the scores of asylum seekers may be biased upward when compared to Germans without migration background. These findings are in line with past research on the psychometric properties of the PHQ-9 that demonstrated differences in item functioning between different ethnic minority groups in the Netherlands (Surinam Dutch vs. Dutch; Baas et al., 2011) and the United States (Crane et al., 2010). Thus, the PHQ-9 should be used cautiously when comparing the prevalence of depressive disorders in refugees/asylum seekers and Germans without a migration background, as the results cannot be interpreted without reservation. The results of study I underline fundamental methodological questions of transcultural clinical research, as these differences might appear because of methodological difficulties on the one hand, but, on the other hand, they might occur due to cultural differences in item interpretation (Hollifield et al., 2002). In this regard, the framework of explanatory models and the integration of an emic research perspective might offer useful insights into the manifestation and expression of symptoms of depression within refugees and asylum seekers from different cultural and demographic groups.

LAY EXPLANATORY MODELS OF PTSD AMONG ASYLUM SEEKERS FROM SUB-SAHARAN AFRICA

Studies II and III were concerned with explanatory models of PTSD among asylum seekers from Sub-Saharan Africa in Germany, predominantly from Eritrea, Somalia, and Cameroon. Following the combined emic-etic approach, both studies applied quantitative and qualitative methodological triangulation strategies, analyzing data derived from a questionnaire survey and focus group discussions. By combining a qualitative with a quantitative research approach and comparing data with a German comparison sample without a migration background, studies II and III complemented and extended previous quantitative and qualitative work on explanatory models of refugees and asylum seekers from different regions of Sub-Saharan Africa in countries of the global North (e.g. Bettmann et al., 2015; Este et al., 2015; Kuittinen, Mölsä, Punamäki, Tiilikainen, Honkasalo, 2017).

Study II aimed to provide insights into beliefs about the causes of PTSD held by asylum seekers from Sub-Saharan Africa residing in Germany. The present findings underline that asylum seekers attributed PTSD symptoms mainly to psychological causes, such as experiencing stress, being in a negative emotional state, and thinking too much. Moreover, the findings emphasized the importance of traumatic experiences before and during migratory pathways in explaining PTSD symptoms among asylum seekers. Accordingly, the symptoms were explained by the accumulation of hardships and experiences of poverty and war. Additionally, stressful life circumstances in asylum seekers' new society of

resettlement were emphasized and linked to social factors such as family problems and the asylum seekers' inability to adhere to their intergenerational obligations toward their families left at home.

Religion played a significant role in explaining Sub-Saharan African asylum seekers' beliefs about the causes of PTSD symptoms. In comparison to Germans without a migration background, asylum seekers more strongly attributed symptoms to religious and supernatural causes. When analyzing intersectional influences on causal beliefs of PTSD, the attribution to religious causes was stronger in asylum seekers when the educational qualifications were higher. Muslim asylum seekers expressed a stronger belief in God's will and fate than Christian participants. However, the majority of the participants rather disagreed with the concept of supernatural phenomena, such as curses and evils spirits, as causes of PTSD symptoms. Nevertheless, our results are largely in line with previous quantitative research that reported corresponding differences between Western samples and samples from West Africa (McCabe & Priebe, 2004), Cameroon, (St Louis & Roberts, 2013), and Nigeria (Furnham & Igboaka, 2007), with African respondents more often favoring supernatural causes for mental disorders.

Since causal attributions are known to influence help-seeking behavior in Western populations (Hagmayer & Engelmann, 2014), they might be even more important for help-seeking behavior in refugees living in foreign receiving countries with unfamiliar health care systems. Therefore, study III aimed to provide insights into beliefs about cures and help-seeking intentions for PTSD held by asylum seekers from Sub-Saharan Africa residing in Germany. Asylum seekers showed a higher intention to seek help from religious authorities than the German participants without a migration background and strongly emphasized the importance of religion for recovery and the predominantly religious character of treatment. With regard to psychological treatment, high average mean scores in the group of asylum seekers, particularly those from Cameroon and Somalia, suggest a high likelihood of seeking help from this source. However, their intention was lower than that of Germans without a migration background, which is in accordance with previous studies reporting low rates of mental health care utilization in immigrant and refugee populations (Ellis et al., 2010; Fenta et al., 2006; Kirmayer et al., 2011; Palmer, 2006). Asylum seekers' intentions to seek help from general practitioners was higher than those of Germans without a migration background, a finding which corresponds to previous research (Maier et al., 2010; Papadopoulos et al., 2004). However, intersectional analyses revealed that older asylum seekers and asylum seekers from Eritrea indicated a comparably lower intention to seek medical help. In contrast to previous research (Fenta et al., 2006; Palmer, 2006), asylum seekers in the present study expressed a lower intention to seek help from traditional treatment practices than participants without a migration background. However, asylum seekers in our study showed a

multifaceted and rather broad picture of culturally accepted traditional treatments: While natural treatments with herbal remedies were considered appropriate, supernatural and magical practices performed by traditional healers or sorcerers were mainly rejected. Furthermore, asylum seekers' intention to not seek help at all was higher compared to the German participants. This was especially the case in participants from Eritrea and in asylum seekers with stronger post-traumatic symptoms. In conclusion, asylum seekers from Eritrea, older asylum seekers, and asylum seekers with a higher symptom load might constitute a particularly vulnerable group among refugees in Germany.

ON THE METHODOLOGICAL FRAMEWORK

Clinical research within the field of refugee mental health presents unique methodological and conceptual challenges, and requires multidisciplinary and methodologically diverse approaches (Kirmayer & Ban, 2013). In this regard, the present thesis was an attempt to integrate different approaches by applying a transcultural clinical framework and giving equal value to both emic and etic perspectives as well as the triangulation of quantitative and qualitative research methodologies.

In study I, we performed a measurement invariance analysis, adopting an etic research perspective in the use of a uniquely quantitative methodology in order to investigate measurement methodological basics with regard to the assessment of depression in refugees and asylum seekers. Study I presents a psychometric study aiming to understand whether the differences in the prevalence of depression across refugees and host populations found in other studies (e.g. Lindert et al., 2009) reflect actual differences in the occurrence of depression or whether they result due to psychometric issues concerning the measurement instrument used. The evaluation of measurement invariance of frequently used health assessments across refugees and asylum seekers and host populations is an important step in establishing the reliability of measurement instruments and the quantitative comparability of scores (Bauer, 2017). This is of importance as it provides valuable information about the mental health status of refugees and asylum seekers in comparison to host populations and might signal if particular treatment resources and therapeutic modalities are needed (Rasmussen et al., 2015; Wind et al., 2017). However, even though measurement invariance analyses promise a great growth in knowledge with regard to the quantitative comparability of measurement instruments across different cultural and demographic groups, they are not without their shortcomings. Using only one measure across multiple populations fails to tap into culturally bound interpretations of distress that may be more relevant to the phenomenology of depression than is represented on standardized measures (Rasmussen et al., 2015). Within this approach, researchers are not able to show how and in which way

depression is displayed in different cultural groups and a culturally and demographically heterogeneous sample of refugees. It solely contributes to questions of the reliability and statistical invariance of the particular measure in different cultural groups. Moreover, in recent years, scholars in the field of transcultural clinical research have documented differences in symptom presentation of depressive disorders in different cultural contexts (Deisenhammer et al., 2012; Dreher et al., 2017) and have raised issues concerning the diagnostic validity within Western derived nosology and classification systems (e.g. Van Ommeren, 2003). Therefore, cultural differences might still influence item interpretation, illness perception, or the definition of mental distress itself and the ways in which different cultural and demographic groups experience, understand, and communicate suffering (Hollifield et al., 2002; Kaiser et al., 2015). By incorporating an emic perspective and conducting qualitative research that studies symptom presentation and idioms of distress within refugees, the range and meaning of theoretical constructs can be enhanced and might therefore improve the validity of quantitative measures (Hollifield et al., 2002).

In studies II and III, we investigated explanatory models of PTSD within an explanatory model framework integrating emic and etic research perspectives while using qualitative and quantitative methodologies. In the past, research on explanatory models of mental distress in refugees and asylum seekers has predominantly preferred an emic and qualitative perspective as it enables researchers to focus particularly on cultural and demographic components from an insiders' perspective (e.g. Voulgaridou et al., 2006). However, these studies mostly remained on a descriptive level. In this regard, an etic perspective seems valuable as it provides generalizable and comparable data that allows for the examination of similarities and differences of mental health and illness experience between refugees, asylum seekers, and host populations. This, in turn, might be of crucial importance in order to address disparities in mental health care provision of host countries and to tackle an ethnocentric practice in mental health care (e.g. Bhopal, 2007). However, although the combination of emic and etic research perspectives and the triangulation of qualitative and quantitative methodology provide an excellent avenue of knowledge, it is not without its challenges (Bartholomew & Brown, 2012). One major concern might lie in the positioning of researchers within the tension of emic and etic research perspectives, namely in taking an insider and outsider perspective of the population under study. On the one hand, emic research emphasizes the importance of conducting research from within the culture (Meili, 2018). On the other hand, etic research requires researchers to adopt the perspective of an outsider who is interested in generalizations and universals (Voulgaridou et al., 2006). In this regard, researchers might find themselves in an indissoluble dilemma, trying to meet the requirements of both emic and etic research perspectives. Moreover, collecting and integrating two data sets proves to be

complicated and difficult; this requires lengthier, multiple, and more complex data collection phases (Bartholomew & Brown, 2012). Additionally, psychologists are often not trained in both qualitative and quantitative traditions, which could further complicate carrying out mixed methods research designs. However, the methodological triangulation is a tool for cultural research and, in studies II and III, it speaks to a deeper worth of this approach, one that embraces empirical study within context (Bartholomew & Brown, 2012). Moreover, scholars within the field of refugee mental health are increasingly concerned with the effects of social dimensions on mental health and illness experience, but little work has been done to consider how these dimensions might jointly influence outcomes (Cole, 2009; Gangamma, & Shipman, 2018). The present thesis considered the intersectionality of influences on explanatory models in asylum seekers with regard to particular social dimensions such as gender, religion, age, and education (Weber & Fore, 2007).

By drawing data from different sources, the research perspectives within the present thesis were broadened and deeper insight into the mental health needs of refugees and asylum seekers in Germany was possible. The transcultural clinical approaches presented in this thesis suggest only some of the diversity that transcultural clinical research can offer. However, the attention given to methodological triangulation in refugee mental health and its importance in addressing particular challenges and needs is critically important for research that has a role to play in supporting transformative change in mental health care for this particular group (Gómez, 2014).

LIMITATIONS, METHDOLOGICAL REFLECTIONS, AND OUTLOOK FOR FUTURE RESEARCH

Several limitations and methodological reflections should be taken into account with regard to the collection and analysis of data within the present three studies. Most of the limitations will give rise to suggestions for improving future research.

A first limitation of the present thesis lies in the diverse sample of refugees and asylum seekers. All three studies investigated a diverse group of refugees and asylum seekers with regard to countries of origin, cultural groups, and different religions. While in studies II and III, an effort was made to account for differences with regard to the main countries of origin and several sociodemographic factors, results may still vary greatly within different cultural and demographic sub-populations. Therefore, conclusions about the impact of culture on the present results remain limited.

In all three studies, the investigated groups of refugees, asylum seekers, and Germans without a migration background differed in terms of age, gender, and severity of symptomatology.

Furthermore, asylum seekers in all three studies were predominantly male. Therefore, the results rather present a particularly male perspective. This limitation might be especially important considering the intersectionalities of influence on mental health and traumatic experiences, as depression and PTSD are characterized by gender-specific distinctions, with women being affected more often than men (Petersen et al., 2015; Tekin et al., 2016). For future research, it would be interesting to focus more on gender differences in refugee mental health research and other particularly vulnerable sub-populations, such as elderly or disabled asylum seekers. Future research might therefore study the intersection of gender and other social dimensions that are relevant for the mental health of refugees and asylum seekers, such as sexual orientation, ethnicity, or perceived discrimination.

Readers should be mindful that the data collection and moderation of focus groups (studies II and III) were conducted by a white female member of the majority society. This might have led to a selection bias. Moreover, some participants might have been reticent to share their opinion due to a feeling of social desirability or due to differences in gender, social class, and cultural background.

Studies II and III promote the explanatory models of a general population rather than a clinical population. Future research might like to consider including clinical samples and comparing the responses to those of the general population. As the present thesis was concerned with the mental health needs of refugees and asylum seekers, a particular focus is on the asylum seekers' perspective. However, it would have been interesting to include a sample of immigrants without a refugee background and to incorporate the German participants' perspective within focus group discussions as well. The present thesis leaves this important topic open for future research.

IMPLCATIONS AND CONCLUDING REMARKS

IMPLICATIONS FOR CLINICAL PRACTICE

The results of the present thesis suggest several important implications for the mental health care of refugees and asylum seekers in countries of the global North. In studies II and III, asylum seekers' understanding of PTSD corresponded remarkably well with the Western perspective on PTSD with regard to psychological causation. The results of study II revealed that the current Western understanding of PTSD is as relevant to migrants as to non-migrants in some respects. While awareness of culture-specific causation is important, clinicians need to beware of cultural stereotyping (Schnyder et al., 2016). It is necessary to acknowledge the diversity of belief systems and attitudes within cultures and to attempt to understand each individual context. Cultural sensitivity in psychotherapy therefore means facing each individual's system of beliefs in an empathic and non-judgmental way (Schnyder et al., 2016). However, findings of studies II and III demonstrate differences in explanatory models of Sub-Saharan African asylum seekers with regard to the Western biomedical model. These differences seem particularly important with regard to the role of religion in explanatory models of PTSD and the predominantly religious character of treatment preferences. This appeared to be even more prevalent in more educated asylum seekers and Muslim asylum seekers. Findings of studies II and III underline the need for practitioners to explore cultural and religious frameworks of healing and recovery in order to demonstrate understanding and acceptance of various cultural contexts in which treatments can happen (Sturm et al., 2010). Clinicians working with refugees and asylum seekers can therefore respectfully address patient's cultural and religious needs by assessing a spiritual history and engaging in appropriate consultation with clergy (Koenig, 2008). Moreover, clinicians may also encourage patients to engage in communal networks associated with their religious congregation and mobilize patients' religious resources to promote resilience, recovery, and healing (Whitley, 2012).

Furthermore, study III emphasized the role of the social support group in the management and treatment of PTSD, as asylum seekers emphasized that healing must be understood as embedded within a social context. Seeking treatment was interpreted as a social act that involves the affected person's social environment and needs to be initiated by parents, relatives, or community elders.

Community and family cohesion should therefore be considered as crucial elements of recovery (Schnyder et al., 2016) and should be taken into account when treating immigrant and refugee populations from Sub-Saharan Africa (Baubet & Moro, 2013; Ehntholt & Yule, 2006; Murray, Davidson, & Schweitzer, 2010). These findings suggest that the individual patient approach employed by Western-trained psychotherapists may fall short of what the patient and significant others expect from an intervention. Excluding the social environment of patients may negatively impact their follow-up attendance and suggested psychotherapeutic management (e.g. Okello, 2006).

Finally, clinicians might become more aware of differences in experiences of social identities within the group of refugees and asylum seekers, and therapists might intentionally examine how different identity dimensions such as age, gender, ethnicity, religion, and education may intersect in mental health and illness experience, help-seeking, and explanatory models (e.g. Gangamma, & Shipman, 2018).

IMPLICATIONS FOR TRAINING

The training of clinicians and health care providers working with refugees and asylum seekers should incorporate knowledge about explanatory models and culturally and demographically relevant specifics that enable clinicians to provide culturally sensitive care. Study III emphasized asylum seekers' intentions to seek help from general practitioners. These findings are relevant for general practitioners, who often have the main responsibility of guiding asylum seekers within Western health care systems (Varvin & Aasland, 2009). Given that the investigated asylum seekers explained that culture-specific illness beliefs lead to a reluctance to take medicaments, transcultural training for general practitioners and health care staff might be helpful to ensure a culturally sensitive treatment of refugee populations.

IMPLICATIONS FOR POLICY

The findings of studies II and III are important with regard to the development of community mental health programs in order to meet the mental health needs of refugees and asylum seekers. The preset result show that asylum seekers expressed a lack of knowledge and orientation regarding available mental health care services, and concerns that their problems might not be understood due to cultural distance. Therefore, it may be useful to inform newly arrived asylum seekers about the functioning and locations of different sources of help, or to support them with booking appointments (Bhatia & Wallace, 2007; Mewes & Reich, 2016). Moreover, intersectional analyses revealed that asylum seekers from Eritrea and asylum seekers experiencing stronger post-traumatic symptoms

expressed lower intentions to seek help at all. Therefore, this might constitute a particularly vulnerable group among asylum seekers in Germany.

The assessments of explanatory models in refugees and asylum seekers has not yet been integrated into routine clinical practice, regardless of its importance for the improvement of cultural competency in assessment, diagnostic validity, diagnostic accuracy, and therapeutic relationships (Bhui, Rudell, & Priebe, 2006; Dinos et al., 2017). Elucidating patients' explanatory models about mental illness might improve the detection and accuracy of diagnosis and may minimize cultural distance with health care providers from different cultural backgrounds (Radjack et al., 2012; Ventevogel, Jordans, Reis, & de Jong, 2013). Moreover, routinely elucidating explanatory models of refugees and asylum seekers might encourage Western practitioners to employ culturally sensitive treatment strategies instead of imposing their own Western concepts, which might not agree with the patients' belief systems (Schnyder et al., 2016).

IMPLICATIONS FOR RESEARCH

The present dissertation applied and combined several research methodologies in order to investigate the mental health needs of refugees and asylum seekers in Germany. Therefore, key methodological approaches of transcultural clinical research were systematically selected and emic and etic research perspectives were combined.

The results of study I may have implications for studies comparing the prevalence of mental disorders between asylum seekers and native Western samples. They emphasize that measurement invariance analyses should be carried out for all measurement instruments frequently applied in research and care among refugee populations in order to perform valid health comparisons and increase diagnostic accuracy. Moreover, these results encourage questioning the determination or differentiation of the cut-off scores that were solely derived from Western samples. Future studies must examine whether the used cut-off scores need to be reconsidered for refugee patients with non-Western linguistic backgrounds (e.g. Wind et al., 2017). Moreover, validation studies may be needed to determine culturally sensitive sum scores for asylum seekers. Another question that arises from the present results is whether rating scales and scoring methods of mental health questionnaires based on Western studies are generalizable to other cultural and demographic groups without reservation. The present results indicate that future research might investigate and compare the usage of different scoring methods of commonly used mental health screeners for groups of asylum seekers and refugees in comparison to Western samples or other migrant samples. Moreover, developing quantitative health assessment instruments that include emic approaches and combine qualitative and quantitative methods for depressive disorders specifically in refugee populations may create measures that are more

diagnostically valid in representing the specific experiences of refugees and asylum seekers (Hollifield et al., 2002). In this regard, the combination of emic and etic approaches in studies II and III enabled the collection of generalizable and comparable data within a quantitative research approach to be complemented with in depth and culturally sensitive descriptions of constructs drawn from a qualitative approach (e.g. Bekhet & Zauszniewski, 2012; Karasz & Singelis, 2009). By taking the quantitative strength of psychological inquiry and using qualitative work to contextualize and create culturally informed ways to measure mental health and illness (Bartholomew & Brown, 2012), the employment of methodological triangulation strategies in refugee mental health research is highly recommended.

CONCLUDING REMARKS

By considering thematically multifaceted and methodologically diverse studies, the present dissertation emphasizes that refugees and asylum seekers need special consideration in transcultural clinical research and mental health care. The findings underline that special awareness for the needs of refugees and asylum seekers is important in terms of the culturally sensitive adaptation of assessment instruments and treatment practices. When diagnosing and treating asylum seekers and refugees of diverse cultural backgrounds, practitioners should explore different demographic, religious, and cultural frameworks for healing and recovery. In doing so, they signal understanding and acceptance of varying cultural contexts and the intersectionality of influences on mental health and illness experience. This might, in turn, address disparities in mental health care and tackle ethnocentric treatment practices.

PUBLICATIONS

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"It's That Route That Makes Us Sick": Exploring Lay Beliefs About Causes of Post-traumatic Stress Disorder Among Sub-saharan African Asylum Seekers in Germany

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Many asylum seekers have been confronted with traumatizing events, leading to high prevalence rates of post-traumatic stress disorder (PTSD). Within the diagnostic context, clinicians should take into account patients' culturally shaped presentation of symptoms. Therefore, we sought to provide insights into beliefs about causes of PTSD held by Sub-Saharan African asylum seekers living in Germany. To this aim, we used a quantitative and qualitative methodological triangulation strategy based on a vignette describing symptoms of PTSD. In the first part of the study, asylum seekers ($n = 119$), predominantly from Eritrea ($n = 41$), Somalia ($n = 36$), and Cameroon ($n = 25$), and a German comparison sample without a migration background ($n = 120$) completed the Revised Illness Perception Questionnaire (IPQ-R). In the second part, asylum seekers reviewed the results within eight focus group discussions ($n = 26$), sampled from groups of the three main countries of origin. Descriptive analyses of the first part demonstrated that asylum seekers predominantly attributed PTSD symptoms to psychological and religious causes, and rather disagreed with supernatural causes. In comparison to the German sample without a migration background, asylum seekers attributed symptoms less strongly to terrible experiences, but more strongly to religious and supernatural causes. Within the focus group discussions, six attribution categories of participants' causal beliefs were identified: (a) traumatic life experiences, (b) psychological causes, (c) social causes, (d) post-migration stressors, (e) religious causes, and (f) supernatural causes. Our findings suggest that the current Western understanding of PTSD is as relevant to migrants as to non-migrants in terms of psychological causation, but might differ regarding the religious and supernatural realm. While awareness of culture-specific belief systems of asylum seekers from Sub-Saharan Africa regarding PTSD is important, our findings do underline, at the same time, that cultural differences should not be overstated.

Keywords: asylum seekers, causal beliefs, post-traumatic stress disorder, refugees, Sub-Saharan Africa, trauma

INTRODUCTION

Since 2011, global displacement and migratory movements within the African continent have grown annually (1). Within the last 5 years, the total number of displaced people in Africa doubled to approximately 20 million (1). Multiple crises across the continent remain unresolved and displacement and massive resettlement is highly likely to continue (1, 2). Refugees and asylum seekers from Sub-Saharan Africa arriving in Western countries constitute a particularly vulnerable group, who might have been confronted with an exceptionally high number of traumatizing events, such as torture, sexual violence, war, and armed conflict (3–5). These traumatic experiences often lead to high prevalence rates of post-traumatic stress disorder (PTSD) (6–11).

According to the 10th International Classification of Diseases [ICD-10; (12)] and the 5th Diagnostic and Statistical Manual of Mental Disorders (DSM-5), (13) PTSD is characterized by a constellation of symptoms thought to result from exposure to one or more traumatic events. Typical features include episodes of repeated reliving of the trauma in intrusive memories ("flashbacks"), dreams or nightmares, occurring against the persisting background of a sense of "numbness" and emotional blunting. Furthermore, detachment from other people, unresponsiveness to surroundings, anhedonia, and avoidance of activities and situations reminiscent of the trauma arise. Usually, persons with PTSD also suffer from a state of autonomic hyperarousal with hypervigilance, an enhanced startle reaction, and insomnia (12).

Several theories have been presented to explain the development of PTSD and cognitive models have offered a useful conceptualization. Janoff-Bulman's (14) theory of shattered assumptions assumes a worldview consisting of underlying assumptions about beliefs in the self and the world, as a just, benevolent, and predictable place in which the individual possesses competence and worth (15). According to the theory, these assumptions are undermined, or shattered, by the experience of trauma. As a result, individuals no longer perceive the world as benevolent and predictable or themselves as competent and invulnerable. The subsequent state of defenseless and frightening awareness of personal vulnerability gives rise to the symptoms characterizing PTSD (14, 15). According to Janoff Bulman's (16) traumatic model of shattered assumptions, causal beliefs are involved in reconstructing the shattered assumptions in the aftermath of extreme experiences. Causal beliefs about mental illness involve attribution processes that play a significant role in granting people a sense of prediction and control over their lives (16–18). As they are forming cognitions and guiding behavior, causal beliefs play an essential role in shaping illness experience in different sociocultural groups (19–23). The cross-cultural understanding of illness beliefs is based on Kleinman's (24) research in the fields of anthropology and medicine. Past research has emphasized a seemingly dichotomous view regarding causal beliefs of mental disorders, dividing cultures into belonging to the Global South or the Global North (25). Accordingly, perceptions of mental disorders in cultures of the Global North are predominantly shaped by multi-causal beliefs combining biological, genetic, and psychosocial explanations with environmental factors and stressful life events (26–28). In cultures of the Global South, religious, magical, and supernatural causal beliefs can be encountered as well (22, 29, 30).

Despite their cultural and religious diversity, different cultures of Sub-Saharan Africa show remarkable similarities regarding their causal attributions of mental distress. The literature has described misuse of psychoactive substances and biomedical and psychosocial explanations as causes of mental disorders, (18, 31, 32) but has particularly emphasized the role of religion and supernatural phenomena (31, 32). Quantitative research in samples from West Africa, (27) Cameroon, (33) and Nigeria (26) found that compared to Western samples, African respondents were more likely to attribute mental disorders to supernatural causes. In Sub-Saharan African cultures, a general belief in external causation by supernatural phenomena such as sorcery, spiritual possession, and being cursed or bewitched seemed to be highly relevant in explaining mental suffering (18, 25, 34). With regard to refugees and asylum seekers from Sub-Saharan African backgrounds in Western resettlement countries, traditional causal beliefs about mental illness may vary due to immigration and acculturation processes (35, 36). Additionally, post-migration stressors, social isolation, and living in exile may emerge as new causes of mental distress (35, 37–39).

While past research on causal beliefs in Africans focused mainly on symptoms of schizophrenia, depression, or mental disorders in general, (26, 27, 34) little is yet known about causal beliefs regarding PTSD.

As Western health care professionals are increasingly confronted with patients from diverse cultural backgrounds, clinicians need to consider patients' culturally shaped belief systems. It cannot be supposed that patients share the Western cultural concepts and values (40). Therefore, elucidating causal beliefs about mental disorders might improve the diagnosis of patients from different cultural backgrounds and minimize cultural distance. Such insights should in turn encourage Western practitioners to employ culturally sensitive treatment strategies instead of imposing Western concepts, which might not be suitable for the patients' belief systems (31, 41).

Moreover, causal beliefs influence treatment-seeking and health care utilization (35, 38). Disparities in mental health care for asylum seekers and refugees have been observed (38, 42), and have been attributed to a large extent to clinicians' deficits in knowledge and lack of cultural competence (35, 43, 44). Enhancing knowledge of causal beliefs might therefore be one step toward better mental health care provision for refugees and asylum seekers.

Against this background, the present paper aims to examine lay causal beliefs of asylum seekers from Sub-Saharan Africa in Germany regarding the symptoms of PTSD, and whether supernatural and religious causations play a relevant role in explaining PTSD in this group. Furthermore, our study focuses on the comparison of causal beliefs of PTSD held by Sub-Saharan African asylum seekers and those held by a German population without a migration background. We argue that an analysis based on the examination of similarities and differences can be one

step forward to tackle an ethnocentric practice in mental health care (45).

We examine the following hypotheses: There is a difference between Sub-Saharan African asylum seekers and participants without a migration background concerning causal beliefs of PTSD symptoms. While asylum seekers attribute PTSD more strongly to religious and supernatural causes, participants without a migration background indicate a stronger belief in psychological causes. To account for possible influences of countries of origin on causal beliefs, group differences between asylum seekers from main countries of origin were explored.

The study aims were addressed using a qualitative and quantitative methodological triangulation strategy. Quantitative designs in cross-cultural research may face the problem of transferability of theoretical constructs, as Western theories and concepts might be ill-suited to explain the understanding and reasoning of individuals from non-Western cultural backgrounds (46). Therefore, the exclusive use of quantitative methods to generate meaningful data is problematic. Qualitative designs, however, are suitable for generating in-depth and detailed descriptions of constructs, and address subjective meanings, but they often remain "stuck" at the descriptive level (46). We therefore argue that a combination of these two research methods is appropriate to address our research aims, because it enables us to decrease the weaknesses of one individual method and strengthen the outcome of the study (47). In this respect, the findings from each method are complemented by the other (47) and a culturally sensitive interpretation of the results is ensured.

METHODS

Procedure

The study consisted of two parts: (a) a questionnaire survey in which participants responded to the Revised Illness Perception Questionnaire (IPQ-R) causal scale (48) and (b) focus group discussions in which respondents reviewed the results of the questionnaire survey. Ethical approval was obtained from the local review board for each part of the study and all participants provided informed consent prior to participation.

Inclusion criteria for study participation of asylum seekers were refugee or flight experience, an origin in a Sub-Saharan African country, and age over 18 years. Participants in the group without a migration background had to have been born in Germany and have no be without any migration background. Individuals who had studied medical and psychological subjects and those who had worked in a health profession were excluded.

In the first part of the study, a convenience sample of $n = 120$ German participants without a migration background, as well as $n = 119$ asylum seekers from seven Sub-Saharan African countries, mainly Eritrea ($n = 41$), Somalia ($n = 36$), and Cameroon ($n = 25$), took part in a questionnaire survey. The group of asylum seekers was approached by applying a combination of convenience and snowball sampling. They were recruited in their accommodation facilities, through collaboration with civic refugee initiatives, from language courses for adult immigrants, and by networking at religious and cultural gatherings. Data were collected between April and December 2016 throughout different cities in Germany using paper-and-pencil and online assessments (survey software UNIPARK & QuestBack©). The questionnaire survey was made available in German, English, French, Tigrinya, and Arabic.

In the second part of the study, 26 participants reviewed the findings of the questionnaire survey in focus group discussions. Given that the first sample consisted mainly of individuals from Eritrea, Somalia, and Cameroon, members of the focus group discussions were sampled according to these three countries of origin. Eight focus groups were conducted with participants from Eritrea ($n = 10$; three focus groups), Somalia ($n = 8$; three focus groups), and Cameroon ($n = 8$; two focus groups). The discussions took part in prepared interview rooms throughout different cities in Germany. The average duration of the focus group discussions was 1 h 30 min. The first author, a trained clinical psychologist, conducted the focus group discussions in English and French. For two focus groups with participants from Eritrea, she was supported by bilingual Tigrinya-German interpreters, who received detailed instructions beforehand. During the focus groups, the moderator invited participants to share their opinions actively and assured that each participant had an equal chance of expressing his/her views. The discussions were audio-taped and supplemented by hand-written notes.

Measures and Materials

Participants of both groups were asked to provide demographic information in each part of the study (see data in **Table 1**).

In the questionnaire survey, participants were presented with a standardized unlabeled vignette that was integrated in the questionnaire. During focus group discussions in the second part of the study, the same vignette was read aloud and additionally disseminated in printed form. The vignette illustrated a hypothetical friend describing symptoms of PTSD according to the criteria outlined in the ICD-10 (12, 49). Following criterion A of ICD-10 (12), a stressful event of exceptionally threatening nature was presented as triggering event for symptoms. It was adapted for asylum seekers and participants without a migration background in order to improve the fit to their living situations and the possibility of experiencing such a traumatic event. Whereas "flight" was a typical traumatic event experienced by asylum seekers, physical violence was among the most commonly experienced traumatic events in the German general population (50). Therefore, we used flight as event in the vignette for asylum seekers and operationalized physical violence with the event "robbery" in the vignette for Germans without a migration background. In accordance with typical symptoms of PTSD described in criteria B to D in ICD-10, the vignette included the occurrence of insomnia, flashbacks, and nightmares, as well as a state of hypervigilance, senses of numbness and detachment from other people, anhedonia, and unresponsiveness to surroundings (12).

The vignette read as follows:

"Since the [flight/armed robbery] I became a totally different person. In the evenings I lie in bed and then come these thoughts and images and I lie awake forever. Now I have reached a point

TABLE 1 | Study sample and characteristics.

Variable	Asylum seekers $n = 119$		Participants without migration background $n = 120$				Sample of the qualitative part $n = 26$		
	M (SD)	range	M (SD)	range	t	p	Eritrea ($n = 10$)	Somalia ($n = 8$)	Cameroon ($n = 8$)
Age (years)	27.97 (7.8)	18–54	37.24 (16.5)	18–79	−5.56	<0.001	31.9	25.6	23.4
Education (years)	9.7 (3.6)	2–18	12.2 (1.7)	6–16	−6.64	<0.001	10.8	5.6	9.5
					χ^2	p			
Males	70.7%		35.0 %		30.1	<0.001	80%	87.5%	100%
Education					36.51	<0.001			
university degree	13.4 %		33.3 %						
higher–education entrance–level qualification	18.5 %		30 %						
secondary school certificate	39.5 %		31.7 %						
primary school education	21.0 %		1.7%						
no school-leaving qualification	5.0 %		1.7 %						
Religion					63.7	<0.001			
Christianity	56.3 %		65.8 %						
Islam	33.6 %		0.8 %						
Judaism	1.7 %		0.8 %						
No Religion	4.2 %		31.7 %						
Other	0.8 %		0.8 %						
					t	p			
Importance of faith	2.90 (0.50)	0–3	1.52 (1.32)	0–3	10.65	<0.001			
Assistance from faith	3.67 (0.94)	0–4	1.84 (1.60)	0–4	10.74	<0.001			
Country of birth									
Eritrea	$n = 41$ (34.5 %)								
Somalia	$n = 36$ (30.3 %)								
Ethiopia	$n = 7$ (5.9 %)								
Sudan	$n = 2$ (1.7 %)								
Cameroon	$n = 25$ (21.0 %)								
Nigeria	$n = 4$ (3.4 %)								
Togo	$n = 4$ (3.4 %)								
Posttraumatic symptom severity score	15.25 (10.42)	0–41	7.09 (9.76)	0–36	5.88	<0.001			
					χ^2	p			
Number of experienced traumatic events	5.02 (4.91)	0–19	1.33 (2.03)	0–11	62.34	<0.001			
Prevalence of at least one traumatic event	73.9 %		54.2%						

where I notice I can't go like this anymore… Sometimes I scream at night and I wake up drenched in sweat because of the nightmares. If I have arrived somewhere and there is a noise, I wince. There it is again. I can't turn it off, it's like an electric shock that immediately goes straight up and triggers intense sweating. My wife/My husband accuses me of often being aggressive, easily irritable and she/he is afraid of my outbursts of rage. That's why I prefer to withdraw myself because I always have a feeling that no one can be trusted anymore. Many things just don't interest me anymore. Sometimes my environment appears distant and unreal and I have a feeling of "standing next to myself", then I become totally numb. Afterwards I sometimes can't remember what has happened. I have no hope left anymore…"

Participants were required to picture the scene and to indicate their personal assumptions concerning the described condition.

Participants then responded to the Revised Illness Perception Questionnaire (IPQ-R) regarding the person described in the vignette (see below) (48).

In the focus groups, discussions were structured using an adapted version of the Short Explanatory Model Interview (SEMI; see below) (51).

The Revised Illness Perception Questionnaire IPQ-R

The Revised Illness Perception Questionnaire (IPQ-R) is a quantitative measure of illness perceptions (48). It has demonstrated good reliability and validity across diverse illnesses and cultures (48, 52). In the present study, we were interested in beliefs about causes of PTSD. Therefore, we used the IPQ-R subscale asking about causes (18 items) (48). Following the recommendations of Moss-Morris et al. (48), the subscale was culturally contextualized and modified to account for the characteristics of the present study. We added the item "terrible experiences" as a probable cause of PTSD, and culturally sensitive items ("God's will," "Curse from others," and "Evil Spirits") in order to account for possible causal beliefs found in other studies in African samples (25, 37). The standard instruction was modified to "What are your personal assumptions and suppositions concerning the above-described discomfort of your friend?." Participants were asked to rate their agreement with each item on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

Already translated and validated versions of the English-language IPQ-R were available in German, (53) French, (54) and Arabic (55). Translation into Tigrinya was conducted using the forward and backward translation method (56).

Post-traumatic Stress Diagnostic Scale PDS

Experienced traumatic events and post-traumatic symptoms were assessed using a modified version of the Post-Traumatic Stress Diagnostic Scale PDS (57). First, experienced traumatic events (23 items) were assessed using the list of the PDS extended by traumatic events from the Harvard trauma questionnaire (58) frequently experienced by asylum seekers. Afterwards, respondents rated 17 items representing the cardinal symptoms of PTSD experienced in the past 30 days on a four-point scale. These ratings summed up to a symptoms severity score ranging from 0 to 51. The cut offs are 1–10 mild, 11–20 moderate, 21–35 moderate to severe and 36 severe symptomatology (59).

Short Explanatory Model Interview SEMI

Focus group discussions were moderated using key questions from the SEMI (51). The SEMI is a short interview to elicit explanatory models, exploring respondents' cultural background, nature of the presented problem, help-seeking behavior, interaction with a health care provider, and beliefs related to mental illness (51). In the present study, we were interested in causal beliefs about PTSD; therefore, only participants' responses concerning causal beliefs are analyzed in the following. The English-language SEMI (51) was translated into French and German using the method described above (56).

ANALYSES

Statistical Analyses

Descriptive statistics, measures of distribution of participants' demographic characteristics, and frequency distributions of indications across the IPQ-R subscale asking about causes, were analyzed using IBM SPSS Statistics version 17.0.

To display disagreement and agreement with each of the causal IPQ-R items, values 1 ("strongly disagree") and 2 ("disagree") were combined, and values 4 ("agree") and 5 ("strongly disagree") were combined. Group differences in sociodemographic variables, traumatic events, and posttraumatic symptoms were investigated using chi-square-tests and t-tests (see **Table 1**). Statistical significance was set at $p < 0.05$ (two-tailed). Initial correlation analyses and t-tests revealed significant associations between religion, educational level, traumatic experiences, and symptom load on the one hand and causal attribution on the other hand in both groups. In addition to age and gender, these variables were included as covariates in the following analyses. Group differences were investigated by conducting a one-way between-groups multivariate analysis of covariance (MANCOVA). Dependent variables were items of the IPQ-R causal scale, independent variable was group—asylum seeker or no migration background. Additional analyses were conducted to check for differences between the three main countries of origin of asylum seekers: Eritrea, Somalia, and Cameroon.

Prior assumption testing was carried out to check for normality, homogeneity of variance-covariance matrices, and multicollinearity. A correlation matrix was generated to verify the absence of multicollinearity. Shapiro-Wilk tests revealed significant deviation from normal distribution in some items. However, analyses of variance were nevertheless carried out, as they have proven to be robust against deviations from the assumption of normally distributed dependent variables (60–62). Effect sizes are given as partial eta-squared as proposed by Cohen, (63) where 0.01–0.06 = small effect; 0.06–0.14 = medium effect and >0.14 = large effect.

Interpretative Phenomenological Analysis (IPA)

Focus group discussions were recorded, transcribed, and analyzed using Interpretative Phenomenological Analysis (IPA) (64). The software MAXQDA© version 12 was used to organize and manage data analysis.

Following the four-stage process described by Smith and Osborn, (64) the first author began with a close interpretative reading of the first transcript. Initial notes and responses to the material were registered and translated into emerging themes at one higher level of abstraction. Connections between the themes were made, which were collected in a table of superordinate themes for the first transcript (64). This procedure was repeated for each of the remaining seven transcripts. After analyses had been conducted for each of the eight transcripts, cross-case patterns were determined and recorded in a master table of themes. The identified themes were reviewed with the other researchers to ensure that the themes were well-derived from the

transcripts. Moreover, the results were revised with the help of experts of the respective cultures to ensure that conclusions were culturally sensitive (64, 65).

RESULTS

Sample

The sample of the questionnaire survey comprised $n = 120$ German participants without a migration background, as well as $n = 119$ asylum seekers from seven Sub-Saharan African countries (see **Table 1**). 71 % were male and their mean age was 28 years, which is largely in line with German asylum statistics (66). Their mean duration of residence in Germany was approximately 2 years. Participants without a migration background consisted of 35 % male participants and had a mean age of 37 years. Over half of the investigated asylum seekers were Christians and one third Muslims, while two thirds of the Germans without a migration background were Christians and almost one third stated that they were not religious. Asylum seekers indicated stronger faith and higher perceived assistance from their faith than Germans without a migration background. They had a lower education level than participants without a migration background.

The sample of the second part of the study consisted of $n = 26$ predominantly male participants (see **Table 1**). Their mean age was 27 years, their mean years of formal education lay at 8.5 years, and their mean duration of residence in Germany was around 1 year. Participants from Eritrea and Cameroon were all Christians, whereas participants from Somalia were all Muslims.

Causal Beliefs About PTSD—Results of the Questionnaire Survey

Around 74% of asylum seekers and 54% of persons without a migration background had experienced at least one traumatic event (see **Table 1**). Asylum seekers had experienced significantly higher numbers of different traumatic events and reported significantly stronger PTSD symptoms (moderate severity) than participants without a migration background (mild severity).

The descriptive findings of the questionnaire survey showed that asylum seekers predominantly endorsed psychological causes of PTSD symptoms, such as negative thinking, stress, and the emotional state (see **Table 2**). Additionally, around half of them attributed PTSD symptoms to mental attitudes, family problems, terrible experiences, drug abuse, and fate. With regard to religious causes, the results demonstrated that around half of the asylum seekers attributed PTSD symptoms to God's will. In contrast, over half of them disagreed that supernatural phenomena such as curses or evil spirits could have caused the described symptoms. Furthermore, over half of the asylum seekers disagreed that organic causes, external influences, or bad luck could have caused PTSD symptoms.

Regarding the differences between the group of asylum seekers and the participants without a migration background, statistical analyses revealed significant differences for 9 out of the 18 items (see **Table 3**). Asylum seekers attributed symptoms more strongly to God's will, curses from others, and evil spirits, with the differences equating to large effect sizes. The attribution on God's will was stronger when the educational qualifications were higher. Muslim asylum seekers expressed a stronger belief in God's will, fate, the mental attitude, family problems, and heredity than Christian participants. Further analyses suggested that asylum seekers from Cameroon showed less belief in chance or bad luck, fate, or God's will, and persons from Eritrea showed lower beliefs in terrible experiences and occupational stress as possible causes for posttraumatic symptoms than persons from the two other groups, respectively.

TABLE 2 | Causal beliefs about post-traumatic stress disorder in the group of asylum seekers.

	Strongly disagree or disagree n (%)	Neither agree nor disagree n (%)	Strongly agree or agree n (%)
IPQ-R CAUSE*			
Organic cause	67 (59.3 %)	16 (13.4%)	30 (26.5 %)
Stress or rush	25 (21.7 %)	15 (13.0%)	75 (65.2%)
Too many negative thoughts	26 (22.8 %)	7 (6.1 %)	81 (71.0%)
Hereditary	76 (66.1%)	15 (13.05)	24 (20.9%)
Emotional state	35 (30.7%)	8 (7.0 %)	71 (62.3%)
Chance or bad luck	62 (56.0%)	11 (9.5%)	40 (34.5%)
External influences	71 (62.3%)	23 (20.2%)	20 (17.5%)
Family problems	39 (34.2%)	14 (12.3%)	61 (53.5%)
Fate	45 (39.1%)	12 (10.4%)	58 (50.4%)
Mental attitude	40 (35.4%)	12 (10.6%)	61 (54.1%)
Drugs, alcohol or smoking	39 (33.9%)	14 (12.2%)	62 (53.9%)
Overwork, occupational stress	57 (49.2%)	19 (16.5%)	39 (34.0%)
God's will	44 (38.3%)	12 (10.4%)	59 (51.3%)
Curse from others	73 (62.9%)	15 (12.9%)	28 (24.1%)
Evil spirits	63 (54.3%)	18 (15.5%)	35 (30.2%)
Own behavior	49 (43.0%)	13 (11.4%)	52 (45.6%)
The personality	51 (45.1%)	15 (13.3%)	47 (41.6%)
Terrible experiences	37 (32.5%)	9 (7.9%)	68 (59.6%)

IPQ-R, Revised Illness Perception Questionnaire.

Participants without a migration background attributed symptoms more strongly to psycho-social causes, such as the mental attitude, one's own personality and behavior, family problems, and occupational stress (medium effect sizes). Furthermore, participants without a migration background attributed symptoms more strongly to terrible experiences (large effect size). Female participants without a migration background attributed symptoms more strongly to God's will and evil spirits when their educational qualifications were higher.

Causal Beliefs About PTSD—Themes Emerging in the Focus Group Discussions

Participants of all focus group discussions identified the described PTSD symptoms either in themselves or in somebody they knew. Regarding causal beliefs about PTSD, the majority of

TABLE 3 | Inter- and Intragroup differences in causal beliefs about post-traumatic stress disorder.

	No migration background	Asylum seekers	Intergroup differences			Intragroup differences			
	M (SD)	M (SD)	F	p	Partial η^2	M (SD)		F	p
IPQ-R CAUSE*									
Organic or physical cause	2.48 (1.03)	2.38 (1.34)	2.37	0.976	0.009	Eritrea	2.24 (1.27)	0.61	0.770
						Somalia	2.53 (1.29)		
						Cameroon	2.44 (1.46)		
Stress or rush	3.39 (1.06)	3.45 (1.23)	1.07	0.387	0.039	Eritrea	3.48 (0.96)	0.74	0.656
						Somalia	3.38 (1.18)		
						Cameroon	3.83 (1.15)		
Too many negative thoughts and worries[e]	3.91 (1.00)	3.63 (1.31)	1.51	0.167	0.054	Eritrea	3.28 (1.10)	0.75	0.646
						Somalia	3.75 (1.30)		
						Cameroon	3.89 (1.18)		
Heredity[a]	2.69 (1.01)	2.29 (1.27)	1.56	0.149	0.055	Eritrea	1.72 (0.84)	1.99	0.062
						Somalia	2.81 (1.23)		
						Cameroon	2.50 (1.47)		
Emotional state	3.92 (0.94)	3.43 (1.37)	2.00	0.057	0.070	Eritrea	2.88 (1.27)	1.13	0.353
						Somalia	3.63 (1.13)		
						Cameroon	3.67 (1.46)		
Chance or bad luck	2.69 (1.12)	2.67 (1.38)	1.49	0.173	0.053	Eritrea	3.12 (1.17)	2.753	0.011
						Somalia	2.72 (1.49)		
						Cameroon	1.61 (0.85)		
External influences	2.69 (1.05)	2.34 (1.31)	1.084	0.375	0.039	Eritrea	2.12 (0.97)	1.423	0.203
						Somalia	2.56 (1.59)		
						Cameroon	1.83 (0.99)		
Family problems[a]	3.74 (0.80)	3.16 (1.37)	3.43	0.002	0.115	Eritrea	2.68 (1.35)	1.09	0.383
						Somalia	3.47 (1.22)		
						Cameroon	3.67 (1.03)		
Fate[a,d]	2.79 (1.17)	3.09 (1.54)	1.18	0.086	0.064	Eritrea	3.08 (1.29)	3.78	0.001
						Somalia	3.78 (1.29)		
						Cameroon	1.89 (1.23)		
Mental Attitude[a,e]	3.75 (0.92)	3.18 (1.48)	2.16	0.040	0.075	Eritrea	2.64 (1.38)	1.58	0.147
						Somalia	3.81 (1.28)		
						Cameroon	3.39 (1.42)		
Drugs, alcohol or smoking	3.34 (1.12)	3.20 (1.41)	0.53	0.811	0.020	Eritrea	2.44 (1.16)	1.90	0.074
						Somalia	3.19 (1.42)		
						Cameroon	3.78 (1.17)		
Overwork, occupational stress[b]	3.65 (0.91)	2.72 (1.23)	7.96	<0.001	0.231	Eritrea	2.12 (0.78)	2.62	0.015
						Somalia	2.97 (1.26)		
						Cameroon	3,00 (1.32)		
God's will[a,c,d,e]	1.46 (0.76)	3.03 (1.74)	16.62	<0.001	0.386	Eritrea	3,44 (1.45)	6.953	<0.001
						Somalia	4.13 (1.31)		
						Cameroon	1,44 (0.78)		
Curse from others[e]	1.31 (0.56)	2.16 (1.19)	7.97	<0.001	0.232	Eritrea	2.08 (0.95)	0.81	0.596
						Somalia	2.25 (1.19)		
						Cameroon	1.89 (1.37)		
Evil spirits[c,e]	1.28 (0.52)	2.53 (1.41)	13.62	<0.001	0.340	Eritrea	2.48 (1.19)	1.509	0.171
						Somalia	2.38 (1.34)		
						Cameroon	2.61 (1.79)		
Own behavior	3.33 (0.96)	2.93 (1.36)	2.47	0.019	0.085	Eritrea	2.80 (1.19)	0.557	0.809
						Somalia	3.13 (1.34)		
						Cameroon	3.22 (1.31)		

(Continued)

TABLE 3 | Continued

	No migration background	Asylum seekers	Intergroup differences			Intragroup differences			
	M (SD)	M (SD)	F	p	Partial η^2	M (SD)		F	p
Personality[b]	3.58 (0.85)	2.84 (1.24)	4.15	<0.001	0.136	Eritrea	2.68 (1.28)	1.097	0.377
						Somalia	3.06 (1.27)		
						Cameroon	3.00 (1.19)		
Terrible experiences	4.44 (0.58)	3.40 (1.43)	7.30	<0.001	0.216	Eritrea	2.80 (1.26)	2.608	0.015
						Somalia	3.72 (1.20)		
						Cameroon	4.22 (1.26)		

*IPQ-R=Revised Illness Perception Questionnaire.
[a] significant influence of religion in the group of asylum seekers.
[b] significant influence of gender in the group of asylum seekers.
[c] significant influence of gender in the group of Germans without a migration background.
[d] significant influence of education in the group of asylum seekers.
[e] significant influence of education in the group of Germans without a migration background.

participants did not indicate a single firm assumption. Various causal beliefs were stated, which also formed part of participants' etiological belief systems. These causal beliefs can be grouped into six superordinate themes: (a) traumatic life experiences, (b) psychological causes, (c) social causes, (d) post-migration stressors, (e) religious causes, and (f) supernatural causes.

Traumatic Life Experiences

Respondents' own life experiences before and during their migratory trajectories were the most prevalent causes attributed to the vignette ($n = 22$).

> "In your own home country you are in prison. I was in military service for 18 years. (…) Then came the time of war and riots where I suffered my first shock, the ruthlessness of war." (Man, 35 years, Eritrea).

Participants described their flight as a time of extreme adversity and the trajectories as grueling and unmerciful; a matter of life and death. Across all focus groups, participants reported episodes in which they were threatened with weapons, persecuted, or abducted. They especially emphasized the violence against women and described systematic separation, widespread rape, and sexual violence against women ($n = 10$). Participants identified three major stages that they considered to be particularly frightening during their flight: the crossing of the Sahara; their stay in Libya or Morocco; and the crossing of the Mediterranean Sea. The following quotes exemplify participants' experiences:

> "I saw some women that experienced violence. I was beaten. Some others were probably raped." (Woman, 34 years, Eritrea)

> "And what has happened to me in Libya. These fears, when people with knives were coming behind us." (Man, 31 years, Eritrea)

> "My boat capsized two times. People died. I saw somebody with whom I was talking, dying." (Man, 23 years, Cameroon)

> "These experiences force you to become unscrupulous and you will lose your belief in humanity. I saw what the Bedouins did to them. They took organs from people who were fully conscious." (Woman, 35 years, Eritrea)

Psychological Causes

Participants across the focus groups indicated mental or psychological causes of the described condition. Some participants identified the condition as trauma ($n = 3$) or depression ($n = 6$). Participants from Cameroon and Somalia described the person in the vignette as crazy or mad; while participants from Cameroon used the French expression *Folie*, participants from Somalia used the expression *Wali* (being mad).

Stress ($n = 26$) was emphasized as one major cause of the described symptoms. While asylum seekers from Cameroon used the French word *Stress*, participants from Somalia used the expression *Isku buukh* (stress):

> "*Isku buukh*. Makes you sick. Stress makes you a mental problem. Like this problem. Can make you totally mad." (Man, 24 years, Somalia)

Participants from Eritrea agreed on the concept of *Chinket* (stress), which is used synonymously to describe stress or depression. They identified *Zekta* (feeling of pressure) as a cause of *Chinket* (stress):

> "*Zekta*, this feeling of suppression, causes *Chinket*." (Woman, 35 years, Eritrea)

Participants ($n = 8$) across focus groups described *thinking too much* as one cause of the symptoms. Participants from Somalia used the expression *Murug* (thinking too much).

Social Causes

Participants strongly perceived themselves to be members of social and cultural frameworks and referred to their social positions within the collective. These social systems included their families, their village communities, and their tribes or clans. In their new society of resettlement, they felt ripped out of their social communities and excluded. Participants greatly missed

their families who had remained at home or had resettled in other countries. They expressed their feelings of loneliness and distance. Participants of all focus groups identified these feelings of isolation as one cause of PTSD:

> "And I see this as a cause for this stress, the missing community and the life in a completely new environment." (Man, 35 years, Eritrea).

Furthermore, participants ($n = 8$) perceived a high degree of incongruity between their responsibility to provide for their families at home, their moral values, and the complex challenges they are facing in their society of resettlement. Therefore, they attributed the symptoms to their inability to adhere to their intergenerational obligations:

> "It's a little bit like a debt. Your parents lend to you today, you will return later. (…) Because you have left a family in Africa and you know the conditions of life. (…) You are not calm. You don't have the power to help them." (Man, 28 years, Cameroon)

> "I don't have money. Where can I get money? My mother calls me. (…) Can you send us money? (…) How do you feel when your mother tells you she doesn't have anything to eat?" (Man, 30 years, Somalia)

Post-migration Stressors

Participants across the groups emphasized their new life circumstances in Europe as one major cause of the PTSD symptoms. Confronted with the reality of life in Europe, they felt disappointed and disillusioned. Moreover, they described their state of impotence and paralysis due to their strong concerns about a potential rejection of their application for asylum. Without language competences and work opportunities, they felt helpless, dependent, and other-directed. They were particularly preoccupied by financial problems ($n = 10$):

> "With the asylum procedure, you see, he can't eat. They send maybe a letter, where they say, ok Sir; you have to leave the country. (…) He is scared that he might sleep and the police will take him. So he sleeps in the woods. (…) This is why we find people who manifest this kind of behavior." (Man, 28 years, Cameroon)

> "I know most of us in Africa consider Germany as a heaven. But it's also a hell for us." (Man, 30 years, Somalia)

Religious Causes

Participants felt strongly embedded in their religious convictions and communities. The importance of religion for mental health and illness was frequently stressed during the discussions. Participants strongly highlighted religious causes of PTSD symptoms ($n = 26$), including lack of faith and adherence to religious commandments as well as sinful behavior. In this vein, participants from Eritrea ($n = 3$) reported the concept of *Mijgab* (lack of faith and religious gratitude) as a cause. Participants across all focus groups discussed the attribution of the described symptoms to God's will or *Sheitan* (the devil):

> "Yes clearly. For me, this stress is related to religion (…) and to the devil. *Sheitan*." (Man, 35 years, Eritrea)

> "Furthermore, I believe very strongly that it's somehow God's will (…)." (Man, 31 years, Eritrea)

Supernatural Causes

Participants across the focus groups described supernatural phenomena as causes of PTSD symptoms. While there were differences in belief systems among participants of the different countries of origin, remarkable similarities in concepts within the supernatural realm were observed. Witchcraft, being cursed, and possession by evil spirits were reported as causes of PTSD symptoms. However, these were subject to controversial debate in the religious context and often perceived as interrelated with the devil and as opposed to a life within religious precepts.

Spirit possession

Respondents from all three countries of origin described the possession by evil spirits as possible causes of PTSD symptoms. These included a failure to honor ancestral spirits, spirits within an Islamic context, or bad spirits from nature.

Several participants from Cameroon ($n = 4$) believed the person described in the vignette to be under spiritual attack, and the interrelation of evil spirits (*des mauvais esprits*) and witchcraft (*la sorcellerie*) was discussed:

> "It's an evil spirit that is disturbing him." (Man, 23 years, Cameroon)

> "All of this is dark, because witchcraft and evil spirits, these two are the same. So, when you are talking of witchcraft, you are disturbed by people. (…) Maybe they will attack you spiritually." (Man, 20 years, Cameroon)

Some participants from Somalia ($n = 5$) attributed PTSD symptoms to a possession by *Djinn* or *Gini* (spirits). They explained that *Gini* could be either good or bad and referred to the Koran. They were believed to inhabit an invisible parallel world, from where they are able to observe the human world:

> "*Sheitan* is *Gini*. (…) A beautiful girl like this becomes sick. That is *Gini*." (Man, 26 years, Somalia)

> "There are verses in the Koran whereby you can read, someone who has *Djinn*, the person will weep, the person will cry (…). Sometimes *Djinn* lives in different parts of the body. They can live in the pinky finger. They can live in the head. They can live everywhere." (Man, 30 years, Somalia)

According to some participants from Eritrea ($n = 3$), different types of evil spirits were perceived to be the cause of illness and suffering within the concept of *Idnaisep* (the hand of another):

> "*Idnaisep*, he is possessed by the illness of somebody else. Something like an evil spirit entered him." (Man, 25 years, Eritrea)

Referring to their migratory trajectories, some participants from Eritrea ($n = 4$) attributed PTSD symptoms to *Megagna* (type of evil spirit in the desert and the Mediterranean Sea), who causes *Likift* (the corresponding illness):

> "This is one of the bad spirits, we call it *Megagna*. (…) If he gets you, this bad spirit and you will get this illness. (…) We all crossed the middle sea. In the sea sometimes, (…) we don't know how long a day we traveled. So sometimes we get this *Megagna* and a lot of people they throw themselves in the sea." (Man, 29 years, Eritrea)

Curses and bedevilment

Curses and bedevilment were discussed as other possible causes of the described PTSD symptoms. The belief in curses was often strongly associated with the belief in evil spirits, and the constructs tended to be merged into one another rather than being clearly separable. Cursing was described as a practice originating from other individuals or through the mediation of traditional healers and sorcerers. Across all focus groups, participants reported that cursing was often performed within a family conflict or motivated by jealousy toward successful family members:

> "Problems between the brothers, problems between the parents and their children, and then you see somebody who has these personal problems. (…) He gets sick. At home you would maybe say, it's his brother with whom he has these problems. He is practicing witchcraft or evil spirits on him." (Man, 25 years, Cameroon)

Some participants from Eritrea ($n = 4$) attributed symptoms to a curse referred to as *Buda* (evil eye). Unrequited love, being unfaithful within marriage, and jealousy were discussed as motives for such an attack. The transmission of *Buda* occurs through the eyes:

> "There are a lot of *Budas*. (…) When it attacks somebody that spirit for example. That spirit attacked me. I start crying and shouting." (Man, 35 years, Eritrea)

Participants across the focus groups described that the practice of cursing was often associated with disobedience, their incapacity to support their families remaining at home, and the disregard of the requests of their social origin group. Within this form of cursing, transmission was believed to happen from one person to another through the mind or the heart:

> "And they will ask you to come back to your village and you refuse. All these curses (*Malédictions*) will follow me because I disobeyed." (Man, 26 years, Cameroon)

Participants from Somalia applied the term *Habaar* (curse), referring to a form of cursing that can be applied after the refusal of support. This form of curse was explained to originate from disrespectfully treated or ignored individuals, with the desire to cause misfortune:

> "Because now you came from a family that in terms of status (…) is low class. But when they see that we live in Germany. (…) My son doesn't send me anything. The parents send some sort of *Habaar* to you. (…) is a term that is used when you ignore things or you ignore people. Then, systematically it comes from the heart of this people. You know they say that, may God not bless your health. Then you become this." (Man, 30 years, Somalia)

DISCUSSION

The present study aimed to provide insights into beliefs about causes of PTSD held by Sub-Saharan African asylum seekers residing in Germany. Their causal beliefs were compared to those held by a German population without a migration background, and the role of supernatural and religious causation in explaining PTSD symptoms was examined.

In the quantitative part of the study, descriptive analyses demonstrated that Sub-Saharan African asylum seekers attributed PTSD symptoms mainly to psychological causes. Furthermore, they attributed symptoms to religious causes, family problems, terrible experiences, drug abuse, and fate. The majority of the participants rather disagreed with the concept of supernatural phenomena, such as curses and evils spirits, as causes of PTSD symptoms.

Regarding the sample comparisons, analyses revealed consistent differences between Sub-Saharan African asylum seekers and participants without a migration background. Asylum seekers attributed symptoms more strongly to religious and supernatural causes compared to participants without a migration background. However, analyses within the group of asylum seekers indicated that participants from Cameroon rarely attributed symptoms of PTSD to God's will. In this regard, their belief was more similar to German participants than to other participants from Sub-Saharan Africa. Nevertheless, our results are largely in line with previous quantitative research, which reported corresponding differences between Western samples and samples from West Africa, (27) Cameroon, (33) and Nigeria, (26) with African respondents more often favoring supernatural causes of mental disorders.

With regard to the qualitative part of the study, we identified six superordinate themes which we consider to be crucial in understanding causal beliefs about PTSD among Sub-Saharan African asylum seekers. Participants of the focus group discussions predominantly indicated their own traumatic life experiences, psychological and social causes, as well as post-migration stressors, as causes of PTSD symptoms. They also discussed religious and supernatural causes, although these were controversially debated.

The findings of the two parts of the study are consistent in demonstrating that Sub-Saharan African asylum seekers attribute the symptoms of PTSD to internal psychological factors, such as experiencing stress, being in a negative emotional state, and thinking too much, rather than to internal physical mechanisms related to organic or genetic factors. As expected, our findings underline the importance of traumatic experiences before and during migratory pathways in explaining PTSD symptoms among asylum seekers. Accordingly, the symptoms

were explained by the accumulation of hardships and experiences of poverty and war (67). Moreover, stressful life circumstances in asylum seekers' new society of resettlement need to be emphasized. These were often linked to social factors such as family problems and the asylum seekers' inability to adhere to their intergenerational obligations toward their families left at home. The incapacity to support their families financially was perceived to be especially burdensome. The arising feelings of guilt were often paired with their social isolation and feelings of loneliness.

Nevertheless, and in line with previous research [e.g., (31)], religion did play a significant role in explaining Sub-Saharan African asylum seekers' beliefs about the causes of PTSD symptoms. This should be understood as an external symptom attribution and therefore as an attempt to find a culturally shared and familiar explanation, which is opposed to the impression of being helplessly exposed to the symptoms. Finding a culturally shared and accepted meaning for aversive experiences should be considered as a protective factor. Our findings suggest that when diagnosing and treating immigrants from Sub-Saharan African cultures, it might be crucial for clinicians to explore a religious dimension within patients' belief systems in order to enhance therapeutic alliance and improve treatment outcome (35, 68). Moreover, our findings may have implications with respect to help-seeking behavior and treatment preferences of this particular group. In this line, previous research demonstrated that refugees and asylum seekers in Western countries showed clear preferences for religious treatment practices in the context of mental illness (34, 42, 69).

With regard to supernatural causation, the results of the two parts of the study were rather divergent. While many respondents of the questionnaire survey disagreed with supernatural causes of PTSD symptoms, subsequent differences to the German comparison sample were found and participants of the qualitative part discussed cursing and evil spirits as culturally accepted causal beliefs. Our findings therefore suggest that while supernatural causation must be considered as a culturally acceptable explanatory approach among asylum seekers from Sub-Saharan Africa, its role in the context of explaining PTSD symptoms should not be overstated. Nevertheless, our findings can help Western professionals in some cases to better understand this group of patients and differentiate culturally shaped attributions of PTSD symptoms from psychotic symptoms, and ultimately reduce false diagnoses (41). The present findings seem to differ from previous research that emphasized the role of supernatural causal beliefs in explaining mental disorders (31). We presume that one reason for this occurrence might be the encounter of Western culture. The literature has described migration, globalization, and urbanization as diminishing supernatural explanations for mental illness (32, 34, 70). As previous research often focused on in-depth information collected mainly by qualitative methods, (21, 36, 37) we assume that our findings might differ from previous work because of the inclusion of a quantitative research approach.

By combining a qualitative with a quantitative research approach, the present study complements and extends previous quantitative and qualitative work on illness beliefs of refugees and asylum seekers from different regions of Sub-Saharan Africa (21, 35–38). By drawing data from different sources, the perspective was broadened and a deeper insight into causal beliefs about PTSD held by asylum seekers from Sub-Saharan Africa was possible. The review of the results of the survey study within focus group discussions helped in contextualizing and interpreting the quantitative results and ensured a culturally sensitive interpretation of the questionnaire items. For instance, this was particularly apparent with regard to the item family problems. While Western researchers and clinicians would assign an interpretation that would rest on an interpersonal level, asylum seekers from Sub-Saharan Africa clearly added a supernatural meaning. According to their reasoning, family problems might signify that supernatural practices had been performed by parents, family members, or through the mediation of bad traditional healers and sorcerers. Jealousy, disobedience or disrespect of parents or elders were stated as the main causes of supernatural practices within a family context. Therefore, talking about supernatural practices can be interpreted as a form of expressing and explaining negatively appraised feelings such as aggression, guilt, and jealousy, as well as conflicts within one's own family.

In general, our study demonstrated consistent differences between asylum seekers and Germans without a migration background. However, at the same time, remarkable similarity concerning attribution on psychological causes emerged. The psychological causal beliefs found in the present study corresponded remarkably well to the Western perspective on causes of PTSD symptoms. Our results therefore reveal that the current Western understanding of PTDS is as relevant to migrants as to non-migrants in some respects. While awareness of culture-specific causation is important, at the same time, clinicians need to beware of cultural stereotyping (40). It is necessary to acknowledge the diversity of belief systems and attitudes within cultures and to attempt to understand each individual context. Cultural sensitivity in psychotherapy therefore means facing each individual's system of beliefs in an empathic and non-judgmental way (40).

LIMITATIONS

A first limitation of the present study lies in the diverse sample. We investigated a diverse group of asylum seekers with regard to countries of origin and cultural groups of Sub-Saharan Africa and different religions. While we accounted for differences with regard to the main countries of origin and several sociodemographic factors, illness perceptions may still vary due to differences in social positions and languages (71). Therefore, conclusions about the impact of culture on participants' causal beliefs remain limited.

Second, characteristics of the two investigated groups in the quantitative part differed in terms of age, gender, education, religion, traumatic experiences, and PTSD symptoms. Even though these variables were included in the analytical model to

control for their influence, conclusions about the influence of culture should be drawn with caution.

Third, we used a general population approach by applying a case vignette design. The investigated groups differed in terms of experienced traumatic events and post-traumatic symptoms, and we did not control for prior treatment experience. Furthermore, we used different traumatic events in the vignettes for the two groups, in order to account for the different living situations and the different probabilities for experiencing the respective traumatic event in each group. However, while all asylum seekers fled from their home countries and thus have experienced a flight, not all Germans without a migration background have experienced or witnessed a physical attack: it was among the six most frequently indicated traumatic events (17.5%, $n = 21$) in their group. This difference in experiencing the described traumatic event and posttraumatic symptoms might have led to different answers regarding causes of PTSD. For future studies, it might be interesting to include a clinical sample and compare responses to those of lay people.

Forth, the recruitment of participants may have encompassed a selection bias, as study participation required competences in specific languages, and excluded persons who only spoke Somali, for example.

Fifth, focus group discussions with predominantly male participants were conducted by a white, female clinical psychologist, which may have resulted in a response bias. The fact that a non-African member of the majority society is showing an interest in the perceptions of asylum seekers from Sub-Saharan Africa might be classified as a social act, which might have induced social desirability in the responses (31). Although we presume that participants spoke openly without reservations, some may have been reticent to share certain opinions as a result of perceived differences in gender and cultural background or social desirability.

Sixth, as our participants were predominantly male, we present a particularly male perspective of causal beliefs about PTSD symptoms. Thus, we cannot rule out an impact of gender on our results. It would be interesting for future research to explore gender differences in causal beliefs about PTSD.

CONCLUSION

Our findings suggest that the current Western understanding of PTSD is as relevant to migrants as to non-migrants in terms of psychological causation, but might differ regarding the religious and supernatural realm. While awareness of culture-specific causal beliefs of asylum seekers from Sub-Saharan Africa regarding PTSD is important, our findings do underline at the same time that cultural differences should not be overstated. Exploring patients' individual perspectives can help clinicians to provide better patient-centered care and to tailor interventions according to patients' culturally shaped belief systems (72). For instance, if a clinician shows a willingness to incorporate a religious dimension into psychotherapy, this might enhance the patient's therapy motivation and engagement in treatment. Moreover, we argue that future studies in other immigrant populations should employ the triangulation of quantitative and qualitative methods in order to ensure a culturally sensitive research practice.

ETHICS STATEMENT

Approval for the study was obtained from the local Ethics Committee at the Department of Psychology at Philipps-University Marburg, Germany. All participants provided informed consent to take part in the study.

AUTHOR CONTRIBUTIONS

FG analyzed and interpreted the data, and was a major contributor in writing the manuscript. MRM, UN, and SS contributed to the interpretation of data and critically revised earlier versions of the manuscript. RM was the senior principal investigator of the study, gave feedback to the analyses and the interpretation of the data, and was a major contributor in writing the manuscript. All authors read and approved the final manuscript.

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BASIC RESEARCH ARTICLE

'Only God can promise healing.': help-seeking intentions and lay beliefs about cures for post-traumatic stress disorder among Sub-Saharan African asylum seekers in Germany

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ABSTRACT

Background: Epidemiological studies have reported high rates of post-traumatic stress disorder (PTSD) among asylum seekers from Sub-Saharan Africa. In order to provide appropriate and culturally sensitive mental health care for this group, further knowledge about treatment preferences might be necessary.

Objective: We aimed to provide insights into help-seeking intentions and lay beliefs about cures for PTSD held by asylum seekers from Sub-Saharan Africa living in Germany.

Methods: To address this objective, we used a quantitative and qualitative methodological triangulation strategy based on a vignette describing symptoms of PTSD. In the quantitative part of the study, asylum seekers (n = 119), predominantly from Eritrea (n = 41), Somalia (n = 36), and Cameroon (n = 25), and a German comparison sample without a migration background (n = 120) completed the General Help-Seeking Questionnaire (GHSQ). In the qualitative part, asylum seekers (n = 26) reviewed the results of the questionnaire survey within eight focus group discussions sampled from groups of the three main countries of origin.

Results: Asylum seekers showed a high intention to seek religious, medical, and psychological treatment for symptoms of PTSD. However, asylum seekers indicated a higher preference to seek help from religious authorities and general practitioners, as well as a lower preference to enlist psychological and traditional help sources than Germans without a migration background. Furthermore, asylum seekers addressed structural and cultural barriers to seeking medical and psychological treatment.

Conclusion: To facilitate access to local health care systems for asylum seekers and refugees, it might be crucial to develop public health campaigns in collaboration with religious communities. When treating asylum seekers and refugees from Sub-Saharan Africa, practitioners should explore different religious and cultural frameworks for healing and recovery in order to signal understanding and acceptance of varying cultural contexts.

"Sólo Dios puede prometer sanación": Intenciones de búsqueda de ayuda y creencias laicas acerca de curas para el trastorno es estrés postraumático entre solicitantes de asilo provenientes de Africa Sub-Sahariana en Alemania

Antecedentes: Los estudios epidemiológicos han reportado altas tasas de trastorno de estrés postraumático (TEPT) entre solicitantes de asilo provenientes de Africa Sub-Sahariana. Para entregar cuidados de salud mental apropiados y culturalmente sensibles a este grupo puede ser necesario un mayor conocimiento sobre sus preferencias de tratamiento.

Objetivo: Buscamos ayudar a comprender las intenciones de búsqueda de ayuda y las creencias laicas sobre curas para el TEPT que mantienen los solicitantes de asilo provenientes de Africa Sub-Sahariana que viven en Alemania.

Métodos: Para abordar este objetivo, usamos una estrategia de triangulación metodológica cuantitativa y cualitativa basada en una viñeta que describe los síntomas del TEPT. En la parte cuantitativa del estudio, los solicitantes de asilo (n=119), predominantemente procedentes de Eritrea (n=41), Somalia (n=36) y Camerún (n=25), y una muestra de comparación de alemanes sin una historia de migración (n=120) completaron el Cuestionario General de Búsqueda de Ayuda (GHSQ, por su sigla en inglés). En la parte cualitativa, los solicitantes de asilo (n=26) revisaron los resultados de la encuesta en ocho grupos focales de discusión muestreados de grupos de los tres principales países de orígen.

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关键词
寻求庇护者; 卫生保健; 寻求帮助; 创伤后应激障碍; 难民; 撒哈拉以南非洲; 创伤

HIGHLIGHTS

- Many asylum seekers from Sub-Saharan Africa have experienced multiple traumas.
- For the treatment of PTSD, they emphasized the role of religion and showed a high intention to seek medical and psychological help.
- Compared to German participants without a migration background, asylum seekers indicated a preference to seek help from religious authorities rather than psychologists.
- Public health campaigns in collaboration with religious communities can facilitate access to local health care systems for asylum seekers and refugees.

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Supplemental data for this article can be accessed here.

Resultados: Los solicitantes de asilo mostraron una alta intención de búsqueda de tratamiento religioso, médico y psicológico para los síntomas del TEPT. Sin embargo, indicaron una mayor mayor preferencia a buscar ayuda de autoridades religiosas y médicos generales, así como una menor preferencia por conseguir ayuda psicológica y de fuentes tradicionales que los alemanes sin una historia de migración. Más aún, los solicitantes de asilo mencionaron barreras estructurales y culturales para buscar tratamiento médico y psicológico.
Conclusión: Con el fin de facilitar el acceso a los sistemas locales de salud para los solicitantes de asilo y refugiados, puede ser crucial desarrollar campañas de salud pública en colaboración con las comunidades religiosas. Cuando se trata a solicitantes de asilo y refugiados de Africa Sub-Sahariana, los médicos deberían explorar diferentes marcos religiosos y culturales para la sanación y recuperación, para indicar comprensión y aceptación de los variados contextos culturales.

"只有上帝才能保证愈合。"：在德国寻求庇护的撒哈拉以南非洲人中对于创伤后应激障碍治疗的求助意图和非专业观念

背景：流行病学研究报告表明，来自撒哈拉以南非洲的寻求庇护者中创伤后应激障碍（PTSD）的发生率很高。为了给此群体提供适当的和文化敏感的精神护理，可能需要进一步了解他们的治疗偏好。
目标：我们旨在让大家看到居住在德国的撒哈拉以南非洲寻求庇护者对PTSD治疗所持的求助意图和非专业观念。
方法：为了实现这一目标，我们使用了一种基于描述PTSD症状片段的，定量和定性方法三角校正（methodological triangulation）策略。在本研究的定量部分中，119名寻求庇护者（主要来自厄立特里亚（n = 41），索马里（n = 36）和喀麦隆（n = 25））和120名德国无移民背景的对照样本完成了《一般帮助寻求问卷》（GHSQ）。在定性部分，26名寻求庇护者对从三个主要来源国的群体中抽取的八个专题小组讨论中的问卷调查结果进行了复审。
结果：寻求庇护者表现出对PTSD症状寻求宗教，医学和心理治疗的强烈意愿。但是，相较于无移民背景的德国人，寻求庇护者对寻求宗教权威和全科医生帮助的偏好更高，而对谋求心理上和传统的帮助资源偏好较低。此外，寻求庇护者提到了寻求医疗和心理治疗的结构性和文化性的障碍。
结论：为了便于寻求庇护者和难民利用当地卫生保健系统，与宗教团体合作开展公共卫生运动可能至关重要。在对待来自撒哈拉以南非洲的寻求庇护者和难民时，相关从业人员应探索不同宗教，文化的疗伤和康复框架，以标志对不同文化背景的理解和接纳。

1. Background

By 2018, the number of forcibly displaced people around the world had risen to an unprecedented 68.5 million, among them 25.4 million refugees and 3.1 million asylum seekers (United Nations High Commissioner for Refugees, 2018). Despite the progressing isolationist policy of the European Union (Fröhlich, 2018), European countries are receiving persistently high numbers of asylum seekers of Sub-Saharan African origins (Eurostat, 2019), who have been exposed to a high number of traumatizing events, such as war, armed conflict, and torture (Cavallera et al., 2016; Neuner et al., 2010). These circumstances, as well as post-migration stressors in the receiving countries, seem to have a strong detrimental impact on their mental health (Carta, Bernal, Hardoy, & Haro-Abad, 2005; Mewes, Reich, Skoluda, Seele, & Nater, 2017). Although high rates of post-traumatic stress disorder (PTSD) and other mental disorders have been found among asylum seekers from Sub-Saharan Africa (Kolassa et al., 2010; Neuner et al., 2004; Onyut et al., 2009; Slobodin & de Jong, 2015; Ssenyonga, Owens, & Olema, 2013; Tempany, 2009), too few receive support and professional help (Munz & Melcop, 2018; Sijbrandij et al., 2017).

Disparities in help-seeking behaviour have been documented between refugee populations and populations without a migration background, with asylum seekers and refugees being less likely than native-born populations to seek or be referred to mental health services, even when they experience comparable levels of distress (Kirmayer et al., 2011). In part, these disparities have been attributed to structural barriers, as the provision of appropriate mental health care for refugees and asylum seekers has been described as a challenge for the health care systems of host countries (Munz & Melcop, 2018; Sijbrandij et al., 2017; Sturm, Baubet, & Moro, 2010). In addition, the refugees themselves might suffer from a lack of knowledge regarding available mental health care services (Donnelly et al., 2011), unfamiliarity with such services (Ellis et al., 2010; Palmer, 2006), concerns regarding the confidentiality of professional interpreters (Bhatia & Wallace, 2007), and fears that their problems will not be understood by practitioners due to a lack of cultural competence (De Anstiss & Ziaian, 2010; Sandhu et al., 2013). Moreover, asylum seekers' culturally shaped perceptions of mental disorders might influence their help-seeking intentions and impede contact with health care providers (Este, Simich, Hamilton, & Sato, 2017; Knettel, 2016; Mölsä,

Hjelde, & Tiilikainen, 2010; Priebe, Giacco, & El-Nagib, 2016).

Past research has demonstrated that refugees and asylum seekers of Sub-Saharan African origin tend to rely on alternative sources of help rather than seeking mental health care services (Ellis et al., 2010; Fenta, Hyman, & Noh, 2006; Palmer, 2006). For instance, Ethiopian immigrants and refugees in Canada were found to be more likely to consult traditional healers than health care professionals for mental health problems (Fenta et al., 2006). Moreover, Ethiopian refugees and asylum seekers in the UK reported relying more on interpersonal solutions or religious treatment when experiencing mental health problems (Papadopoulos, Lees, Lay, & Gebrehiwot, 2004). Eritrean refugees in Switzerland considered mental health to be related to faith, and described spiritual or church support as a first-line treatment for mental health issues and trips to holy waters as a cure for mental health problems (Melamed, Chernet, Labhardt, Probst-Hensch, & Pfeiffer, 2019). Studies on the help-seeking preferences of Somali refugees living in Western resettlement countries found a reliance on family, friends, and the ethnic and religious community, and a preference for religious sources of help (Ellis et al., 2010; Markova & Sandal, 2016). A large body of research has emphasized the importance of the belief in God's will and religious prohibitions for health care. Traditional and religious healing through readings from the Quran, eating special foods, and burning incense has been described as a treatment for mental health problems (Carroll, 2004; Clarkson Freeman, Penney, Bettmann, & Lecy, 2013; Palmer, 2006; Pavlish, Noor, & Brandt, 2010).

Regarding psychotherapeutic and medical health care, Somali refugees in Norway expected psychologists and general practitioners to provide concrete solutions that would effectively cure mental health problems (Markova & Sandal, 2016) and to immediately prescribe treatment (Pavlish et al., 2010). Furthermore, Pavlish et al. (2010) reported that Somali women in the USA expected to develop a personal relationship with their health care providers, which seems rather contradictory to Western health care systems. These divergent expectations are bound to result in multiple frustrations, with the potential to diminish the perceived quality of health care (Pavlish et al., 2010). In another study by Ellis et al. (2010), Somali refugee adolescents living in the United Sates did not perceive psychotherapy as a culturally accepted treatment. Somali and Ethiopian refugees in Australia proposed community-based solutions to problems of mental distress and preferred members of their ethnic communities to be trained to provide professional support (Kokanovic, Dowrick, Butler, Herrman, & Gunn, 2008). Furthermore, Sub-Saharan African migrant youth in Australia perceived strong local community support systems, trustworthiness of help-sources, high expertise of formal help-sources, and increasing mental health literacy as facilitators for seeking out mental health professionals (McCann, Mugavin, Renzaho, & Lubman, 2016).

However, to our knowledge, no study has included native comparison groups. Hence, the quantitative difference in help-seeking intentions between refugees and asylum seekers from Sub-Saharan Africa and host populations is not known. Moreover, most research analysed mental health service utilization and barriers in general, while we are unaware of any study addressing beliefs regarding cures for the symptoms of PTSD. In order to increase access to mental health care and to provide culturally sensitive care for refugees and asylum seekers, further knowledge about differences to the host population in terms of help-seeking intentions and beliefs about cures for PTSD might be necessary. Therefore, this paper aims to give further insight into help-seeking intentions and beliefs about cures for PTSD held by Sub-Saharan African asylum seekers residing in Germany. To address this research issue, we applied a qualitative and quantitative methodological triangulation strategy. The application of these two methodologies enabled us to generate comparable and generalizable data and to complement it with in-depth and culturally sensitive descriptions of constructs from an emic perspective. We believe that this reduces the problem of transferability of Western constructs to other cultural contexts (Bekhet & Zauszniewski, 2012; Karasz & Singelis, 2009).

In the quantitative part of the study, we hypothesized that Sub-Saharan African asylum seekers would express a higher intention to seek religious and medical treatment and a lower intention to seek psychological treatment than German participants without a migration background. To account for possible influences of countries of origin on help-seeking intentions, group differences between asylum seekers from the main countries of origin were explored. In the subsequent qualitative part of the study, the quantitative results were reviewed within focus group discussions.

2. Materials and methods

2.1. Procedure

The study consisted of two parts: a) a questionnaire survey in which participants responded to the General Help Seeking Questionnaire (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2005) and b) focus group discussions in which participants reviewed the results of the questionnaire survey (see also Grupp, Moro, Nater, Skandrani, & Mewes,

2018). Ethical approval for each part of the study was obtained from the local review board of the Department of Psychology, University of Marburg, Germany, and all participants provided informed consent prior to participation. Data were collected in 2016 throughout different cities in Germany.

For all participants, an inclusion criterion for study participation was age over 18 years, while training or working in a health profession was an exclusion criterion. As an exclusion criterion for the German participants, we employed the definition of the German Federal Statistical Office (2017) and defined participants as having no migration background when both of their parents were born in Germany. Asylum seekers had to have flight experience and an origin in a Sub-Saharan African country.

In the first part of the study, a convenience sample of n = 120 German participants without a migration background, as well as n = 119 asylum seekers from seven Sub-Saharan African countries, mainly Eritrea (n = 41), Somalia (n = 36), and Cameroon (n = 25), took part in a questionnaire survey using paper-and-pencil and online assessments (survey software UNIPARK & QuestBack©). In the group of asylum seekers the paper-and-pencil form was filled in by 112 participants and seven participants completed the online version. A combination of convenience and snowball sampling was applied. Asylum seekers were approached in their accommodation facilities, through collaboration with civic refugee initiatives, through language courses for adult immigrants, and by networking at cultural gatherings. The survey was provided in German, English, French, Tigrinya, and Arabic. Asylum seekers preferred the paper-and-pencil version, as they favoured the personal contact with researchers and expressed difficulties with their internet connection. However, past research supports the idea that web-based data collection provides, in general, equal responses as paper-and-pencil modes (Braekman et al., 2018). For the German participants without a migration background the online survey (n = 99) was promoted by the researchers through mailing lists, social media, and through personal contacts via word-of-mouth recommendation. The paper-and-pencil version (n = 21) was distributed in vocational schools and church congregations.

In the second part of the study, a smaller number of participants (n = 26) reviewed the findings of the quantitative part in focus group discussions. Given that the quantitative sample consisted mainly of individuals from Eritrea, Somalia, and Cameroon, focus group discussions were sampled according to these three countries of origin. In the quantitative part of the study, participants had the opportunity to express their interest in taking part in a subsequent interview study and interested persons were contacted by the first author after the questionnaire survey was terminated. Thus, a total of eight focus groups were conducted with participants from Eritrea (three focus groups; n = 10), Somalia (three focus groups; n = 8), and Cameroon (two focus groups; n = 8) who took part in the questionnaire survey beforehand. Focus groups were organized separately for different languages and countries of origin. Participants of each focus group mostly came from the same regions of their home country, mainly from the capital or urban regions. The focus groups took place in asylum seekers' accommodation facilities throughout different cities in Germany and at a German university. The average duration of focus group discussions was 1 h 30 min. Each discussion was audio-taped and complemented by handwritten notes. The first author, a trained clinical psychologist, conducted focus group discussions in English and French with participants from Somalia and Cameroon. Focus group discussions with participants from Eritrea were carried out with the assistance of bilingual Tigrinya to German interpreters who received detailed instructions beforehand.

2.2. Measures and materials

After answering sociodemographic questions, participants of both parts of the study were presented with an unlabelled standardized vignette about a hypothetical friend describing symptoms of PTSD according to criteria outlined in the 10th International Classification of Diseases (see Maercker, 2013; World Health Organization [WHO], 1993). In the first part of the study, the vignette was integrated into the questionnaire, while in the second part, it was read aloud and disseminated in a printed version during the focus group discussions. A stressful event of an exceptionally threatening nature was indicated as a triggering event for the symptoms, following criterion A of ICD-10 (WHO, 1993). The traumatic event differed for asylum seekers and Germans without a migration background in order to increase the possibility that participants had experienced such an event and to improve the fit to the participants' respective living conditions: Whereas 'flight' is a representative traumatic event experienced by asylum seekers, physical violence is among the most commonly experienced traumatic events in the German general population (Hauffa et al., 2011). Therefore, we operationalized physical violence with the event 'armed robbery' in the vignette for Germans without a migration background.

The vignette read as follows (Maercker, 2013):

> *"Since the [flight/armed robbery], I have become a totally different person. In the evenings, I lie in*

bed and then these thoughts and images come and I lie awake forever. Now I have reached a point where I realize I can't go on like this anymore … Sometimes I scream at night and I wake up drenched in sweat because of the nightmares. If I have arrived somewhere and there is a noise, I wince. There it is again. I can't turn it off, it's like an electric shock that immediately goes straight up and triggers intense sweating. My wife/My husband accuses me of often being aggressive, easily irritable and she/he is afraid of my outbursts of rage. That's why I prefer to withdraw myself because I always have a feeling that no one can be trusted anymore. Many things just don't interest me anymore. Sometimes my environment appears distant and unreal and I have a feeling of "standing next to myself", then I become totally numb. Afterwards I sometimes can't remember what has happened. I have no hope left anymore … "

Participants were asked to imagine the scenario and indicate their personal assumptions concerning the described condition. In the first (quantitative) part of the study, participants responded to the General Help Seeking Questionnaire (GHSQ; Wilson et al., 2005) and an extended version of the Posttraumatic Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997). In the second (qualitative) part, focus group discussions were structured using an adapted version of the Short Explanatory Model Interview (SEMI; Lloyd et al., 1998). Translations of both instruments were conducted using the forward- and backward-translation method (Flaherty et al., 1988).

2.3. General Help Seeking Questionnaire GHSQ

The GHSQ (Wilson et al., 2005) aims to assess intentions to seek help from different sources by rating the intention on a 7-point Likert scale ranging from 1 ('extremely unlikely') to 7 ('extremely likely') for each source (see Table 2 for the sources). Higher scores indicate higher intentions. For the present study, the instructions were altered to '*Where should the person described above seek help for his/her problems?*'. In addition, the item 'traditional treatment' was added to take into account traditional sources of help such as healers, shamans, herbal treatments, or animal sacrifices. The GHSQ had to be translated into French, Arabic, and Tigrinya; a German version was already available. The translations were conducted as described above.

2.4. Post-traumatic stress diagnostic scale PDS

Experienced traumatic events and post-traumatic symptoms were assessed using an extended version of the PDS (Foa et al., 1997). The PDS list of 11 specified potentially traumatizing events was extended by 12 traumatic events frequently experienced by asylum seekers from the Harvard Trauma Questionnaire (e.g. 'brainwash', 'kidnapped or taken as a hostage', and 'lacked shelter'; Mollica et al., 1992) to determine experienced traumatic events. In addition, participants rated 17 items representing the cardinal symptoms of PTSD experienced in the past 30 days on a 4-point scale. These ratings sum up to a symptom severity score ranging from 0 to 51. The cut-offs for symptom severity rating are 1–10 mild, 11–20 moderate, 21–35 moderate to severe, and > 36 severe (McCarthy, 2008).

2.5. Short Explanatory Model Interview SEMI

The focus group discussions were moderated using key questions from the interview manual SEMI (Lloyd et al., 1998), developed to elicit explanatory models, exploring respondent's cultural background, nature of presenting problem, help-seeking behaviour, interaction with a healer, and beliefs related to mental illness. We adhered to the originally provided questions by the SEMI (Lloyd et al., 1998), such as *'Where would you seek help from?' and 'What should a practitioner do about it?'*. Moreover, we extended the SEMI by adding probes that were derived from the results of the first, quantitative part, of the survey (*'What could a treatment look like?'*; *'Will a treatment cure this discomfort effectively?'; 'What would a religious [traditional/biomedical] treatment look like?'; "Would you want to utilize such a treatment?"*). As we were interested in help-seeking intentions and beliefs about cures for PTSD, we only focused on responses to this part of the discussions.

3. Analyses

3.1. Statistical analysis

Statistical analyses were carried out using IBM SPSS Statistics version 17.0. Statistical significance was set at $p < .05$ (two-tailed).

Group differences in sociodemographic variables, traumatic events, and posttraumatic symptom load were investigated using Chi-square tests and t-tests (see Table 1).

To display the preference for help-seeking in each group separately, the values 1 ('extremely unlikely'); 2 ('very unlikely'), and 3 ('unlikely') of the GHSQ were combined in the category 'unlikely'. Value 4 ('unsure') represented the category 'unsure' and values 5 ('likely'), 6 ('very likely'), and 7 (extremely likely") were combined in the category 'likely' (see Table 2).

Before analysing differences between the two samples, initial correlational analyses and t-tests were conducted for each group separately in order to determine significant associations between different sociodemographic variables on the one hand and

Table 1. Study sample and characteristics.

	Asylum seekers *n*=119		German participants *n*=120				Sample of the qualitative part *n*=26		
Variable	*M* (*SD*)	range	*M* (*SD*)	range	*t*	*p*	Eritrea (*n*=10)	Somalia (*n*=8)	Cameroon (*n*=8)
Age (years)	27.97 (7.8)	18-54	37.24 (16.5)	18-79	-5.56	<.001	31.9	25.6	23.4
Education (years)	9.7 (3.6)	2-18	12.2 (1.7)	6-16	-6.64	<.001	10.8	5.6	9.5
					χ^2	*p*			
Males	70.7 %		35.0 %		30.1	<.001	80 %	87.5 %	100 %
Education					36.51	<.001			
university degree	13.4 %		33.3 %						
higher education entrance-level qualification	18.5 %		30 %						
secondary school certificate	39.5 %		31.7 %						
primary school education	21.0 %		1.7 %						
no school-leaving qualification	5.0 %		1.7 %						
Religion					63.7	<.001			
Christianity	56.3 %		65.8 %						
Islam	33.6 %		0.8 %						
Judaism	1.7 %		0.8 %						
No Religion	4.2 %		31.7 %						
Other	0.8 %		0.8 %						
					t	*p*			
Importance of faith	2.90 (0.50)	0-3	1.52 (1.32)	0-3	10.65	<.001			
Assistance from faith	3.67 (0.94)	0-4	1.84 (1.60)	0-4	10.74	<.001			
Country of birth									
Eritrea	*n* = 41 (34.5 %)								
Somalia	*n* = 36 (30.3 %)								
Ethiopia	*n* = 7 (5.9 %)								
Sudan	*n* = 2 (1.7 %)								
Cameroon	*n* = 25 (21.0 %)								
Nigeria	*n* = 4 (3.4 %)								
Togo	*n* = 4 (3.4 %)								
Posttraumatic symptom severity score (PTSD)	15.25 (10.42)	0-41	7.09 (9.76)	0-36	5.88	<.001			
					χ^2	*p*			
Number of experienced traumatic events	5.02 (4.91)	0-19	1.33 (2.03)	0-11	62.34	<.001			
Prevalence of at least one traumatic event	73.9 %		54.2 %						

Table 2. Preferences for informal and formal help-seeking in the two groups.

	Asylum seekers				German participants		
	likely (%)	unsure (%)	unlikely (%)		likely (%)	unsure (%)	unlikely (%)
GHSQ Informal help-sources*				**GHSQ Informal help-sources***			
Parent	75.4	10.5	14.0	Intimate partner	65.0	19.2	15.8
Intimate partner	70.8	13.3	15.9	Parent	51.7	27.5	20.8
Other relative/family member	60.8	16.1	23.2	Friend	64.1	21.7	14.2
Friend	56.1	25.4	18.4	Other relative/family member	45.1	34.2	20.8
GHSQ Formal help-sources*				**GHSQ Formal help-sources***			
Psychiatrist	68.4	17.5	14.0	Psychologist	93.3	3.3	3.3
Religious authority	67.5	15.8	16.7	Psychiatrist	84.1	9.2	6.7
Psychologist	64.3	22.3	13.4	General practitioner	45.0	20.0	35.0
General practitioner	60.1	23.9	15.9	Traditional treatment	43.3	28.3	28.3
Traditional treatment	22.1	32.7	45.1	Religious authority	17.5	33.3	49.2
None	12.8	33.6	54.2	None	0.8	2.5	96.7

*GHSQ = General Help Seeking Questionnaire.

help-seeking intentions on the other hand (see the correlational matrix in the supplementary material, Table 4). Since sociodemographic variables differed significantly between the two groups, we decided to include the variables gender, age, religion, importance of faith, formal years of education, highest school leaving qualification, number of traumatic events, and symptom severity as covariates into the analytical model. Finally, sample differences in GHSQ items were investigated by conducting a one-way between-groups multivariate analysis of covariance (MANCOVA). Items of the GHSQ were used as dependent variables. The independent variable was sample – asylum seekers or no migration background (see Table 3).

Additional analyses were conducted to explore differences between the three main countries of origin of asylum seekers: Eritrea, Somalia, and Cameroon (Table 3).

Prior assumption testing was carried out to verify the criteria of normality, homogeneity of variance-covariance matrices, and multicollinearity. Shapiro-Wilk tests revealed significant deviations from normal distribution in some items. However, as analyses of variance have proven to be robust against such deviations, analyses were nevertheless conducted (Glass, Peckham, & Sanders, 1972; Harwell, Rubinstein, Hayes, & Olds, 1992; Schmider, Ziegler, Danay, Beyer, & Bühner, 2010). Effect sizes are given as partial eta-squared, where .01–.06 = small effect; .06–.14 = moderate effect and > .14 = large effect (Cohen, 1988).

3.2. Interpretative Phenomenological Analysis (IPA)

Focus group discussions were recorded, transcribed, and analysed applying Interpretative Phenomenological Analysis (IPA; Smith & Osborn, 2003). To organize and manage data analysis, the software MAXQDA© version 12 was used.

As described by Smith and Osborn (2003), we followed a four-stage process, beginning with a close interpretative reading of the first transcript. Responses to the material were captured with initial notes and translated into emergent themes at one higher level of abstraction. Afterwards, these themes were connected, associated, and arranged in a table of superordinate themes. This procedure was repeated for each transcript. Subsequently, we established patterns cross-case and recorded them in a master table of themes for all of the transcripts. The audited themes were reviewed with other researchers and experts of the respective cultures to ensure that conclusions were drawn in a culturally sensitive manner and were well derived from the transcripts (Smith & Osborn, 2007, 2003).

4. Results

4.1. Sample

The group of asylum seekers taking part in the quantitative part of the study (n = 119; see Table 1) comprised 71% males and the mean age was 28 years, which broadly corresponds to German asylum statistics (Federal Office for Migration and Refugees, 2017). Their mean duration of stay in Germany lay at approximately two years ($s.d.$ = 1.2). The mean age of participants from Eritrea was 28 years, from Somalia 25 years, and from Cameroon 30 years; with around 50% female participants per group. Germans without a migration background (n = 120) comprised 35% males and the mean age was 37 years (see Table 1). Over half of the investigated asylum seekers were Christians and one third were Muslims. Regarding German participants, two thirds were Christians and almost one third indicated that they were not religious. Asylum seekers stated stronger faith and higher perceived assistance from their faith. They had a lower educational level than German participants. Asylum seekers had experienced significantly higher numbers of different traumata than Germans without a migration background and showed a significantly higher symptom load.

Table 3. Inter- and intragroup differences in help-seeking intentions.

	German participants	Asylum seekers	Intergroup differences			Intragroup differences			
	M (*SD*)	*M* (*SD*)	*F*	*p*	Partial η^2		*M* (*SD*)	*F*	*p*
GHSQ sources of help*									
Intimate partner	4.85 (1.34)	5.08 (1.70)	1.48	.157	.069	Eritrea	4.76 (2.12)	2.31	.105
						Somalia	5.59 (1.52)		
						Cameroon	4.70 (1.80)		
Friend	4.80 (1.20)	4.54 (1.56)	0.93	.502	.044	Eritrea	4.32 (1.45)	1.18	.313
						Somalia	4.85 (1.60)		
						Cameroon	4.39 (1.50)		
Parent[a,c]	4.47 (1.42)	5.45 (1.81)	3.48	.001	.148	Eritrea	4.94 (2.01)	6.47	.002
						Somalia	6.21 (1.37)		
						Cameroon	4.70 (1.89)		
Other relative/family member	4.30 (1.17)	4.50 (1.70)	0.60	.791	.029	Eritrea	4.09 (1.71)	0.85	.431
						Somalia	4.62 (1.67)		
						Cameroon	4.48 (1.81)		
Religious authority	3.24 (1.44)	4.83 (1.84)	7.02	<.001	.259	Eritrea	4.68 (2.01)	0.03	.971
						Somalia	4.77 (1.94)		
						Cameroon	4.65 (1.67)		
Traditional treatment	4.12 (1.52)	3.14 (1.73)	3.88	<.001	.162	Eritrea	3.12 (1.30)	0.12	.887
						Somalia	3.29 (1.96)		
						Cameroon	3.30 (1.82)		
General practitioner[a]	4.23 (1.47)	4.75 (1.71)	2.46	.012	.109	Eritrea	4.09 (1.82)	5.24	.007
						Somalia	5.32 (1.41)		
						Cameroon	4.30 (1.74)		
Psychiatrist[c]	5.74 (1.29)	5.46 (1.58)	1.41	.187	.066	Eritrea	4.59 (1.94)	4.49	.014
						Somalia	5.68 (1.59)		
						Cameroon	5.70 (1.40)		
Psychologist	6.29 (0.99)	5.24 (1.52)	4.04	<.001	.167	Eritrea	3.97 (1.48)	15.25	<.001
						Somalia	5.56 (1.74)		
						Cameroon	6.00 (1.13)		
None[b]	1.43 (0.92)	2.87 (1.56)	8.34	<.001	.293	Eritrea	3.47 (1.46)	5.14	.008
						Somalia	2.26 (1.73)		
						Cameroon	2.87 (1.39)		

*GHSQ = General Help Seeking Questionnaire.
[a]significantly higher intentions in Muslim asylum seekers.
[b]significantly higher intentions in Christian asylum seekers.
[c]significantly higher intentions in male asylum seekers.

The sample of the second part of the study consisted of n = 26, predominantly male, participants (see Table 1). Their mean age was 27 years, they had a mean of 8.5 years of formal education, and their mean duration of residence in Germany was 1.3 years. Participants from Eritrea and Cameroon were Christians, whereas participants from Somalia were Muslims.

4.2. Help-seeking intentions – results of the questionnaire survey

We hypothesized that asylum seekers from Sub-Saharan African would express a higher intention to seek religious and medical treatment and a lower intention to seek psychological treatment than Germans without a migration background.

In general, asylum seekers most often intended to seek help from informal sources, such as a parent (75%) or partner (71%), who seemed less relevant for the German participants as a source of help for the symptoms of PTSD (52% and 65%, see Table 2). German participants most often intended to seek help from psychologists (93%) or psychiatrists (84%), which ranked fifth (64%) and third (68%) in the group of asylum seekers. Religious help ranked fourth in asylum seekers (67.5%), but was the next to last source (17.5%) in the German comparison group (see Table 2).

Statistical comparisons showed a significantly higher intention in asylum seekers to rely on their parents when experiencing the symptoms of PTSD compared to German participants (large effect size; Table 3), and particularly older German participants (regarding seeking help from partner, parents, or friends; Table 3). Further analyses showed that the intention to seek advice from their parents was significantly higher in participants from Somalia than in participants from Cameroon. German participants showed higher intentions to seek help from traditional treatments and psychologists (large effect sizes) compared to asylum seekers. In contrast, asylum seekers indicated significantly higher intentions to seek help from a religious authority (large effect size) and a general practitioner (moderate effect size). However, older participants and participants from Eritrea indicated a comparably lower intention to seek medical help (see Table 3). Asylum seekers' intention to not seek help at all was significantly higher compared to the German participants (large effect size). Furthermore, this intention was significantly higher in asylum seekers with a higher post-traumatic symptom load (see Table 4, supplement), and in participants from Eritrea compared to participants from Somalia and Cameroon (Table 3).

4.3. Beliefs about cures for PTSD – themes emerging from the focus group discussions

Participants of all focus group discussions identified the described PTSD symptoms in themselves or in somebody they knew. They attributed the symptoms to various causes such as traumatic life experiences, psychological and social causes, and post-migration stressors. The role of religious causes was emphasized, but supernatural causes, such as witchcraft, cursing, and evil spirits, were also discussed as culturally acceptable causes in explaining PTSD symptoms (see Grupp et al., 2018).

Regarding help-seeking and cures for the symptoms, different forms of treatment were proposed, which can be grouped into three superordinate themes: (a) religious treatment, (b) traditional treatment, and (c) medical and psychological treatment.

In general, initiating help-seeking behaviour was placed in a social context and perceived to be the responsibility of the social environment of the affected person. The different forms of treatment were often described as being supported by and taking place in the presence of parents, relatives, or religious and village communities.

> "You, as an affected person, cannot set yourself off, it's your family that will guide you to (…) faith and to healing waters and also your wife who sees your problem and will bring you to a psychologist. As an affected person you don't know immediately how to look out for yourself. You are clouded and that's why I see the family and the parents as the most important assistance." (male, 35 years, Eritrea)

4.4. Religious treatment

Seeking religious treatment was perceived to be the most effective form of curing PTSD symptoms (n = 26). Receiving prayers from a priest, sheikh, or imam and reciting particular verses of the Bible for Christian participants or suras of the Quran for Muslim participants, were believed to be of crucial importance. Participants explained that parents, relatives, and the social environment should assist the affected person spiritually. This spiritual assistance was described as praying in order to bless and protect the affected person and to ask for his or her salvation. It was perceived to significantly support the religious treatment and to be a crucial part of the healing process.

Participants of both Christian and Muslim faith strongly emphasized the use of sanctified or holy water in the context of a religious treatment (n = 26). Participants from Cameroon applied the French expression *L'eau bénie* (blessed water) and participants from Somalia used the expression *Taleeth* or *Tahliil* (holy water) for the water that was sanctified by a religious authority through the recitation of special prayers and verses of the Bible or suras of the Quran.

> "One time I go to Sheikh and he gives me this small water and he reads Quran and it's called *Taleeth* and I get a help inside." (male, 19 years, Somalia)

Holy water was described as effective for curing every kind of condition, physical as well as mental distress, and also discomfort caused by supernatural forces such as possession by evil spirits. Participants from Eritrea (n = 10) in particular described the process of healing through different forms of holy water in a very detailed manner. They emphasized the importance of *Mai Digam* (sacred water) and *Tsebel* (smaller volumes of sanctified earth or water) as a universal remedy. According to the participants, depending on the specific discomfort and the instructions of a priest, *Tsebel* should normally be taken orally or should be used to wash the body. Furthermore, the curative effect of taking a bath in *Mai Xolot* (divine sources and waterfalls) was described in detail: Under the guidance of a priest, persons in need would come to 'get their sins washed away' while the priest cites verses of the Bible or says prayers.

> "Sick people, the old, and other people who are disturbed by spirits (…) they are coming baptizing in that place. (…) in most of the places they take off their clothes and they start. (…) The priest speaks with the spirit from what he has got his sickness (…)." (male, 35 years, Eritrea)

Participants explained that a holy snake was believed to live in some special divine sources (*Mai Xolot*). A person who had incurred heavy guilt, regretting the sinful behaviour, and bathing in *Mai Xolot*, would be entangled by this snake and be freed from the guilt.

> "If you are of heavy guilt, the snake will come. (…) The snake entangles this person who is full of sin. (…) when a priest questions him and he admits his sins, he will be released from this snake." (male, 31 years, Eritrea)

4.5. Traditional treatment

Participants across the focus groups (n = 15) discussed herbal treatments and natural remedies as cures for the described symptoms. These could be made from special trees, plants, roots, or barks that have a curative effect on physical suffering, mental distress in general, or spiritual problems, such as the possession by evil spirits. Depending on the treatment, the herbal remedies can be produced and applied in diverse ways (external or internal) and forms (e.g. such as liquid or oil).

> "(…) natural resources that have ever existed. (…) Some sort of trees which are considered to be blessed. They are pasteurized. They go through a process where they become in a liquid form,

> whereby this person drinks. (…) Sometimes they put through the nose. They put through the ears." (male, 30 years, Somalia)

Some participants from Eritrea (n = 8) discussed inhaling frankincense or the smoke of a burned root (*Kaberitcho*) for persons possessed by a spirit, in order to identify the kind of spirit and its reasons for possessing the body.

> "(…) when he smells *Kaberitcho* that spirit starts speaking (…)." (male, 35 years, Eritrea)

> "He cannot cure him. You can led know what kind of spirit [it is]." (male, 29 years, Eritrea)

Another discussed form of treating the symptoms of PTSD, or problems of any kind, was a sacrificial offering performed by the affected person's family in the country of origin. Participants from Cameroon described this as *appeler au pays*.

> "You can call someone in your home country. They will try to look what is going wrong." (male, 23 years, Cameroon)

> "You can ask them to send money. With this money you can buy a goat or a chicken. And one will kill the chicken. Or to buy candies and do a *Sadaqa* [charity], share it in the neighborhood or in the village so that he can receive the blessing." (male, 25 years, Cameroon)

The most frequently discussed form of sacrifices across the focus groups was the sacrifice of an animal by a traditional or spiritual healer. This was debated very contentiously, often interpreted as the devil's work and witchcraft, and was rejected by most of the participants (n = 20) as a cure for mental or spiritual problems.

> "Because I have seen something about in country. Maybe in bush. This, a mad person, they can't look for a doctor. But they salute [sacrifice] a cock or a hen and then they give the sick person to that blood. Then that person returns. Become ok. (…) That is a traditional medicine. But not good. I don't like traditional medicine." (male, 24 years, Somalia)

The traditional or spiritual healers performing these sacrifices were described in greater detail by participants from Cameroon and Eritrea. Even though they distinguished between traditional practitioners and sorcerers, the division between the two were fluid. Participants from Cameroon referred to traditional or spiritual healers as *Marabouts*.

> "A *Marabout* is like a doctor for the mind. A doctor of spirits." (male, 26 years, Cameroon)

> "He [*Marabout*] performs spiritual practices. He utilizes tree barks. (…). He sacrifices animals. He takes the animal's blood." (male, 25 years, Cameroon)

Within this context, participants used the French term *faire des pratiques* (to perform practices) and linked it to a traditional practice within the supernatural realm: A person could ask the *Marabout* to perform *Grimba* (magic, fetish) in order to achieve an objective, to attack someone spiritually, or protect oneself from spiritual attacks.

> "They perform special practices (*faire des pratiques*). In order to make it work. (…) You go to the village and one will protect you with these practices, with *Grimba*." (male, 25 years, Cameroon)

Participants from Eritrea discussed different types of traditional or spiritual healers. *Debtera* were described as spiritual or religious magical healers trained in exorcism, traditional medicine, and supernatural practices in a more religious realm. Another form of traditional healers or sorcerers were described as *Tonkolti*.

> "These are people who possess miraculous powers. (…) They can help but they can earn a lot of money at the same time. (…) Sorcerers, *Tonkolti*, are people with knowledge who show you (…) possibilities to solve problems. (…) A *Tonkolti* can offer assistance that releases you from this curse. Perhaps even with rituals like chickens that one should circle above the head. (…) he gives you hints which kind of chicken and what color it should be. That can combat the cause." (male, 31 years, Eritrea)

Tonkolti (sorcerers) and *Debtera* (spiritual healers) were described as being aware of 'both sides': how to heal but also how to harm and curse a person. Participants therefore emphasized the need to view these healers with caution.

> "It's like the training of a doctor, who knows the cure for an illness but also the opposite side. (…) These people who possess the knowledge to mislead you might be the same who possess the knowledge of religious faith and move deliberately against the faith in the direction of the devil worship. They might bewitch you and find the cure at the same time. And call themselves healers, saviors, and enrich themselves." (male, 35 years, Eritrea)

In general, the reputation of traditional healers was rather divided: Some participants (n = 6) confirmed their strong belief in the healing abilities and the effectiveness of the treatment practices performed by traditional healers. Others (n = 20) strongly rejected these practices. Participants across the focus groups (n = 15) emphasized that they perceived these healers to be opposed to religion and a faith in God. They were rejected because participants suspected them either of performing the devil's work and witchcraft or of being salesmen who only want to earn money.

> "Within certain tribes these practices don't happen anymore. And there are other tribes in our country, where these practices take place. And it happens that there are suddenly crooks. (…) And they use these rites to enrich themselves. Personally I will never

solicit a *Marabout* because the *Marabout* in any case is a salesman." (male, 28 years, Cameroon)

4.6. Medical and psychological treatment

Participants across the focus groups (n = 22) emphasized the importance of medical and psychological help for the described symptoms of PTSD. Only a small number of participants (n = 4) did not regard the described symptoms as a mental disorder with a medical or psychological indication and doubted the helpfulness of these treatments.

Seeking medical or psychological help was often described in two steps. The first step was to seek help from a religious authority or community. In a second step, and depending on the advice of the religious leader, the social environment of the affected person could consult a doctor for medical advice and treatment.

"There are the two ways: That you go to the doctor, even the doctor is an assistant of God. And I personally would seek help from the church before going to a doctor." (male, 25 years, Eritrea)

Attitudes towards pharmacological treatment were rather divided. Some participants endorsed the curative effect of medicaments, while others rejected the idea of taking medication when facing symptoms of PTSD. This was often linked to a need to be understood and listened to.

"(…) But there are sicknesses where you are not supposed (…) to give out tablets. You see it's like you have to feel. You have to digest the person. You have to give this person a time to listen to you." (male, 29 years, Somalia)

In some cases, a rejection of medication was placed in a supernatural framework, e.g. when the supposed causes were spiritual possession or being attacked by a curse and participants feared that such culture-specific problems might not be understood by Western practitioners.

"The spirit who possesses your body will talk to you. (…) It will tell you why it has possessed your body. (…) The possessed will not go to a doctor. If he gets a syringe he will die immediately. That is why these people don't go to doctors, hospitals. They go directly to the sacred waters of *Mai Xolot.*" (male, 35 years Eritrea)

"My friend, (…) his wife had a problem. And he tells the social [social worker]. But they didn't believe him. (…) But they don't understand what is this problem. This is *Djinn* [spirit]. You need another prescription. Such like Quran." (male, 25 years, Somalia)

Participants (n = 13) expressed further obstacles to seeking medical or psychotherapeutic treatment. Some participants worried that their traumatic experiences could be too burdensome for German practitioners. Furthermore, they described that practitioners might not be able to comprehend their account because of the foreign and divergent experiences and realities of life.

"Is like what our people are going through is insensitive to the people who own this land. (…) When someone is talking to a psychologist (…). And he tells everything. It's very hard for this doctor to digest. But we as people, we feel the pain. We know what this person is talking about. (…) But if I try to (…) explain this to the psychologist. It's very hard for him to digest. What I am telling him." (male, 30 years, Somalia)

Furthermore, participants described difficulties regarding the functioning of an unfamiliar health care system and orienting themselves within this system.

"There are so many obstacles. This society works completely differently. (…) Who is my contact person regarding this inner anxiety? Do you tell everybody? Or do you tell just your gynecologist? Or the general practitioner?" (female, 34 years, Eritrea)

"If I wish to go to a doctor I have to pay. This is a real problem. I will prefer to stay at home with my problems. Because (…) the doctor will say (…) your treatment will take maybe three to six months, which will cost you 3000 Euros." (male, 28 years, Cameroon)

5. Discussion

The present study aimed to provide insights into beliefs about cures for PTSD held by Sub-Saharan African asylum seekers residing in Germany. Moreover, the help-seeking intentions of this group were compared to those of Germans without a migration background. To address this research issue, we used a quantitative and qualitative methodological triangulation strategy.

We found that asylum seekers are likely to seek religious, medical, and psychological treatment for PTSD as well as help from their parent or partner. The initial hypothesis was supported: Whilst asylum seekers indicated higher intentions to seek religious help and treatment by general practitioners, Germans without a migration background showed greater intentions to seek psychological and traditional treatments. In the qualitative part of the study, different forms of treatments were proposed by the asylum seekers, which were grouped into three superordinate themes: (a) religious treatment, (b) traditional treatment, and (c) medical and psychological treatment.

The support of family and friends was equally as important to both groups. Only the reliance on parents was more important for asylum seekers than for Germans without a migration background. However,

as asylum seekers in the present study were on average ten years younger than the German participants, this may have influenced this finding despite the statistical control for influences of age. The results of the quantitative part are in line with the findings of the qualitative part of the study, as asylum seekers emphasized that healing must be understood as embedded within a social context. Seeking treatment can therefore be interpreted as a social act that involves the affected person's social environment and needs to be initiated by parents, relatives, or community elders. This corresponds to previous research reporting that Eritrean and Somali refugees perceive trusted friends and family to be responsible for recognizing and attempting to find treatment for mental health problems (Bettmann, Penney, Clarkson Freeman, & Lecy, 2015; Melamed et al., 2019). Community and family cohesion should therefore be considered as crucial elements of recovery (Schnyder et al., 2016) and should be taken into account when treating immigrant and refugee populations from Sub-Saharan Africa (Baubet & Moro, 2013; Ehntholt & Yule, 2006; Murray, Davidson, & Schweitzer, 2010). However, as Melamed et al. (2019) point out, the reliance on friends and family for initiating treatment might also pose a barrier to treatment seeking for asylum seekers, who may be living far away from their families and may not yet have trusting relationships around them.

Asylum seekers showed a higher intention to seek help from religious authorities and strongly emphasized the importance of religion for recovery and the predominantly religious character of treatment. Moreover, medical and psychotherapeutic help-seeking seems to be mediated by religious gatekeepers and authorities. Therefore, it is advisable to offer to incorporate a religious dimension into psychotherapy, which might enhance patients' therapy motivation, engagement in treatment, and their feeling of being understood and accepted (Markova & Sandal, 2016; Slewa-Younan et al., 2017). In this regard, Whitley (2012) equates cultural competence to religious competence. Like the cultural orientation, religious orientation influences patients' beliefs, values, attitudes, and conventions. Koenig (2008) proposes that clinicians can respectfully address patient's religious needs by assessing a spiritual history and engaging in appropriate consultation with clergy.

In contrast to previous research (Fenta et al., 2006; Palmer, 2006), asylum seekers in our study expressed a lower intention to seek help from traditional treatment practices than participants without a migration background. Our finding might be explained by divergent concepts of traditional treatments. Participants without a migration background might have interpreted traditional treatment as natural remedies or homoeopathic medicine. Indeed, previous studies have found that Western populations view the treatment of mental illness with vitamins and herbs more positively than treatment with psychotropic medication (Angermeyer & Matschinger, 1996; Jorm et al., 1997). The asylum seekers in our study showed a multifaceted and rather broad picture of culturally accepted traditional treatments: While natural treatments with herbal remedies were considered as appropriate, supernatural and magical practices performed by traditional healers or sorcerers were mainly rejected.

Asylum seekers' intentions to seek help from general practitioners was higher as those of Germans without a migration background, a finding which corresponds to previous research (Maier, Schmidt, & Mueller, 2010; Papadopoulos et al., 2004). These findings are relevant for general practitioners, who often have the main responsibility for guiding asylum seekers within Western health care systems (Varvin & Aasland, 2009). Given that the investigated asylum seekers explained that culture-specific illness beliefs lead to a reluctance to take medicaments, transcultural training for general practitioners and health care staff might be helpful to ensure a culturally sensitive handling of refugee populations.

With regard to psychological treatment, high average mean scores in the group of asylum seekers, and particularly in those from Cameroon and Somalia, suggest a high likelihood of seeking help from this source. However, their intention was lower than that of Germans without a migration background. This is in accordance with previous studies, which reported low rates of mental health care utilization in immigrant and refugee populations (Ellis et al., 2010; Fenta et al., 2006; Kirmayer et al., 2011; Palmer, 2006). Furthermore, asylum seekers' intention to not seek help at all was higher compared to the German participants. This was especially the case in participants from Eritrea and in asylum seekers with stronger posttraumatic symptoms. These results are in line with previous research reporting a low uptake of mental health care in Iraqi refugees with higher levels of PTSD symptomatology (Slewa-Younan et al., 2015). A potential explanation might lie in the finding that individuals who frequently use experiential avoidance and avoidant coping strategies may be at greatest risk of increasing their PTSD symptoms through strong avoidance behaviours (Orcutt, Pickett, & Pope, 2005; Pineles et al., 2011). As they might expect that seeking help will entail them being confronted with their traumatic experiences, the increased avoidance behaviour might also result in reduced help-seeking behaviour. In conclusion, asylum seekers from Eritrea with a higher symptom load might constitute a particularly vulnerable group among asylum seekers in Germany.

Additionally, and in line with previous research, asylum seekers in our study expressed a lack of

knowledge and orientation regarding available mental health care services, and concerns that their problems might not be understood due to cultural distance (De Anstiss & Ziaian, 2010; Donnelly et al., 2011; Kirmayer et al., 2011; Sandhu et al., 2013). To reduce these barriers, it may be useful to inform newly arrived asylum seekers about the functioning and locations of different sources of help, or to support them with booking appointments (Bhatia & Wallace, 2007; Mewes & Reich, 2016).

5.1. Limitations

We investigated a diverse group of asylum seekers with regard to countries of origin, cultural groups of Sub-Saharan Africa, and religion. Although we accounted for differences regarding the main countries of origin and several sociodemographic factors, help-seeking intentions may still vary due to differences in other characteristics. Due to the limited number of participants from the respective countries of origin, caution is warranted in drawing conclusions about the impact of culture on participants' help-seeking intentions and the generalizability thereof.

We did not control for prior treatment experience, and the two groups differed in terms of traumatic experiences and PTSD symptoms, which may have led to different answers regarding help-seeking intentions.

Furthermore, the two investigated groups differed in terms of age, gender, education, and religion. While we took these differences into account and included several variables in the analytical model, conclusions about the group differences in terms of culture still remain limited.

With regard to the qualitative part of the study, focus group discussions with predominantly male participants were organized and moderated by a White, female member of the majority society, which may have induced a response bias and social desirability. Due to these differences or a fear of stigmatization, some participants may have been reticent to express criticism of the local health care system or culture-specific opinions and practices.

In the present study, we focused on help-seeking intentions and beliefs about cures of PTSD of asylum seekers from Sub-Saharan Africa. However, it would have been interesting to incorporate the German participants' perspective within focus group discussions as well, especially with regard to the relatively high endorsement of alternative and traditional treatment for PTSD. The study leaves this important topic open for future research.

The present study incorporates a rather male perspective on cures for PTSD, as participants were predominantly male, and an impact of gender on our results can therefore not be ruled out. For future research, it would be interesting to investigate gender differences in beliefs about cures for PTSD.

6. Conclusion

Our findings underline the need for practitioners to explore cultural and religious frameworks of healing and recovery in order to demonstrate understanding and acceptance of varying cultural contexts in which treatments can happen (Sturm et al., 2010). This can be achieved by addressing a patient's cultural and religious needs. Clinicians may also encourage patients to engage in communal networks associated with their religious congregation and mobilize patients' religious resources to promote resilience, recovery, and healing (Whitley, 2012). Furthermore, healthcare providers could target those in need by developing public health campaigns in collaboration with religious and cultural communities, which might help disentangling the potential for religiously reinforced mental health stigma (Peteet, 2019). In addition, this might help explaining the functioning of the local health care system, which might in turn facilitate the access for asylum seekers and refugees.

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APPENDIX

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