Refugees' integration and emotional distress in the German healthcare system

Doctoral thesis for obtaining

the academic degree

Doctor of Natural Sciences

(Dr. rer. nat.)

submitted by

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at the

Universität Konstanz

Faculty of Mathematics and Natural Sciences

Psychology

Konstanz, 2024

Mündliche Doktorprüfung: 09.08.2024

Prüfungskommission

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Acknowledgements

First, I want to thank my supervisor Prof. Dr. Anselm Crombach. Throughout my dissertation you have supported my research, have given me valuable input from near and far and you have been there whenever needed. This thesis would not have been possible without your support, beautiful drawings, and vital input. I'm thankful for your trust as well as the freedom and flexibility you have provided me with.

Thank you Dr. Katalin Dohrmann for your unconditional positive regard and appreciation due to which I have never doubted what I was doing in this project. Even when the COVID-19 pandemic hit, and all plans changed we somehow made it work. You have been my mentor supporting me throughout countless challenges in numerous different areas. Our constant mail discourses, meetings, and your therapy supervision have been a great and essential enrichment. I cannot imagine the Fearless project and my work without you.

Thank you, Prof. Dr. Brigitte Rockstroh, for correcting and shaping my papers and for agreeing to be part of my PhD committee. I have learnt a great deal in shortening and perfecting texts from you.

I extend my gratitude to PD Dr. Maggie Schauer and Prof. Dr. Thomas Elbert for your support with the Fearless project funding applications, the project supervision, learning from you in NET seminars and for agreeing to be part of my PhD committee.

Thank you, Dr. Johanna Sill, Marlene Zehb and Dr. Veronika Müller-Bamouh for supporting our Fearless team along the way. Thank you for helpful conversations and support with the data collection.

It has been a great experience for me to supervise and support students with their theses. Thank you Anke Richter, Claudia Dang-Thai, Hendrikje Rost and Marlene Zehb, for being reliant, resourceful, and creative. Thank you for your support with the data collection and preparation.

I'm thankful for all my colleagues sharing the ups and downs of this journey with me. For shared lunch breaks, walks outside, supporting me with computer struggles, word templates and so much more. Thank you, Lea Bogatzki for being a helpful shoulder to lean on, for sharing our sorrows, for enriching qualitative research exchanges and for sharing conference experiences.

I’m very thankful for all the refugee clients that have participated in this project. Without you this research would not be possible. I had the opportunity to accompany some of you over the years and I also had the honor of treating some of you. Thank you all for your trust in this project and in me. It has truly been a great pleasure and enrichment. I’m in constant respect for the struggles you have lived through and the continuous struggles you still go through.

I’m grateful for all the translators and peer counsellors I had the joy to train and supervise. This project would not be possible without your support and hard work. Thank you to all our cooperation partners supporting our screenings and therapies, especially the support of the Lake Constance Institute for Psychotherapy apb was vital. Moreover, I’m thankful for all the therapists participating in the Fearless project and especially to those that shared their therapy experiences with us.

I’m thankful that I could complete my academic career in Konstanz. In this most lovely place, I have met so many beautiful people and made wonderful friends along the way that I am thankful for.

Last but not least, I want to thank my family. I cannot possibly in words describe how much you mean to me, how much you’ve shaped me and how thankful I am for your companionship. I’m forever grateful for your unconditional love, support and all the moments we have shared. Thank you, Martina Potter, for always believing in me and supporting my academic career since elementary school. Thank you, Sebastian Potter, for having my back throughout my university career, for travelling to Berlin to see me speak at a conference and for many hours spent proof-reading my bachelor’s, master’s, and dissertation thesis. I’m tremendously grateful.

Abstract

Research has shown detrimental effects of pre- and post- migration stressors on refugees' mental health and integration. In consequence mental disorders in refugees are highly prevalent, nonetheless their access to mental health care services in Germany is limited and only a low rate gets (adequately) treated. More implementation research is needed and hence this doctoral thesis was conducted in a model project called "Fearless", where therapists, translators, and peer counsellors were trained and supervised to facilitate adolescent refugees' access to mental health care. Two empirical quantitative studies were conducted with refugees examining their emotional distress and integration and one empirical qualitative study was conducted with their therapists focusing on their motivation to treat refugee clients.

The first study (Chapter 2: *Study I*) within this doctoral thesis explored the impact of severe physical abuse in childhood on refugees' emotional distress and integration during the COVID-19 pandemic. Emotional distress was assessed with the Refugee Health Screener, and integration status was assessed with the Integration Index. Two hierarchical regressions were performed to assess cross-sectional predictors of emotional distress and integration in the sample ($N = 80$). Severe physical abuse in childhood and pandemic months - months since the start of the COVID-19 pandemic - were determined as significant predictors of emotional distress. Further, length of stay in Germany, severe physical abuse in childhood and emotional distress were determined as significant predictors of integration. Severe physical abuse in childhood was shown to constitute a pre-migration risk, crucially affecting the well-being and emotional distress of adolescent refugees in Germany.

The second study (Chapter 3: *Study II*) examined long-term predictors for refugees' emotional distress and integration. Nine months after the initial assessment, follow-up assessments were conducted with 47 refugees. Sign tests, t-tests and a mixed ANOVA were used to assess longitudinal differences for emotional distress, overall integration as well as integration sub-dimensions. Moreover, longitudinal predictors of emotional distress and integration were assessed with two hierarchical regression analyses. Over the course of nine months, refugees' integration and the emotional distress of initially highly distressed refugees ameliorated. Especially emotional distress and integration at the initial assessment were determined as significant longitudinal predictors of emotional distress at the follow-up assessment. Only integration at the initial assessment was a significant predictor of longitudinal integration. Results emphasize the

intertwinement of refugees' emotional distress and integration and the importance of early and full access to health care and integration courses for all refugees.

In the third study (Chapter 4: *Study III*), 13 therapists participating in the Fearless project were interviewed during or after their outpatient psychotherapy of refugee clients. Therapists were questioned on their experiences of challenges, enrichments, and motivation throughout the therapy. Three major challenges modulating therapists' future motivation for treating refugee clients emerged: bureaucratic efforts, organizational difficulties, and clients' motivation. Most interviewed therapists evaluated the therapy as enriching and expressed their motivation to accept refugee clients in the future. A reduction of bureaucratic effort and implementation of nationwide organizational support in support of therapists is highly recommended. Further, adding training on treatment of refugee clients in the curricula of psychotherapy training is advised.

Cross-sectionally and longitudinally refugees' emotional distress and integration were shown to be intertwined. The results underline the need to tackle emotional distress and integration promptly after refugees' arrival. As the percentage of emotionally distressed refugees receiving adequate treatment is low, the access to the health care system in Germany needs to be adjusted to lower barriers. All refugees need full access to health care and integration courses. Further, nationwide structural support of therapists needs to be deployed and therapists need to be trained in the treatment of refugee clients early on.

Zusammenfassung

Untersuchungen haben gezeigt, dass sich Prä- und Post-Migrationsstressoren nachteilig auf die psychische Gesundheit und die Integration von Geflüchteten auswirken. Infolgedessen sind psychische Störungen bei Geflüchteten sehr häufig, dennoch ist ihr Zugang zur psychischen Gesundheitsversorgung in Deutschland begrenzt und nur ein geringer Teil wird (angemessen) behandelt. Da mehr Implementierungsforschung notwendig ist, wurde diese Doktorarbeit im Rahmen des Modellprojekts „Furchtlos“ durchgeführt. In diesem Projekt wurden Therapeut:innen, Dolmetscher:innen und Gesundheitspat:innen geschult und supervidiert, um jugendlichen Geflüchteten den Zugang zur psychosozialen Versorgung zu erleichtern. Zwei empirische quantitative Studien wurden mit Geflüchteten durchgeführt, um ihre emotionale Belastung und Integration im Quer- und Längsschnitt zu untersuchen. Eine empirische qualitative Studie wurde mit ihren Therapeut:innen durchgeführt und untersuchte deren Motivation zur weiteren Behandlung von geflüchteten Klient:innen.

Die erste Studie (Kapitel 2: *Studie I*) im Rahmen dieser Dissertation untersuchte die Auswirkungen schwerer körperlicher Misshandlung in der Kindheit auf die emotionale Belastung und Integration von Geflüchteten während der COVID-19-Pandemie. Die emotionale Belastung wurde mit dem Refugee Health Screener und der Integrationsstatus mit dem Integrations-Index erfasst. Zwei hierarchische Regressionen wurden durchgeführt, um Prädiktoren für emotionale Belastung und Integration in der Stichprobe (N = 80) zu untersuchen. Schwere körperliche Misshandlung in der Kindheit und Anzahl der Pandemie-Monate - Monate seit Beginn der COVID-19-Pandemie - wurden als signifikante Prädiktoren für emotionale Belastung ermittelt. Signifikante Prädiktoren für die Integration waren die Dauer des Aufenthalts in Deutschland, schwere körperliche Misshandlung in der Kindheit und emotionale Belastung. Es zeigte sich, dass schwere körperliche Misshandlung in der Kindheit ein Prä-Migrationsrisiko darstellt, das sich entscheidend auf die emotionale Belastung von jugendlichen Geflüchteten in Deutschland auswirkt.

Die zweite Studie (Kapitel 3: *Studie II*) untersuchte langfristige Prädiktoren für die emotionale Belastung und die Integration von Geflüchteten. Neun Monate nach der Erstuntersuchung wurden Folgeuntersuchungen mit 47 Geflüchteten durchgeführt. Vorzeichentests, t-Tests und eine mixed ANOVA wurden verwendet, um emotionale Belastung, Gesamtintegration und Subdimensionen von Integration im Längsschnitt zu untersuchen. Darüber hinaus wurden die Prädiktoren für emotionale Belastung und Integration im Längsschnitt mit zwei hierarchischen

Regressionsanalysen untersucht. Im Verlauf von neun Monaten verbesserte sich sowohl die Integration als auch die emotionale Belastung von anfänglich hoch belasteten Geflüchteten. Insbesondere die emotionale Belastung und Integration bei der Erstuntersuchung erwiesen sich als signifikante Prädiktoren für die emotionale Belastung bei der Folgeuntersuchung. Nur die Integration bei der Erstuntersuchung war ein signifikanter Prädiktor für die Integration bei der Folgeuntersuchung. Die Ergebnisse unterstreichen den Zusammenhang zwischen emotionaler Belastung und Integration von Geflüchteten, sowie die Bedeutung eines frühzeitigen und umfassenden Zugangs zur Gesundheitsversorgung und zu Integrationskursen für alle Geflüchteten.

In der dritten Studie (Kapitel 4: *Studie III*) wurden 13 Therapeut:innen, die am Furchtlos-Projekt teilnahmen, während oder nach ihrer ambulanten Psychotherapie von geflüchteten Klient:innen interviewt. Die Therapeut:innen wurden zu ihren Erfahrungen mit Herausforderungen, Bereicherungen und ihrer Motivation während der Therapie befragt. Es kristallisierten sich drei wesentliche Herausforderungen heraus, welche die zukünftige Motivation der Therapeut:innen für die Behandlung von geflüchteten Klient:innen beeinflussten: bürokratischer Aufwand, organisatorische Schwierigkeiten und die Motivation der Klient:innen. Die meisten befragten Therapeut:innen bewerteten die Therapie als bereichernd und äußerten ihre Motivation in Zukunft geflüchtete Klient:innen zu behandeln. Eine Verringerung des bürokratischen Aufwands und die Implementierung einer flächendeckenden organisatorischen Unterstützung der Therapeut:innen wird dringend empfohlen. Darüber hinaus wird angeraten Schulungen zur Behandlung von geflüchteten Klient:innen in die Curricula der Psychotherapieausbildung aufzunehmen.

Sowohl im Querschnitt als auch im Längsschnitt zeigte sich, dass die emotionale Belastung von Geflüchteten und ihre Integration miteinander verbunden sind. Die Ergebnisse unterstreichen die Notwendigkeit, emotionale Belastung und Integration zeitnah nach der Ankunft in Deutschland anzugehen. Da nur wenige der belasteten Geflüchteten eine angemessene Behandlung erhalten, muss der Zugang zum Gesundheitssystem in Deutschland angepasst und Barrieren abgebaut werden. Alle Geflüchtete brauchen einen uneingeschränkten Zugang zur Gesundheitsversorgung und zu Integrationskursen. Darüber hinaus ist eine flächendeckende strukturelle Unterstützung von Therapeut:innen erforderlich und diese müssen frühzeitig in der Behandlung von geflüchteten Klient:innen geschult werden.

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List of Abbreviations

AIC	Akaike Information Criterion
ANOVA	Analysis of variance
$Assessment_{t0}$	Initial assessment
$Assessment_{t1}$	Follow-Up assessment
BAMF	Bundesamt für Migration und Flüchtlinge [Federal Office for Migration and Refugees]
FORNET	Forensic Offender Rehabilitation Narrative Exposure Therapy
IPL	Immigration Policy Lab
PTSD	Post-traumatic stress disorder
NET	Narrative Exposure Therapy
NGO	Non Governmental Organization
RCI	Reliable Change Index
RHS	Refugee Health Screener
SPSS	Statistical Package for Social Sciences
UNHCR	United Nations High Commission for Refugees

1 General introduction

"*integration policy is also health policy and vice versa.*"
Walther et al. (2021, p. 13)

1.1 Overview

In 2022, the United Nations High Commission for Refugees (UNHCR; 2023) estimated that there were 35.3 million refugees and 5.4 million asylum seekers worldwide. The number of refugees in European countries rose from seven million in 2021 to 12.4 million in 2022 (UNHCR, 2023), mostly due to millions of refugees from the Ukraine. From 2021 to 2022, Germany registered an increase of asylum applications of more than 50%, not including Ukrainian refugees as they do not have to apply for asylum (Bundesamt für Migration und Flüchtlinge [BAMF; Federal Office for Migration and Refugees], 2023). In 2022, Germany was the world's second largest recipient of new individual asylum applications and hosted nearly 2.1 million refugees (UNHCR, 2023). In the same year, of all refugees worldwide, approximately 41% were minors below 18 years of age (UNHCR, 2023). This aligns with asylum applicants in the year 2022 in Germany: 37.3% were younger than 18 years and 21.5% were between 18 and 25 years old (BAMF, 2023). Given these large numbers of especially young refugees, it is quite understandable that their integration into the host nation society and attending to their well-being is both paramount and yet poses an enormous challenge to governments, society as well as the health care system (Kartal et al., 2018; Schick et al., 2016) and will be examined in more detail in the following introduction and subsequent chapters.

This doctoral thesis focuses on refugees '[1] mental health needs and their access to the German mental health care system. Two empirical quantitative studies were conducted with refugees and one empirical qualitative study was conducted with their therapists. All studies were carried out in Baden-Württemberg, Germany. In this general introduction, an overview of refugees' mental health, their pre-, peri as well as their post-migration stressors are outlined. In the subsequent chapters, the plight of refugees' limited access to health care as well as the barriers to treatment for both refugees' and their therapists' will be elucidated. In the conclusion, the

[1] While refugees and asylum seekers refer to populations with different characteristics, we refer to both as refugees to simplify the terminology.

results of the empirical work will be put into a broader perspective and further research and practical implications will be discussed.

1.2 Mental health of refugees

Refugees experience substantial pre-, peri-, and post-migration stress resulting in a high prevalence of mental disorders (Kartal et al., 2018; Schick et al., 2016). A recent meta-analysis on global refugee populations reported a prevalence of 31.46% of post-traumatic stress disorder (PTSD), 31.5% of depression and 11% of anxiety disorders (Blackmore et al., 2020). Similar prevalence rates were reported in a recent meta-analysis in Germany: estimated prevalence rates in newly arrived refugees and asylum seekers ranged from 29.9% for PTSD to 39.8% for depression (Hoell et al., 2021). A review on adolescent refugees in Europe showed that up to half of refugee youth might be affected by PTSD and up to a third by emotional or behavioral problems, such as depression or anxiety disorder (Kien et al., 2019). In Germany similar prevalence rates were found, while unaccompanied refugee minors were shown to be more emotionally distressed than accompanied ones (Müller et al., 2019).

Longitudinal research has shown that even five years or longer after displacement, adult refugees suffered from mental disorders more often than the adult population in Western nations: They were up to 15 times more likely to suffer from PTSD and up to 14 times more likely to suffer from depression compared to the general adult population (Bogic et al., 2015). Further, longitudinal examinations of refugees' emotional well-being have shown different results: Refugees' emotional distress levels were found to stagnate over a course of one and a half years in Germany (Borho et al., 2020) and up to two years in Norway (Jakobsen et al., 2017). Over a three-month course post-traumatic stress and general anxiety in refugees in Germany did not significantly change, whereas panic symptoms, depression, and quality of life scores improved (Nikendei et al., 2019). In line with this result, over the course of four to ten months a decline of refugees' psychiatric diagnoses - except PTSD - was found in a German sample (Richter et al., 2018), whereas over the course of five years refugees' psychological distress and PTSD declined in an Australian sample (Stuart & Nowosad, 2020).

1.3 Pre-migration stressors

Many refugees have experienced violence, war and other traumatic events in their home country and/or on their journey to Europe (Bajbouj et al., 2021; Davidson et al., 2010). Research has repeatedly associated pre-migration stressors i.e., stressors prior to leaving the home country, with an elevated risk for stress related mental disorders (Kartal et al., 2018; Steel et al., 2009; Wilker et al., 2015). In general, an elevated trauma load has been associated with an elevated risk for mental ill-health in refugee populations, as well as in the general population (Kartal et al., 2018; Steel et al., 2009; Wilker et al., 2015). Simultaneously undergoing immense physical and mental changes, refugee youth might be affected even more severely by an elevated trauma load (Schneider et al., 2017). Older minors were found to be exposed to more traumatic experiences than younger minors (Bean et al., 2007). Further, - even when controlling for age - unaccompanied refugee minors were found to be exposed to more traumatic experiences than accompanied refugee minors (Müller-Bamouh et al., 2020; Müller et al., 2019). Hence, particularly unaccompanied refugee minors seem to be a vulnerable group. Furthermore, early adverse experiences in life increase the risk for mental ill-health in adulthood (Felitti et al., 1998; Kendall-Tackett, 2002). As experience of war violence has been associated with increased violence within the family, high rates of child maltreatment have been reported in war-affected countries (Catani et al., 2008; Catani et al., 2009). Olema et al. (2014) studied war trauma and child maltreatment simultaneously and found that the impact of child maltreatment surpassed the damage of war trauma on psychological disorders. Of potentially traumatic events, interpersonal violence (Tinghög et al., 2017) and especially physical abuse during childhood (Lindert et al., 2014; Margolin & Vickerman, 2011) have shown strong associations with mental ill-health. Moreover, interpersonal violence prior to the age of 10 years predicted later delinquency and violent behaviors (Weaver et al., 2008). Webb et al. (2017) examined hospital admissions due to self-harm, accidents and interpersonal violence before the age of 15 and later self-harm and violent offending at ages 15 – 35 in a national cohort study. They found that trauma-related hospital admissions, linked to interpersonal violence or self-harm, increased the risks for later self-harm and violent criminal offending at ages 15–35 years. About one in four men admitted to hospital because of interpersonal violence before the age of 15 was later convicted for committing a violent crime (Webb et al., 2017). Hence, severe physical abuse in childhood could be a pre-migration stressor with prognostic value for refugee's later integration and emotional distress.

1.4 Post-migration stressors

Post-migration stressors such as a long asylum procedure, ambiguous residence status, lack of employment or limited access to health care, were shown to interact with refugees' mental health (Bauhoff & Göpffarth, 2018; Böttche et al., 2016; Kaltenbach, 2019; Laban et al., 2005; Schneider et al., 2017). Ryan et al. (2008) have even proposed a dose-response relationship of post-migration stress on emotional distress. In line with this, among severely traumatized refugee adolescents post-migration stressors were related to PTSD symptoms (Ellis et al., 2008). Richter et al. (2018) examined refugees over a course of four to ten months and suggested improving social circumstances as well as living conditions as an explanation for the decline of refugees' emotional distress. Further, in other longitudinal studies refugees' emotional distress and post-migration stress were shown to mutually reinforce each other (Bakker et al., 2014; Li et al., 2016; Tingvold et al., 2015).

1.4.1 Residence status

While refugees' asylum procedure and their residence status are prominent post-migration stressors, research has found mixed effects of these on refugees' emotional well-being. A cross-sectional study in the Netherlands reported that accepted refugees showed less PTSD, depression, and anxiety symptoms than asylum seekers (Gerritsen et al., 2006). Similarly, longitudinal studies have shown that rejection of asylum was associated with adult refugees' higher levels of emotional distress over a course of 11.3 months in Australia (Silove et al., 2007), 12 – 24 months in Ireland (Ryan et al., 2008) and in unaccompanied refugee minors in Norway over a course of 26 months (Jakobsen et al., 2017). Nevertheless, a review by Höhne et al. (2020) came to the conclusion that residence status was not a reliable predictive factor for unaccompanied refugee minors' mental ill-health. Additionally, a more recent review by Hornfeck et al. (2022) concluded that the uncertainty and instability of the asylum status, and not the refusal of asylum itself, had negative effects on unaccompanied refugee minors' well-being. A reason for the mixed results could be that refugees' residence status may act as a marker for other post-migration stressors, such as a more complicated access to health care services for asylum seekers, loneliness or language problems (Bauhoff & Göpffarth, 2018; Gleeson et al., 2020; Toar et al., 2009).

1.4.2 Integration

Another burden on refugees is having to deal with acculturative stress when adapting to the new host culture (Berry, 2005; Kartal et al., 2018; Phillimore, 2011). Acculturation refers to the long-term cultural and psychological adaptation occurring when engaging in intercultural contact (Berry, 2005). Research has differentiated between four acculturation strategies, differing on the maintenance of original and host culture: assimilation, segregation, marginalization, and integration (Behrens et al., 2015). Assimilation was defined by resisting to engage with the culture of origin, segregation by resisting to engage with the host culture and marginalization by resisting to engage with either one. In contrast, integration was defined by maintaining the original culture whilst also trying to adapt to the host culture (Behrens et al., 2015; Berry, 2005; Han et al., 2016). Harder et al. (2018) created an empirical measurement for immigrant integration, applicable to different immigration groups and allowing comparisons across countries and over time. We follow Harder et al.'s (2018) definition of integration "as the degree to which immigrants have the knowledge and capacity to build a successful, fulfilling life in the host society" (p.2). *Knowledge* in this context refers to the understanding of the host country's national language, coupled with the ability to navigate the host country's labour market, social institutions, and political system. *Capacity* refers to mental, economic, and social assets immigrants possess to invest in their futures. Harder et al. (2018) further subdivided integration into six different integration dimensions: psychological, economic, political, social, linguistic as well as navigational integration. Longitudinal research on the course of integration is scarce. Lichtenstein and Puma (2019) have shown integration to steadily increase in newly arrived adult refugees over the course of four years in the USA. Contrary to that, Schick et al. (2016) examined refugees seeking psychological treatment in outpatient clinics in Switzerland and concluded that they showed serious integration difficulties regardless of their duration of stay.

Research has demonstrated that refugees' emotional distress and their integration mutually reinforce each other: In cross-sectional studies, participants with integration as an acculturative strategy showed less depressive symptoms (Behrens et al., 2015), a decreased risk of depression and anxiety (Ince et al., 2014) and were more resilient (Han et al., 2016) than participants using other acculturative strategies. Chen et al. (2019) examined refugees in Australia and concluded that loneliness as well as social integration stressors may exacerbate the association between pre-migration trauma and mental ill-health. In longitudinal research, an association between mental health and integration was also shown: Wu et al. (2021) examined refugees over the course of four years and highlighted economic stressors, loneliness and adjustment to life in Australia as relevant risk factors for refugees' mental ill-health. Over the course of five years,

refugees' cultural integration (adapting to life in Australia), financial stress and loneliness - over and above pre-migration stressors - were shown to affect their mental health (Stuart & Nowosad, 2020). Additionally, increased psychological distress three years post-migration predicted acculturative difficulties, including lingustic and social integration, as long as 23 years later (Tingvold et al., 2015).

1.4.3 COVID-19 pandemic

Over and above pre-, peri- and post-migration stressors, a new potential burden has been added with the COVID-19 pandemic. Alpay et al. (2021) measured COVID-19 traumatic stress in refugees, such as social isolation or traumatic economic stress, and showed that it was related to elevated PTSD, depression, and anxiety rates. Moreover, they showed that torture survivors had a higher risk of being hospitalized due to COVID-19. Due to isolation, loss of control and the experience of repeated helplessness, the regulations (e.g., lock downs) surrounding the COVID-19 pandemic may have exacerbated PTSD symptoms in refugees (Kizilhan & Noll-Hussong, 2020; Mattar & Piwowarczyk, 2020; Rees & Fisher, 2020). Vulnerable groups such as refugees, having greater difficulty accessing health care services or lacking access to clear information about the pandemic, may have been affected even more than the general population by the pandemics' negative consequences (Alpay et al., 2021; Aragona et al., 2020; Gibson et al., 2021). While the COVID-19 pandemic has been reported to negatively affect mental health in the general population and in refugee populations (Alpay et al., 2021; Taquet et al., 2021), evidence delineating the potential stressful impact is still limited (Bernardi et al., 2021).

1.5 Mental health care of refugees in Germany

Despite the above described research, only a small percentage of emotionally distressed refugees in European countries receive adequate treatment (Munz & Melcop, 2018). This aligns with studies showing that mental health care is not adequately ensured for refugees in Germany and that refugees' access to adequate mental health care services is hampered by several barriers (Bauhoff & Göpffarth, 2018; Bozorgmehr et al., 2016; Dumke et al., 2024). In Germany, refugees are required by law to take a physical examination upon arrival. However, despite European guidelines and research recommendations, a mental health screening upon arrival has not been implemented (Bauhoff & Göpffarth, 2018; German National Academy of Sciences Leopoldina, 2018; Schneider et al., 2017; The European parliament and the council of the European union, 2013). Moreover, most asylum seekers in Germany do not have regular health insurance during the first 18-months of their stay and often there is only coverage for the

treatment of pain, acute illnesses, emergencies, vaccinations as well as maternity care (Baron & Flory, 2020; Bauhoff & Göpffarth, 2018; Schröder et al., 2018). Psychotherapy as an additional service must be approved on a case-by-case basis by local municipalities (Schröder et al., 2018). Further barriers refugees mentioned are language challenges, as well as missing information about the structure of the German health care system and mental health services (Boettcher et al., 2021; Schröder et al., 2018).

Studies by Manok et al. (2017) and Thöle et al. (2017) revealed that therapists mention several barriers they encounter when offering psychotherapy to refugees: organizational challenges, such as lack of financial compensation for additional work, missed appointments, translators, and increased complexity and waiting times for psychotherapy funding of refugee clients without regular health insurance. Moreover, there are treatment-related challenges such as insufficient knowledge in dealing with (traumatized) refugees, cultural differences, and the lack of adequately trained translators (Manok et al., 2017; Renner, 2009; Thöle et al., 2017). Additionally, refugees' living conditions such as placement in refugee shelters, uncertain residency status and limited work permits, may all be emotionally distressing, thereby complicating the therapy process further (Gartley & Due, 2017; Thöle et al., 2017). On top of these barriers there is often a lack of expertise and experience in the treatment of refugee clients which may result in a fear of contact (Baron & Flory, 2020; Mohammed & Karato, 2022). Dumke and Neuner (2022) showed an *othering* of refugee clients in a vignette experiment with psychotherapists licensed in Germany: Psychotherapists expected more difficulties and negative emotions in the treatment of refugee clients from the Middle East than from patients from Germany. Even though the described refugee and non-refugee clients were depicted with the same symptoms, the psychotherapists tended to refuse an outpatient and evidence-based treatment of refugee clients. On top of this, treating less refugee clients in the last twelve months and attending less further training on the treatment of refugee clients were associated with more therapy-hindering attitudes. In line with this, previous therapeutic experience with refugee clients as well as less self-doubt and feelings of comfortableness working with translators were associated with an increased readiness to accept refugee clients (Schlechter et al., 2021). A reduction of referrals of refugee clients to psychotherapists in private practice has been noted in recent years (Baron & Flory, 2020; Mohammed & Karato, 2022) and the depicted barriers may contribute to the inadequate mental health care refugees receive.

1.6 Research project

While former research identified many barriers to mental health care there are little evaluation studies depicting efforts to improve refugees' health care access and utilization, hence implementation research is needed (Satinsky et al., 2019). In view of this, the model project "Fearless" was implemented by the Center of Excellence for Psychotraumatology of the University of Konstanz, the Lake Constance Institute for Psychotherapy "apb", and the Non Governmental Organization (NGO) "vivo international". The projects' aim was to facilitate adolescent refugees' access to mental health care services in the federal state of Baden-Württemberg, Germany, by establishing a training plan for the screening and treatment of adolescent refugees. The project was funded by the Foundation Baden-Württemberg. Social workers at the refugee shelters informed potential participants, mostly between the ages of 14 and 22 years, about the project. Participants were screened by trained psychologists with a bachelor's, master's or doctoral degree, working for the Fearless project. The screening included the Refugee Health Screener (RHS) to assess participants' emotional distress (Hollifield et al., 2016; Hollifield et al., 2013; Kaltenbach et al., 2017). Emotionally distressed participants, identified by having scores above the critical cut-off, were offered psychotherapy - not limited to trauma-focused treatments - within the project, or a referral to other services. Translators, peer counsellors, psychotherapists in training, and their supervisors were trained and supervised, as follows; translators and peer counsellors were trained in translation in psychosocial contexts, mediating between cultures and navigating the German health care system. Peer counsellors were further trained on how to support clients during their access to health care services and treatment, with respect to organizational or psychological aspects (e.g., accompanying them to - and reminding them of - individual appointments). Psychotherapists in training received four days of training in the diagnosis and treatment of PTSD using Narrative Exposure Therapy (NET) and Forensic Offender Rehabilitation NET (FORNET), an adaptation of NET for offenders with a low aggression threshold (Hecker et al., 2015). Further, the supervisors of the psychotherapists in training received project supervision in NET and FORNET if needed.

1.7 The aims of this thesis

This thesis examines which pre-, peri- and post-migration stressors influence refugees' emotional distress and integration in Germany cross-sectionally (chapter 2), as well as longitudinally (chapter 3). After the initial assessment$_{t0}$, all participants were contacted again for a follow-up assessment$_{t1}$ nine months later. At both assessments, the prognostic value of severe physical abuse in childhood as a pre-migration stressor was examined. Moreover, at both assessments, the predictive value of various post-migration stressors, such as refugees' residence status, and pandemic months - months since the start of the COVID-19 pandemic - were analysed. With these analyses, I intend to further examine the association between refugees' emotional distress and integration. Further, in chapter 4, to understand and overcome barriers to healthcare for refugee clients, qualitative interviews with therapists that had participated in the Fearless project were carried out. The analysis focused on therapists' experience of challenges, enrichments, and their motivation throughout their therapy with refugee clients. The readiness of psychotherapists to engage with refugee clients is essential to tackle refugees' high prevalence of mental ill-health and support their integration. In the conclusion in chapter 5, the results of the empirical work will be looked at in a broader perspective and further research and practical implications will be discussed.

2 Study I: The impact of experiencing severe physical abuse in childhood on adolescent refugees' emotional distress and integration during the COVID-19 pandemic

2.1 Abstract

Background: Accumulating evidence highlights the importance of pre- and post- migration stressors on refugees' mental health and integration. In addition to migration-associated stressors, experiences earlier in life such as physical abuse in childhood as well as current life stress as produced by the COVID-19-pandemic may impair mental health and successful integration – yet evidence on these further risks is still limited. The present study explicitly focused on the impact of severe physical abuse in childhood during the COVID-19 pandemic and evaluated the impact of these additional stressors on emotional distress and integration of refugees in Germany. **Methods:** The sample included 80 refugees, 88.8% male, mean age 19.7 years. In a semi-structured interview, trained psychologists screened for emotional distress, using the Refugee Health Screener, and integration status, using the Integration Index. The experience of severe physical abuse in childhood was quantified as a yes/no response to the question: "Have you been hit so badly before the age of 15 that you had to go to hospital or needed medical attention?" Multiple hierarchical regression analyses further included gender, age, residence status, months since the start of the COVID-19 pandemic and length of stay in Germany to predict emotional distress and integration. **Results:** Two regression analyses determined significant predictors of (1) emotional distress (adjusted $R^2 = .23$): duration of being in the pandemic ($\beta = .38$, $p < .001$) and severe physical abuse in childhood ($\beta = .31$, $p = .005$), and significant predictors of (2) integration (adjusted $R^2 = .53$): length of stay in Germany ($\beta = .62$, $p < .001$), severe physical abuse in childhood ($\beta = .21$, $p = .019$) and emotional distress ($\beta = -.28$, $p = .002$). **Conclusion:** In addition to migration-associated stressors, severe physical abuse in childhood constitutes a pre-migration risk, which crucially affects the well-being, emotional distress and integration of refugees in Germany.

Keywords: refugees, physical abuse, childhood abuse, post-migration stressors, COVID-19 pandemic, integration, emotional distress, adolescents

2.2 Introduction

From 2010 to 2019 the number of refugees worldwide has doubled from about 10 million in 2010 to 20.4 million in 2019 (United Nations High Commissioner for Refugees (UNHCR), 2020). In 2021, the UNHCR estimated that the number of refugees worldwide was as high as 26.6 million and the number of asylum seekers as high as 4.4 million (UNHCR, 2021). In 2019, approximately half of the refugees were minors below 18 years of age and 13% were young adults between 18 and 24 years (2020). Germany alone hosted 1.2 million refugees in 2021 (2021) and accepted the largest number of asylum applications worldwide in the past decade (Hoell et al., 2021; 2020). The activities and efforts to enable social integration and support the refugees' well-being also brought forth many challenges (Kaltenbach, 2019; Silove et al., 2017). For instance, a Swiss study showed that even after 10 years of residence in Switzerland, refugees showed serious integration difficulties, including struggling with language barriers, isolation and unemployment (Schick et al., 2016). An impairing factor may be that refugees from war- and/or violence-inflicted regions suffered from mental disorders resulting from these experiences more often than the adult population in Western nations (Hoell et al., 2021): Compared to the general adult population refugees are up to 15 times more likely to suffer from PTSD and up to 14 times more likely to suffer from depression, prevalence rates varying between 4.4 – 86% for PTSD and 2.3 – 80% for depression (Bogic et al., 2015). A recent meta-analysis focusing on German refugees and asylum seekers indicated a prevalence of 29.9% for PTSD, and 39.8% for depression (Hoell et al., 2021). Similar if not higher prevalence rates were found in refugee youth. According to a recent review, half of the refugee youth might be affected by PTSD and up to a third by emotional or behavioral problems, such as depression or anxiety disorder (Kien et al., 2019).

Different stressors experienced pre-migration, i.e. prior to leaving the home country, peri-migration, during the flight, and post-migration, upon arrival in the host country, have been shown to affect refugees' mental health, making it even more likely for them to suffer and impair their integration (Aragona et al., 2020; Kartal et al., 2018; Schick et al., 2016). These stressors might affect refugee youth even more severely, as they simultaneously undergo immense physical and mental changes (Schneider et al., 2017). Many refugees have experienced *pre-migration stressors* such as atrocities during war and other traumatic events in their home country and/or on the journey to Europe (Bajbouj et al., 2021; Davidson et al., 2010). In the general population as well as in refugee populations, an elevated trauma load has been associated with an elevated risk for mental ill-health and stress related mental disorders (Kartal et al., 2018; Steel et al., 2009; Wilker et al., 2015). Among potentially traumatic events, interpersonal

violence had the strongest associations with mental problems (Tinghög et al., 2017). In addition, reports and observations suggested that adverse experiences earlier in life and before war/crisis-associated traumata impair healthy development, increase the risk for mental health problems and the ability to flexibly adapt to new social situations (Felitti et al., 1998; Kalia & Knauft, 2020; Kendall-Tackett, 2002; Olema et al., 2014). Research has found that older minors were exposed to more traumatic experiences than younger minors (Bean et al., 2007), and that even when controlling for age unaccompanied refugee minors were exposed to more traumatic experiences than accompanied refugee minors (Müller-Bamouh et al., 2020; Müller et al., 2019). In particular, physical abuse and other types of abuse during childhood have been identified as increasing the risk for PTSD (Margolin & Vickerman, 2011), adult depression and anxiety (Lindert et al., 2014), and a more severe course of mental disorders (Teicher & Samson, 2013). High rates of child maltreatment have been reported in war-affected countries (Catani et al., 2008; Catani et al., 2009) and it was shown that the impact of maltreatment in childhood surpassed the damage of recent war trauma (Olema et al., 2014). In a national cohort study, Webb et al. (Webb et al., 2017) examined the association of hospital admissions because of self-harm, accidents and interpersonal violence before the age of 15 and self-harm and violent offending at ages 15 – 35. About one in four men admitted to hospital because of interpersonal violence before the age of 15 was later convicted for committing a violent crime (Webb et al., 2017). *Severe physical abuse in childhood* leading to hospital admissions showed a significant prognostic value and Webb et al. (Webb et al., 2017) stated that these results were probably internationally generalizable. Furthermore, interpersonal violence seemed to increase the risk for the perpetration of violence (Weaver et al., 2008), which might be a risk factor against successful reintegration.

Aiming to assess the unique impact of severe physical abuse in childhood on refugee's emotional distress and integration, this study takes the influence of known post-migration stressors into account. Several *post-migration stressors* - including a long asylum procedure, lack of employment or limited access to health care - interact in their impact on the refugees' mental health (Bauhoff & Göpffarth, 2018; Böttche et al., 2016; Kaltenbach, 2019; Laban et al., 2005; Schneider et al., 2017). In fact, numerous longitudinal studies have demonstrated that emotional distress and post-migration stressors seem to mutually reinforce each other (Bakker et al., 2014; Li et al., 2016; Tingvold et al., 2015). Examining adolescent refugees, it was found that even among severely traumatized youth, post-migration stressors were powerfully related to the presence of PTSD symptoms (Ellis et al., 2008). One of the most prominent post-migration stressors influencing the mental health of refugees is their asylum procedure and *residence status* (Baron

& Flory, 2020). In a longitudinal study, the symptom severity of PTSD, anxiety and depression of refugees with accepted claims and refugees with rejected claims was examined (Silove et al., 2007). Despite similar pre-migration trauma and baseline psychiatric symptoms the symptom severity of refugees with accepted claims improved substantially, whilst refugees with rejected claims maintained high symptom severity levels (Silove et al., 2007). Further studies reported that accepted refugees showed less PTSD, anxiety and depression symptoms than asylum seekers (Gerritsen et al., 2006; Stenmark et al., 2013). Several studies suggested that the length of the asylum procedure severely affects mental health (Laban et al., 2005; Phillimore, 2011). Heeren et al. (Heeren et al., 2016) found that the association between residence status and depression and anxiety remained significant even after controlling for other influencing factors, such as traumatic events, integration and social desirability. Interestingly, in this research the diagnosis of PTSD was independent of the residence status (Heeren et al., 2016).

In addition to the stress related to the residence status, including the risk of being sent back to perilous living conditions in the country of origin, refugees must deal with acculturative stress whilst adapting to the new host culture (Berry, 2005; Kartal et al., 2018; Phillimore, 2011). Amongst four acculturation strategies: assimilation, marginalization, separation and integration, the latter is considered best for emotional well-being (Behrens et al., 2015; Berry, 2005; Han et al., 2016). In contrast to the other strategies, which resist engaging with either the culture of origin and/or the host culture, *integration* aims at maintaining the heritage culture whilst aspiring to become fully engaged in the host society (Han et al., 2016). Harder et al. (2018) defined integration "as the degree to which immigrants have the knowledge and capacity to build a successful, fulfilling life in the host society" (p.2). In this context knowledge refers to the comprehension of the host country's political system, social institutions and national language coupled with the skill to navigate the labour market of the host country; whereas capacity in this context refers to mental, economic and social assets immigrants have to invest in their futures (Harder et al., 2018). Integration is, in this definition, subdivided into six different dimensions: psychological, economic, political, social, linguistic as well as navigational integration (Harder et al., 2018). Research has demonstrated that emotional distress of refugees impaired their integration process. Phillimore (2011) noted that refugees diagnosed with mental disorders struggled to engage in integrating activities, such as seeking employment or forming relationships with the host population. In longitudinal studies, increased psychological distress three years post-migration predicted acculturative difficulties 23 years post-migration (Tingvold et al., 2015). However, the success of integration also influences emotional distress. A longitudinal study on refugees showed that post-migration stressors such as cultural

integration, financial stress and loneliness - over and above pre-migration stressors - affected refugees' mental health and disrupted their recovery of mental health over the course of resettlement of 5 years (2020). It has been proposed that pre-migration stressors, post-migration stressors and fear for the future create an ongoing "continuum of stress" for refugees (Nickerson et al., 2011; Silove et al., 1991).

On top of all these already examined post-migration stressors, a new additional potential challenge of well-being and mental health has evolved with the *COVID-19 pandemic*. Indeed, the COVID-19 pandemic has already been reported to affect psychiatric disorders (Alpay et al., 2021; Taquet et al., 2021) and even exacerbate PTSD symptoms due to isolation, loss of control and the experience of repeated helplessness (Kizilhan & Noll-Hussong, 2020; Mattar & Piwowarczyk, 2020; Rees & Fisher, 2020). It has already been suggested that the negative consequences of the pandemic may affect vulnerable groups such as refugees even more than the general population (Alpay et al., 2021; Aragona et al., 2020; Gibson et al., 2021). Yet, evidence delineating the potential stressful impact of the COVID-19 pandemic on the mental health of refugees is still limited (Bernardi et al., 2021).

Considering the above cited evidence, the present study emphasized the following stress factors as predictors of emotional distress and successful integration in a sample of adolescent refugees in Germany: severe physical abuse in childhood and current COVID-19 pandemic.

2.3 Methods

2.3.1 Sample

Altogether 97 refugees were recruited if they met the inclusion criteria of refugee status and presenting sufficient understanding of procedures and questions. Data of n = 12 refugees had to be excluded due to too much missing data on one of the key variables: severe physical abuse in childhood, emotional distress or integration. Data of one refugee aged 41 years was excluded due to the research's focus on refugee adolescents. Moreover, as physical abuse experienced before the age of 15 years was determined as index of severe physical abuse in childhood, n = 4 refugees younger than 15 years had to be excluded. The final sample of N = 80 included 71 male (88.8%) and 9 female (11.3%) participants, aged 15 to 27 years, mean age 19.7 years (SD = 2.2 years). In case of missing socio-demographic data, missing values are indicated by the deviating n in the results section.

2.3.2 Design and procedure

The assessment was part of a larger project implemented by the Center of Excellence for Psychotraumatology of the University of Konstanz, the Bodensee-Institut für Psychotherapie, and the NGO "vivo international". The project aims at integrating refugees between 14 and 22 years in the existing health care system to provide them with mental health service. The project and current study were approved by the Ethics Committee of the University of Konstanz.

The screening took place from March 2020 to January 2022. Government authorities working with refugees in the German state of Baden-Württemberg, mainly near the city of Konstanz, were informed of the upcoming research project. Social workers employed at the refugees' accommodation informed potential participants between 14 – 22 years about the project. If refugees agreed to participate, an appointment was scheduled via the social worker. Most of the screenings took place in the refugees' accommodation in a separate office and 8.8% came to the office of the Center of Excellence for Psychotraumatology at the University of Konstanz. The questionnaires were administered in a semi-structured interview by trained psychologists with a PhD or master's degree working at the Center of Excellence for Psychotraumatology. Trained interpreters were present in 55% of all cases whereas the other interviews took place in English or German. Prior to screening, participants were informed about the study and signed written informed consent. For the $n = 14$ minors a legal guardian gave additional written consent. It was explained that the participation was voluntary, that it would not influence the asylum procedure and that all data was handled confidentially. Moreover, participants were informed that no monetary compensation was offered and that they would not have to pay for a potential and voluntary treatment. When the screening interview, which lasted about 45 minutes, was completed, the refugees' symptoms and potential treatment offers were discussed, which included psychotherapy within the project or a transfer to other institutions, for example to refugee psychosocial consultations.

2.3.3 Measurement instruments and measures

The screening interview included *sociodemographic information* such as age, country of origin, years of education, residence status, health insurance, arrival date in Germany, whether the participants had arrived accompanied by family members and whether they had family living in Germany. Moreover, they were asked if they had been involved in physical fighting since entering the country. In addition to sociodemographic information, *length of stay* was calculated according to the arrival date in Germany and *pandemic months* was calculated according to the months passed since March 2020.

Severe physical abuse in childhood was assessed with the question: "Have you been hit so badly before the age of 15 that you had to go to hospital or needed medical attention?" Participants responded with a yes/no answer. This question refers to the findings of Webb et al. (Webb et al., 2017), who analysed hospital admissions in a national cohort study and showed that having experienced interpersonal violence causing hospitalization prior to the age of 15 years considerably increases the risk of harming one-self and/or being convicted because of a violent crime between the age of 15 to 35 years.

Emotional distress was examined using the Refugee Health Screener (RHS), a screening tool assessing emotional distress of refugees (Hollifield et al., 2013). The RHS has been applied in various settings with refugees and good reliability and concurrent and predictive validity were found (Hollifield et al., 2016; Hollifield et al., 2013; Kaltenbach et al., 2017). The RHS-13, which has 13 items, was used in this study (Hollifield et al., 2016). This instrument showed acceptable psychometric properties while being efficient without compromising specificity or sensitivity (Hollifield et al., 2016). The RHS-13 was found to be more economical and valid than the RHS-15 (Borho et al., 2022). Participants rated how much they were bothered by each symptom in the last month, e.g., "feeling down, sad, or blue most of the time". All items were rated on a 5-point Likert scale ranging from 0 (*not at all*) to 4 (*extremely*). The cumulative score ranges between 0 – 52. Participants (n = 5) that did not rate > 10% of the RHS-13 items were excluded from the analyses (Hollifield et al., 2016). If participants' missing items accounted for ≤ 10% of the RHS-13 the respective items were set to zero (Kaltenbach et al., 2017). A dichotomous cut-off score was used and psychotherapy was offered to participants with a total score ≥ 11, which indicated high emotional distress (Hollifield et al., 2016). In the present study, Cronbach's alpha for the instrument resulted in $\alpha = .91$.

The Integration Index was developed by the Immigration Policy Lab (IPL) and assesses psychological, economic, political, social, linguistic and navigational dimensions of *integration* (Harder et al., 2018). In this study the IPL-12 scale was used, where each dimension is assessed

with two items (Harder et al., 2018). Each of the 12 items can score between 1 and 5 points resulting in a cumulative score between 12 and 60. The cumulative score can be rescaled to range between 0 and 1 for a standardized IPL Integration Index score. Harder et al. (Harder et al., 2018) concluded that the questionnaire was appropriate across different countries and different immigrant groups. The Integration Index distinguished among groups of different integration levels and correlated with length of stay and residence status (Harder et al., 2018), showing construct validity. Aligning with the handling of missing items of the RHS-13, participants (n = 9) that did not rate > 10% on the IPL-12 were excluded from the analyses and if participants' missing items accounted for ≤ 10% of the IPL-12 the respective items were set to one. In this study, the Cronbach's alpha for the instrument resulted in $\alpha = .79$.

2.3.4 Data analysis

Version 28 of the Statistical Package for Social Sciences (SPSS; IBM Deutschland GmbH, Ehningen, Germany) was used for all data preparation and statistical analyses. For each analysis the respective level of significance ($\alpha \leq 0.5$) is indicated and all correlations were tested two-sided. All sum scores and parameters were generated according to the guidelines of the questionnaires. The requirements for each analysis were examined and if they were not met another suitable analysis was performed.

Kendall's tau correlations and multiple hierarchical regression analyses served to delineate the contribution of various post-migration stressors and, in particular, the impact of severe physical abuse in childhood on emotional distress and integration. The first multiple hierarchical regression analysis targeted emotional distress and included the variables gender, age, residence status and pandemic months as additional variables and severe physical abuse in childhood was entered in the second block. The second multiple hierarchical regression analysis predicted integration with gender, age, length of stay in Germany and emotional distress first entered. Severe physical abuse in childhood was entered in a second block. The model fit of the regressions was examined by assessing in which model the Akaike Information Criterion (AIC) was lowest (Akaike, 1987).

2.4 Results

2.4.1 Participants' current living situation

Of the study sample (N = 80; mean age 19.7 years; SD = 2.2 years), n = 14 had entered Germany as accompanied minors and n = 24 had entered Germany as an unaccompanied minor. Most participants (60.8% of n = 79 participants) did currently not have parents or siblings living in Germany. Most of the participants were from Afghanistan (22.5%), Syria (21.3%), Gambia (16.3%) and Guinea (10%). The years of education ranged from 0 to 15 years and participants had visited on average 7.7 years of education (SD = 3.9 years). From all disclosures on residence status (n = 78), 24.4% had a residence permit, thus enjoyed a secure residence status, while the asylum process was still in progress for 34.6%, which meant only partly insecurity for these participants. For 41% the residence status was not secure, as their asylum application had been rejected or they were awaiting a result in a follow-up asylum procedure. Regarding their occupation (n = 79), 41.8% of participants were engaged in school education or vocational training, 19% in language courses, 29.1% had no occupation, and 10.1% were employed full- or part-time. Sixteen participants reported to have been involved in physical fights since their arrival in Germany.

Experiencing restrictions during the *COVID-19 pandemic* was considered an additional burden. Relative to the length of stay in Germany of an average of 2.5 years (SD = 2.0 years; range 2 to 97 months), on average 10.6 months (SD = 5.1; range 5 to 23) had passed since the beginning of the COVID-19 pandemic in March of 2020. Of n = 51 participants, 34 did not have a health insurance card, hence no direct access to the German health system.

One of the main areas of interest of this study was the mental health status of the present refugee sample, described by their *emotional distress*, *integration* and having experienced *severe physical abuse in childhood*. As per the RHS-13, emotional distress ranged from 0 to 45, with an average of 16.1 points (SD = 12.8). About half of the participants (55.9%) scored above the cut-off of 11. As per the IPL-12, the Integration Index ranged from 14 to 55 with an average score of 30.2 (SD = 8.6), the average of the rescaled integration score was .38 (SD = .18). Regarding experiences of severe physical abuse in childhood, n = 28 responded that they had experienced severe physical abuse in childhood.

2.4.2 Contribution of living situation and severe physical abuse in childhood to emotional distress and integration

Table 1 summarizes all correlations of the relevant variables. Emotional distress correlated negatively with integration (r = -.25, p = .002), positively with severe physical abuse in childhood (r = .34, p < .001) and pandemic months (r = .19, p = .021). Integration correlated negatively with pandemic months (r = -.23, p = .005) and positively with length of stay (r = .48, p < .001).

Table 1: Kendall's tau correlations at assessment$_{t0}$

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Emotional distress	-								
2. Integration	-.247**	-							
3. Severe physical abuse in childhood	.342**	.159	-						
4. Pandemic months	.185*	-.224**	.155	-					
5. Length of stay	-.134	.479**	.091	-.290**	-				
6. Gender	-.150	.010	-.178	.233*	-.130	-			
7. Age	.012	.046	.045	-.237**	.160	-.304**	-		
8. Residence status	-.061	-.105	-.176	-.135	-.158	-.079	.164	-	
	n = 78	n = 78	n = 78	n = 78	n = 78	n = 78	n = 78		
9. Family in Germany	-.189*	-.112	-.379**	.133	-.176	.446**	-.344**	-.097	-
	n = 79	n = 79	n = 79	n = 79	n = 79	n = 79	n = 79	n = 77	

Note. *p<.05, **p<.01. If values do not depict the full sample (N = 80) the deviating number of n is indicated.

The first hierarchical regression analysis (see Table 2) showed that *emotional distress* was best predicted by the length of pandemic months ($\beta = .46$, $p < .001$). In the second model, severe physical abuse in childhood added variance ($\beta = .31$, $p = .005$) in addition to the pandemic months ($\beta = .38$, $p < .001$). The latter model (F (5, 72) = 5.63 and $p < .001$) showed the lowest AIC, explained most variance (adjusted $R^2 = .23$) and the change in F (8.564) was significant $p = .005$.

Table 2: Regression models of emotional distress on gender, age, residence status, pandemic months and severe physical abuse in childhood at assessment$_{t0}$.

Model	Predictor	*b*	*SE b*	*β*	*T*	*P*	R^2	*AIC*
1.	(constant)	-6.100	13.861		-.440	.661	.151	389.015
	Gender	-5.482	4.919	-.124	-1.114	.269		
	Age	.611	.646	.103	.945	.348		
	Residence status	-.396	1.713	-.025	- .231	.818		
	Pandemic months	1.136	.277	.456	4.100	<.001		
2.	(constant)	-6.114	13.195		-.463	.664	.231	382.249
	Gender	-2.698	4.778	-.061	-.565	.574		
	Age	.461	.617	.078	.747	.458		
	Residence status	.453	1.656	.028	.247	.785		
	Pandemic months	.937	.272	.376	3.440	<.001		
	Severe physical abuse in childhood	8.233	2.813	.312	2.926	.005		

Note. The determination coefficient R^2 depicts the adjusted R^2 for the respective regression model. *AIC* = Akaike Information Criterion. These values do not depict the full sample $n = 78$.

Integration (see Table 3) was best predicted by length of stay in Germany (β = .67, p < .001) and emotional distress (β = -.19, p = .025). Severe physical abuse in childhood (β = .21, p = .019) added variance in the second model in addition to emotional distress (β = -.28, p = .002) and length of stay (β = .62, p < .001). Altogether the latter model (F (5, 74) = 18.48, p < .001) showed the lowest *AIC*, explained 53% of variance and the change in F (5.718) was significant p = .019.

Table 3: Regression models of integration on gender, age, length of stay, emotional distress, and severe physical abuse in childhood at assessment$_{t0}$.

Model	Predictor	*b*	*SE b*	*β*	*t*	*P*	R^2	*AIC*
1.	(constant)	39.929	6.612		5.585	<.001	.495	294.996
	Gender	.557	2.311	.021	.241	.810		
	Age	-.598	.029	-.153	-1.798	.076		
	Length of stay	.236	.029	.670	8.125	<.001		
	Emotional distress	-.126	.055	-.188	-2.290	.025		
2.	(constant)	36.675	6.414		5.718	<.001	.525	291.042
	Gender	1.174	2.257	.043	.520	.604		
	Age	-.577	.323	-.148	-1.789	. 078		
	Length of stay	.217	.029	.617	7.446	<.001		
	Emotional distress	-.190	.060	-.282	-3.178	.002		
	Severe physical abuse in childhood	3.838	1.605	.213	2.391	.019		

Note. The determination coefficient R^2 depicts the adjusted R^2 for the respective regression model. *AIC* = Akaike Information Criterion. These values depict the full sample N = 80.

2.5 Discussion

The present study addressed the impact of severe physical abuse in childhood on emotional distress and integration of adolescent refugees in Germany during the COVID-19 pandemic. Results confirmed that *severe physical abuse in childhood* explained *emotional distress* to a large extent, even when controlling for gender, age and postmigration factors. This finding is in line with results highlighting the detrimental role of physical abuse in childhood on mental health (Kalia & Knauft, 2020; Kendall-Tackett, 2002; Lindert et al., 2014; Margolin & Vickerman, 2011). Stressful and violent life experiences during the emotional and cognitive development in childhood and adolescence are known to impair brain and endocrine development, and thereby increase vulnerability when subsequent stressors occur (Charmandari et al., 2003; Elbert et al., 2006; Teicher et al., 2016). According to a recent review such adverse childhood experiences might affect emotion regulation and cause cognitive distortions, negative core beliefs and anxiety sensitivity, which in turn increase the risk of trauma-related disorders (Panagou & MacBeth, 2022).

In this research, age was not associated to refugee's emotional distress. Research (Bean et al., 2007) that found an association between age, traumatic experiences and emotional distress examined a younger sample of unaccompanied refugee minors and their overall traumatic experiences. The negative correlation between emotional distress and having family in Germany supported evidence that being in the host country with family was associated with less emotional distress in the refugees (Chen et al., 2017; Laban et al., 2005; Miller et al., 2018). Two reviews reported a higher prevalence of mental health problems in unaccompanied refugee minors than in those accompanied by family (El Baba & Colucci, 2018; Kien et al., 2019). Family-related emotions and cognitions such as missing the family, loneliness and worries about family in the home country can contribute to the risk for psychopathological developments (Laban et al., 2005). Family was identified as a key domain for interference of postmigration stressors with trauma-related treatment of refugees (Bruhn et al., 2018).

The present study explored the *COVID-19 pandemic* as a further potential stressor which impacts refugee's mental health and integration. Indeed, results indicated that refugees were more emotionally distressed and less integrated the more pandemic months they had experienced since March 2020. The variable pandemic months explained a substantial amount of variance of emotional distress, even after severe physical abuse in childhood was added as a predictor. This emphasizes the COVID-19 pandemic as a stress factor impairing mental health (Alpay et al., 2021; Taquet et al., 2021). When Germany implemented contact restrictions and social distancing in March 2020, helpline contacts increased dramatically, mainly driven by

mental health issues such as loneliness, fear and depression (Armbruster & Klotzbücher, 2020). It is possible that the harmful impact of social distancing affected the vulnerable group of refugees even harder, increasing the likelihood that they experienced isolation, loss of control and repeated helplessness (Alpay et al., 2021; Aragona et al., 2020; Gibson et al., 2021; Kizilhan & Noll-Hussong, 2020; Mattar & Piwowarczyk, 2020; Rees & Fisher, 2020). In line with this assumption, more refugees (55.9 %) met the cut-off of the RHS-13 for high emotional distress in our research than in prior studies (23 – 41%; Hollifield et al., 2016; Kaltenbach et al., 2017). Moreover, Kaltenbach et al. (2017) reported a lower average RHS score in a refugee sample from 2016 (M = 11.55, SD = 11.92) that lived in Germany for less time (M = 6.53, SD = 2.99 months) than the present sample. While the higher emotional distress in this sample may be attributable to differing demographic factors, it seems likely that the increased emotional distress could be due to COVID-19 related stressors. This highlights an urgent need to further examine the impact and mechanisms of COVID-19 related stressors.

The present results confirmed that refugees with higher *integration* scores showed less emotional distress – and vice versa (Behrens et al., 2015; Berry, 2005; Han et al., 2016). In a previous study, integration has been shown to increase resilience in unaccompanied refugee minors (Rodriguez & Dobler, 2021). Among factors influencing successful integration, the cultural distance between refugees and the host country has been emphasized. In Norway, less integration and more psychological distress was found in immigrants from non-Western compared to immigrants from Western countries (Dalgard & Thapa, 2007). In the present sample, most of the refugees were from non-Western countries, so that cultural distance might have contributed to distress and poor integration. Harder et al. (Harder et al., 2018) reported average standardized IPL-12 scores of .8. in a stratified sample of high-income immigrants, .55 in a sample of low-income immigrants, .46 in immigrants recently enrolled in English language classes in the United States, and .69 in a stratified sample of immigrants in Germany. The average rescaled integration score in our study was lower (.38), indicating that refugees' integration levels differ from immigrants' integration level. Potential differences between refugees and immigrants could be differences in the experience of pre-migration traumatic events, voluntariness of migration and/or abilities to return to their home country (Phillimore, 2011).

A recent review on post-migration stressors and mental health in refugees concluded that length of the asylum procedure - especially a protracted asylum process - was one of the most frequently mentioned post-migration stressors (Gleeson et al., 2020). Yet, *residence status* was neither associated with higher emotional distress (Chen et al., 2017; Gleeson et al., 2020) nor integration (Schick et al., 2016). This suggests that residence status might be associated with

other post-migration stressors, such as different living arrangements, different abilities to seek work and a differing access to health care services between asylum seekers and refugees (Bauhoff & Göpffarth, 2018; Toar et al., 2009).

When *severe physical abuse in childhood* was entered into the regression on *integration***,** the regression weight of emotional distress increased. In turn, the association between severe physical abuse in childhood and integration became significant, when controlling for emotional distress. It is tempting to assume that severe physical abuse in childhood and emotional distress acted as reciprocal suppressor variables in this multiple linear regression both increasing the other's regression weight (Conger, 1974). Severe physical abuse in childhood was positively associated with integration. This might indicate that the experience of severe physical abuse in childhood had some adaptive consequences for the refugees. Refugees who have experienced severe physical abuse and other traumatic experiences in their childhood might feel less connected to their home country and may therefore have a stronger motivation to integrate into the host country, than refugees without these experiences. Another explanation has been provided by Haer and Scharpf (Haer et al., 2021), who found that social capital increased in communities in the aftermath of experiencing severe violence if the individuals did not develop mental health problems from these experiences. Moreover, research has shown that prenatal stress epigenome-wide interactions with the postnatal environment may enhance resilience in children (Serpeloni et al., 2019). It is possible that the refugees in this research who had experienced severe physical abuse in childhood differed regarding their pre- and postnatal environment, resilience and/or emotion regulation, which in turn resulted in different emotional distress and integration levels.

Mental health of refugees is crucial for their successful integration (Bakker et al., 2014; Phillimore, 2011). Nevertheless, only a small percentage of adolescent refugees with clinically relevant symptoms receive treatment, and in most countries, refugees have only limited access to health care resulting in an unmet need for mental health care (Laban et al., 2007; Müller et al., 2019; Munz & Melcop, 2018; Silove et al., 2017). Munz & Melcop's survey (2018) on refugees' healthcare in 14 European countries concluded that refugees often have to wait for long periods before getting treatment and that the care-giving staff, professionals and/or interpreters are often not sufficiently trained. In Germany, language, navigational, cultural as well as structural barriers aggravate the access of refugees to the regular health care system (Adorjan et al., 2017; Schneider et al., 2017). Politics and research should concentrate on understanding and preventing a vicious cycle between poor mental health resulting from pre- and peri-migration traumatic experiences aggravated by post-migration stressors (Walther et al., 2020).

2.5.1 Limitations

The present sample was culturally diverse with participants originating from 17 different countries. Moreover, the participants faced many different living situations in Germany and showed great heterogeneity regarding their residence status and current activity. Though heterogeneity is a well-known feature of refugee samples (Hecker et al., 2018; Stenmark et al., 2013), diversity may limit general conclusions. In the present study, about half of the interviews needed interpreters; moreover, language- and culture-validated questionnaires were not available for every participant. Nevertheless, the RHS was translated into many different languages while taking into consideration cultural aspects (Hollifield et al., 2016). Furthermore, the interpreters were trained for translating in the mental health context and evidence suggested that the use of professional translators in clinical settings reinforces high-quality psychiatric care (Bauer & Alegría, 2010). Severe physical abuse in childhood was only assessed with one question measuring intensity but not frequency, place, nor perpetrator. Moreover, we did not assess psychological, verbal, or sexual abuse or other traumatic experiences, even though these are also likely to impact refugee's emotional distress. Hence, the isolated impact of distinct forms of violence during childhood in refugee populations could not be analysed. Future research might further evaluate the impact of severe childhood violence experienced within or outside of the family, and how that might differentiate between accompanied and unaccompanied refugees. The high percentage of male participants in this sample may have limited the generalizability of the results. Hence, in the regression analyses it was controlled for potential gender differences and including gender as a covariate did not influence the associations between emotional distress, integration and the predictor variables. Moreover, German statistics on asylum seekers reported a similar high amount of male refugees in the age groups of 16 to 25 years of 73.1 – 75.9% (BAMF, 2022a). General limitations include the retrospective data collection, prone to weakening the reliability because of retrospective memories. All findings depended on self-report questionnaires and the answers were subjective and not verifiable. Furthermore, the study was cross-sectional.

2.5.2 Conclusion

The impact of the experience of severe physical abuse in childhood on adolescent refugees' later emotional distress and integration was supported by this study. As expected, experiencing severe physical abuse in childhood led to a higher emotional distress in refugees and higher emotional distress led to a lower integration. These findings highlight the need to take these experiences into consideration during treatment and integration of refugees. Furthermore, this study emphasizes the devastating impact of the COVID-19 pandemic on psychological well-being and successful integration of adolescent refugees in Germany. These results underline the necessity to mitigate the negative psychological consequences of COVID-19 related preventive measures associated with isolation.

3 Study II: Refugees' integration and emotional distress over the course of nine months

3.1 Abstract

Background: High prevalence rates of mental disorders are reported in refugees due to experiencing substantial pre-, peri-, and post-migration stress. While long-term studies indicate that emotional distress of refugees either stagnates or ameliorates over time, long-term research on refugees' integration and its' interaction with refugees' emotional distress is limited. The examined long-term predictors for refugees' emotional distress and integration in this study were, amongst others, severe physical abuse in childhood, residence status and length of stay. **Methods:** The sample included 47 refugees, 91.5% male, mean age 21.3 years. Trained psychologists screened for emotional distress with the use of the Refugee Health Screener in a semi-structured interview. Integration progress was screened using the Integration Index. Longitudinal differences for emotional distress and integration sub-dimensions were evaluated by sign tests and t-tests. The longitudinal course of integration was evaluated with a mixed ANOVA. Further, two hierarchical regression analyses were performed to analyze longitudinal predictors of emotional distress and integration. **Results:** Overall, emotional distress decreased, and integration increased over time. In particular, the sub-dimensions of social, economic, and linguistic integration changed significantly over time. Two regression analyses determined significant predictors of (1) emotional distress$_{t1}$ (adjusted R^2 = .49): psychotherapy (β = .38, p = .011), emotional distress$_{t0}$ (β = .33, p = .032), and integration$_{t0}$ (β = -.28, p = .040), and one significant predictor of (2) integration$_{t1}$ (adjusted R^2 = .70): integration$_{t0}$ (β = .89, p < .001). **Conclusion:** Refugees' integration and the emotional distress of initially highly distressed refugees ameliorated over the course of nine months. However, their symptom severity remained clinically significant. Results emphasize the importance of early integration for the long-term development of mental health and integration in refugees. Refugees' emotional distress and integration are intertwined and need to be addressed promptly after refugees' entry into the host country. In conclusion, all refugees should have full access to health care and integration courses.

Key Words: Refugees, Mental Health, Integration, Emotional Distress, Longitudinal Research, Follow-Up Study, Germany.

3.2 Introduction

Refugees experience substantial pre-, peri-, and post-migration stress (Bogic et al., 2015). Numerous studies identified these stressful experiences as sources of emotional distress and cause of a high prevalence of mental disorders (Kartal et al., 2018; Schick et al., 2016). Further evidence of intensity and course of emotional distress in refugees, as well as the impact of emotional distress on refugees' integration, could provide useful information for integration programs. Hence the present study evaluated the intensity of emotional distress and integration over nine months and assessed its change and impact on each other in adolescent refugees and asylum seekers in Germany.

A recent meta-analysis emphasized the high prevalence of stress- and trauma-induced mental disorders in refugee populations (Hoell et al., 2021). Prevalence rates for newly arrived refugees in Germany were reported as high as 29.9% for PTSD, and 39.8% for depression. In adolescent refugees in Europe, Kien et al. (2019) found that up to 50% met the criteria for PTSD. Moreover, up to one-third of the sample presented with emotional or behavioral problems or met criteria for anxiety disorders or depression. Longitudinal studies examining *emotional distress* in refugees over varying time intervals documented stagnating as well as ameliorating emotional distress. For instance, Borho et al. (2020) reported relatively stable emotional distress levels over a course of one and a half years in a German sample. Similarly, Jakobsen et al. (2017) found refugees' emotional distress levels to stay relatively unchanged over 26 months in a Norwegian sample. However, whilst Nikendei et al. (2019) reported that post-traumatic stress and general anxiety in refugees in Germany did not significantly change over a three-month course, they observed that panic symptoms, depression, and quality of life scores improved. In accordance, a decline of psychiatric diagnoses - except PTSD - was found over a course of four to ten months in refugees in Germany (Richter et al., 2018). In Australia, psychological distress and PTSD symptoms improved over a five year period (Stuart & Nowosad, 2020).

Pre-migration stressors, particularly a high trauma load, were frequently associated with an elevated risk for stress related mental disorders (Kartal et al., 2018; Steel et al., 2009; Wilker et al., 2015). Especially interpersonal violence (Tinghög et al., 2017), physical abuse and other types of abuse during childhood (Lindert et al., 2014; Margolin & Vickerman, 2011) showed strong associations with mental health problems. A national cohort study accomplished by Webb et al. (2017) indicated that trauma-related hospital admissions, related to interpersonal violence or self-harm, increased the risks for later self-harm and violent criminal offending at ages 15–35 years. Hence, another factor adding to the dose-response relationship of trauma and

emotional distress over time could be *severe physical abuse in childhood*, a pre-migration stressor with longitudinal prognostic value (Webb et al., 2017).

Differences in the course of emotional distress may vary with post-migration stress intensity in a dose-response relationship (Ryan et al., 2008) and social circumstances and living conditions (Richter et al., 2018). Regarding the impact of the *residence status*, studies in Australia (Silove et al., 2007), Ireland (Ryan et al., 2008) and Norway (Jakobsen et al., 2017) showed that the refusal of asylum was associated with higher levels of emotional distress over 11-26 months. Nevertheless, two reviews came to the conclusion that residence status was not a reliable predictive factor for unaccompanied refugee minors' mental health (Höhne et al., 2020; Hornfeck et al., 2022). As another post-migration stressor, the *COVID-19 pandemic* has been shown to affect psychiatric disorders in refugees (Alpay et al., 2021). Moreover, several studies showed that the COVID-19 pandemic exacerbated PTSD symptoms in refugees (Kizilhan & Noll-Hussong, 2020). On top of other pre- and post-migration stressors, negative consequences of the pandemic added more strongly to the emotional distress of refugees compared to the general population (Aragona et al., 2020; Gibson et al., 2021; Kizilhan & Noll-Hussong, 2020).

Cross-sectional analyses elucidated the interplay of emotional distress and *integration:* Successful integration was found to be the best acculturation strategy for emotional well-being, followed by assimilation, marginalization, and separation (Behrens et al., 2015; Han et al., 2016). In this study, we follow the definition of Harder et al. (2018; p. 2), defining integration "as the degree to which immigrants have knowledge and capacity to build a successful, fulfilling life in the host society". In line with this definition integration was subdivided into six different dimensions: psychological, economic, political, navigational, social, as well as linguistic integration (Harder et al., 2018). Longitudinal studies confirmed post-migration stressors such as loneliness, social integration stressors (Chen et al., 2019) and economic stressors (Wu et al., 2021) as relevant risk factors for refugees' mental health. Similarly, Stuart and Nowosad (2020) found post-migration stressors such as cultural integration, financial stress and loneliness to affect refugees' mental health more than pre-migration stressors over a course of five years. Moreover, Beiser (2006) showed that linguistic integration had more influence on refugees' mental health in their later phase of resettlement than in their early phase of resettlement. However, in turn, increased psychological distress three years post-migration was shown to predict acculturative difficulties 20 years later (Tingvold et al., 2015).

Taken together, accumulating evidence indicated that emotional distress and integration within the first post-migration years are relevant predictors for the long-term integration and adaption of refugees to their new lives. Yet, integration has so far mainly been assessed in relation to social, cultural, economic, and linguistic integration. Evidence on emotional distress and its interplay with the integration status is limited, particularly of adolescent refugees. A first cross-sectional assessment identified the time living under the restrictions of the pandemic and severe physical abuse in childhood as crucial predictors for emotional distress (Potter et al., 2022). Moreover, the length of stay in Germany as well as emotional distress were identified as most important predictors of integration. Aiming to assess the longitudinal impact of these factors on mental health and successful integration in refugees, the present study focused on the course of emotional distress and integration over nine months and their longitudinal impact on each other. Furthermore, relevant cross-sectional predictors, including severe physical abuse in childhood, length of stay, months since the COVID-19 pandemic started and residence status, were assessed.

3.3 Methods

3.3.1 Sample

Participants were invited to partake in the initial assessment ($assessment_{t0}$) if they met the inclusion criteria of refugee status and presented sufficient understanding of study procedures and questions. The $assessment_{t0}$ of 104 refugees took place from March 2020 to June 2022. Follow-up assessments ($assessment_{t1}$) were scheduled nine months after the $assessment_{t0}$. We tried to contact all participants of the $assessment_{t0}$ and 53 refugees took part in the $assessment_{t1}$ from April 2021 to March 2023. Most common reason for dropouts was that participants could not be reached because they had moved, had been deported or their contact details were missing. Other refugees were contacted but refused to participate for reasons of time or motivation. Thus, the final dropout rate was 44.9%. $Assessment_{t1}$ participants and dropouts were comparable in most aspects of the $assessment_{t0}$ (see supplementary 1), yet dropouts reported possessing health insurance cards and secure residence status more often. From the sample of $assessment_{t1}$ completers, data of $n = 6$ participants had to be excluded due to missing data on one of the key variables emotional distress or integration. This resulted in an $assessment_{t1}$ total sample of $N = 47$, which included 43 male (91.5%) and 4 female (8.5%) participants. Age ranged from 15 to 43 years, with a mean age at $assessment_{t1}$ of 21.3 ($SD = 3.9$) years. In case of missing sociodemographic data, missing values are indicated by the deviating n in the results section.

3.3.2 Design and procedure

The research was conducted in a model project called Fearless, implemented by the Center of Excellence for Psychotraumatology of the University of Konstanz, the Bodensee-Institut für Psychotherapie, and the NGO "vivo international." The overall aim of the project is facilitating adolescent refugees' access to mental health services in Germany. Translators and peer counsellors were trained in translation in psychosocial contexts, mediating between cultures and navigating the German health care system. Therapists received four days of training in the diagnosis and treatment of post-traumatic disorders using Narrative Exposure Therapy (NET) and Forensic Offender Rehabilitation NET (FORNET), an adaptation of NET for offenders with a low aggression threshold (Hecker et al., 2015). Thereafter, therapists were supervised by supervisors who received project supervision in NET and FORNET if needed. Psychologically distressed refugees were offered psychotherapy – not limited to trauma-focused treatments - within the project or were referred to other services. For more information on the treatment see Potter et al. (2023). For the assessment$_{t0}$, government authorities working with refugees in the German state of Baden-Württemberg, mostly near the city of Konstanz, were informed of the upcoming research project. Social workers employed at the refugees' accommodation informed potential participants about the project. Participants were mostly between 14 – 22 years of age. Appointments for the assessment$_{t1}$ were mostly scheduled via the social worker, in some cases the assessment$_{t1}$ was scheduled via the therapist or directly with the participants themselves.

Most of the assessments took place in the refugees' accommodation in a separate office, some took place in the office of the Center of Excellence for Psychotraumatology at the University of Konstanz. During both assessments, questionnaires were administered in a semi-structured interview. In the assessment$_{t0}$ trained interpreters were present in 50% and in the assessment$_{t1}$ in 34% of all cases. The remaining assessments were conducted in English or German. Prior to both assessments, participants were informed about the study and signed a written informed consent form. For minors, a legal guardian gave additional written consent. In both assessments we explained that the participation was voluntary, that it would not influence the asylum procedure and that all data would be handled confidentially. In the assessment$_{t0}$ no monetary compensation was offered while for assessment$_{t1}$ participants received 15€ for participating. The assessment$_{t0}$ lasted about 45 minutes and the assessment$_{t1}$ about 40 minutes. After completion of the assessment$_{t0}$, the refugees' symptoms and potential treatment offers were discussed, which included psychotherapy within the project or transfer to other institutions. After assessment$_{t1}$ all emotionally distressed participants who had not yet received therapy were offered assistance to get access to treatment. They were informed that they would not have to

pay for this and that it was voluntary. The project and current study were approved by the Ethics Committee of the University of Konstanz.

3.3.3 Assessment

The assessment$_{t0}$ included *sociodemographic information* about age, country of origin, years of education, residence status, health insurance, arrival date in Germany, whether the participants had arrived accompanied by family members and whether they had family living in Germany. Moreover, they were asked if they had been involved in physical fighting since entering the country. In addition to sociodemographic information, *length of stay* was calculated according to the arrival date in Germany and *pandemic months* was calculated according to the months passed since March 2020. *Severe physical abuse in childhood* was assessed with the question: "Have you been hit so badly before the age of 15 that you had to go to hospital or needed medical attention?" Participants responded with a yes/no answer. This question refers to the findings of Webb et al. (2017), who analysed hospital admissions in a national cohort study, and showed that having experienced interpersonal violence causing hospitalization prior to the age of 15 years considerably increased the risk of harming one-self and/or being convicted because of a violent crime between the age of 15 to 35 years.

In the assessment$_{t1}$, participants were asked about their present residence status, health insurance, vocational training and German language skills. Moreover, they were asked if they had been involved in physical fighting or had started psychotherapeutic treatment since the assessment$_{t0}$. Participants that had started therapy were asked when this had started, how many outpatient sessions had been held and if they had further remarks regarding therapy. The following questionnaires were administered in both assessments:

The Refugee Health Screener (RHS) was used to assess refugees' *emotional distress* (Hollifield et al., 2013). The questionnaire shows good reliability and concurrent and predictive validity for anxiety, depression, and PTSD and has been used in diverse settings with refugees (Hollifield et al., 2016; Hollifield et al., 2013; Kaltenbach et al., 2017). The present study used the RHS-13 with 13 items (Hollifield et al., 2016), which proved to be efficient without compromising specificity or sensitivity while having acceptable psychometric properties (Hollifield et al., 2016). Participants rated the degree to which they were troubled by a symptom in the last month, e.g., "feeling down, sad, or blue most of the time." The items were rated from 0 (*not at all*) to 4 (*extremely*) on a 5-point Likert scale and the cumulative score ranges between 0 – 52. Participants (n = 3) that did not rate > 10% of the RHS-13 items were excluded from the analyses (Hollifield et al., 2016). If participants' missing items accounted for ≤ 10% of the RHS-13

(Kaltenbach et al., 2017), the respective items were set to zero. We used a dichotomous cut-off score. Psychotherapy was offered to participants with a total score ≥ 11, indicating high emotional distress (Hollifield et al., 2016). In the present study, Cronbach's alpha for the instrument resulted in α_{t0} = .91 (n = 44) and α_{t1} = .87 (n = 45).

The Integration Index, developed by the Immigration Policy Lab (IPL), was used as a measure of the refugee's status in his/her integration process. The IPL questionnaire assesses psychological, economic, political, social, linguistic and navigational dimensions of *integration* (Harder et al., 2018). The IPL has proven valid across immigrant groups and countries and correlates with length of stay and residence status and differentiates among groups with diverse integration levels (Harder et al., 2018). The present study used the IPL-12 scale, which covers each dimension with two items (Harder et al., 2018). Responses to each item are scored between 1 and 5 points, so that a cumulative score on each sub-dimension ranges between 2 - 10 and the overall integration score ranges between 12 – 60. As recommended by Harder et al. (2018), the cumulative scores were then rescaled to provide a standardized IPL Integration Index between 0 and 1. Participants were assigned to two groups of integration whether their overall score was lower or higher than .5. Participants (n = 4) that did not rate > 10% of the items on the IPL-12 were excluded from the analyses. Further, if participants' missing items accounted for ≤ 10% of the IPL-12, the respective items were set to one (lowest value). In the present study, Cronbach's alpha for the instrument resulted in α_{t0} = .81 (n = 45) and α_{t1} = .77 (n = 47).

3.3.4 Data analysis

Version 28 of the Statistical Package for Social Sciences (SPSS; IBM Deutschland GmbH, Ehningen, Germany) was used for all data preparation and statistical analyses. All sum scores and parameters were generated according to the guidelines of the questionnaires and as specified above. All analyses were tested two-sided and with a level of significance of .05. As there was no homogeneity of the error variances of emotional distress, longitudinal differences for emotional distress were evaluated by sign tests and t-tests. Although RHS difference scores of the total sample (N = 47) and cumulative (sub-dimension) integration scores were not normally distributed, t-tests were used, as they are robust with sample sizes > 30 (Salkind, 2010a), and after non-parametric tests provided the same results. The reported p values for the changes in integration sub-dimensions were Bonferroni corrected. Integration status change over time was examined with a mixed ANOVA, as homogeneity of the error variances of integration was given. As the mixed ANOVA was shown to be robust to moderate departures from normality (Salkind, 2010b), the mixed ANOVA for integration was conducted even though one of the four

factor groups (integration$_{t0}$: high vs. low and time: assessment$_{t0}$ vs. assessment$_{t1}$) was not normally distributed. The Reliable Change Index (RCI) was calculated to investigate the amount of change of emotional distress and integration in each refugee (Blampied, 2022). Kendall's tau correlations and multiple hierarchical regression analyses served to delineate the contribution of various post-migration stressors on emotional distress and integration. The categorial variable residence status was dummy coded to be included in the regressions and the reference category was secure. The first multiple hierarchical regression analysis targeted emotional distress$_{t1}$ and included in the first block emotional distress$_{t0}$ as the control variable and in the second block integration$_{t0}$, severe physical abuse in childhood, psychotherapy, and residence status$_{t1}$. The second multiple hierarchical regression analysis predicted integration$_{t1}$ with integration$_{t0}$ and length of stay in Germany first entered as control variables. Emotional distress$_{t0}$ and residence statuts$_{t1}$ were entered in a second block. The model fit of the regressions was examined by assessing in which model the Akaike Information Criterion (AIC) was lowest (Akaike, 1987).

3.4 Results

3.4.1 Participants' current living situation

The time interval between the assessment$_{t0}$ und the assessment$_{t1}$ varied around M = 9.3 (SD = 0.8) months. *Length of stay$_{t1}$* was M = 37.6 (SD = 22.2, RoV = 10 - 82) months and M = 19.7 (SD = 6.0, RoV = 14-36) *pandemic months$_{t1}$* (months since the beginning of the COVID-19 pandemic in March of 2020) had passed. Of the total sample (N = 47; mean *age$_{t1}$* = 21.3; SD = 3.9 years), n = 10 had entered Germany as *accompanied minors* and n = 14 had entered Germany as *unaccompanied minors*. At the assessment$_{t0}$ 61.7% of participants *did not have parents or siblings living in Germany*. *Years of education$_{t0}$* ranged from 0 to 15 years and participants had visited on average 8.6 (SD = 3.5) years of education. Most of the participants were from Afghanistan (31.9%), Syria (17%), and Gambia (14.9%). Since their arrival in Germany seven participants of 47 in total, and since the assessment$_{t0}$ three of 46 in total reported having been involved in *physical fights*. Eighteen reported having experienced *severe physical abuse in childhood*.

Ten had started *therapy* in the Fearless project after the assessment$_{t0}$. At the assessment$_{t1}$, seven of these were still in therapy, two had ended therapy prematurely after more than six sessions, and one had ended therapy before the sixth session. To control for possible effects of psychotherapy in the following examinations, we categorized these participants in two groups. Research in Germany proposes to classify psychotherapy as "started" when patients have completed at least six sessions (Cinkaya et al., 2011; Hiller et al., 2011). In accordance, we classified those having completed more than six sessions (n = 9) as "having started psychotherapy". Those that had completed at least six sessions had completed M = 35.5 (SD = 13.3, RoV = 17-54, n = 8) therapy sessions at assessment$_{t1}$. Table 4 provides an overview of further details regarding the sociodemographic information of the sample.

Table 4: Sociodemographic information of participants at the assessment$_{t0}$ and at assessment$_{t1}$

Variable	Assessment$_{t0}$	Assessment$_{t1}$
Health insurance card	16.7% (n = 30)	62.2% (n = 45)
Occupation	n = 46	N = 47
School education / vocational training	54.3%	57.4%
No occupation	19.6%	4.3%
Language courses	17.4%	21.3%
Full- or part-time employment	8.7%	17%
Residence Status	N = 47	N = 47
Secure (residence permit)	19.1%	40.4%
Partly insecure (first asylum process in progress)	40.4%	25.5%
Not secure (rejected after first or second asylum process)	40.4%	34%

Note. If values do not depict the total sample (N = 47) the deviating number of n is indicated.

3.4.2 Longitudinal course of emotional distress

Overall, emotional distress decreased over time. Paired t-tests of RHS-scores of the total sample ($t(46) = -3.68$, $p = .018$, $d = 0.36$) and of the $n = 24$ participants with $RHS_{t0} \geq 11$ ($t(23) = -8.88$, $p < .001$, $d = 0.81$) revealed significantly lower RHS-scores at the $assessment_{t1}$ than at the $assessment_{t0}$. This decrease was primarily seen in participants with high distress at $assessment_{t0}$, as the sign test did not confirm significantly different RHS-scores at $assessment_{t1}$ for participants with $RHS_{t0} \leq 11$: $p = .115$, $n = 23$. The RCI (rounded to +10 or -10), indicated a significant decrease with a RHS score difference of t1-t0 ≤ -10 and a significant increase with a difference of t1-t0 ≥ 10. Of the twelve participants (25.5%) showing a reliable change from $assessment_{t0}$ to $assessment_{t1}$, the RHS score increased in one and decreased in eleven. Table 5 lists mean RHS-scores at $assessment_{t0}$ and at the $assessment_{t1}$ for the total sample ($N = 47$) and subgroups with high vs. low emotional distress at $assessment_{t0}$.

Table 5: RHS-Scores at $assessment_{t0}$ and $assessment_{t1}$

Scale	*n*	$Assessment_{t0}$, *M* (*SD*; *RoV*)	$Assessment_{t1}$, *M* (*SD*; *RoV*)
Total sample	47	15.04 (12.84; 0–45)	11.36 (10.22; 0–36)
$RHS\text{-}13_{t0} \geq 11$	24	25.33 (9.73; 11–45)	16.46 (10.67; 1–36)
$RHS\text{-}13_{t0} \leq 11$	23	4.30 (3.13; 0–10)	6.04 (6.43; 0–32)

Note. If values do not depict the total sample ($N = 47$) the deviating number of *n* is indicated.

3.4.3 Longitudinal course of integration

Overall, the Integration Index increased over time in both groups: While the mixed ANOVA did not confirm significant interaction of time ($assessment_{t0}$ vs. $assessment_{t1}$) and group (high vs. low $integration_{t0}$), assumed sphericity $F(1, 45) = 2.651$, $p = .110$, partial $\eta^2 = .056$, simple main effects were significant for time (assumed sphericity $F(1, 45) = 32.36$, $p < .001$, partial $\eta^2 = .418$) and group ($F(1, 45) = 87.76$, $p < .001$, partial $\eta^2 = .661$). The RCI (rounded .30 or -.30) indicated a significant increase in the Integration Index with a difference of t1-t0 ≤ .30) in two refugees (4.3%).

Changes per sub-dimension were probed by t-tests and reported p-values for the sub-dimensions are Bonferroni corrected. Scores for economic ($t(45) = 3.01$ $p = .024$, $d = .44$), social ($t(46) = 4.01$, $p = .006$, $d = .59$) and linguistic integration ($t(46) = 4.70$, $p = .006$, $d = 0.69$) were significantly higher at the assessmentt1. Scores for the sub-dimensions psychological ($t(46) = 1.63$, $p = .66$, $d = .24$), political ($t(46) = 1.63$, $p = .066$, $d = .24$) and navigational integration ($t(45) = 1.29$, $p > .999$, $d = .19$) were not significantly different at the assessmentt1. Table 6 shows an overview of the mean Integration Index at assessmentt0 and at assessmentt1, divided by low vs. high integration at assessmentt0and of the mean Integration Indexes of the sub-dimensions at assessmentt0 and assessmentt1.

Table 6: Integration Index and sub-dimensions at assessment$_{t0}$ and at assessment$_{t1}$

Scale	*n*	Assessment$_{t0}$, *M* (*SD*; *RoV*)	*n*	Assessment$_{t1}$, *M* (*SD*; *RoV*)
Total sample	47	.40 (.18; .04–.90)	47	.49 (.16; .17–.92)
IIndex$_{t0} \leq 0.5$	32	.30 (.11; .04–.48)	32	.41 (.10; .17–.56)
IIndex$_{t0} \geq 0.5$	15	.61 (.11; .50–.90)	15	.67 (.12; .48–.92)
Economic integration	46	.35 (.21; .00-1)	47	.45 (.22; .00-1)
Social integration	47	.31 (.31; .00-1)	47	.46 (.31; .00-1)
Linguistic integration	47	.40 (.32; .00-1)	47	.56 (.24; .13-1)
Psychological integration	47	.61 (.27; .00-1)	47	.66 (.24; .00-1)
Political integration	47	.20 (.23; .00-1)	47	.25 (.28; .00-1)
Navigational integration	46	.53 (.29; .00-1)	47	.57 (.29; .00-1)

Note. If values do not depict the total sample ($N = 47$) the deviating number of *n* is indicated.

3.4.4 Associations of longitudinal outcome of psychological distress and integration

Correlational analyses substantiated the preceding results (see Table 7): Emotional distress$_{t1}$ correlated positively with emotional distress$_{t0}$ (r = .44, p < .001) and negatively with integration$_{t0}$ (r = -.26, p = .013) and integration$_{t1}$ (r = -.31, p = .003). In addition, correlation coefficients signaled an association of emotional distress$_{t1}$ with living conditions such as residence status$_{t1}$ (r = .27, p = .021) and psychotherapy (r = .41, p = .001). Integration$_{t1}$ correlated positively with integration$_{t0}$ (r = .62, p < .001), length of stay (r = .30, p = .004) and negatively with emotional distress$_{t0}$ (r = -.21, p = .046) and residence status$_{t1}$ (r = -.25, p = .033)

Table 7: Kendall's tau correlations at assessment$_{t0}$ and assessment$_{t1}$

	Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	Emotional distress$_{to}$	-											
2.	Emotional distress$_{t1}$	.438**	-										
3.	Integration$_{t0}$	-.250*	-.260*	-									
4.	Integration$_{t1}$	-.206*	-.306**	.621**	-								
5.	Severe physical abuse in childhood	.319**	.211	.145	.080	-							
6.	Length of stay$_{t1}$	-.127	-.037	.461**	.301**	.132	-						
7.	Pandemic months$_{t1}$	.220*	.098	-.301**	-.128	.031	-.317**	-					
8.	Residence status$_{t0}$	-.034	.067	.009	-.059	.020	-.048	-.170	-				
9.	Residence status$_{t1}$	.278*	.270*	-.248*	-.249*	.099	-.152	.013	.425**	-			
10.	Psychotherapy	.449**	.405**	-.037	-.062	.395**	.111	.163	.012	.386**	-		

	Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
11.	Gender	-.274*	-.163	.033	.106	-.240	-.220	.205	-.086	-.142	-.148	-	
12.	Age_{t1}	.056	.115	.142	.083	.171	.305**	-.266*	.035	.016	.148	-.401**	-

Note. *p<.05, **p<.01. These values do depict the total sample (N = 47).

3.4.5 Regression analyses

Over and above the course of emotional distress and integration over time, the present analyses aimed at evaluating longitudinal predictors of emotional distress and integration. A hierarchical regression analysis confirmed that *emotional distress$_{t1}$* was best predicted by psychotherapy *(β* = .38, *p* = .011), emotional distress$_{t0}$ *(β* = .33, *p* = .032) and integration$_{t0}$ (*β* = -.28, *p* = .040), neither residence status $_{t1}$ nor severe physical violence during childhood reached significance. As illustrated in Table 8, the latter model (*F* (6, 40) = 8.443, *p* < .001) showed the lowest AIC, explained most variance (adjusted R^2 = .49) and the change in *F* (3.163) was significant *p* = .017.

Table 8: Regression models of emotional distress$_{t1}$ on emotional distress$_{t0}$, integration$_{t0}$, severe physical abuse in childhood, psychotherapy and residence status$_{t1}$

Model	Predictor	*b*	*SE b*	*β*	*T*	*P*	R^2	*AIC*
1.	(constant)	3.943	1.832		2.152	.037	.371	198.643
	Emotional distress$_{t0}$	.493	.093	.620	5.300	<.001		
2.	(constant)	13.625	4.323		3.151	.003	.493	192.984
	Emotional distress$_{t0}$	.260	.117	.326	2.227	.032		
	Integration$_{t0}$	-15.720	7.415	-.283	-2.120	.040		
	Severe physical abuse in childhood	-.990	2.599	-.048	- .381	.705		
	Psychotherapy	9.659	3.627	.376	2.663	.011		
	Residence status$_{\text{partly secure}}$	-5.554	3.057	-.240	-1.817	.077		
	Residence status$_{\text{not secure}}$	.010	2.887	.000	.003	.997		

Note. The determination coefficient R^2 depicts the adjusted R^2 for the respective regression model. *AIC* = Akaike Information Criterion. These values do depict the total sample *N* = 47.

Integration$_{t1}$ was best predicted by integration$_{t0}$ *(ß* = .89, $p < .001$). As illustrated in Table 9, the first model (F (2, 44) = 54.042, $p < .001$) explained most variance (adjusted R^2 = .70) and the change in F (.926) was not significant p = .435. However, the second model showed the lowest AIC and apart from integration$_{t0}$, no other predictor was significant.

Table 9: Regression models of integration$_{t1}$ on integration$_{t0}$, emotional distress$_{t0}$, length of stay$_{t1}$ and residence status$_{t1}$

Model	Predictor	*b*	*SE b*	*β*	*T*	*P*	R^2	*AIC*
1.	(constant)	.198	.032		6.165	<.001	.698	-222.681
	Integration$_{t0}$	.795	.094	.888	8.478	<.001		
	Length of stay$_{t1}$	-.001	.001	-.074	-. 705	.484		
2.	(constant)	.217	.054		4.008	<.001	.696	-219.772
	Integration$_{t0}$	.780	.100	.871	7.770	<.001		
	Length of stay$_{t1}$	-.001	.001	-.070	- .625	.536		
	Emotional distress$_{t0}$	.000	.001	.014	.158	.876		
	Residence status$_{partly\ secure}$	.000	.041	.001	.006	. 995		
	Residence status$_{not\ secure}$	-.048	.035	-.140	-1.391	.172		

Note. The determination coefficient R^2 depicts the adjusted R^2 for the respective regression model. *AIC* = Akaike Information Criterion. These values depict the total sample N = 47.

3.5 Discussion

Emotional distress and integration were assessed in a sample of refugees over nine months to identify determinants of the longitudinal course of emotional distress and integration. Emotional distress of initially emotionally distressed refugees decreased over time but remained mostly clinically elevated, while emotional distress of refugees with low emotional distress at assessment$_{t0}$ did not significantly change. The most relevant longitudinal predictors of emotional distress were their emotional distress and integration at assessment$_{t0}$, as well as whether they started psychotherapy. Integration improved over time, yet contrary to our expectation, successful integration over time only depended on integration at assessment$_{t0}$. Further, only the sub-dimensions of social, economic, and linguistic integration changed significantly from assessment$_{t0}$ to assessment$_{t1}$.

The amelioration of *emotional distress* over time in initially highly distressed refugees is in line with other research in Germany examining refugees over a course of three (Nikendei et al., 2019), and four to ten months (Richter et al., 2018). However, similar to results of previous research, whilst the emotional distress of severely affected refugees improved, it still remained in a clinical range (Nikendei et al., 2019). Examining the course of emotional distress of the sample separated into high vs. low emotional distress at assessment$_{t0}$ underlines the importance of examining mean changes of total samples in more detail. Separated according to their distress level at assessment$_{t0}$, the emotional distress of refugees ameliorated only in those who were initially highly distressed. The most important predictor for refugees' follow-up emotional distress was their emotional distress at the assessment$_{t0}$. This result is in accordance with research examining refugees in Vietnam over a course of more than 20 years, which found that especially trauma-related mental disorders at arrival, and symptom improvement during the first three years of resettlement, were important for positive long-term mental health prognosis after 23 years (Vaage et al., 2010).

While *severe physical abuse in childhood* was a cross-sectional predictor (Potter et al., 2022), it was not a longitudinal predictor for refugees' emotional distress. Similarly, Van Wyk et al. (2012) examined refugees' PTSD, anxiety, depression and somatization symptoms over the course of seven months and showed that traumatic events were associated with all mental health symptoms at baseline. However, at follow-up the number of traumatic events did not predict mental health outcomes anymore. Hence, symptoms themselves seem to be more relevant for the maintenance of pathology (Van Wyk et al., 2012). Aligning with this result, Behrendt et al. (2022) showed that material and social stressors and not stressful life events

further exacerbated anxiety and depression symptoms in the long term. Further, physical abuse in childhood, amongst other traumatic experiences, is most likely represented by a basic trauma burden, significantly contributing to emotional distress. If this basic trauma burden is taken into consideration, e.g., by controlling for baseline symptoms as in our study, their incremental predictive power may be reduced.

Psychotherapy was included as a control variable in our regression. Refugees with higher levels of emotional distress were more likely to be in psychotherapy in-between both assessments, as psychotherapy was only offered to refugees with high emotional distress at assessment$_{t0}$. In our study, 41.7% of all emotionally distressed participants accepted a treatment offer after assessment$_{t0}$. Other studies reported that 0% (Nikendei et al., 2019) to 75% (Hollifield et al., 2013) of emotionally distressed refugees accepted treatment offers. Most likely, higher emotional distress at the assessment$_{t1}$ resulted from the initially more emotionally distressed refugees participating in psychotherapy. Carlsson et al. (2005) examined refugees after nine months while they were still in treatment and found no significant changes of mental health symptoms. They concluded that the time frame of nine months to measure an amelioration caused by treatment was most likely too short, especially because therapies had not yet regularly ended. In accordance with this conclusion, systematic research examining long-term effects of NET found that effects were strongest long-term, e.g., at least six months after treatment (Siehl et al., 2020). Of all psychotherapies classified as started, 22.2% ended prematurely, which aligns with a weighted average dropout rate of 19.1% in a meta-analysis on refugees (Semmlinger et al., 2021).

An explanation for the amelioration of emotional distress could be a dose-response relationship of post-migration stress (Ryan et al., 2008), including improving social circumstances and living conditions (Richter et al., 2018). One often researched post-migration stressor is refugees' *residence status*. While in this research some refugees gained asylum acceptance over the course of nine months (19.1 to 40.4 %), refugees' residence status was not a significant predictor for their emotional distress or integration. Schick et al. (2016) also found that residence status was not predictive of refugees' emotional distress or integration difficulties over a course of ten years. Refugees' residence status may rather act as a marker for other post-migration stressors, such as a different access to health care services, language problems or living arrangements (Bauhoff & Göpffarth, 2018; Gleeson et al., 2020; Toar et al., 2009). Furthermore, whilst residence status might be associated with fears of deportation in the first years after arriving in Germany, over time other factors might become more important for long-term psychological well-being. On average, this sample included refugees who arrived in Germany two

years prior to our assessment$_{t0}$. At assessment$_{t1}$, nine months later, the risk of sudden deportation was even lower. Some of those, whose stay in Germany was refused, were already deported. Hence, in our study the impact of residence status might have lost its' predictive value.

Systematic reviews examining the effects of the *COVID-19 pandemic* during 2020 on refugees showed a negative effect on refugees' (Sevim et al., 2023) and refugee youths' mental health (Nearchou et al., 2020). However, a meta-analysis of longitudinal research on the psychological impact of COVID-19 first lockdowns concluded the impact to be rather small in magnitude and very heterogeneous (Prati & Mancini, 2021). Moreover, research examining a longer time-frame in Danish residents concluded that the COVID-19 pandemic may only have had small long-term effects on mental health (Thygesen et al., 2023). In our research, the predictor pandemic months had an impact at the assessment$_{t0}$ (Potter et al., 2022), but was not significant in the longitudinal analysis. Possibly, the negative impact of COVID-19 and associated isolation is waning over time, now that social interactions have returned to a pre-COVID level.

Highlighting *integration* as the best acculturation strategy for emotional well-being (Behrens et al., 2015; Han et al., 2016), refugees' integration at assessment$_{t0}$ was a significant predictor for their emotional distress at follow-up: refugees with higher integration at assessment$_{t0}$ showed less emotional distress at assessment$_{t1}$. These results demonstrate the intertwinement of refugees' mental health and their integration. Brea Larios et al. (2023) examined Afghan refugees in Norway with a modified version (without the political integration sub-dimension) of the Integration Index. They showed that only psychological integration (sense of belonging) had a significant effect on their emotional distress. Due to our limited sample size, we could not further explore the potentially varying impact of different integration sub-dimensions on refugees' mental health.

The only significant predictor for refugees' integration at the assessment$_{t1}$, over and above their emotional distress$_{t0}$, or length of their stay, was their integration at assessment$_{t0}$. Our results emphasize that length of stay may rather act as a marker for other explanatory variables, such as language comprehension. No participant showed a reliable decrease of integration, whilst integration in total and on all sub-dimensions improved. This result gives hope that the right support could enhance integration as well as aid the progress of integration quicker. An increase of integration could be supported with *integration courses*, as already established in Germany. These courses include a German language course as well as information on the legal system, history and culture of Germany (Bundesregierung, 2019). Participation in these courses is offered to/required of refugees with a good chance of staying in Germany (Bundesregierung,

2019), which applied only to a small proportion of our sample. Apart from selective and often delayed access to these courses, only about 50 % of the participating refugees successfully pass the exams at the end of the integration courses (Klinger et al., 2019). Moreover, the courses have been criticized for showing high regional differences regarding the quality of and access to them (Etzel, 2022). Hence, there is a high demand for reforming them, especially since all refugees should have equal access (Etzel, 2022; Klinger et al., 2019).

To our knowledge, our study is the first to examine the longitudinal course of all sub-dimensions of the Integration Index. The sub-dimensions of social, economic, and linguistic integration changed significantly from assessment$_{t0}$ to assessment$_{t1}$. Psychological and navigational integration may not have significantly changed because both sub-dimensions were already more elevated at the assessment$_{t0}$ than the social, economic, and linguistic integration sub-dimensions at the assessment$_{t1}$. The only sub-dimension with low scores at assessment$_{t0}$ and assessment$_{t1}$ was political integration. Political integration may only be achieved later in the integration process, which would not be surprising regarding refugees' restricted possibilities to participate in German politics, e.g., their not being allowed to vote (Bundesministerium des Inneren und für Heimat, 2023b).

3.5.1 Limitations

Some limitations need to be taken into consideration when interpreting the results of our study. A general limitation is that we relied on self-report questionnaires, which provide subjective and not verifiable answers. Further, our sample showed great heterogeneity regarding the participants originating from 13 different countries, their different living situations in Germany, differing lengths of stay, residence statuses as well as current activities. This diversity may limit general conclusions, even though refugee samples are well-known for their heterogeneity (Hecker et al., 2018; Stenmark et al., 2013). Moreover, we had no control group without an offer of psychotherapy. The RHS was translated into many different languages while taking into consideration cultural aspects (Hollifield et al., 2016), nevertheless language- and culture-validated questionnaires were not available for everyone. While statistics on asylum seekers in Germany generally report a high amount of male refugees in the age group 16 to 25 years, as much as 73.1–75.9% (BAMF, 2022a), the even higher percentage of male participants in our sample might further limit the generalizability of the results. Due to our limited sample size and cross-sectional results, we did not control for gender or age in the regression analyses because there were no significant cross-sectional predictors (Potter et al., 2022). Moreover, Harder et al. (2018) did not find significant differences in Integration Index scores based on

age or gender. Another specificity of refugee samples is a high dropout rate at the assessment$_{t1}$. Our drop-out rate of 44.9% is in line with drop-out rates ranging from 40.7 – 71.1 % in refugee samples (Borho et al., 2020; Kindermann et al., 2020; Nikendei et al., 2019; Ryan et al., 2008). The better residence status in dropouts of our sample suggests that a significant number of refugees changed location between assessments. Lastly, we want to emphasize that Governmental policies shape and are shaped by public opinions and attitudes, which influence refugees' opportunities for inclusion and participation (Hynie, 2018). Hence, successful integration of refugees is a two-way street requiring a social context enhancing inclusion and participation (Etzel, 2022).

3.5.2 Conclusion

In conclusion, refugees' integration progressed while the emotional distress of initially highly distressed refugees ameliorated over the course of nine months. Nonetheless, only a small percentage of emotionally distressed refugees receive adequate treatment (Munz & Melcop, 2018). Significant longitudinal predictors for refugees' emotional distress were their emotional distress and integration at assessment$_{t0}$. Only integration at assessment$_{t0}$ was a significant longitudinal predictor for integration at assessment$_{t1}$. Refugees' emotional distress and their integration are intertwined and hence need to be addressed promptly after refugees' entry in the host society. As all the above points have demonstrated, all refugees should have full access to health care and integration courses.

4 Study III: "It is worth hanging in there" – Psychotherapeutic Experiences Shaping Future Motivation for Outpatient Psychotherapy with Refugee Clients in Germany

4.1 Abstract

Background: A high prevalence of mental disorders in refugees contrasts with a low rate of treatment and limited access to health care services. In addition to pre-, peri- and post-migration stress, language, cultural barriers together with lack of information about cost reimbursement, and access to German (mental) health care institutions are discussed as barriers to use of available services. Such barriers together with insufficient experience of treating traumatized refugee clients may lower therapists' motivation and facilities to accept refugee clients. A model project called "Fearless" trained, and supervised therapists, translators, and peer counsellors to reduce these barriers and increase therapists' motivation and engagement in future treatment of refugees. **Methods:** From a total 14 therapists participating in the project $N = 13$ were available for semi-structured interviews. The interviews were scheduled during or after their outpatient psychotherapy of refugee clients and lasted one hour on average. Based on qualitative assessment strategies, open questions addressed the therapists' experience of challenges, enrichments, and motivation throughout the therapy. Therapists' responses were analyzed using content structuring qualitative content analysis. **Results:** Three major challenges modulated therapists' future motivation for treating refugee clients: specific bureaucratic efforts (e.g., therapy application), organizational difficulties (e.g., scheduling appointments), and clients' motivation (e.g., adherence, reliability). Still, most interviewed therapists (n = 12) evaluated the therapy as enriching and expressed their motivation to accept refugee clients in the future (n = 10). **Conclusion:** Results recommend the reduction of bureaucratic effort (e.g., regular health insurance cover for all refugees) and implementation of organizational support (e.g., peer counsellors) in support of therapists' motivation for future treatment of refugee clients. Further structural support e.g., with organizing and financing professional translators and referring refugee clients to psychotherapists should be deployed nationwide. We recommend the training in, and supervision of, the treatment of refugee clients as helpful additional modules in psychotherapy training curricula to raise therapists' motivation to work with refugee clients.

Key Words: Refugees, Mental Health, Psychotherapy, Therapists, Qualitative Research, Content Analysis, Challenges, Health Care, Germany.

4.2 Introduction

In 2021, 49.4% of asylum applicants in Germany were younger than 18 years (BAMF, 2022a). Another 15.8% were between 18 and 25 years old (BAMF, 2022b). Their integration into their host nation society remains a challenge not only for Germany, but for many countries (Kartal et al., 2018; Schick et al., 2016). A high prevalence of illness, in particular of mental disorders, has been verified, potentially resulting from substantial pre-, peri-, and post-migration stress (Aragona et al., 2020; Kartal et al., 2018; Schick et al., 2016). A recent meta-analysis estimated prevalence rates as high as 29.9% for PTSD and 39.8% for depression amongst newly arrived refugees and asylum seekers in Germany (Blackmore et al., 2020; Hoell et al., 2021). Similar prevalence rates were found in adolescent refugees in Europe: about half were affected by PTSD and up to one-third by emotional or behavioral problems, such as depression or anxiety disorders (Kien et al., 2019).

Despite the obvious *need for treatment*, the number of refugees admitted to adequate treatment in Germany was rather low (Bauhoff & Göpffarth, 2018; German National Academy of Sciences Leopoldina, 2018; Nesterko et al., 2020; Schneider et al., 2017). A recent nationwide survey of the health care situation of refugees confirmed that mental health care was not sufficiently ensured for refugees (Bozorgmehr et al., 2016). Moreover, according to psychosocial care reports in Germany, referrals of refugee clients to psychotherapists in private practice became more difficult and decreased in recent years (Baron & Flory, 2020; Mohammed & Karato, 2022). Several *barriers* impair the access to adequate mental health care services. While a physical examination is required by law upon arrival in Germany, a mental health screening has not been implemented despite European guidelines and research recommendations (Bauhoff & Göpffarth, 2018; German National Academy of Sciences Leopoldina, 2018; Kaltenbach, 2019; Schneider et al., 2017; The European parliament and the council of the European union, 2013). In addition to language challenges, refugees reported missing information about mental health services (Boettcher et al., 2021) and the structure of the German health care system (Adorjan et al., 2017; Schneider et al., 2017). During the first 18-months, most asylum seekers in Germany do not have regular health insurance. Hence only treatment for pain and acute illnesses, vaccinations, emergency and maternity care is covered (Baron & Flory, 2020; Bauhoff & Göpffarth, 2018; Schröder et al., 2018). Additional services - such as psychotherapy - must be approved by municipalities on a case-by-case basis (Bauhoff & Göpffarth, 2018).

Reports indicated further *challenges for therapists* providing psychotherapy for refugees: organizational challenges, such as increased waiting times for therapy funding approval of refugee clients without regular health insurance, insufficient collaboration of the different mental health services and, lack of financial compensation for psychotherapists for additional work, missed appointments and translators (Manok et al., 2017; Thöle et al., 2017). Treatment-related challenges include insufficient knowledge in dealing with (traumatized) refugees, treatment of clients from other cultures, and insufficient availability of trained translators (Manok et al., 2017; Renner, 2009; Thöle et al., 2017). Post-migratory stressors such as uncertain residency status, limited work permits, and placement in refugee shelters may be topics of therapy sessions rather than mental health issues, thereby complicating the therapy process further (Gartley & Due, 2017; Thöle et al., 2017). Lack of experience and expertise in treatment of refugees may result in a fear of contact (Baron & Flory, 2020; Mohammed & Karato, 2022). In a vignette experiment with German licensed psychotherapists, Dumke and Neuner (2022) illustrated this fear of contact: when comparing psychotherapists' attitudes towards outpatient treatment of refugee clients and non-refugee clients with the same symptoms, attitudes towards refugee clients were found to be less favorable. The psychotherapists expected more difficulties and negative emotions in treatment of refugee clients, which fostered the tendency to refuse an outpatient treatment of refugee clients. Furthermore, correlations between less refugee clients treated in the last twelve months; less training attended on the topic as well as more therapy-hindering attitudes were found. In contrast, previous therapeutic experience with this client group was associated with an increased willingness to accept refugee clients (Schlechter et al., 2021).

Against this background of refugee's high need for mental health services but limited health care access and low admission to psychotherapy, the model project Fearless was developed in Baden-Württemberg. The project aimed at facilitating adolescent refugees access to mental health services. The project was funded by the Foundation Baden-Württemberg in cooperation with the Competence Center for Psychotraumatology of the University of Konstanz, as well as the Lake Constance Institute for Psychotherapy (apb) and the NGO "vivo international." The project aimed at implementing an established training plan for the screening and treatment of adolescent refugees within German healthcare structures. Refugee clients were recruited by social workers at the refugee shelters, who informed potential participants, mostly between the ages of 14 and 22, about the project. They were screened with the Refugee Health Screener (Hollifield et al., 2016; Hollifield et al., 2013; Kaltenbach et al., 2017) by trained psychologists with a doctoral, master's or bachelor's degree, who worked for the Fearless project.

Psychologically distressed refugees were offered psychotherapy within the project, or a referral to other services. Translators and peer counsellors were trained in translation in psychosocial contexts, mediating between cultures and navigating the German health care system. In addition, peer counsellors were instructed on how to support clients during their access to health care services and treatment with respect to organizational or psychological aspects (e.g., accompanying them to - and reminding them of - individual appointments). Psychotherapists in training, their supervisors, translators, and peer counsellors were trained and supervised. As part of this training, therapists received four days of training in the diagnosis and treatment of post-traumatic disorders using Narrative Exposure Therapy (NET) and Forensic Offender Rehabilitation NET (FORNET), an adaptation of NET for offenders with a low aggression threshold (Elbert et al., 2012; Schauer et al., 2011). Thereafter, therapists were supervised by supervisors who received project supervision in NET and FORNET if needed.

Aiming to understand and overcome barriers to healthcare for refugee clients, we focused on the perception of challenges as well as the motivation of German therapists providing psychotherapy to said clients. As the main providers of psychotherapy, the readiness of psychotherapists to engage with refugee clients is essential to tackle refugees' high prevalence of mental health disorders and their adverse effects on integration.

4.3 Methods

4.3.1 Participants

Table 10 provides an overview of the demographic information of the 13 interviewed therapists. Most of the therapists were female (n = 11), still in the process of becoming licensed psychotherapists[2], and two therapists were working as licensed psychotherapists in private practice.

Table 10: Demographic data of the interviewed therapists

Category	Count (in %)	Category	Count (in %)
Gender		Age	
Female	11 (85)	25-29	3 (23)
Male	2 (15)	30-39	5 (38)
		40-49	4 (31)
		50-59	1 (8)
Outpatient therapy sessions[1]			
100 – 250		3 (23)	
300 – 450		2 (15)	
> 600		5 (38)	
No information		3	

Note. [1] As part of the German psychotherapy training therapists monitor the amount of conducted outpatient therapy sessions of 50 minutes.

[2] To become licensed psychotherapists, psychologists in Germany complete a three-year training after getting their master's degree.

The interview responses were based on the therapists' treatment of 22 refugee clients, 15 to 41 years old. Table 11 provides the demographic information of these clients, their most frequent diagnoses as well as further clinical information. Most of the clients were male, and more than 50 % had no regular health insurance. The most prevalent diagnosis was PTSD.

Table 11: Demographic data of refugee clients

Category	Count (in %)	Category	Count (in %)
Gender		Age	
Female	2 (9)	*Mean*	22.22 years
Male	20 (91)	*SD*	6.13 years
Regular Health Insurance		Peer Counsellors	
With	10 (45.5)	With	9 (41)
Without	12 (54.5)	Without	13 (59)
Therapy Status		Most Frequent Diagnoses[1]	
No Successful Referral	4 (17)	PTSD Only	6 (27)
Ongoing Therapies	5 (22)	PTSD + Depressive Disorder	8 (36)
Regular End of Therapy	6 (26)	PTSD + Substance dependency	2 (9)
Dropout Before 6th Session	2 (9)	No Diagnosis	4 (18)
Dropout After 6th Session	5 (22)		
Most Frequent Countries of Origin[2]			
Afghanistan	4 (18)		
Guinea	4 (18)		
Syria	4 (18)		
Gambia	3 (14)		

Note. [1] After successful referral the treating therapists gave the diagnoses. Other diagnoses included: PTSD + psychotic disorder, other childhood emotional disorders (one each). [2] Other countries of origin: Palestine, Senegal, Somalia, Ethiopia, Eritrea, Iraq, Iran (one each).

4.3.2 Data collection

Therapist interviews addressed their personal experience with the treatment of refugee clients from the Fearless project. Qualitative data were collected using a semi-structured interview guide, see supplementary 2 for the German version. In line with suggestions of Helfferich (2011) the interview guide consisted of four open questions about organizational and content implementation, culture as an influencing factor, and the therapists' personal experience. Potential factors influencing these four themes were rephrased into questions and grouped under the narrative-inspiring questions.

The purposive sampling was an attempted full survey: all 14 external therapists who received at least one referral from a refugee client in the Fearless project were invited to participate in one interview. Participants were invited to participate in the study via mail by the project manager and informed about the content of the study: experiences and specifics of psychotherapy with refugee clients. Participation was voluntary and therapists received 50 € for participating. Data collection was completed after 13 interviews, when all 14 potential respondents had been asked to participate. One therapist did not respond to the request to participate. In qualitative research, it is assumed that content saturation occurs after twelve interviews (Guest et al., 2006).

The interviews were conducted by a postdoc and doctoral student who were involved in the project and, hence, knew the therapists. A third interviewer was a master's student who did not know the therapists. The three women, aged 24, 27, and 37, were Caucasian and spoke German as their native language. The interviewers were introduced into the manual of Helfferich (2011) and attended a methods workshop on qualitative research methods. The interview guide was piloted with the first author, who has also worked therapeutically with refugee clients herself. Individual influences were reflected through training on how to conduct interviews and the interview guide. Interviews were conducted from March to May 2022. Due to the COVID-19 pandemic, three interviews were conducted in person at the offices and ten were conducted online via the BigBlueButton video platform. Four interviews were interrupted by technical problems of less than five minutes and continued by telephone. Aiming to ensure the best manual adherence and common understanding amongst the interviewers, six interviews were conducted with another interviewer present. Interviews lasted from 42 to 69 minutes ($M = 56$ min). All interviews were conducted in German and recorded on a voice recorder. Quotes in support of results were translated back and forth from German to English and from English to German in the research team. All respondents gave their consent for participation, recording of the

interview and further processing, securing and anonymization of their interview data. Prior to the interview, respondents completed a brief demographics questionnaire. An interviewer protocol, completed after the interview, noted special incidents. The interviews were conducted as part of the Fearless project and the project was approved by the Ethics Committee of the University of Konstanz.

4.3.3 Qualitative analysis

The interviews with the therapists were analyzed based on subjective epistemology, thus it was assumed that the interviews provide access to the subjective view of the therapists (Deppermann, 2013). An exploratory as well as descriptive and evaluative research design was chosen. Most of the audio recordings were transcribed by the interviewer who conducted the interview. All material was transcribed using standard orthographic transcription, and spoken texts were anonymized and corrected according to current spelling and dialect expressions (Misoch, 2015). After the initial transcription, the transcripts were compared to the audio recording by the transcriber herself or by another interviewer. For reasons of transparency, participants were given the opportunity to view their transcribed interviews. The data was analyzed using the program MAXQDA Plus 2022. The analysis of the interview data of the therapists was carried out by the first author in collaboration with the second author. All material was analyzed using content structuring qualitative content analysis according to Kuckartz and Rädiker (2022). The data was summarized and structured using a category system with main and subcategories. For the analysis, the main codes were constructed deductively and modified inductively after the data analysis began, as suggested by Kuckartz and Rädiker (2022). The interview material was analyzed based on these four questions:

1) Which challenges affect the future motivation of therapists to work with refugee clients?
2) Which measures of the Fearless project were found to be helpful in the implementation of therapy?
3) Which strategies of the therapists were found to be useful in dealing with the challenges?
4) How is the future motivation of therapists to work with refugee clients?

4.3.4 Quality criteria

As quality criteria common for quantitative data are not directly transferable to qualitative research (Flick, 2020), criteria in qualitative research reflect internal and external study quality. Internal study quality includes characteristics such as reliability, regularity, intersubjective comprehensibility and, credibility (Kuckartz & Rädiker, 2022). External study quality, refers to the transferability and generalizability of results (Kuckartz & Rädiker, 2022). Intersubjectivity, which is achieved by discussing interpretations with others (Schneijderberg et al., 2022), was ensured by regular collegial exchange in peer supervision with the research team. Free segmentation coding as used for the analysis of qualitative data does not allow a random-adjusted coefficient such as the kappa coefficient (Kuckartz & Rädiker, 2022). In order to improve the code system by more precise code definitions, differently coded text passages were compared by "consensual coding" (Hopf & Schmidt, 1993) and discussed. The quality criterion of transparency was also emphasized in research (Schneijderberg et al., 2022), this was achieved by documenting the data collection and analysis processes. For this, the COREQ checklist was completed (Booth et al., 2014; Tong et al., 2007), which includes elements that should be documented in qualitative research reports, see supplementary 2. External study quality can further be supported by "peer debriefing" (Kuckartz & Rädiker, 2022). The research questions, procedure, and results were discussed with other qualitative researchers from the fields of psychology, medicine, and sociology in two methodological workshops at the Ludwig-Maximilians-University of Munich.

4.4 Results

4.4.1 Qualitative interview main categories

The content structuring qualitative content analysis (Kuckartz & Rädiker, 2022) revealed four main categories: challenges (272 coded text segments), helpful project factors (50), useful strategies for dealing with challenges (96), and personal experience of therapists (157). Table 12 provides a table of categories with sub-codes.

Table 12: Table of categories

Main-code	Sub-code
Challenges	Bureaucratic effort of therapy
	Therapy organization
	Therapy motivation
	Other challenges
	No explicit main challenge
Helpful project factors	Diagnostic questionnaires
	NET seminars
	Peer counsellor & translators
	Coverage of costs
	Work relationship with Fearless project
	Supervision through Fearless project
	Other
Useful strategies for dealing with challenges	Useful strategies for dealing with bureaucratic effort of therapy
	Useful strategies for dealing with challenges with therapy organization
	Useful strategies for dealing with challenges with therapy motivation
	Useful strategies for dealing with other challenges
Personal experience of therapists	Future motivation
	Enrichments
	Burdens

4.4.2 Challenges

Seven therapists considered the additional workload due to administrative tasks not sufficiently financially remunerated as a major challenge in their work with refugee clients (*"daunting"* T04). Examples were the need to write more psychological certificates and expert opinions during the treatment. Moreover, the procedural requests for cost reimbursement and therapy application were less familiar and more time-consuming. Delayed funding approval (n = 2), too few hours (n = 2) approved for severely stressed clients, and time-consuming contact with the clients themselves, and with other authorities were added as a further burden.

> *"Um, that was really tedious and especially the exchange with the health office and the social welfare office [...]. There was so much additional work around the therapy, which was really nerve-racking, exhausting and insanely time-consuming. And that was really much more stressful than the therapy and the therapeutic content itself."* (T07)

Of the seven therapists who mentioned a higher bureaucratic effort, two had treated refugee clients with regular health insurance, five had treated clients without it. Six therapists considered the bureaucratic effort for refugee clients as similar as for regular outpatients. Of these, four had treated refugee clients with, and two had treated clients without regular health insurance. Of the latter two, one therapy ended before the therapist had to apply for psychotherapy funding.

Treatment organization was mainly challenged by the clients' unreliability when it came to showing up on time (n = 4), cancelling at short notice (n = 2) or not attending at all (n = 7). According to seven therapists, refugee clients were often difficult or impossible to reach by telephone: *"[...] just these basics of making an appointment, that took me sometimes almost two hours just to make a new appointment and reach him, I found that very, very exhausting and um also a bit frustrating."* (T01) In three cases regular termination of treatment was impossible, as the clients could no longer be reached. Poor reachability of clients was attributed to them not having SIM card credit, or no access to WIFI in the refugee shelters. Two therapists mentioned forgotten or lost referral slips as challenging. Three therapists reported difficulties in organizing appointments with the different parties: themselves, the clients, and the translators. Further facets of more difficult organization were incompatibility of own and refugee clients working hours, language problems facilitating misunderstandings, clients' lack of (daily) structure and organization, avoidance of trauma exposure in therapy, sleep disorders, lack of

drive, addiction, frequent moves, lack of knowledge about the German healthcare system, and potential cultural misunderstandings:

> *"[...] I just know that in other countries it can be different and there you might come, then you're told "okay come to the doctor tomorrow" and then you just come to the doctor the next day sometime and then that's just the way it is."* (T04)

Three of the interviewed therapists did not evaluate the treatment organization as challenging and described their refugee clients as reliable or even *"[...] more reliable than most of my other clients."* (T13)

Seven therapists reported that clients showed ambivalent treatment motivation evident in, e.g., non-compliance to agreements, cancelling sessions without or with vague excuses. One therapist concluded that for the client *" [...] the effort was too much"* (T03). Two therapists felt unsure of their client's goals and concerns or doubts with respect to the treatment. Culturally different therapy concepts (n = 1) or the priority of other topics, such as a German language course (n = 1) were mentioned as possible reasons for ambivalent motivation. Two therapists emphasized clients being very motivated, another therapist noticed a motivation increase throughout the course of therapy.

Additional challenges mentioned included the difficult living conditions of refugee clients, especially the housing situation, a lack of social support, and uncertainty due to the asylum process. In some therapies, these issues were oftentimes at the forefront, making it for example difficult to conduct trauma therapy. Insufficient command of the foreign language impaired understanding and promoted misunderstandings. The assistance of translators was described as a *"detour"* (T06), time-consuming and prompting frequent queries and back translations. In particular at treatment onset, the language barrier impaired rapport building. Insufficient language competence also lengthened diagnostic procedures and required repeated validation. A culturally determined, different understanding of role models of men and women was noticed by seven therapists, regarding the extent to which male clients showed weakness and emotions in therapy and engaged in a therapeutic process with a woman. Four therapists reported challenges with potentially shameful, sensitive, or taboo topics in therapy. For instance, narrower family structures would make it difficult to work through family conflicts: *"[...] one does not talk bad about the parents, one respects the parents."* (T13). Five therapists considered different understandings of psychotherapy and mental illnesses as challenging, e.g.,

"[...] garage principle: So, you drive the car into the garage, it is repaired and drives out again on the other side and it's all right, so basically the understanding of therapy was very medically oriented, you go to the doctor, you get a pill [...]" (T05).

4.4.3 Helpful project measures

Ten therapists emphasized the peer supervision with fellow therapists, as well as the group and individual supervision as helpful and supportive. Close collaboration and constant availability of the project management was appreciated (n = 8). The collaborative work was reported to have provided a good transfer of information regarding therapy funding applications, networking in trauma-specific and non-specific questions, and the as motivational perceived shared *"heart and soul"* (T07). Four therapists appreciated the additional training in NET. Furthermore, the diagnostic questionnaires prepared by the project team provided helpful orientation and initial structure for six therapists. The projects' organization of translators and peer counsellors (n = 4) was considered particularly helpful for organizing appointments and administrative tasks. On the financial side, the therapists acknowledged that supervision costs for therapists, as well as refugees' travel costs, translators, and peer counsellors' payment, were covered by the project.

4.4.4 Useful strategies for dealing with challenges

Above all, the exchange with the project management, colleagues or peer counsellors was considered a high priority and perceived as a very helpful strategy to deal with the various challenges. Adjusting one's own expectations of the (pace of) therapy to the clients' needs and capacities was generally considered a useful strategy. Furthermore, transparent discussion of difficulties with clients was particularly helpful in dealing with challenges of therapy organization (n = 6) and motivation. This attitude also included being *"[...] as free as possible from prejudices or taboos [...]"* (T10), being informed about the client's context and applying psychoeducation. In the case of culturally sensitive topics, it was important to be understanding and at the same time extending invitations to talk about these topics. With additional bureaucratic work and therapy organization, it was helpful to delegate tasks to the peer counsellors. Furthermore, it was considered helpful to deal more flexibly with structural obstacles, such as the referral slip, that needs to be provided every quarter in the German health care system. Understanding of clients' situations (n = 5) and accommodating to refugee clients' appointment difficulties more than to non-refugee clients was considered helpful, as was sending out reminders about appointments and referral slips. In two cases, agreements on cancellation fees

improved the clients' compliance. Setting boundaries was elementary to enhance treatment motivation for therapy, it was also emphasized as useful to adapt the intensity of one's own work to the client. Overall, therapists stressed keeping a balance between being understanding of the clients' situation and one's own needs. Moreover, repeating questions, summarizing, and avoidance of technical language was considered useful to overcome language difficulties. Since topics other than the mental state or traumatic experiences were often the focus of therapy, one therapist conducted an *"everyday life session"* (T07) in addition to a weekly trauma session.

4.4.5 Therapists' motivation to engage in further treatment of refugee clients

Therapists described their experiences with refugee clients as being as much of a burden as an enrichment (n = 12). In addition to the challenges described above, examples of burdens were difficult biographies (n = 7), with topics such as child abduction, experiences of fleeing their home country, or on-going conflicts in the country of origin: *"[...] it doesn't leave me unscathed. It does something to you, but I think that's part of the job and I can deal with that quite competently."* (T07). For three therapists, the feeling of one's own incompetence, of inexperience and of insecurity was burdensome. One therapist, who felt that the therapy was not very enriching, cited difficulties to form a relationship with the client because of psychotic symptoms as the reason. Enrichment was seen in learning about an "*unusual story*" (T03), a different upbringing, a foreign country, a different culture, religion, or other perspectives. Eight therapists found the experiences with NET and working with refugee clients enriching for their professional skills. Seven therapists mentioned seeing an improvement in their clients as encouraging.

> "*It is worth hanging in there, also in terms of content. You can see a change over the course of treatment. And that has, that was [...] I think not only for the client, but also for me very relieving and motivating to continue."* (T10)

Regarding their motivation to continue refugee treatment in the future, ten therapists expressed high motivation, two of them felt ready to accept refugee clients again at any time. Three therapists would rather wait until completion of their psychotherapist training. In the context of the psychotherapist training, the time pressure to complete therapies as quickly as possible, and the burden of simultaneously visiting seminars and working at a clinic was too overwhelming. Three therapists could imagine working on a *"small scale"* (T11) with one or two refugee clients in an outpatient setting. Furthermore, a *"better asylum policy in Germany"*

(T12), regular access to health insurance for all refugees, and practical support for refugees, e.g., for doctor visits or reminders about therapy, would increase therapist's motivation. Likewise, a faster processing time for therapy funding and closer cooperation with social workers in the refugee shelters would be essential.

4.5 Discussion

Challenges occurring during outpatient psychotherapy with refugee clients affecting therapists' motivation for future treatment were examined in interviews with therapists during or after their outpatient psychotherapy of said clients. Moreover, factors of the Fearless project perceived as helpful and therapists' useful strategies in dealing with these challenges were examined. Therapists noted three main challenges influencing their future motivation for the treatment of refugees: bureaucratic effort of therapy, therapy organization, and clients' therapy motivation.

Especially the *bureaucratic effort of therapy* with refugee clients has been addressed in previous research in Germany (Manok et al., 2017; Thöle et al., 2017). In this research, mainly therapists who had treated refugee clients without health insurance found the bureaucratic effort challenging. In consequence, it is possible that the challenging additional bureaucratic effort mostly depended on the health insurance situation of the refugee clients. German asylum politics might further increase the work burden by requesting expert opinions from psychotherapists (Manok et al., 2017) which involve additional paperwork. Handing out health insurance cards on a regular basis to all refugees at their arrival has already been proposed in research (Thöle et al., 2017), and could be an important first step in lowering bureaucratic obstacles to receiving adequate psychotherapeutic care. The potential of such a solution has been demonstrated in the case of more than over one million Ukrainian refugees entering Germany in 2022 (BAMF, 2022c; Bundesministerium des Inneren und für Heimat, 2023a) who were given regular health insurance access on arrival. Furthermore, research has shown that instead of saving money, health insurance access restrictions for refugees led to more hospital and emergency admissions and ultimately higher health care expenditures compared to granting regular access (Bauhoff & Göpffarth, 2018; Bozorgmehr & Razum, 2015). In conclusion, bureaucratic hurdles can be supported as a main reason for a difficult referment of refugee clients to psychotherapists (Baron & Flory, 2020; Mohammed & Karato, 2022).

Many therapists struggled with *therapy organization*, e.g., with appointment cancellations, poor reachability, and in some cases low reliability of the refugee clients. Past research has mentioned that cancelled appointments placed therapists in financial dilemmas, and poor

reachability and relocation of refugee clients were the most frequent reasons cited for therapy dropout (Duden et al., 2020; Mohammed & Karato, 2022; Thöle et al., 2017). In this study, therapists mostly attributed difficult therapy organization to the refugees' living situation, such as frequent moves due to residence requirements (Brücker et al., 2020), or to highly prevalent mental health issues (Fazel et al., 2005). Implementing peer counsellors in every therapy with refugees might reduce these organizational challenges. Lastly, it is worth mentioning that not every therapist encountered difficulties with the therapy organization.

Therapists' perception of a challenging therapy organization was possibly intertwined with the third challenge, namely refugee clients' ambivalent *therapy motivation*. Amongst other reasons, therapists perceived non-compliance to agreements or the cancelling of sessions without or with vague excuses to be due to the clients lacking therapy motivation. Possibly, the unsuccessful referrals and the dropout of several clients might have added to the perception of an ambivalent therapy motivation (Baron & Flory, 2020; Mohammed & Karato, 2022). The possible lack of motivation and dropout might partially be attributed to the fact that the refugee clients in our study were mainly male adolescents. According to previous research, lower consultation rates and help-seeking patterns were reported in men than in women (Möller-Leimkühler, 2002), and adolescent males in particular had the highest dropout rates of mental health services (Marotti et al., 2020).

One therapist in our study referred to the clients' different therapy concepts as a potential factor influencing the therapy motivation of the refugee client. Indeed, Murphy and Rosen (2014) proposed that differing assumptions between clients and therapists about an illness model as well as coping mechanisms might well contribute to an ambivalent therapy motivation or therapists' perception thereof. Different therapy concepts have also been reported to be challenging in other studies with refugee clients (Asfaw et al., 2020; Duden et al., 2020), evidenced by different illness models, and resulting in different or unrealistic expectations of clients towards therapy (Asfaw et al., 2020). The challenge of dealing with different therapy concepts might have been attenuated by the following factors of the Fearless project: providing information about psychotherapy very early on, i.e., during the initial screenings, supporting therapies with peer counsellors often sharing a similar cultural background as the refugee clients, and providing ongoing supervision for psychotherapists, peer counsellors and translators, thereby reinforcing a common understanding of psychotherapy. Other factors influencing therapy motivation, e.g., that caution and mistrust on part of the refugee client can sometimes be misunderstood as a lack of motivation for therapy (Mohammed & Karato, 2022), or that

ambivalent therapy motivation has also been observed in the treatment of PTSD in other populations (Murphy & Rosen, 2014), were not mentioned by the therapists of our study.

Other challenges described in research were found in this study too: difficulties with gender roles (Peñuela-O'Brien et al., 2022), therapists struggling with their clients' difficult living situations (Thöle et al., 2017), practical issues being at the forefront of the therapy (Gartley & Due, 2017) and feeling burdened by hearing refugee clients' difficult biographies (Duden et al., 2020; Manok et al., 2017; Thöle et al., 2017). Some challenges might have been ameliorated by helpful Fearless project factors. Not having contact with the target population (Kiselev et al., 2020) and difficulties with organizing and financing professional translators (Asfaw et al., 2020; Duden et al., 2020; Manok et al., 2017; Thöle et al., 2017), were probably attenuated by the Fearless project organizing these aspects. Furthermore, training, organizing, and implementing peer counsellors might have lessened organizational challenges reported on by therapists. Training for psychotherapists has further been highlighted as important (Asfaw et al., 2020; Peñuela-O'Brien et al., 2022) and some challenges, related to high self-doubt, implementation of NET or diagnostic procedures might have been attenuated by training the therapists before beginning the therapy. Lastly, as finding supervisors who have experience working with refugee clients seems to be difficult (Peñuela-O'Brien et al., 2022; Schweitzer et al., 2015), we conclude that key support structures of the project were the extensive supervision and close collaboration with the project management. This research emphasizes the importance of deploying similar structural support for therapists working with refugee clients nationwide. Several projects (Adorjan et al., 2017) in Germany have demonstrated the effectiveness of coordinating the integration of refugee clients in psychotherapy by combining training psychotherapists with the provision of translators and peer counsellors.

Therapists also reported implementing several *useful strategies* which have already been highlighted in research, such as adjusting methods to the refugee clients (Duden et al., 2020), psychoeducation (Asfaw et al., 2020), appropriate supervision, being open to differences or dealing more flexibly with bureaucratical obstacles (Peñuela-O'Brien et al., 2022). Furthermore, therapists in our study reported transparency, setting boundaries, adapting the intensity of one's own work to the clients and agreeing on a cancellation fee as useful. Whether these general psychotherapy strategies are of more importance in therapy with refugee clients than with non-refugee clients cannot be deducted from this research. In culture-sensitive psychotraumatology an empathic and non-judgmental attitude and the attempt to understand the client's individual cultural background is considered of particular importance (Schnyder et al., 2016). Several therapists reported such an attitude as a strategy for dealing with challenges.

However, they also stressed the importance of finding a balance between understanding and one's own boundaries.

Despite encountering several of the above-mentioned challenges, most therapists reported having found the therapy experiences with refugee clients personally and professionally enriching and were motivated to treat refugee clients in the future. This result aligns with research highlighting previous therapeutic experience with refugee clients as a crucial factor for raising therapists' willingness and lowering therapy-hindering attitudes (Dumke & Neuner, 2022; Schlechter et al., 2021). Our study underlines the importance of including treatment of refugee clients in psychotherapy training, whilst additional support, including supervision, is still available to the trainees. Even more so, as previous research associated therapy-hindering attitudes with younger age and less work experience (Dumke & Neuner, 2022). As self-doubt has been associated with a lower readiness to work with refugee clients (Schlechter et al., 2021) and lack of expertise can result in a fear of contact (Baron & Flory, 2020; Mohammed & Karato, 2022), we recommend building an expertise with this client group early on.

4.5.1 Limitations

Several methodological limitations restrict the generalizability of the results, e.g., most interviewed psychologists were in psychotherapy training, and all therapists were supported by the Fearless project. The small number of male participants interviewed reflects the unequal gender distribution of 76% female psychotherapists across Germany (Kassenärztliche Bundesvereinigung, 2021). Moreover, in qualitative studies the sample size of 13 interviews is viewed as sufficient for content saturation (Guest et al., 2006). One therapist, who had reported poor experiences with several failed transfers of refugee clients could not be included in the study because of not responding to the interview request, which may have distorted the results. Since all interviewed therapists participated in the Fearless project, social desirability could have influenced the answers. We attempted to counter this potential bias by having the second author, who was not part of the project team, interview therapists who knew the other two interviewers. Interview guides and training on how to conduct interviews were used to minimize and reflect potential individual influences.

The interviewers and the majority of interview participants were from western, educated, industrialized, wealthy, and democratic countries (Henrich et al., 2010). Thöle et al. (2017), reported that therapists might attribute statements from refugee clients to cultural differences, even though they might not be culturally valid. The process of a privileged group perceiving a specific subordinate group as deviant from the norm because of internalized stereotypical

representations is defined as othering (Canales, 2000; Dumke & Neuner, 2022). In inclusionary othering difference may be a "tool for connecting" (p.26; Canales, 2000), and can have beneficial consequences for the clients. In this study, therapists reported to have had more understanding for organization difficulties with their refugee clients than with their non-refugee clients. However, an unconscious and uncritical transfer of clichés and stereotypes and a generalization of population differences to single cases should be avoided and can have negative effects on the provision of mental health care for refugees (Dumke & Neuner, 2022). Ultimately, not all therapists experienced the same challenges with their refugee clients, e.g., one therapist stated her client was even more reliable than other non-refugee clients. Schnyder et al. (2016), concluded that it is relevant to be aware of culture-specific aspects, whilst still being beware of premature cultural stereotyping and proposed incorporating people from the client's same cultural background to the therapy whenever necessary. Lastly, according to subjective epistemology, the described outcomes and identified difficulties do not reflect objective reality, but rather the subjective perceptions of the participants. Perceptions and narratives may be distorted by memory bias, selective perception, social desirability, or other effects.

4.5.2 Conclusion

Treating refugee clients is important on an individual level but also on a societal level as emotional distress and integration are intertwined (Stuart & Nowosad, 2020; Tingvold et al., 2015). Bureaucratic effort of therapy, therapy organization, and the perceived clients' therapy motivation crucially influence therapists' future motivation for the treatment of refugee clients. Our results suggest four main recommendations: Firstly, access to health care should be facilitated by minimizing bureaucratic obstacles, e.g., by providing regular health insurance for all refugees early on. Secondly, we recommend improving living conditions of refugees and deploying peer counsellors in every therapy to facilitate dealing with challenges of therapy organization and therapy motivation. Other challenges described in previous research on mental health care provision of refugee clients might have been alleviated by the Fearless project: organizing and financing professional translators, referring refugee clients, and ensuring supervision. Hence, thirdly, we recommend addressing these aspects on a nationwide structural level to facilitate access to psychotherapy for refugees within the German health care system. Lastly, our fourth recommendation is to include education on the treatment of refugee clients in the curricula of psychotherapy training. Amongst others, this additional training module should provide information that psychotherapy with refugee clients is effective, emphasize techniques which have proven to work universally and/or for these populations, and reinforce capacities

of psychotherapists to work with translators and peer counsellors from different cultural backgrounds. Implementing these recommendations is necessary to ensure high motivation of therapists and mental health care of refugees. Ultimately, more psychotherapists might offer therapy concurring with the conclusion of most psychotherapists in this study to continue working with refugee clients in the future despite existing challenges: *"It is worth hanging in there".*

5 General discussion

This thesis gives insight into pre- and post-migration stressors influencing emotional distress and integration in refugees as well as barriers to mental health care in Germany. In the cross-sectional study I, the impact of several pre- and post-migration stressors was assessed, such as severe physical abuse in childhood and residence status. Results confirmed that severe physical abuse in childhood explained emotional distress in refugees substantially, even after controlling for demographic and post-migration factors. Moreover, the more pandemic months refugees had experienced since March 2020, the more emotionally distressed they were. This result highlights the negative impact of the COVID-19 pandemic and the strict and isolating strategies during the time of assessment$_{t0}$, March 2020 until January 2022, on emotional well-being. Overall, this study confirmed that higher emotional distress in refugees led to a lower integration. Study II showed that emotional distress of initially emotionally distressed refugees decreased over the course of nine months while remaining clinically relevant. The most relevant longitudinal predictors of emotional distress were emotional distress and integration at assessment$_{t0}$. Integration improved over the course of nine months and the only significant predictor for successful integration over time was integration at assessment$_{t0}$. Only the social, economic, and linguistic integration sub-dimensions changed significantly from assessment$_{t0}$ to assessment$_{t1}$. In conclusion, both studies highlighted the intertwinement between refugees' emotional distress and their integration. In study III, qualitative interviews with therapists that had participated in the Fearless project highlighted three main challenges influencing their future motivation for carrying out therapy with refugee clients: the bureaucratic effort involved in seeing refugees, therapy organization, and clients' therapy motivation. Despite being confronted with various challenges, most therapists reported motivation to continue treating refugee clients and stated to have found the therapy experiences with refugee clients enriching. Structural support, e.g., providing translators and supervision, was found to be beneficial in supporting motivated therapists to offer therapy for refugee clients.

5.1 Refugees' emotional distress and integration

Study I and II showed that the examined sample of refugees were burdened by high *emotional distress*, even higher than in prior refugee studies (Hollifield et al., 2016; Kaltenbach et al., 2017). Study II showed that in refugees with low emotional distress at assessment$_{t0}$, emotional distress did not significantly change over the course of nine months. However, the emotional distress of initially highly distressed refugees ameliorated over the course of nine months. Aligning with longitudinal research in Germany (Nikendei et al., 2019; Richter et al., 2018), while emotional distress ameliorated, it nonetheless remained clinically significant. Refugees' emotional distress at assessment$_{t0}$ was the most important predictor for their follow-up emotional distress nine months later. In line with this, Vaage et al. (2010) found that symptom improvement in the first years of resettlement was crucial for longitudinal emotional well-being. Tackling refugees' emotional distress promptly after arrival seems to be crucial for their longitudinal emotional well-being.

Study I and II further highlighted the intertwinement of refugees' emotional distress and their integration. Refugees with higher integration scores at the assessment$_{t0}$ showed less emotional distress at both assessments. Additionally, even when controlling for other factors, higher integration at assessment$_{t0}$ was a predictor for refugees' reduced emotional distress nine months later. One possible mechanism explaining this result could be that higher psychological and social integration have been linked to a higher likelihood of refugees turning to their general practitioner with mental health problems instead of seeking help from one's partner or relationship with Allah/God (Harris et al., 2021). In summary, refugees' integration seems to be essential for their (longitudinal) emotional well-being (Bakker et al., 2014; Phillimore, 2011).

Study II showed *integration* at assessment$_{t0}$ to be the only significant predictor for refugees' integration at assessment$_{t1}$. This highlights the urgency of enabling all refugees to participate in integration courses promptly after their arrival to support a rapid successful integration. A substantial benefit of Study II was the first longitudinal examination of the Integration Index: while social, economic, and linguistic integration increased from assessment$_{t0}$ to assessment$_{t1,}$ the other sub-dimensions did not change significantly. Psychological and navigational integration remained on an already elevated level of assessment$_{t0}$, and political integration showed low scores at both assessments. While the variable length of stay in this sample was very heterogenic, Lichtenstein and Puma (2019) examined a homogenous sample of newly arrived refugees over a four year period. They found that integration dimensions may evolve differently over the course of four years depending on the resettlement stage: While the pathways *employment and economic sufficiency* and *language and cultural knowledge* only increased in the first year of

resettlement, the *social bonding* and *social bridging* pathways increased in the first and third year. Although longitudinal research on different dimensions of integration is scarce it is highly relevant to better understand and reform integration processes.

5.2 Further pre- and post-migration stressors

In study I, *severe physical abuse in childhood* explained emotional distress at assessment$_{t0}$ to a large extent. This finding underlines the detrimental role of severe physical abuse in childhood on mental health (Kalia & Knauft, 2020; Kendall-Tackett, 2002; Lindert et al., 2014; Margolin & Vickerman, 2011). However, in study II severe physical abuse in childhood was not a significant predictor for follow-up emotional distress. As only emotional distress at assessment$_{t0}$ was a significant predictor for emotional distress at assessment$_{t1}$, this underlines the relevance of symptoms themselves for the maintenance of pathology (Van Wyk et al., 2012). In study II, the incremental predictive power of severe physical abuse in childhood may have been reduced due to controlling for baseline emotional distress symptoms. While severe physical abuse in childhood is detrimental for mental health, the symptoms themselves seem to be more important for the course of emotional distress. While in study I severe physical abuse in childhood was associated with higher integration, in study II no association between these variables was found. Whether this speaks for possible adaptive consequences of physical abuse, for example by leading to stronger integration motivation (Haer et al., 2021) cannot be deduced from this research.

Study I and II both support research showing that *residence status* itself may not be a reliable predictive factor of refugees' emotional well-being (Chen et al., 2017; Gleeson et al., 2020; Höhne et al., 2020; Hornfeck et al., 2022) or integration (Schick et al., 2016). These results support the idea that residence status may act as a marker for other post-migration stressors, such as social integration, language abilities and instability (Gleeson et al., 2020; Hornfeck et al., 2022; Toar et al., 2009).

Regarding the *COVID-19 pandemic*, study I showed that refugees were more emotionally distressed and less integrated the more pandemic months they had experienced since March 2020. This result supports negative effects of the COVID-19 pandemic on refugees' mental health (Nearchou et al., 2020; Sevim et al., 2023). However, pandemic months was not significant in the longitudinal analysis leading to the conclusion that the negative impact of the COVID-19 pandemic may decline over time with social interactions returning to a pre-COVID level. This result aligns with research showing only a small longitudinal negative impact of the COVID-19 pandemic (Prati & Mancini, 2021; Thygesen et al., 2023).

5.3 Mental health care of refugees in Germany

As refugees show high levels of emotional distress and tackling their emotional distress promptly after arrival is crucial, not only research but also European guidelines recommend the implementation of a mental health screening for all refugees on arrival (Bauhoff & Göpffarth, 2018; German National Academy of Sciences Leopoldina, 2018; The European parliament and the council of the European union, 2013). Even though the feasibility of such a systematic mental health screening with refugees has been shown in Germany (Kaltenbach et al., 2017; Schmidt et al., 2023), no nationwide mental health screening has been implemented yet. Additionally, refugees' access to the regular health care system in Germany is augmented by structural, language, navigational, as well as cultural barriers (Adorjan et al., 2017; Schneider et al., 2017). These barriers result in only a few refugees getting the mental health care they need. Indeed, according to a study by Dumke et al. (2024) only one in five refugees needing mental health care had contact with specialized mental health services, regardless of their stage of resettlement. On top of that, even if treatment was provided, only one in seven refugees gets treated with minimally adequate treatment as recommended by international guidelines (Dumke et al., 2024).

The Fearless project was developed to facilitate refugees' access to mental health care in Germany as well as to provide adequate treatment for them. To fill gaps on implementation research (Satinsky et al., 2019), in study III therapists treating refugee clients within the project were interviewed on challenges affecting their motivation for future treatment of refugee clients. Apart from challenges, these interviews highlighted that the extensive supervision and close collaboration with the project management were key support structures of the project. Another major support noted was providing therapies with peer counsellors and translators.

Nevertheless, even with helpful project support therapists noted challenges influencing their future motivation for treating refugee clients. The three main challenges were: bureaucratic effort, therapy organization, and clients' therapy motivation. A higher *bureaucratic effort* of therapy with refugee clients seems to be a major barrier on the part of therapists and could be lowered by handing out health insurance cards on a regular basis to all refugees on their arrival (Baron & Flory, 2020; Manok et al., 2017; Mohammed & Karato, 2022; Thöle et al., 2017). Apart from lowering the bureaucratic effort for therapists this could also lower health care expenditures (Bauhoff & Göpffarth, 2018). Further, the reported challenge of a difficult *therapy organization* has also already been mentioned in research (Duden et al., 2020; Mohammed & Karato, 2022; Thöle et al., 2017). This burden on the part of the therapists could be lessened by a greater implementation of peer counsellors in every therapy with difficult therapy

organization. Moreover, some therapists struggled with what they perceived as ambivalent *therapy motivation*. While lower help-seeking patterns and higher therapy drop-out has been researched in (adolescent) males (Marotti et al., 2020; Möller-Leimkühler, 2002), therapy motivation in refugee clients has not yet been researched. This difficulty may be eased with a higher implementation of peer counsellors.

An important finding of study III was that despite being confronted with several challenges, most therapists reported being motivated to treat refugee clients in the future. In order to support motivated therapists, structural support, including training of therapists and provision of translators and peer counsellors is needed in Germany (Adorjan et al., 2017). Against the background that therapists' lack of expertise and self-doubt has been associated with less readiness to work with refugee clients (Baron & Flory, 2020; Mohammed & Karato, 2022; Schlechter et al., 2021), we recommend building an expertise with this client group early on in psychotherapy training.

5.4 Implications for research and practice

This research highlights the role of integration in preventing a vicious cycle between poor mental health resulting from pre- and peri-migration traumatic experiences aggravated by post-migration stressors (Walther et al., 2020). In Germany, integration courses have been criticized for a number of reasons, including being selective, having delayed access, for only about half of the participants passing the integration exams, as well as having high regional differences regarding their quality (Etzel, 2022; Klinger et al., 2019). Research in Germany could focus on evaluating the effectiveness of integration courses in promoting refugees' integration. Since a reformation of these integration courses has been demanded (Etzel, 2022; Klinger et al., 2019), research including expertise and views of former participants could support effective reformations. While refugees' voices must be heard when examining integration, research including refugees' perspectives is still limited (Gurer, 2019; Hoare et al., 2017; Korac, 2003; Shaw & Wachter, 2021; Walther et al., 2021). Few existing qualitative studies with refugees highlight the relevance of social integration (Hirad et al., 2023; Shaw & Wachter, 2021). These findings support integration to be a two-way process requiring a supporting social context enhancing unconditional inclusion and participation (Ager & Strang, 2008; Etzel, 2022). More implementation research is needed (Satinsky et al., 2019), hence in future research refugee clients that have completed therapy in the Fearless project could be interviewed on their perspectives. What were their therapy experiences? Which project measures did they find helpful and what would they have needed in addition to support their therapy? Moreover, their perspectives on

therapy challenges described by therapists, such as therapy organization and motivation, might be essential to improve their access to mental health care. In a next step, refugee clients that dropped out of therapy could be interviewed on their perspectives and reasons for dropping out. Such implementation research could be valuable to reduce remaining challenges and further adapt project measures. Walther et al. (2021) interviewed refugees in Germany on their perspectives of emotional distress and integration and showed how these interplay across different areas of integration e.g., how mental health problems arising from past trauma may hinder refugees' abilities to integrate. They further go on to discuss how feeling overwhelmed by bureaucratic processes and learning a new language may take a mental toll. My research further supports their conclusion that "integration policy is also health policy" (Walther et al., 2021, p. 13).

Based on the results of my dissertation and previous research, I recommend five main policy implications to support refugees' mental health and integration:

1. Nationwide mandatory mental health screening for all refugees on arrival.
2. All refugees should have early access to integration courses.
3. Refugees' access to health care should be facilitated by providing regular health insurance for all refugees soon after arrival.
4. Therapists providing therapy to refugee clients need to be supported by nationwide structural support systems with financing professional translators, peer counsellors, as well as referring refugee clients, and ensuring supervision.
5. Education on the treatment of refugee clients must be included in the curricula of psychotherapy training.

5.5 Final conclusions

Over the course of nine months, refugees' integration improved, and the emotional distress of initially highly distressed refugees ameliorated. Cross-sectionally and longitudinally, refugees' emotional distress and integration were shown to be intertwined. Significant longitudinal predictors for refugees' emotional distress were their emotional distress and integration at assessment$_{t0}$. Only integration at assessment$_{t0}$ was a significant longitudinal predictor for integration at assessment$_{t1}$.These results underline the need to tackle emotional distress and integration promptly after arrival. Severe physical abuse in childhood has been shown to be detrimental for mental health, nonetheless the symptoms themselves seem to be more important for the course of emotional distress. As the percentage of emotionally distressed refugees receiving adequate treatment is low, the access to the health care system in Germany needs to be adjusted to lower barriers to health care. Bureaucratic effort of therapy, therapy organization, and the perceived clients' therapy motivation crucially influence therapists' future motivation for treating refugee clients. To ensure refugees' mental health care and a high motivation of therapists to work with them the following recommendations need to be implemented:

1. Mental health screening for all refugees on arrival.
2. Early access to integration courses for all refugees.
3. Facilitation of refugees' access to health care by providing regular health insurance for all refugees early on.
4. Support of therapists providing therapy to refugee clients with organizing and financing professional translators, peer counsellors, referring refugee clients, and supervision.
5. Inclusion of the education on the treatment of refugee clients in the curricula of psychotherapy training.

6 Submitted manuscripts that form part of the doctoral thesis

6.1 The impact of experiencing severe physical abuse in childhood on adolescent refugees' emotional distress and integration during the COVID-19 pandemic

Potter, F., Dohrmann, K., Rockstroh, B., Schauer, M., & Crombach, A. (2022). The impact of experiencing severe physical abuse in childhood on adolescent refugees' emotional distress and integration during the COVID-19 pandemic. *Frontiers in Psychology, 13*, 1023252. https://doi.org/10.3389/fpsyg.2022.1023252

6.1.1 Personal contributions

I designed the study and carried out a large number of the participant recruitment and interviews. I prepared the database and performed the statistical analyses. Furthermore, I prepared the manuscript under supervision of Prof. Dr. Anselm Crombach.

6.2 Refugees' integration and emotional distress over the course of nine months

Authors: Flurina Potter, Katalin Dohrmann, Brigitte Rockstroh and Anselm Crombach
Manuscript submitted for publication

6.2.1 Personal contributions

I designed the study and coordinated the follow-up assessment. I carried out a large number of interviews. I prepared the database and performed the statistical analyses. Furthermore, I prepared the manuscript under supervision of Prof. Dr. Anselm Crombach

6.3 "It is worth hanging in there" – Psychotherapeutic experiences shaping future motivation for outpatient psychotherapy with refugee clients in Germany

Potter, F., Zehb, M., Dohrmann, K., Müller-Bamouh, V., Rockstroh, B., & Crombach, A. (2023). "It is worth hanging in there"–Psychotherapeutic experiences shaping future motivation for outpatient psychotherapy with refugee clients in Germany. *BMC psychiatry, 23*(1), 1-11. https://doi.org/10.1186/s12888-023-05004-3

6.3.1 Personal contributions

I designed the study and carried out and controlled a large number of interviews. I performed the qualitative analyses. Furthermore, I prepared the manuscript under supervision of Prof. Dr. Anselm Crombach.

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8 Supplementary materials

8.1 Supplementary materials for Study II

Table 13: Dropout analysis

Characteristics	Total sample (N = 90)	Follow-up completers (n = 47)	Dropouts (n = 43)	Statistic	p value
Male sex, No. (%)	78 (86.7)	43 (91.5)	35 (81.4)	$\chi^2(1) = 1.98$	.159
Family in Germany, No. (%)	37 (41.6) n = 89	18 (38.3)	19 (45.2) n = 42	$\chi^2(1) = 0.44$ n = 89	.507
Health insurance card, No. (%)	19 (32.8) n = 58	5 (16.7) n = 30	14 (50) n = 28	$\chi^2(1) = 7.31$ n = 58	.007**
Severe physical abuse in childhood, No yes (%)	29 (33) n = 88	18 (38.3)	11 (26.8) n = 41	$\chi^2(1) = 1.30$ n = 88	.254
Violent conflict in Germany, No yes (%)	18 (20.5) n = 88	7 (14.9)	11 (26.8) n = 41	$\chi^2(1) = 1.92$ n = 88	.166
Age_{t0}, M (SD, RoV), years	19.5 (3.4, 13 – 41)	19.9 (3.9, 14 - 41)	19.1 (2.7, 13 - 27)	t (81.311) = -1.17	.244
Length of $stay_{t0}$, M (SD, RoV), months	27.9 (23.1; 2 - 96)	28.7 (22.5, 2 - 74)	27.1 (24.1; 2 - 96)	t (85.840) = -0.34	.737
Pandemic $months_{t0,}$ M (SD, RoV)	11.5 (6.1, 5 - 28)	10.9 (5.8, 5 - 28)	12.2 (6.4, 5 - 25)	t (85.086) = 0.95	.346

Characteristics	Total sample (N = 90)	Follow-up completers (n = 47)	Dropouts (n = 43)	Statistic	p value
Country of origin, No. (%)				$\chi^2(3) = 4.99$	.173
Syria	21 (23.3)	8 (17)	13 (30.2)		
Afghanistan	21 (23.3)	15 (31.9)	6 (14)		
Gambia	13 (14.4)	7 (14.9)	6 (14)		
Other	35 (38.8)	17 (36.2)	18 (41.9)		
Residence status, No. (%)	n = 88		n = 41	U = 722.000, z = -2.054 n = 88	.040*
Secure	21 (23.9)	9 (19.1)	12 (29.3)		
Partly secure	33 (37.5)	19 (40.4)	14 (34.1)		
Not secure	31 (38.6)	19 (40.4)	15 (36.6)		
Emotional Distress, *M* (*SD*, *RoV*)	16.12 (12.77, 0 – 45)	15.04 (12.84, 0 - 45)	17.30 (12.73, 0 - 42)	t (87.422) = 0.84	.405
Integration, *M* (*SD*, *RoV*)	.38 (.17, .04 - .90)	.40 (.18, .04 - .90)	.36 (.16, .06 - .77)	t (87.530) = -0.90	.369

Note. *p<.05, **p<.01. If values do not depict the total sample the deviating number of n is indicated. In accordance with the handling of missing information in the assessment$_{t1}$ sample, we excluded n = 8 from the baseline dropout sample due to too much missing data on one of the key variables. This resulted in a total sample (N = 90) of n = 47 completers and n = 43 dropouts.

8.2 Supplementary materials for Study III

Table 14: Interview guide

Kategorie	**Erzählaufforderung**	**Definition Leitfragen** Check: Wurde das erwähnt?	**Konkrete Nachfragen**
K0: Einstieg	„Was waren ihre Beweggründe für die Entscheidung am Projekt teilzunehmen?“ „Gab es Unterschiede zwischen der Therapie mit Geflüchteten und der Therapie mit gewöhnlichen ambulanten Patient:innen? Wenn ja, welche?“	**Beweggründe** **Unterschiede Therapie**	
K1: Organisatorische Durchführung	„Erzählen Sie bitte, wie Sie die organisatorische Durchführung der Therapie erlebt haben.“	**Organisatorischer Beginn:** Überweisung, Beantragung, Abrechnung **Kurzfristige Absagen** **hilfreiche strukturelle Faktoren** **nicht hilfreiche strukturelle Faktoren** **Therapieende**	- „Wie haben Sie den organisatorischen Beginn der Therapie wahrgenommen im Vergleich zu dem Therapiebeginn bei gewöhnlichen ambulanten Patient:innen?“ - „Gab es kurzfristige Absagen der Therapie und wie sind Sie damit umgegangen?“ - „Welche strukturellen Faktoren seitens des Furchtlos Projekts und des apbs haben Sie für die Therapie als hilfreich erlebt?“ (z.B. Intervision, Supervision, Pat:innen) - „Welche strukturellen Faktoren seitens des Furchtlos Projekts und des apbs haben Sie für die Therapie als nicht hilfreich erlebt?“ - „Wie wurde die Therapie beendet?“
K2: Inhaltliche Durchführung	„Wie haben Sie den inhaltlichen Verlauf der Therapie erlebt?“	**Diagnostik** **Therapeutischen Techniken** Falls NET: **Schwierigstes traumatisches Ereignis FÜR Therapeut/in**	- „Wie haben Sie die Diagnostik erlebt?“ - „Welche therapeutischen Techniken haben Sie angewendet und wie gut haben sie funktioniert?“ (z.B. kogn. Umstrukturierung, narrative Exposition, Skill-Training) - „Welches traumatische Ereignis des Geflüchteten war für Sie am schwersten zu bearbeiten? Warum?“
K3: Kulturunterschiede	„Haben Sie die Kultur als beeinflussenden Faktor in der Therapie erlebt?“	**Sprachliche Barrieren** **Kulturelle Barrieren & Bereicherungen**	- „Hat Sprache eine Rolle in der Durchführung der Therapie gespielt? - „Inwiefern haben Sie kulturelle Unterschiede als Barriere oder als Bereicherung in der Therapie wahrgenommen?“

Kategorie	**Erzählaufforderung**	**Definition Leitfragen** Check: Wurde das erwähnt?	**Konkrete Nachfragen**
K4: Persönliches Erleben	„Wie haben Sie die Therapie mit der geflüchteten Patient:in insgesamt **persönlich** erlebt?“	**Belastungen** - Verlauf - Schwierigster Moment Therapie **Bereicherung** - Zufriedenheit mit Therapie **Eigenes Fazit** - Erwartungen - Eigenschaften - Motivation - Motivation erhöhen	- „Als wie persönlich belastend haben Sie die Therapie mit dem*der Geflüchteten erlebt? - „Hat sich die Belastung im Laufe der Therapie verändert?“ - „Welcher Moment in der Therapie war für Sie am schwierigsten?“ - „Als wie persönlich bereichernd haben Sie die Therapie mit dem*der Geflüchteten erlebt?“ *(Falls nicht auf therapeutische Rolle eingegangen wird: „Was genau fanden Sie für ihre therapeutische Arbeit bereichernd?“)* - „Wie zufrieden sind Sie mit dem Ergebnis der Therapie?“ - „Wurden Ihre Erwartungen an die Teilnahme im Projekt erfüllt?“ - „Welche Eigenschaften der Therapeut:innen sind in der Therapie mit Geflüchteten Ihrer Meinung nach besonders wichtig?“ - „Wie hoch ist Ihre Motivation auch zukünftig mit Geflüchteten zu arbeiten?“ - „Was würde ihre Motivation erhöhen eine weitere Therapie mit einem Geflüchteten durchzuführen?“
K5: Weiteres	„Haben wir etwas vergessen, was Sie gern noch ergänzen oder ansprechen würden?“		

COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Table 15: COREQ Checklist

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	54
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	54
Occupation	3	What was their occupation at the time of the study?	54
Gender	4	Was the researcher male or female?	54
Experience and training	5	What experience or training did the researcher have?	54
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	54
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	54
Interviewer characteristics	8	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	54, 65, 66
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	55
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	54
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	54
Sample size	12	How many participants were in the study?	54

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Non-participation	13	How many people refused to participate or dropped out? Reasons?	54
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	54
Presence of nonparticipants	15	Was anyone else present besides the participants and researchers?	54
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	52, 54
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	54
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	54
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	54
Field notes	20	Were field notes made during and/or after the interview or focus group?	55
Duration	21	What was the duration of the interviews or focus group?	54
Data saturation	22	Was data saturation discussed?	54
Transcripts returned	23	Were transcripts returned to participants for comment and/or correction?	55
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	55
Description of the coding tree	25	Did authors provide a description of the coding tree?	N/A
Derivation of themes	26	Were themes identified in advance or derived from the data?	55
Software	27	What software, if applicable, was used to manage the data?	55
Participant checking	28	Did participants provide feedback on the findings?	N/A
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	58-61
Data and findings consistent	30	Was there consistency between the data presented and the findings?	58-61
Clarity of major themes	31	Were major themes clearly presented in the findings?	58-61
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	58-61