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(Direktor: Prof. Dr. med. Joachim E. Fischer)

Beyond Refugee Adverse Childhood Experience (BRACE): Development  
of an Adverse Childhood Experience (ACE) questionnaire for refugee  
children

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Shaymaa Amgad Salaheldin Abdelhamid

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Dekan: Prof. Dr. med. Sergij Goerd  
Referent: Prof. Dr. med. Joachim E. Fischer

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**LIST OF ABBREVIATIONS**

ACE-IQ	ACE-International Questionnaire
ASK	Addressing Social Key Questions for Health Questionnaire
ACEQ-R	Adverse Childhood Experience Questionnaire-Revised
ACEs	Adverse Childhood Experiences
BRACE	Beyond Refugee Adverse Childhood Experience questionnaire
CYW ACE-Q Child	Center for Youth Wellness ACE-Questionnaire - Child
CYW ACE-Q Teen	Center for Youth Wellness ACE-Questionnaire - Teen
CDC	Centers for Disease Control and Prevention
CATS	Child and Adolescent Trauma Screen
CTES	Childhood Traumatic Events Scale
CSQ	Children's Stress Questionnaire
CTSPC	Conflict Tactics Scale Parent-Child
COSMIN	Consensus-based Standards for the Selection of Health Measurement Instruments Checklist
COREQ	Consolidated criteria for reporting qualitative studies
CRC	Convention on the Rights of the Child
COVID	Corona virus
GPMC	Generalised Partial Credit Model
GDP	Gross domestic product
ACE-I	immigrant-specific ACEs
ICAST-C	ISPCAN Child Abuse Screening Tool-Child
ICAST-P	ISPCAN Child Abuse Screening Tool-Parent
JVQ	Juvenile Victimization Questionnaire
LDF	Lifetime Destabilizing Factor Index
LITE-PR	Lifetime Incidence of Traumatic Events
NatSCEV	National Surveys of Children's Exposure to Violence
PTSD	Post-traumatic stress disorder
PROSPERO	Prospective Register of Systematic Reviews
SEM	Social-ecological model

SDQ	Strengths and Difficulties Questionnaire
SLE	Stressful Life Events self-report questionnaire
TESI	Traumatic Events Screening Inventory
US	United States
WHO-5	World Health Organisation - Five wellbeing questionnaire
WHO	World Health Organization
Y-VACS	Yale-Vermont Adverse Childhood Experiences Scale

# 1 INTRODUCTION

## 1.1 Early childhood development

The early years of childhood are of uncontested importance to lifelong health and wellbeing. During this stage, rapid growth and development occurs where children acquire and integrate countless skills. By the age of six, the brain of a child has reached approximately 90% of its adult volume owing to the astounding rate at which neurons form new connections [1]. A strong foundation of a child's brain architecture promotes a broad range of skills and capacities throughout their lifetime. These neural processes affect the capacity to learn, adapt to change, build resilience as well as influence longevity [2]. Between birth and late adolescence, children continuously develop biologically (physical transformations), socially (social relationships), emotionally (emotional understanding and experiences), and cognitively (thought processes) [3].

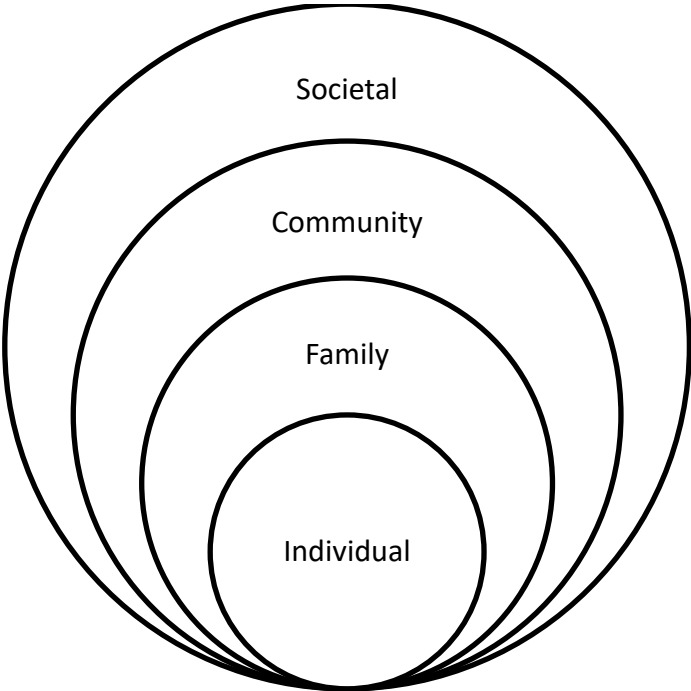
Two highly interrelated influences contributing to brain development are genetics and the environment [4]. Often referred to as nature and nurture, research has shown that they are inextricably linked. Genes code for the building blocks of brain cells while the environment influences brain systems and structures, shaping their formation [5]. Together genetic and environmental interactions shape the development of the brain's circuitry [6]. There is evidence that nurturing factors (such as parenting quality) modify gene expression, indicating that the genome is sensitive to its environment [7]. Such adaptations influence the growth of crucial brain areas from which a number of long-term advantages result, including enhanced learning capacity, increased academic success, community engagement, and general wellbeing [8]. Acknowledging that the genome can be biochemically altered because of gene-environment interactions, reaffirms the impact nurturing has on early brain development.

An environment that nurtures children refers to one that attends to their emotional needs, provides for their physical requirements, stimulates their development, and is safe and secure [9]. Giving children food, shelter, clothing, and caring for their health and hygiene are all elements of this. It also entails being sensitive to their emotional needs by giving them comfort, support, physical affection, solace,

and validating their feelings. This even involves providing them with learning opportunities and securing their protection. Nurturing care is shaped by a number of dynamic elements, including the home, childcare/schooling, the greater community and governmental regulations [8]. This is consistent with the social-ecological framework, which explains that children are immersed in a variety of surroundings that impact their development and wellbeing.

### 1.2 Social-ecological model

Bronfenbrenner conceptualised the most prevalent and widely cited social-ecological model (SEM). This model consists of four ecological systems: the microsystem (i.e., family, school, peers), the mesosystem (i.e., relationship between school and peers), the exosystem (i.e., relationship between parents, caregiver’s place of employment, local media, community agencies), and the macrosystem (i.e., societal structures and values) [10]. This model has since been adapted in several ways to understand the multifaceted nature of different occurrences. As represented in Figure 1 the SEM levels referred to in this dissertation range from the most proximal (individual) to the most distal (society) as previously described by Dahlberg & Krug 2002 [11].

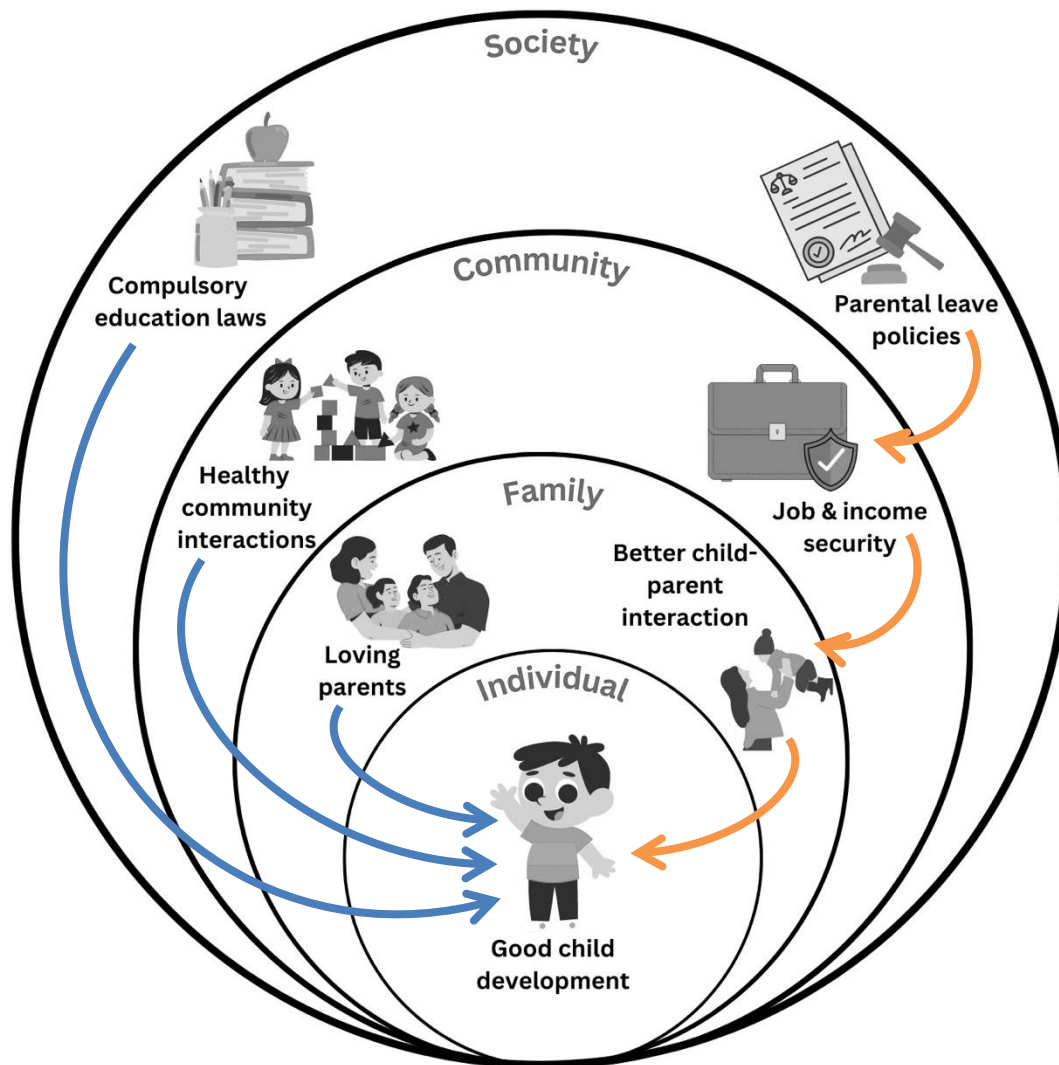


**Figure 1:** Social-ecological model for understanding children’s development and wellbeing [11]



The first level of the SEM focuses on the traits of the individual and aims to determine the biological and biographical characteristics that an individual owns which affect their behaviour [12]. The second level focuses on family relationships, looking at how different parenting practices and styles, along with different family structures and norms, affect a child's development. Family interactions are the closest to the child and occur practically daily [12]. This level is sometimes considered as the single most powerful context for child wellbeing [8]. The third level looks at the community contexts where social ties are established, involving extended family, friends, teachers, and neighbours, and even strangers at school and throughout the neighbourhood, aiming to uncover elements of these settings that are linked to the best interest of the child [13]. The last level looks at societal elements like economic, social, educational, and health policy [13].

This model suggests the importance of a stable home environment for a child's wellbeing, one in which loving parents affirm their child's emotions, show them compassion and comfort, and shield them from danger and abuse [9]. It acknowledges a role for the child's sense of belonging and cultivation of social skills, acquired from their interactions with others in their community and the importance of growing up in a safe school and neighbourhood free from violence, crime and danger [14]. It also emphasises the potential value of policies that pledge to provide access to healthcare, education and protection [15]. Figure 2 provides examples (indicated by the blue arrows) of how these levels interact with the child directly.



**Figure 2:** Examples of interactions within the social-ecological model

Equally important is recognising that these levels also interact with each other to influence the child's wellbeing. As an illustration of how the various levels interact, one can consider the parental leave policies, which compensate working parents for lost wages when they take time off to care for their child without losing their jobs. Figure 2 illustrates this example indicated by the orange arrows. A study in the United States showed how maternity leave had a positive effect as it lowered the risk of postpartum maternal depression, which in turn enhanced new-born attachment and child development [16]. Successful early development requires parental care and enablement from the community, services, and policies [17]. However, in some instances, these social-ecological levels can instead be sources of threats to children's development.

### 1.3 Adverse childhood experiences

Consequently, the SEM can also be used to illustrate the various levels at which childhood adversities may emerge. Research has demonstrated that childhood adversities are associated with profound developmental consequences, but the terminology, definition, and measurement has been inconsistent [18, 19]. Numerous comparable phrases such as poly-victimisation [20], child maltreatment [21], juvenile victimisation [22], negative life events [23], early life stress [24], childhood trauma [25] and childhood violence [26] have been used to describe negative events encountered by children. Each of these terms includes a wide spectrum of childhood adversities ranging from physical punishment to failure to receive love and comfort, however, with varying focus on particular aspects. Their differences lie in what experiences are included in their measure of adversity, for instance, experiences with parents/caregivers only or with other outside sources from the community. However, one common aspect of the research using these terms is that it seeks to understand the influence adversity has on the development of non-communicable diseases as well as health-harming behaviours and practices.

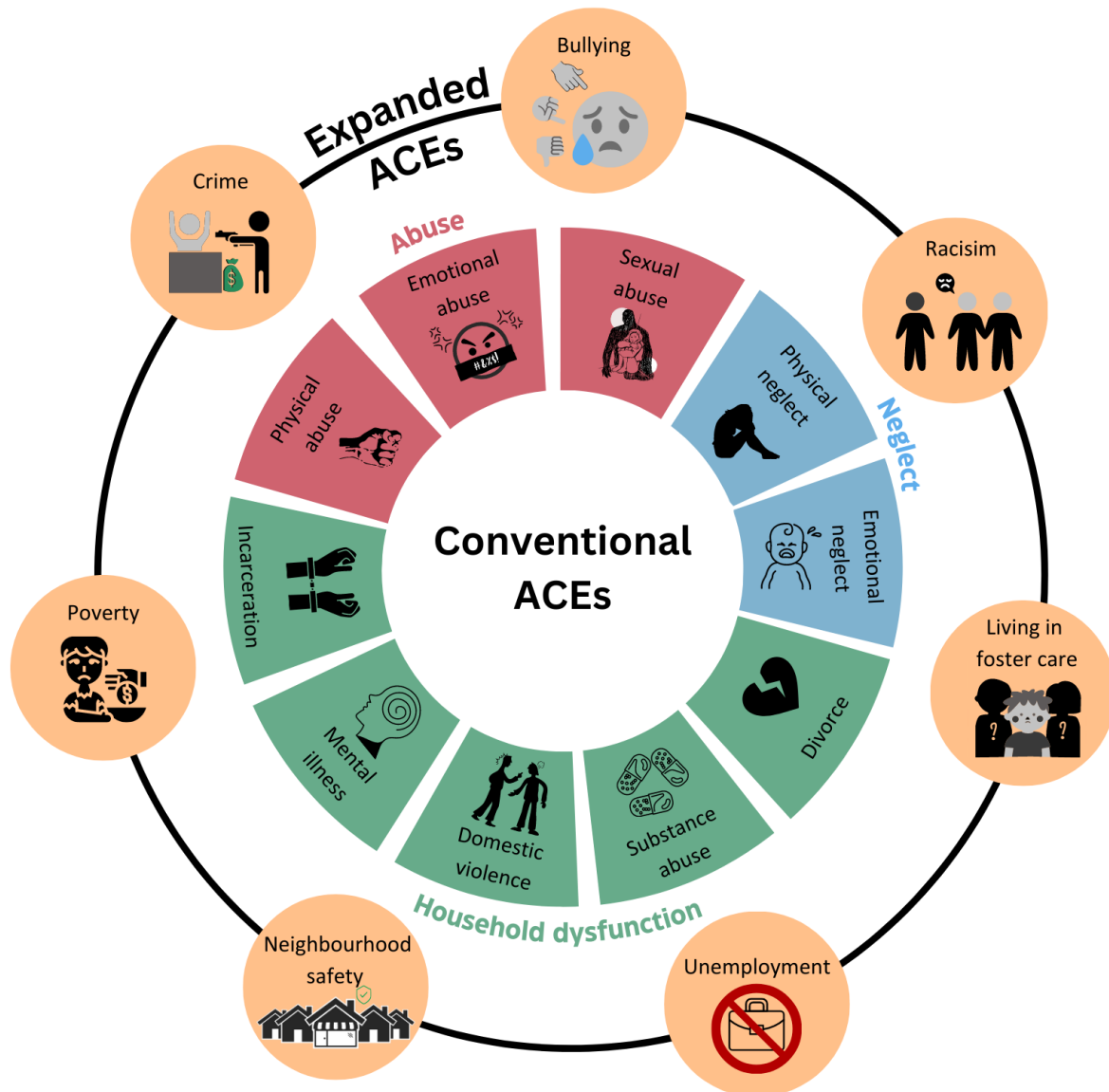
In a pioneering study by the Centers for Disease Control and Prevention (CDC) and the Kaiser Permanente, published in 1998, the term Adverse Childhood Experiences (ACEs) was introduced. Participants in this study received the ACE questionnaire by mail, which included 17 questions about certain experiences they encountered as children. The purpose of the study was to explain how significant medical and public health issues have been correlated with these childhood experiences [27]. The study was regarded as ground-breaking as it demonstrated an association between ACEs and a variety of health consequences, such as chronic illnesses, mental health issues, substance misuse, and social issues. It uncovered that negative childhood experiences have an impact on physical health, in addition to psychological repercussions. In comparison to previous studies, the CDC-Kaiser Permanente study acknowledged the effect of multiple adversities as opposed to a single negative event. This approach strived to incorporate a wide range of experiences so that it may be comprehensive in its assessment of the long-term consequences on health and wellbeing. Since then, the concept of ACEs has been widely adopted in public health and social service fields as a means of understanding and preventing the negative consequences of these adversities. Considering these

matters, the term Adverse Childhood Experiences (ACEs) is utilised in this dissertation and is defined as highly stressful or potentially traumatic events or situations that occur during childhood and/or adolescence that can have a harmful impact on children's health and development [28, 29].

### 1.3.1 ACE categories

The examples of adversities that were provided in the CDC-Kaiser Permanente study originated from the family milieu. They were classified into the following categories: physical, emotional, and sexual abuse, and household dysfunction which includes domestic violence, abuse of alcohol or drugs by a family member, parental mental illnesses, parental separation or divorce, or incarceration of a family member [27]. Later studies added neglect, and these categories became known as the *conventional ACEs* [30, 31].

In recent years, there has been an increased awareness that ACEs should not be conceptually limited to only these experiences [32, 33]. One of the early endeavours to address the issue, which took place in 2009, was a meeting of experts from the fields of public health and early child development including representatives from the World Health Organization (WHO) and CDC [33]. These experts agreed to strengthen their work on understanding and documenting ACEs by evaluating the applicability of ACE categories on a global scale and discussing whether adding additional categories was necessary. Potential new ACE categories were evaluated according to the following criteria: produces a biological stress reaction, policy sensitive, prevalence in all societies, measurable quickly and easily, proximal in respect to causality. Through this process they included the following new categories: discrimination, forced marriage, sexual exploitation, peer violence, child labour/child trafficking, begging, witnessing severe physical violence, collective violence, war zone resident and exposure/witness to torture [33]. Several other researchers also began examining ACEs that children might encounter in their communities and societies such as bullying, community violence, neighbourhood safety/crime, racism, living in foster care, poverty, parents' unemployment and food insecurity [34, 35]. These adversities extended beyond the family environment and became recognised as *expanded ACEs* [31, 36]. Figure 3 depicts the conventional ACEs and examples of the prominent expanded ACEs available in the literature.



**Figure 3:** ACE Categories (adapted from [31])

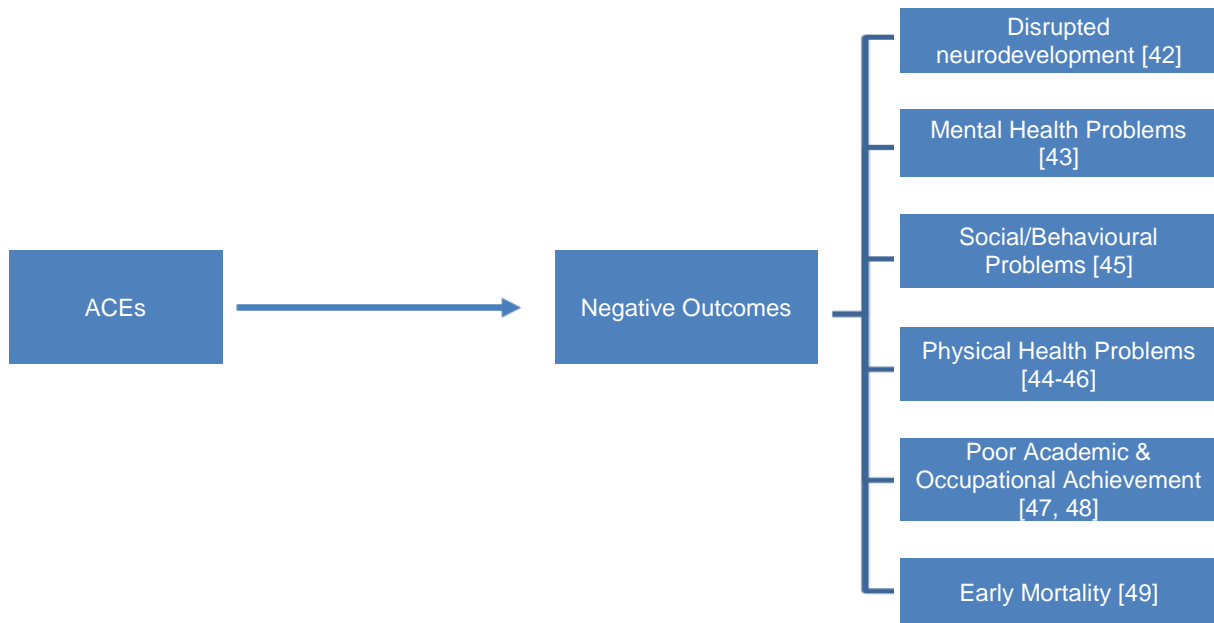
Besides the expansion of ACE categories, the 2009 meeting also aimed to develop a framework for public health surveillance to determine the global burden of ACEs. The discussion focused on developing a set of uniform ACE questions that would be applicable in a variety of social, cultural, and economic contexts, a questionnaire that can apply to the greater global population [33]. However, it becomes uncertain whether attempting to create a global questionnaire falls short when recognising ACEs that might occur in subgroups of vulnerable children.

### *1.3.2 Measuring ACEs*

To capture the adversities experienced by children, a questionnaire or interview is typically used to measure ACEs. These questionnaires have been employed in clinical settings [37], national [38] or school surveys [39]. The majority of ACE evaluation methods involve a self- or parent-report. For example, the Juvenile Victimization Questionnaire (JVQ), a self-report measure, asks about physical abuse using the following question: "Not including spanking on your bottom, in the last year, did a grown-up in your life hit, beat, kick, or physically hurt you in any way?" [40]. Similarly, the Conflict Tactics Scale Parent-Child (CTSPC), a parent-report measure, uses the following statement: "Hit him/her on the bottom with something like a belt, hairbrush, a stick or some other hard object" [41]. Each of the questionnaires has a different response option. The JVQ uses the most common response option, a dichotomous reply to whether or not a certain adversity was experienced [40]. The CTSPC uses a Likert scale to ask about frequency of exposure [41]. Despite the different response options, most ACE instruments use a quantitative, cumulative risk scoring approach. This means that for every adversity that is experienced the respondent receives a point, the greater the score the greater the adversity exposure.

### *1.3.3 Consequences of ACEs*

Several studies have shown a correlation between children who experience an increasing number of adversities and the likelihood of suffering from life-long consequences as adults [27]. ACEs are associated with a variety of negative outcomes as shown in Figure 4, including disturbed neurodevelopment and mental health issues [42, 43]. They are also linked to unhealthy behaviours such as smoking, abusing alcohol and drugs, risky sexual behaviour, violence, and crime, as well as to chronic diseases including diabetes, cancer, and cardiovascular diseases [44-46]. In addition, ACEs are associated with poor academic achievement, reduced social and economic functioning, and early mortality [47-49].

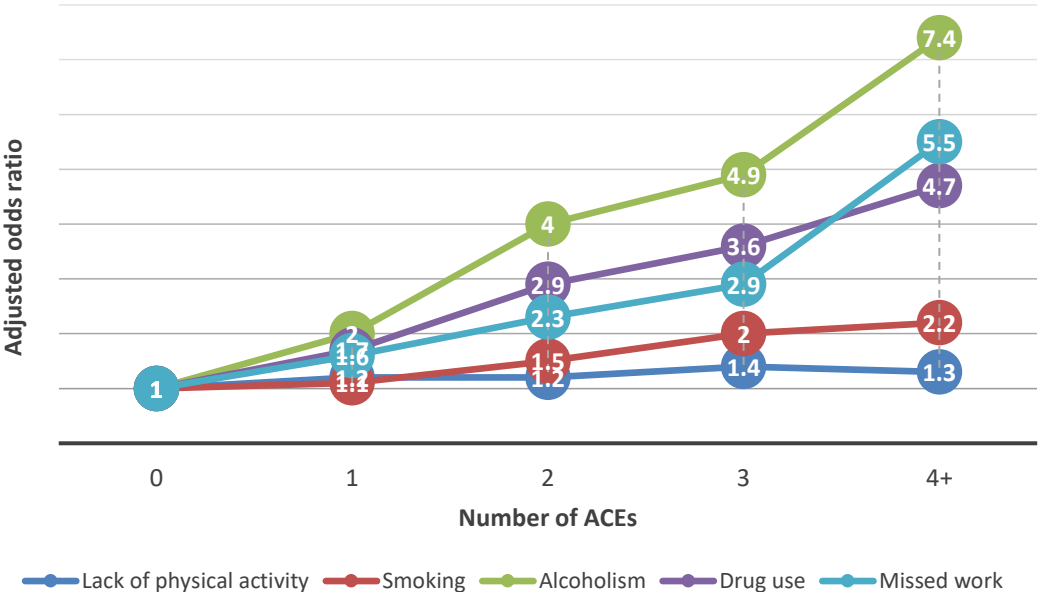


**Figure 4:** Adverse childhood experiences and negative health outcomes

A recent systematic review and meta-analysis aimed to determine the proportion of significant behavioural and health-related outcomes that are attributable to one or more forms of ACE, as well as the financial expenses associated with them [50]. The 23 publications included in the review evaluated various ACE categories, however, a core group of conventional ACEs was generally covered in most of those studies (physical abuse, household substance abuse, sexual abuse, household mental illness, exposure to domestic violence, emotional/psychological/verbal abuse, parental separation/divorce, household member incarcerated/criminality). Ten undesirable outcomes associated with ACE exposure were investigated: harmful alcohol use, illicit drug use, smoking, obesity, anxiety, depression, and non-communicable diseases (cancer, diabetes, cardiovascular and respiratory diseases). Of all the undesirable outcomes, illicit drug use had the largest population-attributable fraction associated with ACEs, 34.1% in Europe; 41.1% in North America. Non-communicable diseases had population-attributable fractions ranging from 7.5% to 27.6%; nevertheless, they manifested significant, continuing, and preventable costs to economies and health. It was estimated that Europeans and North Americans would lose \$581 billion and \$748 billion each year due to these ten potentially negative outcomes from ACE exposure, this is equivalent to 2.7% and 3.5% of their gross domestic product (GDP) respectively [50]. The results demonstrate the potential significance of ACEs not only at the individual level but also in terms of their impact on society.

Similarly, another study in the US which focused on only four ACEs (physical abuse, sexual abuse, emotional abuse, and neglect), estimated the average lifetime cost for people who experienced one or multiple of these ACEs to be \$210,012 per nonfatal individual [51]. The cost includes \$32,648 in childhood healthcare costs, \$10,530 in adulthood medical costs, \$144,360 in productivity losses, \$7,728 in child welfare costs, \$6,747 in criminal justice costs, and \$7,999 in special education costs [51]. For fatal individuals, the average lifetime cost per death was estimated to be \$1,272,900, which is a dramatic increase due to increased medical costs and productivity losses [51].

The last two decades of research revealed that ACEs are common and rarely occur individually [52]. Global evaluations estimate that over half of all children between ages 2 and 17 (i.e., over 1 billion children) experienced some form of adverse event [53]. Those who experience more than one ACE face major risks for many health conditions, as several studies have reported a dose-response relationship [27, 54, 55]. In the CDC-Kaiser Permanente study, people who had four or more ACEs were 7.4 times more likely than those without ACEs to identify as alcoholic, as can be seen in Figure 5 [27]. Similar dose-response patterns between ACE exposures and negative outcomes have been demonstrated to be invariable across settings and populations [55, 56].



**Figure 5:** Association between number of ACEs and social/behavioural problems [27]



Furthermore, some studies have linked parents' ACE histories to the likelihood that their children will develop poor outcomes during childhood and adolescence [57]. This intergenerational transmission of ACEs, and their potential impact, highlights the importance of diminishing ACE exposure. To end this cycle it is imperative to implement screening for childhood adversity and establish effective treatment programs [58], especially among vulnerable subgroups.

#### **1.4 The humanitarian crisis affecting refugees**

Refugee children make up one of these vulnerable subgroups given their frequent, and in some instances long lasting, exposure to adversities [59]. These children escape – often without warning – from war zones, violence, conflict or persecution to find safety in another country [60]. A historically large wave of refugees started coming into Europe in 2015. At the end of that year, Europe hosted approximately one in nine of all refugees under UNHCR's mandate, a total of 1.8 million people [61]. Not only did Germany receive the highest number of first-time asylum applications in Europe (more than one-third of total applications), in 2017 it registered over 40% of all child asylum applications, a total of 67,441 children [61, 62]. The most recent crisis in Ukraine has only increased these numbers. As of September 2022 there are more than one million refugees from Ukraine recorded in Germany [63]. As nearly 600 million young people live in conflict-prone regions worldwide, it is likely these numbers will be sustained or increase in the future [64]. History has shown that conflicts seem to only change settings. They are considered the most dangerous threat to human security as there are no indications that their occurrences will subside. Consequently, it is imperative to be better informed about this vulnerable group [65].

The displacement of large numbers of refugee children posed a significant humanitarian challenge [66]. These refugee children not only faced adverse events that necessitated their flight such as bombs, bullets, destruction and violence, but they also travelled long and strenuous routes to reach safety, and then upon arrival faced complex legal immigration processes and huge social, cultural, and linguistic differences [67]. Table 1 depicts an overview of potential ACEs that might be relevant to the refugee population based on previous research [67-82].

**Table 1:** Refugee-relevant ACEs occurring at different stages of migration (based on previous research [67-82])

Refugee relevant ACEs	Stage of migration		
	Pre-flight	Flight	Post-flight
War/Conflict [67-71]	█		
Shootings/bombs & riots [67]			
Destruction of infrastructure [67]			
Presence of militant groups [72, 73]			
Displacement [67, 68, 70, 74-76]			█
Deprivation of basic necessities [67, 68, 74]			█
Beaten up by police/soldiers/militia etc. [67, 69]			█
Witnessing/Experiencing violence [67, 68, 71, 77]			█
Kidnapping [67, 69]			█
Extortion/exploitation/fraud [67, 69]			█
Inadequate housing [67, 68, 70, 71, 77]			█
Arrest of the child [67]			█
Assault [67, 70, 71]			█
Family dysfunction [67, 68]			█
Emotional and physical abuse and neglect [67, 68]			█
Sexual abuse [67, 69]			█
Parent missing [78, 79]			█
Bereavement [67-71]			█
Crime/Theft [80, 81]			█
Economic hardship (unemployment, financial difficulties) [67-70, 74, 77]			█
Bullying [67, 74]		█	
Interruption of education [67, 69, 70, 76]		█	
Separation from family [67-71, 76, 82]		█	
Discrimination [67-70, 75, 82]		█	
Immigration detention [67-69]		█	
Immigration process [67, 68, 71, 75]		█	
Acculturation stress [67, 68, 70, 75, 77]		█	

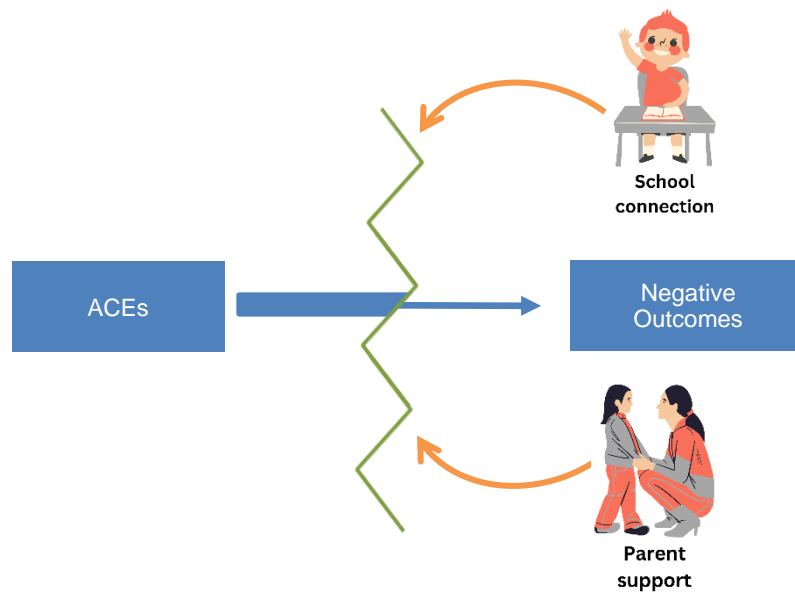
These examples of refugee-relevant ACEs have been linked to a variety of unfavourable outcomes. Developmental and epidemiological studies suggest that exposure to pre-flight and flight related stressors, such as war, displacement, detention, separation from family, and resettlement, may have long-lasting physical and psychological consequences in refugee children [83, 84]. A meta-analysis of eight studies (which were conducted in Germany, Malaysia, Norway, Sweden, and Turkey) on child and adolescent refugees and asylum seekers reported a 22.7% prevalence of PTSD, 13.8% of depression, and 15.8% of anxiety disorders [85]. In comparison to non-refugee populations, trauma-exposed children and adolescents have a reported worldwide pooled prevalence of 15.9% for PTSD, while the pooled prevalence in

general populations of children of any depressive disorder is 2.6% and any anxiety disorder is 6.5% [85]. These comparative findings show that refugee children and adolescents have an increased need for mental health services.

Furthermore, adversities encountered post-flight have been demonstrated to potentially have a similar detrimental impact on refugees' wellbeing as that of war and conflict [86, 87]. Refugee children must assimilate into a new country and culture while navigating a new educational system and forming friendships in a foreign language. They also might face discrimination in the communities where they have resettled and could face difficulty with rigorous regulatory systems and the ambiguity surrounding their current refugee status. Such challenges are understood to be the reason why depression, anxiety, and PTSD symptoms become more prevalent in this vulnerable population [88]. Post-flight adversities have more immediate effects on wellbeing than many significant life events due to their continued existence and their tendency to accumulate [89]. This leads to ongoing discontent, which raises the probability of significant mental health concerns [90].

## **1.5 Prevailing over adversities**

It is important to keep in mind that most children exposed to ACEs do not develop poor health outcomes [91]. The meta-analysis cited above revealed that mental health disorders are prevalent among refugee youth [85], yet, there is still a high percentage of refugees without the reported negative mental health outcomes. A range of factors may moderate the impact of ACEs by providing protection from developmental harms and consequently buffering outcomes [92, 93]. These protective factors are equally important but similarly understudied with regards to refugee children.



**Figure 6:** The potential buffering effect of protective experiences [94]

There is evidence that parental warmth, family support, strong interactions with classmates and instructors, and genuine friendships all serve as protective factors in the general population [94]. Similarly, the support of parents, school connectedness and the acceptance of refugees, are examples associated with fewer undesirable health outcomes among refugee children [95]. The identification of refugee protective experiences is crucial for reducing further adversity, strengthening resilience, self-control, stress regulation, and empathy; and encouraging positive social, emotional, and educational outcomes.

## 1.6 Screening for ACEs in refugee children

### 1.6.1 Importance of Screening

It is crucial to screen children for ACEs because of the long-lasting impact they have on health and development. The effects of ACEs on a child's health can be better understood by utilising ACE screening. Screening can assist experts from a variety of professions, including medical staff, teachers, criminal justice workers, housing officials, and policymakers, in recognising the link between ACEs and a variety of health risks [96]. There is also the possibility that these many workforces will develop a unified language and concept of ACE informed practice.

Childhood ACEs can take many forms, and recognising their occurrence facilitates identifying children most vulnerable to accumulating ACEs and suffering from the negative consequences [97]. Early recognition of children who have been exposed to ACEs can allow early intervention with the right assistance and resources to lessen the harmful outcomes of these events [98].

Screening for ACEs can also increase awareness and understanding of ACE prevalence, which can reduce stigma and shame surrounding ACEs. This can help drive policy and action to better tailor healthcare measures based on an understanding of how many children might suffer [99]. Funding early intervention and preventative strategies can help children and families recover from the effects of ACEs and build resilient and healthier communities [98]. Through early intervention, there is also a high likelihood of avoiding downstream costs [9].

### *1.6.2 Importance of an inclusive screening measure*

To be able to attain any success, the questionnaire used should be sensitive and specific. Current ACE questionnaires have been criticised for their lack of representation of diverse populations [100]. Such questionnaires are accused of reflecting Western concerns, while not taking into consideration concerns affecting working children or those experiencing forced migration or famine [101]. Using questionnaires developed for an American/European setting may misrepresent the level of ACEs experienced by children fleeing conflict or war zones. The limitations of directly applying a questionnaire in a different context or setting from its original development have been shown, for example, in a study measuring ACEs among Latino immigrant youth in the United States (US). In this study Latino adolescents completed a conventional ACE questionnaire and a novel 13-item measure of immigrant-specific ACEs (ACE-I). ACE-I items tended to receive higher endorsement, suggesting that there are specific ACEs for Latino immigrant youth that were not previously considered [102]. While it is clear that a screening tool for ACEs in refugee children is necessary, the effectiveness of existing questionnaires in assessing these refugee-specific ACEs is currently unknown.

Refugee children have to endure countless challenges during critical stages of their physical, emotional, social, and cognitive development. This calls for

characterising and evaluating ACEs associated with conflict, flight, and resettlement, while keeping in mind the SEM of the child's immediate home and distal environments. The development process of such a questionnaire should be well defined and performed with sufficient rigour to enable its user to make informed decisions. Accordingly, the first step should include review of the relevant literature [103]. Experts advise incorporating members of the population of interest in the development of the questionnaire's items to verify that the questionnaire represents their perspective, and that the items are acceptable, comprehensive, and relevant to their experiences [104].

## **1.7 Aims**

The aim of this dissertation is to develop the Beyond Refugee Adverse Childhood Experience (BRACE) questionnaire, a questionnaire that could be beneficial in comprehensively assessing the experiences of refugee children. The development process was carried out over three phases. Each phase had its individual aim:

### *1.7.1 Phase 1: Systematic review of existing ACE questionnaires*

The purpose of this review is to identify available questionnaires that assess ACEs in children, and (1) to examine which ACE questionnaires have already been used within a refugee population and (2) to examine whether and to what extent these questionnaires may be useful in assessing the diverse and often unique adverse experiences encountered by refugee children. Identifying gaps in current ACE questionnaires was intended to help guide the development of the BRACE questionnaire for children subjected to the refugee experience.

### *1.7.2 Phase 2: Qualitative study*

The second phase qualitatively explores the perceptions of refugee parents and children experiencing conflict, migration, and resettlement to uncover potentially negative and positive influences on the wellbeing of refugee children. In doing so, this phase seeks to provide refugees with a voice, enabling a deeper understanding of sources of risk and resilience affecting refugee children's health.

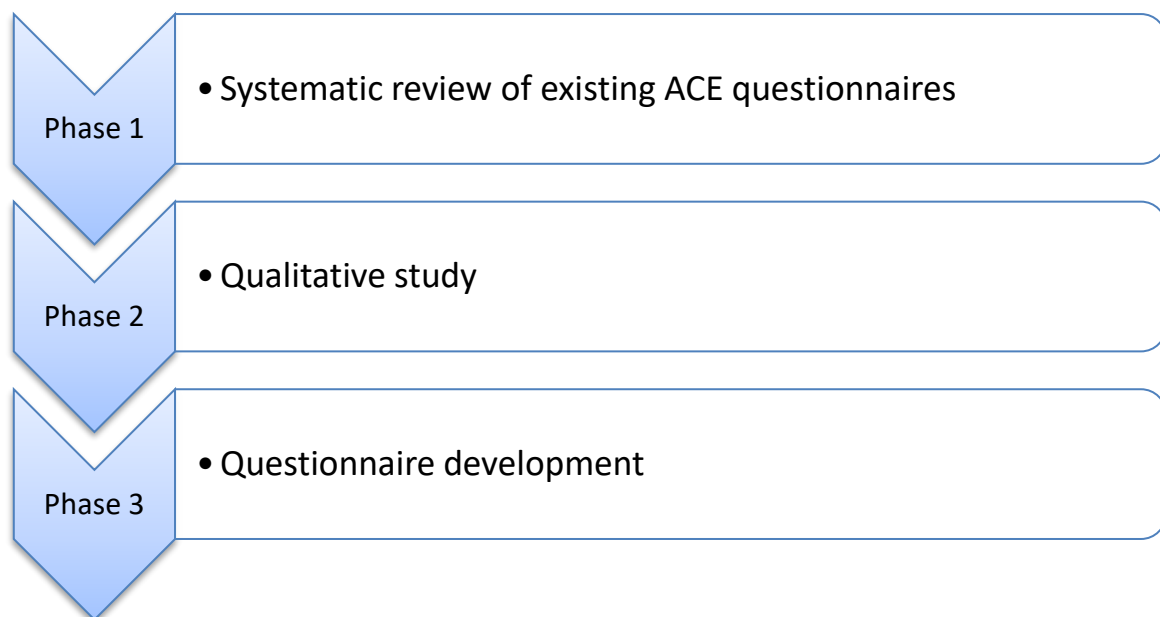
### *1.7.3 Phase 3: Questionnaire development*

The aim of the final phase was to use the information from the earlier phases to develop a core set of adversity and protective screening questions specific to the refugee child experience that measure both exposure and severity arising from all levels of the SEM and all stages of migration. This phase also aims to conduct a pilot test of the resultant questionnaire. This set of questions provides a starting point for a process that could involve future field trials and further refinement of a much-needed measure.

Through the development of the BRACE questionnaire, one could identify relevant contexts and interaction between many predictor variables that affect mental health and behavioural outcomes in refugee children.

## 2 METHODS

The development of the BRACE questionnaire was initiated to measure and assess a variety of adverse and protective experiences that refugee children may encounter. This project received funding from the German Research Foundation (Deutsche Forschungsgemeinschaft – DFG-GRK2350/1) as well as ethical approval by the Medical Ethics Committee of the Medical Faculty Mannheim, Heidelberg University (approval no. 2018-610N-MA). The following three phases constitute this project:



### 2.1 Phase 1: Review of existing ACE questionnaires

*An adapted version of this section is available as a preprint - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>*

#### 2.1.1 Search strategy

Four databases were searched for articles released after January 2010: PubMed, Web of Science Core Collection, PsychINFO, and Academic Search Complete. On October 9, 2018, the first systematic literature search was undertaken. It was then updated on February 14, 2020, and March 1, 2022, in order to find articles covering more recent refugee events. Abuse, sexual abuse, neglect, maltreatment,



trauma, violence, stress, family dysfunction, adverse child experience, adverse childhood event, child, infant, adolescent, teenager, youth, questionnaire, and survey were among the search phrases used. Appendix 1 contains the complete search strategy for all databases. The word “refugee” was not among the search terms to avoid narrowing the results, as some questionnaire items might be relevant for refugee children even though they were not intended for this target population. The study protocol was entered into the Prospective Register of Systematic Reviews (PROSPERO) database, which is a global repository for prospectively registered systematic reviews (ID: CRD42019121587).

Since prior research has shown that many children experience several co-occurring ACEs that may influence their wellbeing [105, 106], this systematic review aims to identify questionnaires that recognise multiple adversities in healthy children. Articles that evaluated children with mental illnesses prior to evaluating ACEs were omitted due to the inability to disentangle situations in which mental disorders followed or preceded exposure to ACEs. Thus, included papers employed questionnaires that scored multiple ACEs in children under the age of 18 (as per the United Nations definition of a child) and were published in English [107, 108]. Because only questionnaires were of interest, studies that assessed adversities using structured interviews were not included. Furthermore, since there are fundamental differences among both adults and children, which include limited vocabulary, cognition, experiences, and understanding [109], studies that used the same questionnaire to measure ACE exposure in both adults and children were also excluded, as the questionnaire was not explicitly developed for children. While questionnaires for adults asking about their own experiences were excluded, parent-report questionnaires inquiring about their child’s experiences were included.

### *2.1.2 Screening*

Using Rayyan, a free web program created by the Qatar Computing Research Institute, two reviewers independently assessed all identified publications at the title, abstract, and full-text level. Disputes over the eligibility of studies were resolved through discussion until consensus was achieved.

### 2.1.3 Data extraction and item assessment

In order to appraise data from a study that used an eligible questionnaire, the author created a standardised data extraction form. The country in which each study was conducted, study population characteristics (including whether or not participants were refugees), data collecting method, name of the questionnaire, questionnaire items, and the psychometric qualities were all part of the extracted data.

Questionnaire items were obtained from the associated article, survey websites, or direct correspondence with the study authors. Then those items were classified into eleven ACE categories defined by the study team (Table 2). The *conventional ACEs*, represent the first six categories [30, 31]. The following four categories, which include adversities mentioned in recent literature such as community violence, were considered *expanded ACEs* [110-114]. Adversities categorised as *refugee-specific ACEs* were based on the definition of the term refugee: anyone who has been compelled to leave their country due to persecution, war, or violence [60]. Accordingly, *refugee-specific ACEs* include, but are not restricted to, exposure to war/conflict, shootings, bombs and riots, displacement, and family separation. Table 2 lists the various forms of adversity for each category (expanding on findings by Laurin et al., 2018 [115]).

**Table 2:** ACE categories and forms of adversity

ACE Category	Forms of adversity
<b>Conventional ACEs</b>	
Emotional abuse	A child's family member: <ul style="list-style-type: none"> <li>• Verbal abuse: swore, insulted or put them down</li> <li>• Threatening: behaved in a way that made the child fearful they would be physically harmed</li> <li>• Inadequate nurturing: says things such as not wanting the child or wished the child were dead</li> <li>• Torment: afflicts mental suffering by hurting the child's pet, withholding a meal, or singling out the child to do chores</li> </ul>
Physical abuse	A child's family member: <ul style="list-style-type: none"> <li>• Bodily harm: pushed, grabbed, slapped, etc. the child</li> <li>• Use or hard object/weapon: hit child with a belt, cord, etc. or cut child with sharp object</li> <li>• Punishment: harsh treatment as a retribution for an offence such as wash mouth with soap or pepper, child dug, slashed a field, or other labour as punishment</li> <li>• Confinement: tied the child up, gagged the child, blindfolded them, or locked them in a closet or a dark place</li> </ul>

Emotional neglect	<ul style="list-style-type: none"> <li>Affectional needs not met: child often felt unimportant, unloved, unsupported and/or unprotected</li> </ul>
Physical neglect	<p>The failure, refusal or inability on the part of a caregiver, for reasons other than poverty, to provide for their child's</p> <ul style="list-style-type: none"> <li>Material needs: child sometimes went without food, clothing, shelter or protection</li> <li>Medical needs: child not taken to the doctor when sick</li> <li>Supervisory needs: parents do not ensure a safe place for child to stay, child left at home alone, or child is left in charge of younger siblings for long periods of time</li> </ul>
Sexual abuse	<ul style="list-style-type: none"> <li>Physical sexual abuse: someone attempted to have sexual intercourse with the child, touched the child's private parts, or asked child to touch their private parts in a sexual way that was unwanted, uncomfortable or against child's will</li> <li>Verbal sexual abuse: someone said/wrote something sexual about the child, talked to child in a sexual way or made sexual comments about child's body</li> <li>Unwanted sexual exposure: someone attempted or made child watch sexual things (e.g. magazines, pictures, videos, internet sites), made child look at their private parts or wanted child to look at theirs, took sexual picture/video of child, or child was present when someone was being forced to engage in sexual activity</li> <li>Threatening: someone threaten to have sex with child, or hurt/tell lies about them unless they did something sexual</li> <li>Transactional: child traded sex or sexual activity to receive money, food, drugs, alcohol, a place to stay, or anything else.</li> </ul>
Family dysfunction	<ul style="list-style-type: none"> <li>Parental separation or divorce: child's parents are divorced or separated</li> <li>Domestic violence: child witnessed a parent hit, slap, kick, push or physically hurt another parent or siblings, child has seen or heard family members arguing very loudly or threaten to seriously harm each other</li> <li>Mental illness: a family member was depressed, mentally ill, or (attempted) suicide</li> <li>Substance abuse: a family member is a problem drinker/alcoholic or uses street drugs</li> <li>Incarceration: a family member served time in jail or was or taken away (by police, soldiers, or other authorities)</li> </ul>
<b>Expanded ACEs</b>	
Community violence	<p>Interpersonal violence committed in public areas by individuals who are not intimately related to the child. Examples include</p> <ul style="list-style-type: none"> <li>Crime: robbery, theft, vandalism, exposure to drug activity</li> <li>Assault: child witnessed or was exposed to being attacked with/without an object or weapon</li> <li>Kidnaping: child was kidnaped</li> <li>Discrimination: child was hit or attacked verbally because of skin colour, religion, family origin, physical condition, or sexual orientation</li> <li>Killing: hear about/witness to murder</li> <li>Use of a weapon: hearing about/witness to random shootings/stabbings</li> </ul>

Economic hardship	<p>Child's family facing financial hardship:</p> <ul style="list-style-type: none"> <li>Financial instability: income loss, unemployment, job instability, not being able to afford food and necessities</li> <li>Housing insecurity: child was living in a car, a homeless shelter, a battered women's shelter, or on the street</li> </ul>
School victimisations	<ul style="list-style-type: none"> <li>Physical violence: another child and/or teacher physically hit, kicked, pushed, taken things forcibly from the child</li> <li>Psychological stressors: another child and/or teacher emotionally mistreats a child by social exclusion, threatening relationship termination, gossip and secret spreading</li> <li>Sexual offence: another child or teen pressures the child to do sexual things or did something sexual to child against their wishes</li> <li>Bullying: child threatened or harassed by a bully</li> <li>Online victimisations: cyber bullying or online sexual harassment</li> </ul>
Other	<ul style="list-style-type: none"> <li>Dating violence: being hit, verbally hurt or controlled by partner</li> <li>Accident: experience/witness a serious car/bicycle accident, near drowning experience or fire</li> <li>Natural disaster: child experiences a disaster such as a tornado, hurricane, big earthquake, flood or mudslide</li> <li>Severe illness/Medical trauma: child or loved one had to undergo frightening medical treatment or was hospitalised for a long time period</li> <li>Animal attack: child badly hurt by an animal</li> <li>Bereavement: death of someone close to the child</li> <li>Familial changes: child completely separated from parent/caregiver for a long time under very stressful circumstances, such as going to a foster home, the parent living far apart from him/her, or never seeing the parent again. Addition of third adult to family (e.g. marriage of parent to step-parent)</li> <li>Child detained: child was detained, arrested or incarcerated</li> <li>Difficulties: move to a new school, home, or town, repeat a grade in school, etc.</li> </ul>
<b>Refugee-specific ACEs</b>	
Refugee-specific adversities	<ul style="list-style-type: none"> <li>War/conflict: child is exposed to war or conflict</li> <li>Shootings, bombs and riots: child could see or hear people being shot, bombs going off, or street riots</li> <li>Displacement: child is forced to flee their home</li> <li>Beaten up by soldiers, police, militia, or gangs: child is hurt badly by armed adults</li> <li>Family separation: child is separated from their caregiver due to immigration or war</li> </ul>

This table is reproduced from the author's preprint - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>

Psychometric qualities were also evaluated to aid in determining how well a questionnaire assesses the required content and whether the information it generates is replicable [116]. Therefore, as described in earlier work by de Souza et al., 2017 [116], it was necessary to determine as part of the quality assessment whether retest

reliability, internal consistency, inter-observer reliability, content validity, criterion validity, construct validity, or cross-cultural validation (if applicable) had been reported.

A second member of the research team independently crosschecked the extracted data from 100 randomly selected articles. Minor variations, such as the labelling of demographic information, were debated until a consensus was reached. Due to the lack of significant variations, duplicate screening of all reports was deemed unnecessary.

#### *2.1.4 Analytic strategy*

In this phase, the questionnaires served as the study's analytical unit. Regarding the first aim of this phase, articles whose study population characteristics included refugees were retained. The questionnaires used in these retained studies were determined, and examination of the adversity categories they measured was recorded.

For the second aim, a descriptive record of characteristics (i.e., the adversity categories/forms measured, and psychometric attributes recorded) was used to assess whether ACE questionnaires are useful in evaluating potential adversities that refugee children may encounter. The analytic strategy had two focuses with respect to those questionnaires that measured *refugee-specific ACEs*: (1) record which questionnaire measured which form of adversity to evaluate each ACE category (2) record the number of questions addressing each category to assess the extent to which each adversity category was measured, with multiple questions indicating a greater extent.

To examine questionnaire quality, information on the aforementioned psychometric qualities were gathered from all papers included in this review that provided this information. The number of studies that reported on these particular aspects was also examined for each individual questionnaire that addressed a refugee-specific ACE. These topics are expanded on in the sections that follow.

## **2.2 Phase 2: Qualitative Study**

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### **2.2.1 Setting and study population**

The second phase of this dissertation involved conducting interviews with refugees in the Rhine-Neckar region. Convenience sampling was used to recruit refugees through non-profit organisations, youth welfare facilities and societies that organise civic engagement for refugee families. Five organisations provided access to refugee gathering and living places. Participants spoke Arabic, Farsi, Tigrinya, or German, the official languages of most asylum seekers in Germany at the time [117]. The inclusion criteria included:

1. Refugee parents and children. Parents had to have at least one child under 18 (following the United Nations definition of a child [108]). Children had to be six years or older, in order to be able to participate individually and also be able to constructively remark on their experiences [118, 119].
2. Participants should have arrived to Germany after 2015; the year the number of refugees arriving to Europe rose to comparatively high proportions [120].
3. Participants had to be escaping war/conflict; those from non-conflict areas (seeking better life opportunities) were excluded.

### **2.2.2 Data collection**

The author, a female doctoral candidate who is fluent in Arabic and English with intermediate German skills and fundamental knowledge of qualitative research, personally conducted the interviews. When needed, the author was supported by a female Farsi-German interpreter, a female Farsi-English interpreter, a male Tigrinya-German interpreter, or a female native German-speaking assistant. When a child was interviewed, a female child psychotherapist attended to offer support. The psychotherapist's role was to ensure the child's wellbeing during the interview, listening and intervening if necessary, and later having a general conversation with the child to check for any distress. The child psychotherapist did not participate in data collection.

The author approached potential participants in person, introduced them to the purpose of the study, and invited them to participate and ask questions; no relationship was established prior to study commencement. When approached, a few persons declined to participate owing to a lack of time or interest. Participants were interviewed either in a room provided by the aforementioned organisations or at their own homes. Adults and children were interviewed separately and children spoke for themselves. Individual or group interviews were offered to participants. The group could involve a participant and their spouse, siblings, or other refugees, depending on their preference. This approach aimed to reduce refusals and withdrawals. Additionally, it was decided by the study team not to collect any identifying data in order to build trust with participants and ensure that they felt safe to talk openly, thus future contact was not possible [121].

Between November 2018 and January 2020, semi-structured interviews were conducted using an interview guide (Appendix 2) that the author developed based on recent publications [122, 123]. Participants were welcomed, the term "potentially traumatic experiences" was described, and the importance of their participation was explained. They were asked about potentially traumatising and positive experiences that may have occurred during each migration stage with relevance to a refugee child. None of the interviews ended prematurely, the average interview time was 35 minutes (range: 15– 75 minutes), and no incentives were given. When no new experiences were uncovered, data collection ended.

### *2.2.3 Data management and analysis*

Data management involved obtaining consent from the interviewee for audiotaping, taking field notes, and publishing the results. For children under 16 they assented and provided consent from their guardian. An anonymous sociodemographic survey (i.e. does not contain name or address) was completed by each participant. The recordings were transcribed by a professional transcription agency and descriptors were removed to maintain anonymity. An independent native German-speaking collaborator translated German transcripts into English which were then checked for content accuracy by the author. Transcripts in English and Arabic were imported into MAXQDA 2018 (VERBI Software GmbH) for qualitative data management.

The transcripts underwent reflexive thematic analysis as outlined by Braun and Clarke [124], which has been used in previous studies in a similar context [125, 126]. The analysis was carried out in the following steps:

1. **Familiarisation with the data** – The author listened to the audio recordings while reading the transcripts and highlighted potentially interesting items.
2. **Generating initial codes** – The author developed and defined codes, resulting in a codebook that was used to assign codes to all transcripts in a descriptive manner (Appendix 3). Using an online number generator, four transcripts were randomly selected for coding by a second independent individual to facilitate teamwork and stimulate discussion about the codes to generate themes. Determining inter-coder reliability was not a priority, however, no general discrepancies occurred in this double coded sub-sample.
3. **Searching for themes** – The author reviewed the coded data to identify areas of similarity and overlap and grouped similar codes into possible themes.
4. **Reviewing potential themes** – Themes were reviewed and discussed within the research team to ensure that the themes were distinctive and coherent in relation to the data.
5. **Defining and naming themes** – To express the uniqueness of each theme, they were each named and given a thorough description.

The codes within each theme were then organised to reflect their level within the SEM (see Table 2). Codes with limited support (discussed by only a few participants) were documented for future exploration. Member checking to confirm accuracy of findings was not possible as no contact data were collected. This qualitative phase adhered to the Consolidated criteria for reporting qualitative studies (COREQ) guidelines for reporting results (Appendix 4) [127].



## 2.3 Phase 3: Questionnaire development and pilot test

The BRACE questionnaire was developed by reviewing relevant literature and related measures (Phase 1), interviewing refugee parents and children (Phase 2), and involving questionnaire experts. After development, a pilot test of the BRACE questionnaire was conducted by posting the questionnaire online for the target audience to complete. Below is an outline of the steps taken to develop and evaluate the questionnaire. Instrument development, cognitive pretesting, and pilot testing are the three main sections that make up this phase and correspond to essential steps for the development of a good questionnaire [128].

### 2.3.1 Instrument development

#### 2.3.1.1 Item selection and development

The selection of items to include in the BRACE questionnaire was mostly founded on the information obtained from the qualitative interviews (in Phase 2). However, the conventional ACEs were included regardless of how many participants endorsed these items in the qualitative interviews. This inclusion sought to analyse the typical areas of childhood adversity that have previously been thoroughly investigated and acknowledged, ensuring that the study includes the domains generally deemed significant for evaluating childhood adversity. Additionally, conventional ACEs were also included to compare construct validity and potential health outcomes of the newly developed items with those of established ACEs.

Through interviews with the target population, descriptions of diverse negative and positive experiences helped create items for the BRACE questionnaire [129]. This yielded a large number of potential questionnaire items for inclusion. The number of items was reduced after examination for redundancy, ambiguity, and lack of endorsement by the majority of participants. Those items were then compared with pre-existing ACE questionnaires (identified from the systematic review in Phase 1) to examine if they have been addressed before. In instances where the item was represented in a pre-existing questionnaire, the author selected the question that represented what the participants had mentioned in the interviews [130]. In other words, the questions' wording was contrasted with the phrases that the participants

had used to discuss this experience in the interviews to examine if they were appropriate.

When items were identified, yet they were not represented in current ACE questionnaires (for example repatriation), questions were either developed by the author or adapted from non-ACE questionnaires. The adaptation followed strategies outlined by Mohler et. al 2016 [130]. This involved adaptation to improve conceptual coverage and to improve the relevance of the question to the target population. It also involved adapting design components, changing phrasing into a parent-report questionnaire instead of self-report and updating response options for uniformity. Since the items in the BRACE questionnaire were adapted from English questionnaires, an English parent-report version was first drafted which included several positive and negative experiences encountered by refugee children. This was also done to involve advisors with expert knowledge in questionnaire development.

#### *2.3.1.2 Response options*

The objective of developing the BRACE questionnaire was to measure both the exposure of adversities and their degree of severity. Response options for the majority of questions included a dichotomous format (yes/no) to measure exposure, then an additional follow-up question on a 4-point Likert scale would appear to measure trauma severity or stress level if a participant selected yes. A similar response approach was previously observed in questionnaires identified in Phase 1; such as the Childhood Traumatic Events Scale (CTES) [131], the Children's Stress Questionnaire (CSQ) [132] and the Lifetime Incidence of Traumatic Events (LITE-PR) questionnaire [133]. A 4-point Likert scale was used for the BRACE questionnaire to dissuade responders from selecting an easy midway choice rather than identifying the most suitable answer [134]. In some questions, respondents were also asked about the frequency of an experience. Adding the dimension of frequency was intended to enhance the understanding of the nature and impact of the experience on the child [135].

Items asking about the child's sense of belonging/community connection, or the degree of perceived support did not have a dichotomous response option and directly asked about the applicability of statements using a 4-point Likert scale. The dichotomous response option was removed to reduce survey length and avoid

respondent fatigue [136]. As part of the BRACE questionnaire, the initial response options for each item with an exposure question also included a 'prefer not to answer' option. Providing respondents with this option was necessary to comply with the ethics criteria of allowing them to select the questions they would like to answer. Table 3 depicts the different response options used.

**Table 3:** Different response options in the BRACE questionnaire

	<i>Initial response options</i>	<i>Follow up response options</i>
<i>Dichotomous response</i>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Prefer not to answer</li> </ul>	
<i>Applicability of statements</i>	<ul style="list-style-type: none"> <li>• Always true</li> <li>• Sometimes true</li> <li>• Usually not true</li> <li>• Not true at all</li> <li>• Prefer not to answer</li> </ul>	
<i>Trauma severity</i>		If Yes <ul style="list-style-type: none"> <li>• Not at all traumatic</li> <li>• Somewhat traumatic</li> <li>• Traumatic</li> <li>• Extremely traumatic</li> </ul>
<i>Stress level</i>		If Yes <ul style="list-style-type: none"> <li>• Not at all stressful</li> <li>• Somewhat stressful</li> <li>• Stressful</li> <li>• Extremely stressful</li> </ul>
<i>Frequency of an experience</i>		If Yes, how many times <ul style="list-style-type: none"> <li>• Once</li> <li>• A few times</li> <li>• Occasionally</li> <li>• Many times</li> </ul>
<i>Duration of an experience (used only once)</i>		If yes, how long <ul style="list-style-type: none"> <li>• 1 or 2 months</li> <li>• 3 to 5 months</li> <li>• 6 to 12 months</li> <li>• More than 12 months</li> </ul>
<i>Number of occurrences (used only once)</i>	<ul style="list-style-type: none"> <li>• 1 to 2 times</li> <li>• 3 to 5 times</li> <li>• 6 to 10 times</li> <li>• More than 10 times</li> </ul>	

### 2.3.1.3 Questionnaire and survey structuring

The drafting process involved taking into account the sequence of questions to ensure that the questionnaire was straightforward and flowed smoothly. Individual questions are less likely to be misunderstood when they are asked in the correct order [137]; thus, the questions were ordered logically around topics starting with the questions about family adversities then followed by community and societal adversities

and protective experiences. A brief introduction preceded questions on the same topic [138].

Two accompanying questionnaires were used for psychometric assessment: the Strengths and Difficulties Questionnaire (SDQ) [139] and the World Health Organisation - Five wellbeing questionnaire (WHO-5) [140]. The SDQ is a brief behavioural screening questionnaire for two- to seventeen-year-olds. The parent report version was used to examine construct validity and determine whether a potential correlation exists between the BRACE and SDQ scores. The WHO-5 is a short self-reported measure of current mental wellbeing. It was used to examine parents' wellbeing at the time they were answering the questionnaire, to determine if there is a potential response bias [141]. To reduce the possibility of disapproval, when attempting to gather sensitive information, the overall survey began with simple pre-screening questions to determine respondents eligibility to participate [137], followed by demographic questions [142]. Then the questionnaires were administered in the following order: SDQ, BRACE, and WHO-5 wellbeing.

#### *2.3.1.4 Translation process*

Once the BRACE questionnaire was developed as an English parent-report version, translation into Arabic (the language of the majority of asylum seekers at the time of the study [117]) commenced. The sociodemographic questions and the BRACE questionnaire were translated simultaneously. The translation of this questionnaire followed reconciliation, involving forward-only translation [143, 144]. The process of reconciliation in this context refers to the merging of two independent forward translations. Two independent bilingual translators translated the BRACE parent-report questionnaire from English to Arabic. Then the author (also the original questionnaire author) compared the two translations to each other as a third bilingual individual. The author determined the best word choice based on context and the concept definitions and, if necessary, provided an alternative translation for specific phrases or items. The questionnaire was then reviewed sentence-by-sentence with the original translators to ensure simplicity, clarity, and natural language in the final Arabic version.

The SDQ and the WHO-5 wellbeing questionnaire were already available in Arabic. All questionnaires were then formatted onto an online platform to begin the cognitive pretesting.

### *2.3.2 Cognitive pretesting*

#### *2.3.2.1 Study participants*

The Arabic parent-report version of the BRACE questionnaire was developed to be utilised in assessing the experiences of Arabic speaking refugee children. The inclusion criteria for the cognitive pretesting required that the respondent be an Arabic speaking guardian to a refugee child living in Germany (these characteristics matched those established for the pilot test).

#### *2.3.2.2 Comprehensibility and acceptability*

Cognitive interviews were conducted to evaluate individual survey questions. This was done to discover whether the original meaning of the question, as intended by the author, was conveyed to participants and whether the questions were understood as intended [145]. Due to the length of the BRACE questionnaire, and to alleviate the burden for those participating, sociodemographic questions and the BRACE questionnaire were divided into three sections for cognitive pretesting. The sections were divided to include an equal number of questions in each. The first section comprised of the sociodemographic questions, the second asked about family and community/society adversities and the third inquired about remaining community/societal adversities and all types of protective incidences. Participants were assigned to one of these three sections. Then a final set of participants were asked to answer the survey in its entirety including the SDQ and the WHO-5 wellbeing questionnaires intended for psychometric evaluation.

Due to the coronavirus (COVID) pandemic and consequent restrictions in Germany, cognitive pretesting was done via the telephone. A student assistant with refugee background, asked eligible acquaintances if they were interested in participating in the study. Eligibility criteria included being a parent of a refugee child under 18 years old who migrated to Germany after 2015, and being able to read Arabic. Those who agreed were scheduled for a phone call with the author to conduct the cognitive interview. The author called the participant and thoroughly explained the

study and its purpose, then sent an online link of the questionnaire to the participant as a text message.

After participants consented on the online platform the interview was audio recorded, and the participant was asked to begin answering the questionnaire aloud while the author was with them on the phone. Participants were asked cognitive probes to ensure item comprehension, for example "What did you understand by X?" or "What does the term X mean to you?" [146]. When confusion or lack of clarity arose, the interviewer asked for feedback to improve the questionnaire. Participants were also asked about their comfort in answering the questions and whether they faced any difficulty responding to items. Towards the end of the phone call participants were also asked if there were any experiences they think should be added.

#### *2.3.2.3 Data analysis*

A review of the audio recordings and interview notes of participants' responses was conducted to ensure that survey questions were clear. This involved documenting instances where participants showed confusion or demonstrated an understanding different from that which was intended. In addition to recording item-specific recommendations for changes to wording, the interviews were examined to identify patterns of interpretation, response process errors, and other potential problems [147]. After each of the three sections was tested by a set of participants, changes to the questionnaire deemed necessary were made before distributing it to new participants who were asked to answer the survey in its entirety [147]. Necessity involved misunderstanding of the question, inclusion of an experience that was considered missing, or technical problems that prevented answering of the questionnaire. The evaluation of reported problems was not related to the number of participants reporting it [148]. After pretesting the survey in its entirety, changes to the questionnaire were made following the procedure described above so that an amended version of the BRACE was available for the pilot testing.

### *2.3.3 Preliminary pilot testing*

#### *2.3.3.1 Data collection*

The amended version of the BRACE questionnaire, along with the SDQ and WHO-5 was distributed to participants via an online platform. From September 2020

until February 2022 curated adverts were posted on multiple social media channels to engage potential study participants in answering the survey. This required publishing a brief and educational message about the study that included information on its goals, inclusion criteria, and a link to the survey. The inclusion criteria required the participant to be an Arabic-speaking guardian of a refugee child under the age of 18 living in Germany. Participants were presented with a consent form outlining the study's goals and data management methods on the first page of the URL. Only the participants who gave their informed consent could proceed with the questionnaires. No personal data was collected, and the anonymity of the participants was upheld throughout the entire survey.

### *2.3.3.2 Scoring of health measures*

The SDQ was scored in accordance with the guidelines provided in its scoring manual [149]. The 25 items in the SDQ comprise five scales (emotional problems scale, conduct problems scale, hyperactivity scale, peer problems scale, prosocial scale) of five items each. The scoring manuals cut offs were based on a large population-based UK survey in which the scores of 80% of children were categorised as 'close to average,' 10% as 'slightly raised', 5% as 'high', and 5% as 'very high' [149]. For the pilot study, the total difficulties score was used, which was calculated by adding the scores from all scales except the prosocial scale. The calculated score has a range of 0 to 40, with higher values indicating more behavioural and emotional problems.

The WHO-5 was also calculated in accordance with its scoring guidelines [140]. This wellbeing questionnaire consists of five positively worded statements that are scored on a six-point Likert scale, with zero representing "at no time" and five representing "all of the time". The sum of the points for the five statements was used to determine the raw score. To provide a percentage score, with a range of 0 to 100, the raw score was multiplied by four. A score less than 50 suggests reduced wellbeing and a score of 28 or less suggests the individual may be suffering from depression [150].

### *2.3.3.3 Data analysis*

The questions within the BRACE questionnaire were divided into three categorical groupings: conventional ACEs, expanded ACEs and refugee ACEs to be

examined. The items were grouped and arranged using the approach described in Table 2. Within the grouping dedicated to refugee ACEs, items were logically organised based on contextual relevance and thematic similarity. Descriptive statistics on the BRACE questionnaire served as an initial data evaluation to determine the frequency of occurrence for each individual item within the study sample.

Considering the BRACE questionnaire results in polytomous data, the Generalised Partial Credit Model (GPCM) was employed to develop a latent construct-based summary score for each item and severity scoring [151]. The GPCM scores, derived from the BRACE questionnaire, were used to collect evidence of construct validity by correlating them with the SDQ scores through regression analyses. Regression analysis was also implemented for the WHO-5 scores and the SDQ scores to examine if parental wellbeing was a confounder. To allow for comparison of regression weights, all scores were z-transformed [152].

Univariate and multivariate regression analyses were performed. Adjusted R-squared was used to measure the proportion of the variance in the dependent variable (SDQ scores) that is explained by the independent variables (WHO-5, conventional ACE, expanded ACE, and refugee ACE scores) in the regression models. This statistical metric was used as adding more variables to the model can artificially increase R-squared even if the additional variables do not actually improve the model's explanatory power [153]. Adjusted R-squared increases only if the added variables contribute to improving the model's fit more than expected by chance. A higher adjusted R-squared suggests a better-fitting model: It ranges from 0 to 1, where 1 indicates that the model explains all of the variance, and 0 indicates that the model explains none of the variance [153]. All analyses were carried out using STATA version 18.0 (Stata Corp LCC, College Station, Texas, USA).

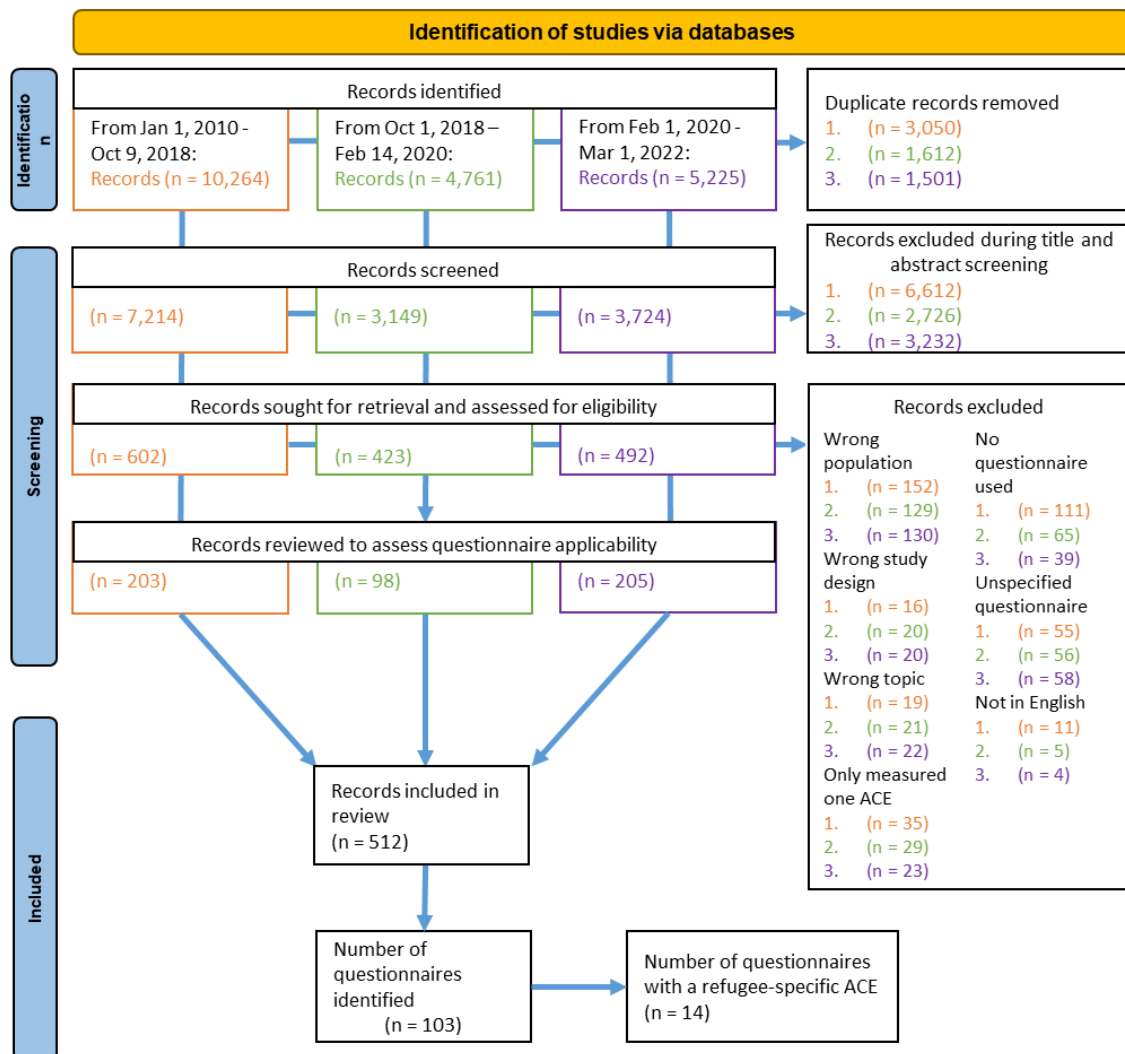


## 3 RESULTS

### 3.1 Phase 1: Review of existing ACE questionnaires

*An adapted version of this section is available as a preprint - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>*

Five hundred six full-text articles, which used 103 distinct questionnaires, met the inclusion criteria. The process for selecting included articles is shown in Figure 7. Data collection often involved a household survey (n=237 studies), and questionnaires were primarily administered by self-report (n=286 studies). Because some of the questions were utilised as part of national surveys, the number of participants ranged from 29,696,808 to 14. The majority of the studies (n=274) were conducted in the US, and the majority of the questionnaires (n=315 studies) were in English.



- Wrong population: participants had a mental disorder or were part of a different age group
- Wrong study design: the retrieved record was not a full scientific article
- Wrong topic: the retrieved record did not address adverse childhood experiences
- Only measured one ACE: questionnaire used did not measure multiple ACEs
- No questionnaire used: ACEs were measured either through case records from child protective services or via interviews
- Unspecified questionnaire: the article used selected questions from different questionnaires or did not specify the questionnaire that was used in their research
- Not in English: retrieved records were not in English

**Figure 7:** Method of identifying articles and questionnaires (adapted from the PRISMA flow diagram)

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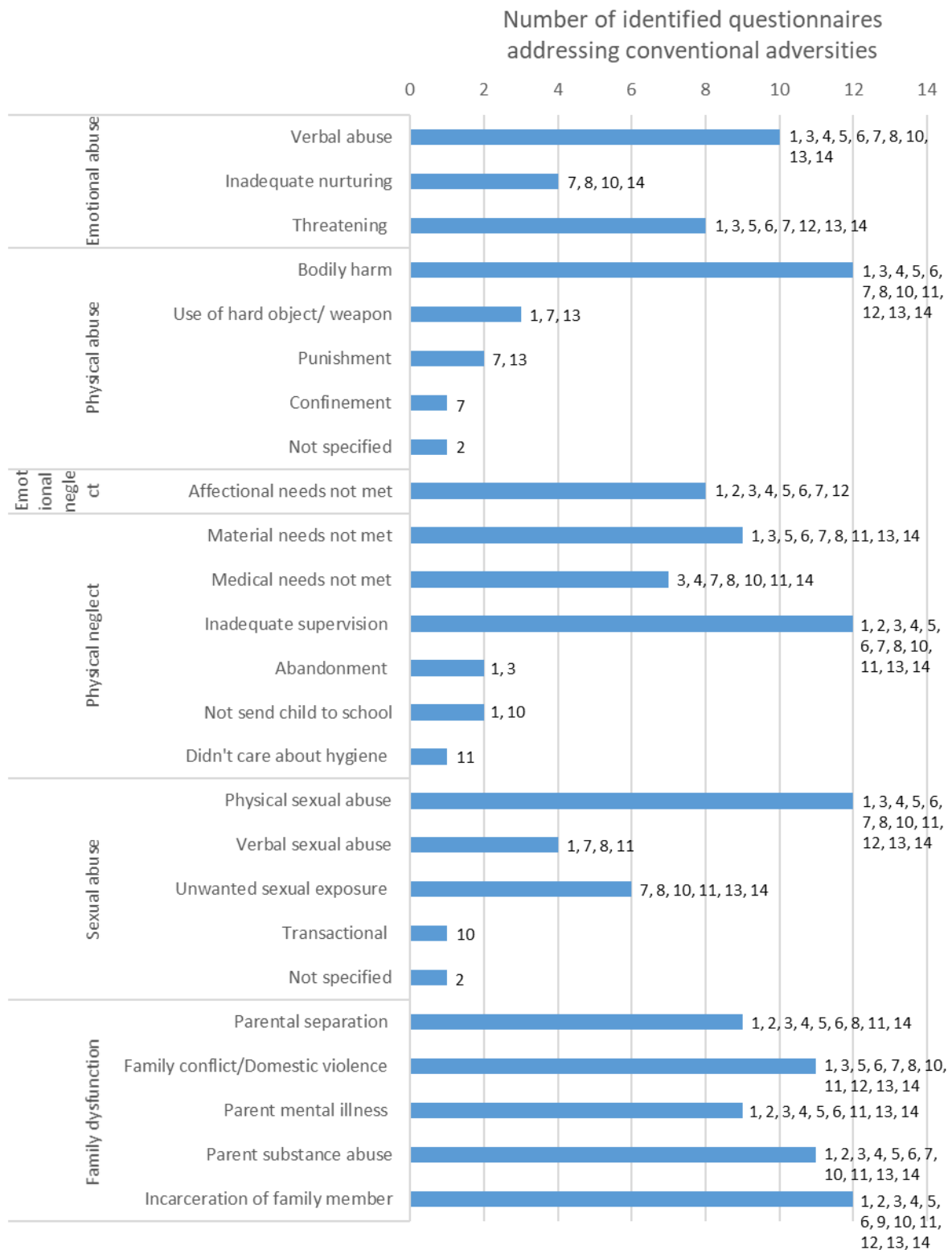
### 3.1.1 Studies with refugees

In this review, two questionnaires were used to measure ACEs in refugee children. One questionnaire was the ISPCAN Child Abuse Screening Tool-Child (ICAST-C) questionnaire with children in refugee camps in Rwanda and Uganda [154]. Another study used the ISPCAN Child Abuse Screening Tool-Parent (ICAST-P) to ask

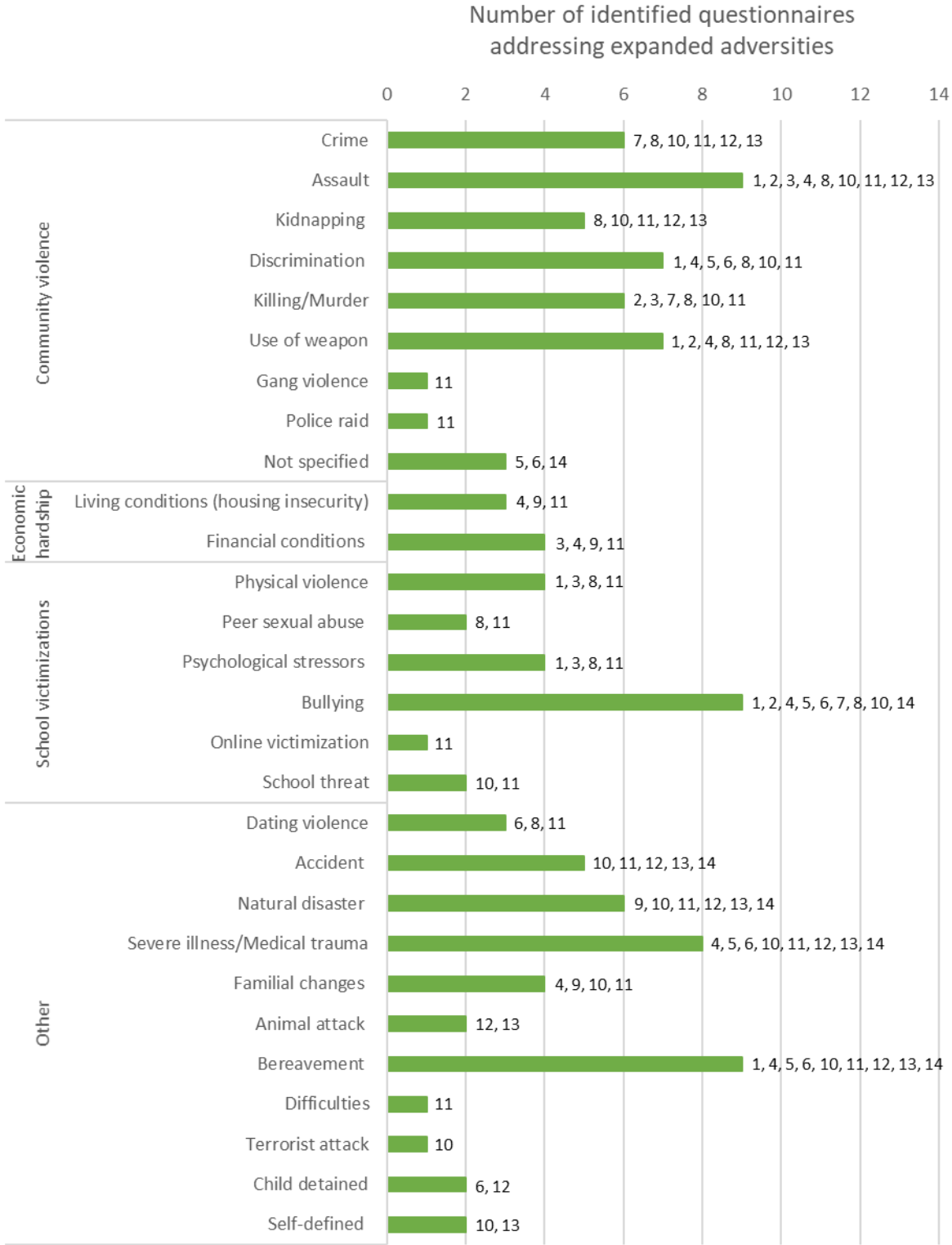
mothers about the adversities of their Palestinian children, some of whom were displaced refugees in the West Bank [155].

### *3.1.2 Adversities measured*

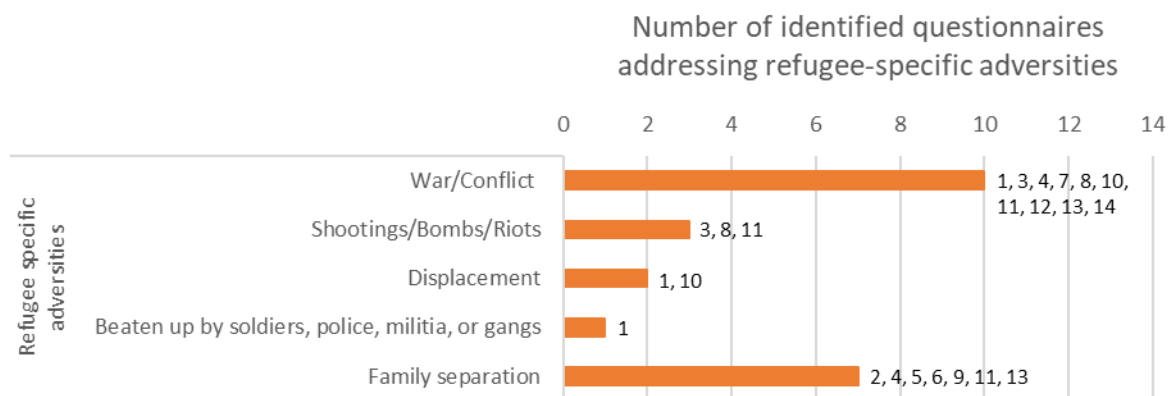
Only 14 of the discovered surveys contained one or more items addressing a refugee-specific adversity. The forms of refugee-specific ACEs that were most frequently addressed include family separation and exposure to war/conflict, with 10 and seven questionnaires addressing these issues respectively. Only one questionnaire addressed being assaulted by military, police, militia, or gangs; two addressed being displaced; and three addressed being exposed to shootings, bombings, or riots. Figures 8a-8c provide a summary of which form of adversity is measured within the 14 questionnaires (an overview for all 103 identified tools can be found in Appendix 5).



**Figure 8a:** Conventional ACEs addressed by identified questionnaires



**Figure 8b:** Expanded ACEs addressed by identified questionnaires



**Figures 8a-c**

- |   |   |
|---|---|
| 1. ACE-International Questionnaire (ACE-IQ)                       | 8. Juvenile Victimization Questionnaire (JVQ)                     |
| 2. Addressing Social Key (ASK) Questions for Health Questionnaire | 9. Lifetime Destabilizing Factor (LDF) Index                      |
| 3. Adverse Childhood Experience Questionnaire-Revised (ACEQ-R)    | 10. Modified UCLA Trauma History Profile                          |
| 4. BARC Pediatric Adversity and Trauma Questionnaire              | 11. National Surveys of Children's Exposure to Violence (NatSCEV) |
| 5. Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Child)  | 12. Traumatic Events Screening Inventory for Children (TESI-C)    |
| 6. Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Teen)   | 13. Traumatic Events Screening Inventory for Children (TESI-PRR)  |
| 7. ISPCAN Child Abuse Screening Tool (ICAST-C)                    | 14. Yale-Vermont Adverse Childhood Experiences Scale (Y-VACS)     |

**Figure 8c: Refugee-specific ACEs addressed by identified questionnaires**

These figures are reproduced from the author's preprint - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>

Within the 14 questionnaires identified, only between one and three questions addressed refugee-specific adversities. However, other categories, such as community violence, were addressed by up to 21 questions as in the National Surveys of Children's Exposure to Violence (NatSCEV) [156]. In the NatSCEV, questions about community violence included "Has your child ever lived in a neighbourhood where there were gangs?" as well as "At any time in your child's life, has your child ever seen the police raid or enter a house in (his/her) neighbourhood looking for a criminal or block off a place in (his/her) neighbourhood because a crime happened there?" The number of items included in each questionnaire that address the individual adversity categories is shown in Table 4.

**Table 4:** Adversity categories in questionnaires measuring a refugee-specific adversity

Name of Questionnaire	Adversity categories										
	Emotional abuse	Physical abuse	Emotional neglect	Physical neglect	Sexual abuse	Family dysfunction	Community Violence	Economic Hardship	School victimizations	Other	Refugee-specific adversity
ACE-International Questionnaire (ACE-IQ) [157]	2	2	1	4	4	7	4		1	1	3
Addressing Social Key (ASK) Questions for Health Questionnaire [158]		1	1	1	1	2	1	1	1	1	1
Adverse Childhood Experience Questionnaire-Revised (ACEQ-R) [159]	1	1	4	4	4	16	2	2	11		2
BARC Pediatric Adversity and Trauma Questionnaire [97]	1	1	1	1	1	5	2	2	1	3	2
Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Child) [160]	1	1	1	1	1	5	2		1	3	1
Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Teen) [160]	1	1	1	1	1	5	2		1	5	1
ISPCAN Child Abuse Screening Tool (ICAST-C) [161]	7	8	3	4	6	4	2		1		1
Juvenile Victimization Questionnaire (JVQ) [40]	1	1		1	7	3	13		5	1	2
Lifetime Destabilizing Factor (LDF) Index [162]						1		2		2	1
Modified UCLA Trauma History Profile [163]	1	1		1	3	2	4		2	6	2
National Surveys of Children's Exposure to Violence (NatSCEV) [156]		1		5	7	18	21	2	17	9	3
Traumatic Events Screening Inventory for Children (TESI-C) [164]	1	1	1		1	3	4			6	2
Traumatic Events Screening Inventory for Children (TESI-PRR) [165]	2	1		1	2	4	3			9	2
Yale-Vermont Adverse Childhood Experiences Scale (Y-VACS) [166]	1	1		1	2	5	1		1	7	1

(Values indicate the number of questions addressing each adversity category in the questionnaire)

This table is reproduced from the author's preprint - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>

### 3.1.3 Psychometrics and questionnaire quality

Very few articles reported any information related to the psychometric properties of the questionnaire used. From the 14 questionnaires that included a refugee-specific adversity, three (JVQ, ICAST-C and ACEQ-R) reported psychometric properties. In this review, these three questionnaires were used in more than one study; however, their psychometric properties were not always reported. For instance, as displayed in Table 5, the JVQ was used in 76 different studies, of which only 15 reported internal consistency (Cronbach's alpha or Kruder and Richardson Formula 20), 8 reported inter-observer reliability (Cohen's kappa), and only one reported content validity (reported via qualitative approach). The JVQ was originally developed in the USA and was used in nine countries beyond the USA within 39 studies identified in this review; yet only four identified studies reported the translation process. None of the studies reported retest reliability (interclass correlation coefficient value), criterion validity (correlation coefficient) or construct validity (convergent validity, discriminant validity or confirmatory factor analysis).

**Table 5:** Reported psychometric properties of identified questionnaires

Psychometric Properties Name of Questionnaire	Retest reliability	Internal consistency	Inter-observer reliability	Content validity	Criterion validity	Construct validity	Cross cultural validity (if relevant)
ACEQ-R <sup>3</sup>	0 (2)	2 (2)	0 (2)	0 (2)	0 (2)	0 (2)	1 (2)
ICAST-C <sup>7</sup>	0 (10)	7 (10)	0 (10)	1 (10)	0 (10)	0 (10)	2 (10)
JVQ <sup>8</sup>	0 (76)	15 (76)	8 (76)	1 (76)	0 (76)	0 (76)	4 (39)

(Number of studies using the questionnaire in this review are indicated in brackets)

No psychometric properties were reported for remaining identified questionnaires <sup>1, 2, 4-6, 9-14</sup>

1. ACE-International Questionnaire (ACE-IQ)
2. Addressing Social Key (ASK) Questions for Health Questionnaire
3. Adverse Childhood Experience Questionnaire-Revised (ACEQ-R)
4. BARC Pediatric Adversity and Trauma Questionnaire
5. Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Child)
6. Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Teen)
7. ISPCAN Child Abuse Screening Tool (ICAST-C)
8. Juvenile Victimization Questionnaire (JVQ)
9. Lifetime Destabilizing Factor (LDF) Index
10. Modified UCLA Trauma History Profile
11. National Surveys of Children's Exposure to Violence (NatSCEV)
12. Traumatic Events Screening Inventory for Children (TESI-C)
13. Traumatic Events Screening Inventory for Children (TESI-PRR)
14. Yale-Vermont Adverse Childhood Experiences Scale (Y-VACS)

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### 3.2 Phase 2: Qualitative study

*An adapted version of this section has been published as: Abdelhamid, S., et al., Negative and protective experiences influencing the well-being of refugee children resettling in Germany: a qualitative study. BMJ Open, 2023. 13(4): p. e067332 DOI: [10.1136/bmjopen-2022-067332](https://doi.org/10.1136/bmjopen-2022-067332).*

Thirty-six interviews were conducted with 58 individuals (Table 6). Eleven children (six unaccompanied and five accompanied) with an average age of 14.6 years (range: 8-17 years) and 47 parents with an average age of 35.4 years (range: 23-63 years) participated. The majority of participants were female (n=45); the majority spoke Arabic and came from Syria (n=31), Iraq (n=6), and Palestine (n=4), with Farsi speakers from Afghanistan (n=13), and Tigrinya speakers from Eritrea (n=4). Several participants had limited educational attainment (n=39) and were unemployed (n=41). Participants had spent an average of two years in Germany at the time of the interview (range: 1 week to 4.5 years). While there were differences in terms of age, ethnicity, and length of stay in Germany, these distinctions rarely surfaced in terms of the experiences participants believed could affect refugee children.

**Table 6:** Participant distribution in interview groups

Number of participants per interview	Total number of interviews	Number of interviews with adults	Number of interviews with children
Four person interviews	3	3	-
Three person interviews	2	2	-
Two person interviews	9	8	1
Individual interviews	22	13	9
Total	36	26	10

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Participants described a wide range of experiences, yielding eight emergent themes. Evidence supporting six risk-related themes was uncovered: 1) Experiencing disruption to daily life and structure, 2) Exposure to/witnessing violence that brings

about harm or destruction, 3) Facing impediments that obstruct progress, 4) Dealing with affliction, 5) Feeling isolated, 6) Feeling subjected to rejection; and two potentially protective themes: 1) Feeling secure and stable, 2) Having connections. Refugee children's experiences were extensively reflected in the transcripts, not just in the family context, but also in the community and society, and at any and all stages of migration. Table 7 defines these themes and lists which identified experiences are included within each theme and their level within the SEM.

**Table 7:** Theme definitions and code organisation with respect to the SEM

Theme	Theme definition	Level within the SEM	Identified experiences
Experiencing disruption to daily life and structure	Disruption is a major disturbance, something that changes one's plans. It is also a situation that interrupts ordinary course of events one is used to (e.g. going to school) and causes instability and change in current structures.	Family	<ul style="list-style-type: none"> <li>• Death of a loved one</li> <li>• Family dispersion</li> <li>• Parent is missing</li> <li>• Parent arrest</li> <li>• Parent divorce</li> </ul>
		Community	<ul style="list-style-type: none"> <li>• Death of a relative or friend</li> <li>• Multiple relocations</li> <li>• Forced relocations</li> </ul>
		Society	<ul style="list-style-type: none"> <li>• Disruption of education</li> </ul>
Exposure to/witnessing violence that brings about harm or destruction	Violence (as defined by the World Health Organisation) is the "intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation." [167]	Family	<ul style="list-style-type: none"> <li>• Physical abuse</li> </ul>
		Community	<ul style="list-style-type: none"> <li>• Physical harm</li> <li>• Sexual abuse</li> <li>• Destruction and bombings</li> <li>• Witnessing fighting/killing</li> <li>• Violence and brutality</li> <li>• Kidnapping</li> <li>• Human trafficking</li> <li>• Extortion/exploitation/fraud</li> </ul>
		Society	<ul style="list-style-type: none"> <li>• Insecure political climate</li> <li>• Militarisation</li> <li>• Forced military recruitment</li> <li>• Police/soldier brutality</li> </ul>
Facing impediments that obstruct progress	Impediments are things that make progress or movement difficult or impossible. This could be a result of having limited money/resources or due to practical or legal barriers that prevent advancement.	Family	<ul style="list-style-type: none"> <li>• Parent unemployment</li> <li>• Financial difficulties</li> </ul>
		Community	<ul style="list-style-type: none"> <li>• Long travel routes</li> <li>• Dangerous travel routes</li> </ul>
		Society	<ul style="list-style-type: none"> <li>• Immigration process</li> <li>• National policies</li> <li>• Lack of jobs</li> <li>• Lack of medical care</li> </ul>
Dealing with affliction	Afflictions are causes of physical or mental suffering, distress, or agony. It is	Individual	<ul style="list-style-type: none"> <li>• Physical/mental health</li> <li>• Child development</li> <li>• Behaviour</li> </ul>

	commonly used to describe diseases or disorders, especially ones that greatly interfere with a person's life. Afflictions are also defined as challenging circumstances and unpleasant situations.	Family	<ul style="list-style-type: none"> <li>• Parents distress</li> <li>• Poor parental mental/physical health</li> <li>• Parent drug use</li> </ul>
		Community/ Society	<ul style="list-style-type: none"> <li>• Inadequate shelter</li> </ul>
Feeling isolated	Isolation is the state of feeling alone and without loved ones or support from surrounding known and unknown people. It is the near or complete lack of social contact – the state of being detached or separated.	Family	<ul style="list-style-type: none"> <li>• No family support</li> </ul>
		Community	<ul style="list-style-type: none"> <li>• Cultural differences</li> <li>• Yearning for family members</li> <li>• Loss of network</li> <li>• No support</li> <li>• Social isolation</li> </ul>
Feeling subjected to rejection	Rejection is the refusal to accept, approve, or support something. This can occur when an individual is deliberately excluded from a social relationship or social interaction.	Family	<ul style="list-style-type: none"> <li>• Neglect</li> </ul>
		Community	<ul style="list-style-type: none"> <li>• Discrimination</li> <li>• Bullying</li> <li>• Rejected own cultural customs</li> </ul>
		Society	<ul style="list-style-type: none"> <li>• Immigration rejection</li> </ul>
Feeling secure and stable	Security is the condition of not being threatened, especially physically, psychologically, emotionally, or financially while stability is the condition of being in equilibrium in which something can continue in a regular and successful way without unexpected or harmful changes.	Individual	<ul style="list-style-type: none"> <li>• Valuing education</li> </ul>
		Family	<ul style="list-style-type: none"> <li>• Constructive parenting</li> <li>• Financial stability</li> <li>• Presence of parents</li> </ul>
		Community	<ul style="list-style-type: none"> <li>• Community support</li> <li>• Being rescued</li> <li>• Travel companions</li> </ul>
		Society	<ul style="list-style-type: none"> <li>• Basic human rights</li> <li>• Social security</li> <li>• Fast resolution of asylum applications</li> <li>• Family reunification</li> <li>• Safe political climate</li> <li>• Open borders</li> </ul>
Having connections	Connections are the relationships one has with the people around them. It involves feeling loved, cared for, and valued. It also involves engagement with the community, creating a sense of belonging to something bigger than oneself.	Family	<ul style="list-style-type: none"> <li>• Presence of parents</li> </ul>
		Community	<ul style="list-style-type: none"> <li>• Connections with people</li> <li>• Presence of other family members</li> <li>• Travel companions</li> <li>• Fitting in at school</li> <li>• Sociocultural adaptation</li> <li>• Ties to original culture</li> </ul>

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To provide a comprehensive overview of the experiences showing their rooting in different social-ecological contexts, the presentation of results follows the structure

of the SEM. **Themes** (in bold) and respective *refugee experiences* (in italics and underlined) are reported for each SEM level. Representative quotations provided below for the respective themes reflect experiences mentioned by children themselves and by parents discussing what they considered to affect their child(ren).

### 3.2.1 Individual influences

The first level of the SEM focuses on the individual, who is defined by their qualities and the biological and biographical factors that influence their wellbeing. The only negative theme in which participants highlighted individual-level factors was **dealing with afflictions**. Some respondents commented on their child's sufferings in the form of *unfavourable psychological and physical health conditions*, citing examples such as breathing harmful gases during the conflict in their home countries, which led to their child developing asthma. Other parents indicated that their children experienced skin infections as a result of bad living conditions or somatic symptoms such as stomach-ache as a result of being constantly anxious. A few parents reported that their *child's developmental problem* was a difficult affliction on an already difficult journey, and others discussed changes in their *child's behaviour*.

*Translated quote:*

*They no longer have the courage or the desire. He – who was not able to stop playing in the street – no longer did. They no longer desired to play in the street. he started saying here maybe someone can die, here is such... I mean their childhood is over.*

*Original quote:*

*فما عاد عندي الجرأة ولا النفس. إنه إلهي كان يقدر يوقف بالشارع يلعب ما عاد الو نفس يوقف بالشارع يلعب. صار يقول فيه هون يمكن حدا اتوفى، هون كذا. ما... يعني طفولتن انتهت.*

*Palestinian Mother*

*Valuing education* was a protective individual level factor that related to the theme of **feeling secure and stable**. Many children stated that education was crucial and that it would lead to a brighter future. This was a sign of strong emotional health for many participants, and several parents recognised that their child's desire for education was a positive indication of their child's views toward a more secure existence and a good future:

*Translated quote:*

*I mean my oldest son in Syria, reached a stage where he did not want to continue his education, when we were in Syria. I mean he was psychologically not willing to continue studying. Thank God we came to Germany and straight away he continued.*

*Original quote:*

يعني أنا ابني الكبير بسوريا وصل لمرحلة آتته خلص، ما عاد يتو يكمل دراسة، لما كنا بسوريا. يعني صار وضعه هيك نفسيًا ما عاد حاسن يدرس يعني. الحمد لله إجبنا ع ألمانيا دغري كمل.

Syrian father

### 3.2.2 Family Influences

The family level of the SEM is focused on how a child's wellbeing is impacted by family relationships, interactions, structures, and norms. Each theme featured specific examples that may be attributed to family influences. Among the major themes was **experiencing disruption to daily life and structure**. Many participants brought up death of a loved one, which people described as generally harmful for the child's mental health because, in addition to the emotional pain, in some cases this also created instability and disruption in the family structure. Others regarded separation and family dispersion as disrupting when members of a family lived in separate countries. Nearly half of respondents thought that being separated from the family could be detrimental to the child. Separation was described for a variety of reasons, such as one family member being in danger more than others (such as being compelled into military service) or the expense of fleeing as a family. Some parents reported relocating their child to a safe European nation in the hope that family reunion applications for children would be processed more quickly, only to discover later that the child's emotional wellbeing had suffered as a result of the family dispersion. Few individuals recognised disruptive incidents involving parental separation or divorce, arrest of a family member, and a parent missing (whereabouts unknown).

With regards to the theme **exposure to/witnessing violence that brings about harm or destruction**, only one family discussed physical abuse inside the immediate family – several family members mentioned incidents within the household independently of each other when being interviewed individually. They talked of a situation in which a parent slapped an older sibling, resulting in both physical harm and suffering as the sibling was later taken by child protective services.

The theme **facing impediments that obstruct progress**, particularly in the form of economic hardship, received widespread support. Many participants spoke of

parental unemployment since they lost their jobs and sometimes their homes. Such situations were believed to be harmful to a child's mental health since they caused financial difficulty and jeopardised their ability to access basic necessities as well as an escape to safety resulting in never ending stress.

*Translated quote:*

*There weren't any resources left. Because all the young men went out of the city to the countryside, so all of them left their work in the city, so they stayed in the countryside without work. My husband sat without work. I had a little boy who wanted milk, we didn't have money to buy milk. So for example, he started getting in debt here.*

*Original quote:*

*ما بقى فيه مادة. لأنّ الشباب كآلا طلعت من المدينة للريف، فكآله ترك شغله بالمدينة، ففعدوا هنّ بالريف بدون شغل. أنا زوجي فعد بلا شغل. أنا كان عندي ولد صغير بده حليب، ما فيه مصاري نجيب حليب. فصار مثلاً يتدين من هون.*

*Syrian mother*

A few individuals described their experiences **dealing with familial afflictions** such as poor parental mental/physical health and parental drug use. The majority of respondents discussed parental distress, acknowledging that their anxiety and worry were mirrored in their children, which could have an impact on the child's emotional health:

*Translated quote:*

*The children only were afraid due to that stress that we had, husband and mother.*

*Original quote [Farsi – German interpreter]:*

*Die Kinder nur die haben Angst gehabt, durch diese Stress, die wir gehabt hatten, Mann und die Mutti.*

*Afghan mother*

Regarding **feeling isolated**, two participants believed that orphans and unaccompanied children would experience this state as they lacked family support and were denied emotional engagement, which they deemed would impede the child's emotional growth. In a similar vein, several participants also noted that children may experience physical neglect, where a guardian failed to take appropriate care of their child, and occasionally abandoned them, **subjecting the child to rejection**. Owing to such experiences, they described attachment and social issues as psychological repercussions.

Participants appeared to endorse familial experiences of **feeling secure and stable** as potentially protective to mental health. A few individuals mentioned perceived protective factors like presence of parents and financial stability. They

discussed the significance of parental supervision in establishing limits and safeguarding kids from harm. Others talked about how having enough money allows families to buy nutritious meals, secure housing, and other necessities that promote children's development. Many people believed that *constructive parenting* was crucial for their children's mental health. Depending on the child's age, constructive parenting was defined as either hiding truth or outlining the actual situation. Others said it served as an example of strength, promoting perseverance, optimism, and gratitude:

*Translated quote:*

*I mean, when we lived in the tent and in the caravans, in the camps, a year and a half, you couldn't compare it to... I mean, we would consider it ... we would praise our Lord, we praise our Lord... I tell them it's ok, this is a small phase and we will be patient. And we acclimated and we got to know other people, refugees like us who were also unlucky and they were stuck in Greece, and we spent our days...*

*Original quote:*

يعني لما عشنا بالخيمة وبالكرافانات بالكامبات سنة ونص ولا مقارنة لما... يعني كنا نعتبر... بنحمد ربنا، نحمد ربنا... أقلن معلش، هاي فترة محدودة ونصبر حالنا واتأقلمنا وصرنا اتعرفنا ع ناس لاجئين مثلنا يعني كمان تعيسين الحظ مثلنا وباركين باليونان، وقضينا أيام...

*Syrian mother*

A few participants also made parallels between the theme **having connections** and the *presence of parents*. They explained how having parents and children living under the same roof enables them to connect regularly, which was thought to be essential for children.

### 3.2.3 Community influences

Numerous topics showed evidence of community influences. It was believed that displacement caused refugee children to **experience disruption to daily life and structure**. Nearly all of the respondents reported *multiple and forced relocations*, eliminating the opportunity to develop relationships with people or set down roots. Such experiences were described as harmful as children might be affected psychologically:

*Translated quote*

*We have been in camps for 3 years. From Greece to... we tried and went... things didn't work out for us in Greece, we went to Holland. Also in Holland they rejected us. The situation was very bad. I mean I have my daughter, this little one, she is 3 years old, she is psychologically unbalanced. I mean she doesn't know the meaning of a home. What is it?*

*Original quote*

صار ثلاث سنوات بالكامبات. من اليونان لـ... كمان حاولنا طلعلنا... يعني ما مشي حالنا باليونان، طلعلنا ع هولندا. كمان بهولندا رفضوا. كان الوضع كثير سيئ. يعني عندي بنتي هاي الصغيرة عمرا ثلاث سنين، يعني نفسيتا اتعقدت. يعني ما بتعرف شو هو معنى بيت. شو هو يعني؟

*Syrian mother*

Except for those under the age of 13, almost all participants described their experiences with **exposure to/witnessing violence that brings about harm or destruction** at the community level. A few participants discussed child arrest and sexual abuse, but the majority generally expressed worries about the destruction, bombings, killing, fighting which they mostly faced in their home countries:

*Translated quote:*

*My house was bombed... My children were asleep...my daughter's eyes were covered in blood...they were asleep... there was one of her sons that was totally asleep nothing happened to him. The only one that was not affected. But from the terror, he woke up from the screaming and the house that he slept in is now another thing, he woke up with glass on top of him.*

*Original quote:*

*انقصف بيتنا... أنا ولادي كانوا نايمين... بنتي عيوننا كل الدم... نايمين... فيه واحد من ولادا كان غفلان خالص وما صابه شي. الوحيد ما صابه شي. بس من الوهرة إته فاق ع الصباح والبيت إته نام شي وفاق الإزاز فوقه.*

*Syrian mother*

Several discussions also revolved around extortion, exploitation, fraud, kidnapping, human trafficking, robbery, and physical harm mainly encountered during flight:

*Translated quote:*

*We entered by land from Syria, we entered Turkey by land, and to add on it... the Turkish guards they caught us and beat us. They hit... you see my daughter? She was 2 years old when we left. The Turkish guards hit her, the situation is really... [shaky voice, crying] Wherever we go, no one wants our children or us.*

*Original quote:*

*دخلنا بر من سوريا، دخلنا ع تركيا وطبعًا كمان اللي زاد... يعني العساكر الأتراك كمشونا وضربونا. ضربوا... شايقة بنتي؟ كان عمرا سنتين وقت طلعت. العساكر الأتراك ضربوها، يعني الوضع كثير... (حشرجة، بكاء) يعني وبين ما نروح ما فيه حدا لا يتو لا نحنا ولا ولادنا*

*Syrian mother*

Dangerous and long travel routes were also cited as instances of **facing impediments that obstruct progress**, with one unaccompanied minor taking four years to arrive to Germany. Participants cited a variety of obstacles, such as suffocating in the back of an overstuffed box truck, crossing the sea in a rubber dinghy, and passing through war zones and/or deserts. Each of these circumstances was viewed as posing a risk to the child's physical and psychological wellbeing.



*Translated quote:*

*That is the Sahara. How they [transport] these people from Sudan to Libya, the smugglers with this pickup, they drive, yes, so fast. If this pickup turns over, yes, two or three people fall out, the smugglers are not interested. They say they should just keep going. They left many people [in the desert] and it is very cruel.*

*Original quote [Tigrinya – German interpreter]:*

*Das ist diese Sahara. Wie sie diese Leute von Sudan nach Libyen, die Schleuser mit Pickup, sie fahren, ja, so schnell. Wenn diese Pickup umkippt, ja, zwei, drei Leute fliegen, die Schleuser interessieren sich nicht. Die sagen, sollen die einfach weiter. Viele Leute haben sie auch liegen gelassen, ja. Und es ist sehr grausam.*

*Eritrean child*

Children also **dealt with afflictions** such as inadequate shelter, which participants believed to be the cause of the child's physical and mental suffering since they were living in a tent or container, in overcrowded spaces under unsanitary conditions, or were homeless:

*Translated quote:*

*We lived 4 years in a camp in Iraq... If it's raining... it would pour on us. When the weather is getting hot the tents burn, because of the electricity... the tents were on fire.*

*Original quote:*

*عشنا أربع سنوات بكامب بالعراق. إذا بتصير مطر... يتشتي علينا. لما الجو يصير حار يحرقوا الخيمات. الكهريا ايه. يتحرقوا الخيمات.*

*Iraqi child*

Furthermore, **feeling isolated** was discussed by both parents and children. A small percentage talked of loss of community and having no community support, both of which were described as emotionally difficult. However, most of the children talked about missing face-to-face encounters and expressed yearning for their relatives. Due to the variety of views, attitudes, languages, and traditions, which can make it difficult for children to balance diverse cultures, several participants stated how cultural differences are at times stressful for their children:

*Translated quote:*

*The differences in cultures between us and the Germans, there are huge differences between the way we raise our kids and our culture and between the way they raise their kids and their culture. Of course this will make us suffer. Our kids want to integrate... I don't know what to tell you.*

*Original quote:*

*اختلاف الثقافات كمان بيننا وبين الألمان. فيه اختلاف شاسع بين تربيتنا وثقافتنا وبين تربيتهم وثقافتهم. طبعًا هادا رح يعدبنا نحنا. ولاننا هون بدن يندمجوا... ما بعرف شو بدّي قلك.*

*Syrian mother*

There was also strong support for the theme **feeling subjected to rejection** in various forms, including discrimination at the community-level.

*Translated quote:*

*They didn't want to see so many Syrian people in Jordan. And that's why we can't do so many things. For example, this year, when I changed my school, we can't talk to the Jordanian students. So they think we just have to have a Syrian school. We are separated. And you just think that, we are not normal.*

*Original quote [interview in German]:*

*Die wollten nicht so viele syrische Leute in Jordanien sehen. Und deswegen, wir dürfen nicht so viele Sachen. Zum Beispiel, in dieses Jahr, wo ich meine Schule gewechselt haben, da dürfen wir nicht mit die jordanischen Schüler reden. Also die meinen, dass wir müssen einfach syrische Schule haben. Wir sind getrennt. Und das denkt man einfach, wir sind nicht normal.*

*Syrian child*

While the aforementioned quotation serves as an example of the discrimination refugee children encountered while traveling, many also mentioned incidents of discrimination pre-flight (e.g. facing hostilities due to their ethnicity or religious sect). Some people mentioned discrimination after flight (e.g. unfriendly behaviour and name calling). Only a small number of individuals expressed rejection in the form of bullying or rejecting one's own cultural customs (such as arranged marriages or child marriages). Any of these circumstances were thought to cause emotional distress in children.

On the other hand, there were some documented protective community influences. Strong evidence for the importance of community support, which came in a variety of forms, was relevant to the theme **feeling secure and stable**. The participants described instances in which they received practical (protection/transportation), educational (advice), and emotional (care and compassion) support from members of the community as examples of security. Participants also made statements concerning stability. In these discussions, points were made concerning getting material (food/clothing) and practical (accommodation/translations) support that satisfied their fundamental needs.

*Translated quote:*

*Even I have a friend; I mean she is a mother to my son's friend. When she got to know me, he was in fourth grade. Then they changed schools, and she kept coming to me every week and helping me, I mean,*

*Original quote:*

*حتى أنا عندي صديقة يعني بتكون هي أمه لرفيق ابني. اتعرفت علي كان هو بالصف الرابع. هنّ بعدين غيروا المدارس، وضلت كانت تجي لعندي كل أسبوع وتساعدني يعني، مزارت باليوستات، بالرسائل، بهيك يعني، بوراق*

once with posts, with letters, like that, I mean, with school papers... I can never deny her favour, ever ever. Because there really are many Germans that are really good.

المدارس... أنا ما بنكر بعني جميلًا أبدًا أبدًا. لأنه هو فيه عن جد ألمان كثير مناح.

Syrian mother

These various types of support were experienced at all stages of migration. Participants noted that neighbours opened their houses to them after they lost their homes due to bombs. Others talked about times when strangers helped them carry their bags on the journey or offered them emotional support when they were waiting in the camps and lost hope.

Lastly, there was a recurring theme on the need of **having connections** with Germans, relatives nearby, or individuals from their native culture to form meaningful friendships:

*Translated quote:*

*I had in this way, 'journey friend'... so I had a 'brother,' to be honest and we were really fit on this path because he helped me and I helped him and so on... we ran in this desert until five o'clock in the morning. And I was weak, so I was very tired and he hugged and pulled me like that. That was very brave of him. So he did not leave me... He was with me all the way so together. He was a good friend. And that was good, because it touched your heart so much. One does not think, one does not feel lonely in such situation... We were mutually healing for each other, so to speak.*

*Original quote [Interview in German]:*

*Ich hatte in diesem Weg, Wegfreunde... ich hatte einen Bruder, um ehrlich zu sein und wir waren richtig fit auf diesem Weg, weil er hat mir geholfen und ich habe ihm geholfen und so weiter... wir haben auf dieser Wüste einfach gelaufen bis morgen fünf Uhr. Und ich war schwach, also ich war sehr müde und er hat mich so in den Arm genommen und gezieht. Das war sehr mutig von ihm. Also er hat mich nicht also verlassen... Er war mit mir den ganzen Weg also zusammen. Er war guter Freund. Und das war gut, denn das hat dein Herz so gerührt. Man denkt nicht, man fühlt nicht einsam in solcher Situation... Wir waren gegenseitig Heilung füreinander sozusagen.*

Afghan child

Only a few respondents cited fitting in at school and maintaining ties to the child's original culture. Participants thought that these interactions were good for the child's mental health regardless of the type of connection.

### 3.2.4 Societal influences

Societal forces also played a part when it came to the theme **experiencing disruption to daily life and structure**. Over 50% of both children and parents

expressed concerns about the impact of political instability on education, citing school closures due to pre-flight insecurity and problematic policies in transit countries as major disruptor to receiving a quality education. Participants expressed concern that interruption in education could have a harmful impact on children's academic, social, and emotional wellbeing:

*Translated quote*

*What impacts the children is the school. The war that the child suffered from. I swear it's a lot. No schools. How many years? They are now 7 or 8 years old and they didn't go to school. And from one country to the next. No language. Nothing. Even our original language they are forgetting it because of all that they have witnessed. They are suffering.*

*Original quote*

إللي بيأثر ع الطفل هو المدرسة. الحرب إللي عاناه الولد. والله كثير. لا مدرسة. إن كم سنة؟ صار عمرن سبع، تمان سنين وما فاتوا على مدرسة الولاد. ومن بلد لبلد. لا لغة، لا شي، حتى لغتنا الأصلية عم بينسوها من كتر ما عم بيشفوا. عم بيعانوا.

Syrian mother

*Translated quote:*

*The thing is there are the Taliban... We go through a lot of things... for example, I was at school for one day, not a week, because every day was war... I wanted to go, so was war, you could not go to school... there is no safe place when there is war.*

*Original quote [interview in German]:*

*die Sache ist dort Taliban gibt... Wir gehen manche Sachen... beispielweise, ich war einen Tag in der Schule, eine Woche nicht, weil jeden Tag war Krieg... Ich wollte gehen gerne, also Krieg war, man konnte nicht gehen in die Schule... Also es gibt keinen sicheren Platz dann, wenn Krieg ist.*

Afghan child

Many also discussed societal **exposure to/witnessing violence that brings about harm or destruction**. Participants provided examples of having to survive in the face of political insecurity, forced military recruitment, systematic violation of human rights, police/soldier brutality and the presence of militant groups:

*Translated quote:*

*The soldier came home, put me and my mother in jail... to put pressure on my father... and this fear of what they did to us, until today I always have a nightmare... that was a very difficult time, what I have experienced. And so for my health it has hurt terribly until today. I cannot find peace out of this fear.*

*Original quote [interview in German]:*

*Soldat (unv.) nach Hause gekommen, mich und meine Mutter in Gefängnis gesteckt... Und diese Angst, was sie mit uns gemacht haben, bis heute habe ich immer einen Albtraum... Das war eine ganz schwierige Zeit, was ich erlebt habe. Und also für meine Gesundheit es hat unheimlich geschadet bis heute. Ich kann das nicht meine Ruhe finden aus dieser Angst.*

Eritrean child

Participants prominently discussed societal **impediments that obstruct progress**. Participants of newly arrived and long-term refugees shared similar experiences, with the exception of how frequently immigration policies were mentioned. Refugees in Germany for less than a year perceived immigration policies, such as travel restrictions and processing delays of asylum applications, as an impediment to family reunification:

*Translated quote:*

*You [the government] are doing something good, for example, for the children, you are bringing his mother and father for him, but what about his siblings? Are they not from the rest of his family? And they are minors. We are not asking for the brother who is eighteen and twenty years old. No. I mean, all of them are our children who are minors who we had to leave behind us. I mean, this obviously affects the boy... I mean the boy has been waiting for his mother, father and family for three and a half years.*

*Original quote:*

*إنتو عم بتعملوا إشي منيح مثلاً للولد، عم بيتجيبوا له أمه وأبوه، طيب إخوانه هذول؟ مو من بقية عيلته؟ وقصّر يعني، ما عم بنطلب إحنا بالأخ اللي عمره تمانت عشر وعشرين. لأ، يعني كلهن ولادنا قصّر اللي تركناهن ورائنا. يعني كمان بدو ياتر ع الولد هاد... يعني ولد عم بيستنى أمه وأبوه وعيلته ثلاث سنين ونص.*

*Palestinian mother*

The participants also pointed out various impediments including national policies, recalling countries closing their borders resulting in the detention of refugees. An additional impediment was the Europe-wide fingerprinting scheme, as it prevented refugees from choosing their desired resettlement country and compelled them to return to the first European country where their fingerprints were recorded. A few interviewees also mentioned barriers such as lack of job opportunities in transit countries due to difficulties in obtaining work permits. Some highlighted difficulties in accessing medical care in refugee camps due to long waiting times and limited personnel/resources. These obstacles were described as emotionally damaging for their children, leading to a loss of hope and, in some cases, physical suffering.

Newly arrived refugees highlighted the issue of **feeling subjected to rejection**. According to their perspective, refusal of asylum claim, revocation of refugee status or forced repatriation was causing significant stress and worry for refugee children.

According to interviewees, it was crucial for the emotional wellbeing of children to **feel secure and stable** in society:

*Translated quote:*

*Now, here they are happy more of course than in Syria because of the situation, as I told you the livelihood. The psychological comfort, that's the most important thing, the psychological comfort, that there is no fear, there is no... I mean they sleep in safety and wake up in safety, I mean... the warmth. Everything I mean, thank God, is secured for them.*

*Original quote:*

هألك هون مبسوطين أكثر طبعًا من سوريا وبسبب إنه الوضع مثل ما قلت لك أنا المعيشة، الراحة النفسية، هادا أهم شيء، الراحة النفسية، إنه ما فيه خوف، ما في... يعني بيناموا بأمان ويبفوقوا بأمان يعني... الدفا. كل شيء يعني الحمد لله هون متأمنون.

*Syrian mother*

They emphasised the need for a non-violent environment that upholds basic human rights and social security measures such as child allowance, health insurance, and habitual residence, which they believed would inherently benefit and provide emotional stability for children.

### 3.3 Phase 3: Questionnaire development

#### 3.3.1 BRACE development

##### 3.3.1.1 Item selection and development

Thematic analysis of the interviews in Phase 2 revealed numerous experiences, from which many adversity/protective categories arose. Experiences endorsed by more than three participants were the basis for the questionnaire items. The example below illustrates how participants' comments from the qualitative interviews became items for the BRACE questionnaire:

Participants' comments	Item	BRACE question
يعني تصوّري إته يعني... إنه ربطة الخبز بهديكي الحسبة، يعني إته كانت بألف وخمسمية، فأنا أقسم الخبز مرابعة، الرغيف الواحد أربعة، لكل ولد ربع، حتى تكفيننا كماله النهار.	<i>I mean, imagine that... paying for a loaf of bread would break you, I mean it cost one thousand and five hundred, so I divide the bread fourfold, one loaf becomes four pieces, for each child a quarter, so that it would be enough for us for the rest of the day.</i> - Syrian mother	
حتى لو اشتغل، لو اشتغل ما بيطالع مصروف، أول عشرتيام بالشهر يعني، ما بيكفي.	<i>Even if [a father] works, he won't get enough money, the first ten days of a month, then that was it, it's not enough.</i> - Syrian father	Were there times when your family did not have enough money for food or rent or other things it needs?
<i>They had to walk under the rain and they were dirty and... they needed to be cleaned also she said that they haven't enough money. Yeah no money for example for food and a good place to sleep and that stuff on their journey... until turkey things were not good but from Greece, the government helped and there were plenty of foods there.</i> - Interpreter for Afghan mother	Financial difficulties	
إنت وزوجك وابنك بتشتغلي وما بتغطي مصروف البيت. يعني مو الكماليات. يعني بس الأساسيات.	<i>You, your husband and your son work and you do not cover the household expenses. I mean, not luxuries. I mean, just the basics.</i> - Palestinian mother	

Experiences recognised as conventional ACEs (divorce, parental arrest, sexual abuse, family physical abuse, poor parental mental/physical health, and parental drug use) had limited support from three or fewer participants, yet were included to evaluate the construct validity of the BRACE questionnaire. Verbal abuse, despite not being mentioned by any participants was also included for the same reason. For the remaining experiences, those that received limited support from three or fewer participants were excluded. This includes the following experiences: changes in a child's development and behaviour, difficulties in accessing medical care, rejection of one's cultural customs (i.e. arranged or child marriage), child arrest, extortion, exploitation, fraud, human trafficking, forced military recruitment, and refusal of asylum applications. This also included the following protective factors: financial stability, maintaining ties to the child’s original culture and basic human rights.

The remaining experiences were considered significant and were therefore integral as part of the questionnaire. The interview- derived experiences, along with their categories and BRACE questions, are shown in Table 8 below, with references to the sources from which they were adapted.

**Table 8:** Interview-derived experiences, categories, and BRACE questions with adapted source references

<b>Adversity Category</b>	<b>Adversity or protective experience/ Questionnaire item</b>	<b>#</b>	<b>BRACE Question</b>	<b>Source</b>
<b>Conventional ACEs</b>				
Emotional abuse	Verbal abuse	4	Does a parent or other adult in your home regularly swear at your child, insult your child, or put your child down?	Minnesota Student Survey [168]
Physical abuse	Physical abuse	5	Has a parent or other adult in your household ever hit, beat, kicked, or physically hurt your child in any way?	Minnesota Student Survey [168]
Sexual abuse	Sexual abuse	20	Has any older person ever touched your child sexually against their wishes or forced your child to touch them sexually?	Minnesota Student Survey [168]
Neglect	Physical neglect	6	Has your child ever been through a period when he was intentionally not receiving the necessary care?	Juvenile Victimization Questionnaire [40]
Family dysfunction	Parental drug use	1	Did your child live with anyone who was a problem drinker, alcoholic, or used street drugs?	Adverse Childhood Experiences Questionnaire [27]



	Arrest of family member	2	Has your child ever known or seen a family member arrested, jailed, imprisoned, or taken away by police, soldiers, or other authorities?	Traumatic Events Screening Inventory [165]
	Domestic violence	3	Has any adult in your home ever slapped, hit, kicked, punched, or beat the other up?	Minnesota Student Survey [168]
	Parent divorce	7	Was there a major upheaval between you and your spouse/partner (such as divorce, separation)?	Childhood Traumatic Events Scale [169]
	Parent distress	8	Does a parent or other adult in your home regularly feel stressed or helpless?	Developed Question
	Parent mental health	9	Was a household member depressed or mentally ill for a long period of time?	Adverse Childhood Experiences Questionnaire [27]
<b>Expanded ACEs</b>				
Bereavement	Death of loved one	14	Did your child experience a death of a very close friend or family member?	Childhood Traumatic Events Scale [169]
Community violence	Robbery	18	Has someone ever stolen or tried to steal your child's or family member's possessions?	Childhood Trust Events Survey [170]
	Kidnapping	19	Has someone ever kidnapped your child?	Childhood Trust Events Survey [170]
	Physical harm to the child	22	Has someone ever hit your child on purpose?	Juvenile Victimization Questionnaire [40]
	Physical harm to a loved one	23	Has your child ever seen or heard a family member being hit, punched, kicked very hard or killed?	Childhood Trust Events Survey [170]
	Witness fighting/killing	25	Has your child ever seen someone in your neighbourhood be beaten up, shot at or killed?	Childhood Trust Events Survey [170]
	Discrimination	26	Was your child hit or attacked because of their skin colour, religion, or where their family comes from? Or because of a physical problem they have?	Juvenile Victimization Questionnaire [40]
Economic hardship	Parent Unemployment	12	Have there ever been any times when a parent or guardian lost a job or could not find work?	Lifetime Destabilizing Factor Index [162]
	Financial Difficulty	13	Were there times when your family didn't have enough money for food or rent or other things it needs?	Child Exposure to Domestic Violence scale [171]
	Inadequate Shelter	31	Was there ever a time in your child's life when their family had to live on the street, in the forest or in a camp because they had no place to stay?	Lifetime Destabilizing Factor Index [162]
	Social Security	49	Your family has difficulty obtaining welfare (government) assistance,	Post-migration Living

			obtaining appropriate accommodation, or accessing medical care when needed?	Difficulties [172]
Loss of community	Community Loss	44	Your child misses the pleasure of the company of others	De Jong Gierveld Loneliness Scales [173]
	Fitting in	45	Your child's circle of friends and acquaintances is too limited	De Jong Gierveld Loneliness Scales [173]
School victimization	Bullying	27	Did any kids pick on your child by chasing your child or grabbing their hair or clothes, make them do something they didn't want to do, call them names, say mean things to them, or say they didn't want them around?	Juvenile Victimization Questionnaire [40]
Severe illness	Injuries or infection	33	Was your child ever badly hurt or sick where you thought medical treatment is necessary?	Childhood Trust Events Survey [170]
<b>Refugee-specific ACEs</b>				
Cultural differences	Cultural Differences	46	Your child is having difficulties adjusting to cultural life in Germany (values, beliefs, traditions, etc.)	Developed Question
	Language difficulties	47	Your child has difficulties communicating in German?	Post-migration Living Difficulties [172]
	Parent language barrier	48	The German language has been a barrier for you to support your child	Developed Question
Destruction	Destruction	16	Was your child ever in a disaster when the building they were in such as the home, school or hospital was destroyed and was no longer safe to be in?	Developed Question
Displacement	Forced relocation	28	Has your family ever had to permanently leave their home?	Developed Question
	Multiple relocation	29	Since the unrest started, how many times did your child have to live in a new place?	Developed Question
	Dangerous route	32	Would you consider the route your child took to reach Germany to be dangerous? (ex. there was a high risk of drowning, being robbed, dehydrating, they were shot at, or chased while crossing a boarder)	Developed Question
Family Dispersion	Parent missing	10	Did a parent or someone who takes care of your child ever have to leave, he or she had to be away for several months or longer, or your child has never seen them again?	Lifetime Destabilizing Factor Index [162]
	Family dispersion	11	Was your child ever completely separated from their parent(s) or sibling(s) for a long time, when they were living apart from each other (or in a separate city/country)?	Childhood Trust Events Survey [170]
Immigration policies	Detention	34	Upon arriving to a new country was your child detained and/or separated from their family?	Developed Question
Immigration process	Application delay	35	Were their delays in processing of your child's refugee application or they were	Developed Question

			not informed about progress of their refugee application for a long time?	
Immigration rejection	Status insecurity	36	Are you fearful that your child's refugee status might become revoked or that your child's residence permit might not be renewed?	Developed Question
	Forced repatriation	37	Is your child fearful of being sent back to their country of origin?	Post-migration Living Difficulties [172]
Interrupted Education	Interrupted education	30	Were there long periods of time when your child was not able to attend school?	Developed Question
Police/Soldier Brutality	Police brutality	24	Has your child ever seen someone being hit, pushed or threatened wrongfully by a police officer or soldier?	Developed Question
Political insecurity	War	15	Has your child ever been directly exposed to war, armed conflict or terrorism?	Traumatic Events Screening Inventory [165]
	Military presence	17	Did your child ever live in a place that was under the control of a military like group/terrorists	Developed Question
	Shootings, bombs and riots	21	Was your child in a place in real life where they could see or hear people being shot, bombs going off, or street riots?	Juvenile Victimization Questionnaire [40]
<b>Protective experiences</b>				
Community connection	Belonging	40	Your child identifies with the community and feel like the community is their own.	Perceived Community Support Questionnaire [174]
	Friends	42	Your child has really good friends that make them feel good	Developed Question
	Community connection	43	There are enough people your child feels close to in Germany	De Jong Gierveld Loneliness Scales [173]
Community support	Support	41	There are plenty of people your child can rely on when they have problems	De Jong Gierveld Loneliness Scales [173]
Presence of family	Presence of family	38	All of my child's immediate living family members (parents and single/unmarried siblings) are living with us in Germany	Developed Question
Presence of relatives	Presence of relatives	39	We have relatives other than my child's immediate family members living in Germany	Developed Question

### 3.3.1.2 BRACE structure

The BRACE questions were arranged in a logical sequence based on the source of adversity or protection related to the SEM. The initial set of questions can be

found in Appendix 6. The questions focused on familial difficulties (questions 1-14), then on community and societal adversities (questions 15-37 and 44-49, respectively) and potential protective factors (questions 38-43). Adversities in the community and society were categorised together and systematically inquired about based on their potential chronological sequence during the refugee journey; beginning with pre-flight adversity, moving on to flight-related adversity then post-flight adversity. The questions were also arranged so that those with similar response options were grouped together and were presented one after the other.

### *3.3.2 Cognitive pretesting*

Cognitive pretesting was conducted with three different participants for each of the three sections of the sociodemographic questions and the BRACE questionnaire. The first section was comprised by the sociodemographic questions (Appendix 7), the second asked about family and community/society adversities (Table 8/Appendix 6 – questions 1-27) and the third inquired about one individual adversity and the remaining community/societal adversities and all types of protective incidences (Table 8/Appendix 6 – questions 28-49). An additional three participants completed the full BRACE questionnaire along with the accompanying questionnaires (SDQ and WHO-5 wellbeing found in Appendix 8 and 9 respectively). Twelve caregivers of refugee children took part between July 27, 2020, and August 8, 2020. All caregivers were the child's biological parent (seven fathers and five mothers) whose mother tongue was Arabic. Interviews lasted between 23 and 50 minutes.

#### *3.3.2.1 Suitability of an online platform*

All participants were easily able to open the link to the online questionnaire on their cell phone, while the author was with them on speakerphone. Two technical difficulties arose when participants tried to answer certain questions. The first is that participants could not enter Arabic-Indic numbers as answers; the second was that participants could not go back to previous questions if they wanted to. These two problems were quickly fixed on the online platform by adding a back button and inserting a drop-down option when answering numerical questions.

### 3.3.2.2 Comfort with questionnaire

All participants were asked about their comfort in responding to the questionnaire. Some expressed that it had brought back memories of difficult times, yet explained that this was a reality that their children had faced and that this was the "cycle of life." Nevertheless, none discontinued the questionnaire, and many elaborated beyond the scope of the question. They expressed gratitude that someone was interested in their child's experiences and the participants were willing to help outside the framework of answering the questionnaire.

### 3.3.2.3 Clarity and understanding

As a whole, participants reported very few areas of confusion. One participant made an observation regarding the category support (Question 41 in Table 8) where the question originally stated: There are plenty of people your child can rely on when they have problems (هناك الكثير من الأشخاص الذين يمكن لطفلك الاعتماد عليهم عندما يواجه مشاكل). They asked whether the question was referring to a family member or someone from the community. Due to lack of item clarity, this question was divided into two, asking about both family support and community support (Table 9).

**Table 9:** Improvement of question clarity

Adversity Category	Questionnaire item	BRACE Question	Source
Community support	Support	There are plenty of people your child can rely on when they have problems	De Jong Gierveld Loneliness Scales [173]
↓			
Family support	Support	There are family members your child can rely on when he encounters problems	Developed question
Community support	Support	There are plenty of people your child can rely on when they have problems  (For example: teachers, neighbours, or classmates)	De Jong Gierveld Loneliness Scales [173]

No other difficulties were encountered regarding respondent interpretation and ability to answer items of the BRACE questionnaire.

However, participants found some difficulties answering sociodemographic questions (Appendix 7), specifically the question regarding their financial status. They

were asked to choose one of three words that best describes their family’s financial status: weak, average, or strong. Those participants would explain their current financial situation and ask the interviewer what they should answer. Accordingly, the answer options were changed to define each word, and thus included: No private income (we depend on social welfare), Weak (there is a private income but we cannot live comfortably), Average (there is a private income and we live comfortably) and Strong (we currently possess abundant possessions and material wealth). This change provided clarity and improved respondents’ comprehension.

In addition, some participants did make suggestions of changing or adding specific words to improve understanding of two sociodemographic questions. These suggestions involved changing the phrasing of financial condition (الحالة المالية) to financial status (الوضع المالي) and changing the phrasing from residency status (حالة الإقامة) to type of residency (نوع الإقامة). These linguistic alternatives were more suitable in terms of their clarity and suitability for the given context.

During the cognitive interviews, the majority of participants acknowledged that the BRACE questionnaire effectively covered a wide range of experiences. However, one mother requested that child arrest be included as an additional adversity. Despite having minimal support during the qualitative phase of this project, the feedback from this participant highlighted the potential importance of the adversity. Literature was found to support incorporating child arrest [67], especially given that 36% of refugee children in Germany reported being imprisoned or abducted [175]. Considering these factors, question 21 was added to capture information about child arrest and improve the comprehensiveness of the BRACE questionnaire.

**Table 10:** Addition of a new BRACE question

Adversity Category	Questionnaire item	BRACE Question	Source
Community violence	Arrest of the child	Has your child been arrested, imprisoned, or captured by the police, military, or other government agencies?	Developed Question

Table 11 conveys the sociodemographic questions and the BRACE questionnaire after amendments from the cognitive interviews have been incorporated.

**Table 11:** Revised Sociodemographic Questions and BRACE Questionnaire in English and Arabic (used for pilot testing)

	<b>Sociodemographic information</b> To complete this questionnaire we would like you to answer all of the questions in relation to the same child. If you have more than one child under 18, please choose only one of them when answering the questions. Upon completing the questionnaire, you may start a new one to answer questions about another child.	معلومات ديمغرافية واجتماعية لإكمال هذا الاستبيان ، نود أن تجيب على جميع الأسئلة المتعلقة بنفس الطفل. إذا كان لديك أكثر من طفل واحد أقل من 18 عامًا ، فيرجى اختيار واحد منهم فقط عند الإجابة على الأسئلة. عند الانتهاء من الاستبيان ، يمكنك بدء استبيان جديد للإجابة على الأسئلة المتعلقة بطفل آخر.
1	Are you the child's <input type="checkbox"/> Mother <input type="checkbox"/> Father <input type="checkbox"/> Prefer not to answer <input type="checkbox"/> Other	ما هي علاقتك بالطفل <input type="checkbox"/> والدة الطفل <input type="checkbox"/> والد الطفل <input type="checkbox"/> افضل عدم الاجابة <input type="checkbox"/> غير ذلك
2	How old is your child?	كم يبلغ عمر طفلك؟
3	What is your child's gender? <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	ما هو جنس طفلك؟ <input type="checkbox"/> ذكر <input type="checkbox"/> أنثى <input type="checkbox"/> آخر
4	Does your child have physical or psychological health problems? <input type="checkbox"/> Yes (please enter in the comment box your child's health condition) <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل يعاني طفلك من مشاكل صحية جسدية أو نفسية؟ <input type="checkbox"/> نعم (الرجاء إدخال في مربع التعليق حالة طفلك الصحية) <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
5	In which country was your child born?	في أي بلد ولد طفلك؟
6	What is your child's nationality?	ما هي جنسية طفلك؟
7	Which city does your child currently live in?	في أي مدينة يقيم طفلك حاليًا؟
8	In which country did your child live in before they came to Germany?	في أي بلد كان يعيش طفلك قبل قدومه إلى ألمانيا؟
9	When did your child leave this country? (month/year)	متى غادر طفلك ذلك البلد؟ (الشهر، السنة)
10	Please name the countries your child has transited through during the asylum journey	يرجى تسمية البلدان التي مر بها طفلك أثناء رحلة اللجوء
11	When did your child arrive in Germany? (month/year)	متى وصل طفلك إلى ألمانيا؟ (الشهر، السنة)
12	How did your child come to Germany (mark all that apply)? <input type="checkbox"/> By airplane <input type="checkbox"/> By boat <input type="checkbox"/> Crossing borders by walking <input type="checkbox"/> Using land transport (for example: bus, train or car)	كيف وصل طفلك إلى ألمانيا؟ (ضع علامة على كل ما ينطبق) <input type="checkbox"/> بالطائرة <input type="checkbox"/> بالقارب <input type="checkbox"/> عبر الحدود مشياً <input type="checkbox"/> مستخدماً وسائل النقل البرية (مثال: الحافلة، القطار أو السيارة)
13	Did they apply for asylum in a country other than Germany? <input type="checkbox"/> Yes, they applied for asylum in: <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل تقدّم طفلك بطلب اللجوء في بلد ما غير ألمانيا؟ <input type="checkbox"/> نعم، قدّم طلب اللجوء في: <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
14	How much time did your child spend in refugee camps? (Number of months)	كم من الوقت قضى طفلك في مخيمات اللجوء؟ (عدد الأشهر)
15	How well would you rate your child's German language skills? <input type="checkbox"/> Very good	ما تقييمك لمهارات اللغة الألمانية لطفلك؟ <input type="checkbox"/> جيّد جداً <input type="checkbox"/> جيّد

	<input type="checkbox"/> Good <input type="checkbox"/> Mediocre <input type="checkbox"/> Weak <input type="checkbox"/> Not at all <input type="checkbox"/> Prefer not to answer	<input type="checkbox"/> متوسط <input type="checkbox"/> ضعيف <input type="checkbox"/> أبداً <input type="checkbox"/> افضل عدم الاجابة
16	<p>What type of residence does your child carry?</p> <input type="checkbox"/> No residence status <input type="checkbox"/> They have applied for asylum and have permission to stay <input type="checkbox"/> They have a temporary residence permit <input type="checkbox"/> They have a permanent residence permit <input type="checkbox"/> They are not in the asylum procedure ex: I have received a negative decision and have a "Duldung" (Tolerated Stay Permit) <input type="checkbox"/> Prefer not to answer	<p>ما نوع الإقامة التي يحملها طفلك؟</p> <input type="checkbox"/> لا يوجد إقامة <input type="checkbox"/> لقد طلبوا اللجوء ولديهم إذن بالبقاء <input type="checkbox"/> لديهم إقامة مؤقتة <input type="checkbox"/> لديهم إقامة دائمة <input type="checkbox"/> ليسوا في إجراءات اللجوء على سبيل المثال: لقد تلقيت قراراً سلبياً وحصلت على (تصريح الإقامة المتسامح) "Duldung" <input type="checkbox"/> افضل عدم الاجابة
	<p><b>Family information</b>  The following questions ask general information about you and the family the child lives with</p>	<p>معلومات عن العائلة  تطرح الأسئلة التالية معلومات عامة عنك وعن الأسرة التي يعيش معها الطفل</p>
17	<p>Where do you live?</p> <input type="checkbox"/> With the child <input type="checkbox"/> Another place in Germany <input type="checkbox"/> Another place in the European Union <input type="checkbox"/> Outside the European Union (but not home country) <input type="checkbox"/> Home country <input type="checkbox"/> Prefer not to answer	<p>أين تعيش؟</p> <input type="checkbox"/> مع الطفل <input type="checkbox"/> بمكان آخر في ألمانيا <input type="checkbox"/> بمكان آخر في الاتحاد الأوروبي <input type="checkbox"/> خارج الاتحاد الأوروبي (لكن ليس في البلد الأصل) <input type="checkbox"/> في البلد الأصل <input type="checkbox"/> افضل عدم الاجابة
18	<p>What is the highest degree or level of school you have completed? If currently enrolled, highest degree received</p> <input type="checkbox"/> I do not have a school degree <input type="checkbox"/> I have a school degree but less than a high school diploma <input type="checkbox"/> I have a high school degree or equivalent <input type="checkbox"/> Some college credit, no degree <input type="checkbox"/> Trade/technical/vocational training <input type="checkbox"/> Bachelor's degree <input type="checkbox"/> Master's degree <input type="checkbox"/> Professional degree <input type="checkbox"/> Doctorate degree <input type="checkbox"/> Prefer not to answer <input type="checkbox"/> I have another degree, namely: _____	<p>ما هي أعلى درجة أو مستوى دراسي أكملته؟ إذا كنت ملتحق حالياً ، فأعلى درجة حصلت عليها</p> <input type="checkbox"/> ليس لدي تأهيل دراسي <input type="checkbox"/> لدي شهادة مدرسية ولكن أقل من شهادة المدرسة الثانوية <input type="checkbox"/> لدي شهادة ثانوية أو ما يعادلها <input type="checkbox"/> التحق بالكلية بدون شهادة <input type="checkbox"/> التدريب التجاري / الفني / المهني <input type="checkbox"/> درجة البكالوريوس <input type="checkbox"/> ماجستير <input type="checkbox"/> درجة إحترافية <input type="checkbox"/> درجة الدكتوراه <input type="checkbox"/> افضل عدم الاجابة <input type="checkbox"/> لدي درجة أخرى ، وهي: _____
19	<p>Did you work in your home country?</p> <input type="checkbox"/> Yes (please enter your job in the comment box) <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	<p>هل عملت في بلدك الأصل؟</p> <input type="checkbox"/> نعم (الرجاء إدخال في مربع التعليق وظيفتك) <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
20	<p>Are you currently employed in Germany?</p> <input type="checkbox"/> Yes (please enter your job in the comment box) <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	<p>هل تعمل حالياً في ألمانيا؟</p> <input type="checkbox"/> نعم (الرجاء إدخال في مربع التعليق وظيفتك) <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
21		<p>أين يعيش زوجك / شريكك حالياً؟</p>



	Where does your spouse/partner currently live? <input type="checkbox"/> With your child <input type="checkbox"/> Another place in Germany <input type="checkbox"/> Another place in the European Union <input type="checkbox"/> Outside the European Union (but not home country) <input type="checkbox"/> Home country <input type="checkbox"/> Is Deceased <input type="checkbox"/> Prefer not to answer	<input type="checkbox"/> مع الطفل <input type="checkbox"/> بمكان آخر في ألمانيا <input type="checkbox"/> بمكان آخر في الاتحاد الأوروبي <input type="checkbox"/> خارج الاتحاد الأوروبي (لكن ليس في البلد الأصل) <input type="checkbox"/> في البلد الأصل <input type="checkbox"/> متوفي <input type="checkbox"/> افضل عدم الاجابة
22	Did your spouse/partner work in your home country? <input type="checkbox"/> Yes (Please enter in the comment box the job title) <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل عمل زوجك/ شريك حياتك في بلدك الأصل؟ <input type="checkbox"/> نعم (الرجاء إدخال في مربع التعليق اسم الوظيفة) <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
23	Is your spouse/partner currently employed in Germany? <input type="checkbox"/> Yes (Please enter in the comment box the job title) <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل يعمل زوجك/ شريك حياتك حالياً في ألمانيا؟ <input type="checkbox"/> نعم (الرجاء إدخال في مربع التعليق اسم الوظيفة) <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
24	Number of siblings that your child has that are alive:	عدد الأشقاء الذين على قيد الحياة لطفلك
25	Number of siblings that your child has that are deceased:	عدد الأشقاء المتوفين لدى طفلك
26	Number of siblings that your child has in Germany:	عدد الأشقاء لدى طفلك الذين يعيشون في ألمانيا
27	Number of siblings that your child has that are outside of Germany:	عدد الأشقاء لدى طفلك خارج ألمانيا
28	What type of accommodation does your child currently stay in? <input type="checkbox"/> Apartment / house (not shared) <input type="checkbox"/> Apartment / house (shared) <input type="checkbox"/> Camp (Container) <input type="checkbox"/> Camp (Tent) <input type="checkbox"/> Informal/Unofficial camp <input type="checkbox"/> Hotel <input type="checkbox"/> Homeless <input type="checkbox"/> Local authority care <input type="checkbox"/> Prefer not to answer <input type="checkbox"/> Other:	ما هو نوع السكن الذي يقيم فيه طفلك حالياً؟ <input type="checkbox"/> شقة / بيت (غير مشترك) <input type="checkbox"/> شقة / بيت (مشترك) <input type="checkbox"/> مخيم (مسبق الصنع) <input type="checkbox"/> مخيم (خيمة) <input type="checkbox"/> مخيم غير رسمي/ غير قانوني <input type="checkbox"/> فندق <input type="checkbox"/> بلا مأوى <input type="checkbox"/> برعاية السلطة المحلية <input type="checkbox"/> افضل عدم الاجابة <input type="checkbox"/> آخر:
29	How many people live in the same accommodation?	كم عدد الأشخاص الذين يسكنون في نفس السكن؟
30	How many bedrooms are there at this accommodation?	كم عدد غرف النوم في هذا السكن؟
31	Who pays the rent in your child's apartment/house? <input type="checkbox"/> No rent – Owned apartment / house <input type="checkbox"/> My friends / family / relatives pay the rent <input type="checkbox"/> No rent – Hosted for free by employer <input type="checkbox"/> I pay the rent <input type="checkbox"/> The state / municipality pays the rent <input type="checkbox"/> NGOs / charities / civil society organisations pay the rent <input type="checkbox"/> Other:	من الذي يدفع إيجار أو تكاليف السكن لطفلك؟ <input type="checkbox"/> لا يوجد إيجار – أمتلك شقة \ منزل <input type="checkbox"/> أصدقائي \ عائلتي \ أقربائي يدفعون الإيجار <input type="checkbox"/> لا يوجد إيجار- صاحب العمل يستضيفني مجاناً <input type="checkbox"/> أنا أدفع الإيجار <input type="checkbox"/> الدولة او البلدية تدفع الإيجار <input type="checkbox"/> عن طريق منظمات غير حكومية – جمعيات خيرية <input type="checkbox"/> – منظمات المجتمع المدني <input type="checkbox"/> آخر:

32	Please choose one of the following that best describes your family's financial status. <input type="checkbox"/> No private income (we depend on social welfare) <input type="checkbox"/> Weak (there is a private income but we cannot live comfortably) <input type="checkbox"/> Average (there is a private income and we live comfortably) <input type="checkbox"/> Strong (we currently possess abundant possessions and material wealth) <input type="checkbox"/> Prefer not to answer	يُرجى اختيار أحد الخيارات التالية التي تصف الوضع المالي لعائلتك على أفضل وجه <input type="checkbox"/> لا يوجد دخل خاص (نعتمد على الرعاية الاجتماعية) <input type="checkbox"/> ضعيف (يوجد دخل خاص ولكن لا يمكننا العيش بشكل مريح) <input type="checkbox"/> متوسط (يوجد دخل خاص ونعيش بشكل مريح) <input type="checkbox"/> قوي (نمتلك حاليًا ممتلكات وفيرة وثروة مادية) <input type="checkbox"/> افضل عدم الاجابة
33	Which language do you speak with your child?	ما اللغة التي تتحدث بها مع طفلك؟
#	<b>BRACE Questionnaire in English</b>	<b>BRACE Questionnaire in Arabic</b>
	<b>Family factors</b>	<b>عوامل أسرية</b>
	Children in many parts of the world have been exposed to violence, bad treatment or stressful events from within the home. This is an important problem for children in all parts of the world. These next questions are about certain things your child may actually have heard or seen in your home.	قد يتعرض الأطفال في أنحاء كثيرة من العالم للعنف أو المعاملة السيئة أو ضغوطات أحداث بداخل المنزل. هذه من أهم المشاكل التي تتعلق بالأطفال في جميع أنحاء العالم.
1	Parental drug use	أحد الوالدين يتعاطى المخدرات
	Did your child live with anyone who was a problem drinker, alcoholic, or used street drugs? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل عاش طفلك مع شخص كان لديه مشكلة إدمان الخمر أو المخدرات؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
2	Arrest of a family member	اعتقال أحد أفراد الأسرة
	Has your child ever known or seen a family member arrested, jailed, imprisoned, or taken away by police, soldiers, or other authorities? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق لطفلك أن شاهد أو رأى أحدا من أفراد الأسرة يعتقل أو يسجن أو يؤخذ من قبل الشرطة أو الجيش أو جهات حكومية أخرى؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية

3	Domestic violence	العنف المنزلي
	Has <b>any adult</b> in your home ever slapped, hit, kicked, punched, or beat the other up? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل قام من قبل أي شخص راشد في المنزل بصفع أو ضرب أو ركل أو لكم أو ضرب الآخر؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
4	Emotional abuse	الإساءة العاطفية
	Does <b>a parent or other adult</b> in your home regularly swear at your child, insult your child, or put your child down? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل يقوم أحد الوالدين أو شخص راشد آخر في منزلك يشتم طفلك باستمرار، أو يهينه، أو يجعله محبطا؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
5	Physical abuse	الاعتداء الجسدي
	Has <b>a parent or other adult</b> in your household ever hit, beat, kicked, or physically hurt your child in any way? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل قام أحد الوالدين أو شخص راشد آخر في منزلك بصدم طفلك أو ضربه أو ركله أو إيذائه جسدياً بأي شكل؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
6	Neglect	الإهمال
	Has your child ever been through a period when he was <b>intentionally</b> not receiving the necessary care? For example: a parent / guardian did not provide your child with enough food, or someone did not take your child to the doctor when he was sick, or you were not sure that your child stays in a safe place <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق ومر طفلك بفترة كان يفتقر فيها إلى الرعاية اللازمة عمدا عن قصد؟ على سبيل المثال: لم يقدم أحد الوالدين / ولي أمر لطفلك ما يكفي من الطعام، أو لم يأخذ أحد طفلك إلى الطبيب عندما كان مريضا، أو لم تكن متأكد من أن طفلك يبقى في مكان امن <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية

7	Parental separation or divorce	انفصال الوالدين أو الطلاق
	Was there a major upheaval between you and your spouse/partner (such as divorce, separation)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل كان هناك اضطراب كبير بينك وبين زوجك / شريكك (مثل الطلاق أو الانفصال)؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
8	Parent's distress/helplessness	محنة أو عجز الوالدين
	Does a parent or other adult in your home regularly feel stressed or helpless? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل يشعر أحد الوالدين أو شخص آخر راشد في منزلك بالتوتر أو العجز بشكل متكرر؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
9	Parent's mental health	الصحة النفسية للوالدين
	Was a household member depressed or mentally ill for a long period of time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل كان أحد أفراد الأسرة مكتئبًا أو مريضًا نفسيًا لفترة طويلة؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
10	Parent missing	فقد أحد الوالدين
	Did a parent or someone who takes care of your child ever have to leave, he or she had to be away for several months or longer, or your child has never seen them again? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل اضطر أحد الوالدين أو أي شخص يعتني بطفلك للغيب، أي اضطر إلى المغادرة لعدة أشهر أو أكثر، أو أن طفلك لم يرهما مرة أخرى؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية

11	Separation from family/family dispersion	الانفصال عن الأسرة / تشتت الأسرة
	Was your child ever completely separated from their parent(s) or sibling(s) for a long time, when they were living apart from each other (or in a separate city/country)? <input type="checkbox"/> Yes <input type="checkbox"/> No	هل سبق وكان طفلك بعيد عن أحد والديه أو أخوته لفترة طويلة؟ عندما كانوا يعيشون منفصلين عن بعض ( في مدينة أو بلد آخر)؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
12	Parental unemployment	البطالة عند الوالدين
	Have there ever been any times when a parent or guardian lost a job or could not find work? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل كان هناك وقت فقد فيه أحد الوالدين أو ولي أمر وظيفة أو لم يتمكن من العثور على عمل؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
13	Financial difficulties	صعوبات مالية
	Were there times when your family didn't have enough money for food or rent or other things it needs? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل كان هناك وقت لم يكن لدى عائلتك ما يكفي من المال للطعام أو الإيجار أو الأشياء الأخرى الأساسية؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
14	Death of a loved one	وفاة شخص مقرب
	Did your child experience a death of a very close friend or family member? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل عانى طفلك من وفاة صديق مقرب أو أحد أفراد الأسرة؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
	<b>Community and societal factors</b>	عوامل من المجتمع
	These next questions are about experiences your child may have seen, heard or lived through in their neighbourhood or community	الأسئلة التالية تتعلق بالتجارب التي قد يشاهدها طفلك أو يسمعها أو يعيشها في الحي أو المجتمع (ليس في المنزل أو في التلفزيون أو الأفلام أو الراديو)

	(not in the home or on TV, movies, or the radio).	
15	War	حرب
	Has your child ever been directly exposed to war, armed conflict or terrorism? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق تعرض طفلك مباشرة في مكان حرب أو صراع مسلح أو إرهاب؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
16	Destruction	تدمير
	Was your child ever in a disaster when the building they were in such as the home, school or hospital was destroyed and was no longer safe to be in? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق وكان طفلك في كارثة عندما تدمر المبنى الذي كانوا فيه مثل المبنى الذي تعيشون فيه أو المدرسة أو المشفى ولم يعد آمنا للبقاء فيه؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
17	Presence of militant group	وجود جماعة مسلحة
	Did your child ever live in a place that was under the control of a military like group/terrorists <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق وعاش طفلك يوما ما في مكان تحت سيطرة مجموعات مسلحة أو إرهابية؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
18	Robbery	سرقة
	Has someone ever stolen or tried to steal your child's or family member's possessions? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق أن أحد ما سرق أو حاول أن يسرق ممتلكات طفلك أو ممتلكات أحد أفراد الأسرة؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية

19	Kidnapping	خطف
	Has someone ever kidnapped your child? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل قام أحد ما ذات مرة باختطاف طفلك؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
20	Sexual abuse	الاعتداء الجنسي
	Has any older person ever touched your child sexually against their wishes or forced your child to touch them sexually? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل حاول من قبل شخص أكبر سنا لمس طفلك جنسيا ضد رغبته أو أجبره على لمسه جنسيا؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
21	Arrest of the child	اعتقال الطفل
	Has your child been arrested, imprisoned, or captured by the police, military, or other government agencies? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل تم القبض على طفلك أو سجنه أو أسره من قبل الشرطة أو الجيش أو غيرها من الوكالات الحكومية؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
22	Shootings, bombs and riots	تجربة التفجير أو القصف أو الرصاص أو الغاز المسيل للدموع
	Was your child in a place in real life where they could see or hear people being shot, bombs going off, or street riots? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل كان طفلك في مكان حيث كان بإمكانه رؤية أو سماع أشخاص يتعرضون لإطلاق النار، أو انفجارات قنابل، أو أعمال شغب في الشوارع؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> افضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟ <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
	If yes, how many times has this ever happened to your child? <input type="checkbox"/> Once <input type="checkbox"/> A few times <input type="checkbox"/> Occasionally <input type="checkbox"/> Many times	إذا كانت الإجابة نعم، فكم مرة حدث هذا لطفلك؟ <input type="checkbox"/> مرة واحدة <input type="checkbox"/> بضع مرات <input type="checkbox"/> مرات عديدة <input type="checkbox"/> كثير من الأحيان



23	Physical harm to the child	الاعتداء الجسدي للطفل
	Has someone ever hit your child on purpose?  With or without a weapon (such as sticks, rocks, guns, knives, or other things that might hurt)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق وأن قام شخص ما بضرب طفلك عن قصد مع أو بدون سلاح (مثل العصي أو الصخور أو البنادق أو السكاكين أو الأشياء الأخرى التي قد تؤذي)? <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر? <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
	If yes, how many times has this ever happened to your child? <input type="checkbox"/> Once <input type="checkbox"/> A few times <input type="checkbox"/> Occasionally <input type="checkbox"/> Many times	إذا كانت الإجابة نعم، فكم مرة حدث هذا لطفلك? <input type="checkbox"/> مرة واحدة <input type="checkbox"/> بضع مرات <input type="checkbox"/> مرات عديدة <input type="checkbox"/> كثير من الأحيان
24	Physical harm to loved one	الاعتداء الجسدي على شخص مقرب
	Has your child ever seen or heard a family member being hit, punched, kicked very hard or killed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق لطفلك أن رأى أو سمع أحد أفراد الأسرة يتعرض للضرب واللكم والركل بقوة أو القتل? <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر? <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية
	If yes, how many times has this ever happened to your child? <input type="checkbox"/> Once <input type="checkbox"/> A few times <input type="checkbox"/> Occasionally <input type="checkbox"/> Many times	إذا كانت الإجابة نعم، فكم مرة شاهد أو سمع طفلك ذلك? <input type="checkbox"/> مرة واحدة <input type="checkbox"/> بضع مرات <input type="checkbox"/> مرات عديدة <input type="checkbox"/> كثير من الأحيان
25	Police/soldier brutality	وحشية الشرطي أو العسكري
	Has your child ever seen someone being hit, pushed or threatened wrongfully by a police officer or soldier? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل سبق وأن رأى طفلك شخصا ما يتعرض للضرب أو التهديد أو الدفع بشكل غير عادل من قبل رجال الشرطة أو الجيش? <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how traumatic was this for your child? <input type="checkbox"/> Not at all traumatic <input type="checkbox"/> Somewhat traumatic <input type="checkbox"/> Traumatic <input type="checkbox"/> Extremely traumatic	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر? <input type="checkbox"/> لم يكن صادما على الإطلاق <input type="checkbox"/> صادم نوعا ما <input type="checkbox"/> صادم <input type="checkbox"/> صادم للغاية



	<p>If yes, how many times has this ever happened to your child?</p> <p><input type="checkbox"/> Once</p> <p><input type="checkbox"/> A few times</p> <p><input type="checkbox"/> Occasionally</p> <p><input type="checkbox"/> Many times</p>	<p>إذا كانت الإجابة نعم ، فكم مرة حدث هذا لطفلك؟</p> <p><input type="checkbox"/> مرة واحدة</p> <p><input type="checkbox"/> بضع مرات</p> <p><input type="checkbox"/> مرات عديدة</p> <p><input type="checkbox"/> كثير من الأحيان</p>
26	Witness fighting/killing	مشاهدة قتال / قتل
	<p>Has your child ever seen someone in your neighbourhood be beaten up, shot at or killed?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Prefer not to answer</p>	<p>هل سبق لطفلك أن رأى شخصًا في منطقتك يتعرض للضرب أو إطلاق النار عليه أو قتله؟</p> <p><input type="checkbox"/> نعم</p> <p><input type="checkbox"/> لا</p> <p><input type="checkbox"/> أفضل عدم الاجابة</p>
	<p>If yes, how traumatic was this for your child?</p> <p><input type="checkbox"/> Not at all traumatic</p> <p><input type="checkbox"/> Somewhat traumatic</p> <p><input type="checkbox"/> Traumatic</p> <p><input type="checkbox"/> Extremely traumatic</p>	<p>إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟</p> <p><input type="checkbox"/> لم يكن صادما على الإطلاق</p> <p><input type="checkbox"/> صادم نوعا ما</p> <p><input type="checkbox"/> صادم</p> <p><input type="checkbox"/> صادم للغاية</p>
	<p>If yes, how many times has this ever happened to your child?</p> <p><input type="checkbox"/> Once</p> <p><input type="checkbox"/> A few times</p> <p><input type="checkbox"/> Occasionally</p> <p><input type="checkbox"/> Many times</p>	<p>إذا كانت الإجابة نعم ، فكم مرة حدث هذا لطفلك؟</p> <p><input type="checkbox"/> مرة واحدة</p> <p><input type="checkbox"/> بضع مرات</p> <p><input type="checkbox"/> مرات عديدة</p> <p><input type="checkbox"/> كثير من الأحيان</p>
27	Discrimination	التمييز
	<p>Was your child hit or attacked because of their skin colour, religion, or where their family comes from? Or because of a physical problem they have?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Prefer not to answer</p>	<p>هل تعرض طفلك للضرب أو الاعتداء بسبب لون بشرته أو دينه أو أصول عائلته؟ أو بسبب مشكلة جسدية لديهم؟</p> <p><input type="checkbox"/> نعم</p> <p><input type="checkbox"/> لا</p> <p><input type="checkbox"/> أفضل عدم الاجابة</p>
	<p>If yes, how traumatic was this for your child?</p> <p><input type="checkbox"/> Not at all traumatic</p> <p><input type="checkbox"/> Somewhat traumatic</p> <p><input type="checkbox"/> Traumatic</p> <p><input type="checkbox"/> Extremely traumatic</p>	<p>إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟</p> <p><input type="checkbox"/> لم يكن صادما على الإطلاق</p> <p><input type="checkbox"/> صادم نوعا ما</p> <p><input type="checkbox"/> صادم</p> <p><input type="checkbox"/> صادم للغاية</p>
	<p>If yes, how many times has this ever happened to your child?</p> <p><input type="checkbox"/> Once</p> <p><input type="checkbox"/> A few times</p> <p><input type="checkbox"/> Occasionally</p> <p><input type="checkbox"/> Many times</p>	<p>إذا كانت الإجابة نعم ، فكم مرة حدث هذا لطفلك؟</p> <p><input type="checkbox"/> مرة واحدة</p> <p><input type="checkbox"/> بضع مرات</p> <p><input type="checkbox"/> مرات عديدة</p> <p><input type="checkbox"/> كثير من الأحيان</p>
28	Bullying	التنمر
	<p>Did any kids pick on your child by chasing your child or grabbing their hair or clothes, make them do something they didn't want to do, call them names, say mean things to them, or say they didn't want them around?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Prefer not to answer</p>	<p>هل قام أي طفل بالترصد لطفلك عن طريق مطاردة طفلك أو الإمساك بشعره أو ملابسه ، أو جعله يفعل شيئًا لا يريد القيام به ، أو يطلق عليه ألقاب ، أو يقول أشياء بغیضة له ، أو يقول إنه لا يريده في الجوار؟</p> <p><input type="checkbox"/> نعم</p> <p><input type="checkbox"/> لا</p> <p><input type="checkbox"/> أفضل عدم الاجابة</p>

	<p>If yes, how traumatic was this for your child?</p> <p><input type="checkbox"/> Not at all traumatic</p> <p><input type="checkbox"/> Somewhat traumatic</p> <p><input type="checkbox"/> Traumatic</p> <p><input type="checkbox"/> Extremely traumatic</p>	<p>إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟</p> <p><input type="checkbox"/> لم يكن صادما على الإطلاق</p> <p><input type="checkbox"/> صادم نوعا ما</p> <p><input type="checkbox"/> صادم</p> <p><input type="checkbox"/> صادم للغاية</p>
	<p>If yes, how many times has this ever happened to your child?</p> <p><input type="checkbox"/> Once</p> <p><input type="checkbox"/> A few times</p> <p><input type="checkbox"/> Occasionally</p> <p><input type="checkbox"/> Many times</p>	<p>إذا كانت الإجابة نعم، فكم مرة حدث هذا لطفلك؟</p> <p><input type="checkbox"/> مرة واحدة</p> <p><input type="checkbox"/> بضع مرات</p> <p><input type="checkbox"/> مرات عديدة</p> <p><input type="checkbox"/> كثير من الأحيان</p>
29	Forced relocation	نقل قسري
	<p>Has your family ever had to permanently leave their home?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Prefer not to answer</p>	<p>هل اضطرت عائلتك لمغادرة منزلها بشكل دائم؟</p> <p><input type="checkbox"/> نعم</p> <p><input type="checkbox"/> لا</p> <p><input type="checkbox"/> افضل عدم الاجابة</p>
	<p>If yes, how stressful was this for your child?</p> <p><input type="checkbox"/> Not at all stressful</p> <p><input type="checkbox"/> Somewhat stressful</p> <p><input type="checkbox"/> Stressful</p> <p><input type="checkbox"/> Extremely stressful</p>	<p>إذا كانت الإجابة نعم، فكم كان هذا عصبيا لطفلك؟</p> <p><input type="checkbox"/> لم يكن عصبيا على الإطلاق</p> <p><input type="checkbox"/> عصبيا نوعا ما</p> <p><input type="checkbox"/> عصبيا</p> <p><input type="checkbox"/> عصبيا للغاية</p>
30	Multiple relocations	عمليات تنقل متعددة
	<p>Since the unrest started, how many times did your child have to live in a new place?</p> <p><input type="checkbox"/> 1 to 2 times</p> <p><input type="checkbox"/> 3 to 5 times</p> <p><input type="checkbox"/> 6 to 10 times</p> <p><input type="checkbox"/> More than 10 times</p>	<p>منذ بدء الاضطرابات، كم مرة اضطرت طفلك للعيش في مكان جديد؟</p> <p><input type="checkbox"/> مرة الى مرتين</p> <p><input type="checkbox"/> ثلاث الى خمس مرات</p> <p><input type="checkbox"/> ست الى عشرة مرات</p> <p><input type="checkbox"/> أكثر من عشرة مرات</p>
	<p>How stressful was this?</p> <p><input type="checkbox"/> Not at all stressful</p> <p><input type="checkbox"/> Somewhat stressful</p> <p><input type="checkbox"/> Stressful</p> <p><input type="checkbox"/> Extremely stressful</p>	<p>كم كان ذلك عصبيا لطفلك؟</p> <p><input type="checkbox"/> لم يكن عصبيا على الإطلاق</p> <p><input type="checkbox"/> عصبيا نوعا ما</p> <p><input type="checkbox"/> عصبيا</p> <p><input type="checkbox"/> عصبيا للغاية</p>
31	Interruption of education	انقطاع التعليم
	<p>Were there long periods of time when your child was not able to attend school?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Prefer not to answer</p>	<p>هل كانت هناك فترات طويلة لم يتمكن فيها طفلك من الذهاب إلى المدرسة؟</p> <p><input type="checkbox"/> نعم</p> <p><input type="checkbox"/> لا</p> <p><input type="checkbox"/> افضل عدم الاجابة</p>
	<p>If yes, how long (in total) was their education interrupted?</p> <p><input type="checkbox"/> 1 or 2 months</p> <p><input type="checkbox"/> 3 to 5 months</p> <p><input type="checkbox"/> 6 to 12 months</p> <p><input type="checkbox"/> More than 12 months</p>	<p>إذا كانت الإجابة نعم، فكم من الوقت (إجمالي) توقف تعليمهم؟</p> <p><input type="checkbox"/> شهر أو شهرين</p> <p><input type="checkbox"/> 3 إلى 5 شهور</p> <p><input type="checkbox"/> 6 إلى 12 شهرًا</p> <p><input type="checkbox"/> أكثر من 12 شهر</p>
	<p>If yes, how stressful was this for your child?</p> <p><input type="checkbox"/> Not at all stressful</p> <p><input type="checkbox"/> Somewhat stressful</p> <p><input type="checkbox"/> Stressful</p> <p><input type="checkbox"/> Extremely stressful</p>	<p>إذا كانت الإجابة نعم، فكم كان هذا عصبيا لطفلك؟</p> <p><input type="checkbox"/> لم يكن عصبيا على الإطلاق</p> <p><input type="checkbox"/> عصبيا نوعا ما</p> <p><input type="checkbox"/> عصبيا</p> <p><input type="checkbox"/> عصبيا للغاية</p>

32	Inadequate shelter	مأوى غير مناسب
	Was there ever a time in your child's life when their family had to live on the street, in the forest or in a camp because they had no place to stay? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل كان هناك وقت في حياة طفلك عندما كان على عائلته أن تعيش في الشوارع أو في الغابة أو في المخيم لأنه لم يكن لديهم مكان للإقامة؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how stressful was this? <input type="checkbox"/> Not at all stressful <input type="checkbox"/> Somewhat stressful <input type="checkbox"/> Stressful <input type="checkbox"/> Extremely stressful	إذا كانت الإجابة نعم، كم كان ذلك عصبيا لطفلك؟ <input type="checkbox"/> لم يكن عصبيا على الإطلاق <input type="checkbox"/> عصبيا نوعا ما <input type="checkbox"/> عصبيا <input type="checkbox"/> عصبيا للغاية
33	Dangerous travel route	طريق سفر خطر
	Would you consider the route your child took to reach Germany to be dangerous? (ex. there was a high risk of drowning, being robbed, dehydrating, they were shot at, or chased while crossing a boarder) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل تعتقد أن الطريق الذي سلكه طفلك للوصول إلى ألمانيا خطراً؟ (على سبيل المثال، كانت هناك مخاطر كبيرة كالتعرض للغرق أو السرقة أو الجفاف أو إطلاق النار عليهم أو مطاردتهم أثناء عبور الحدود) <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how stressful was this? <input type="checkbox"/> Not at all stressful <input type="checkbox"/> Somewhat stressful <input type="checkbox"/> Stressful <input type="checkbox"/> Extremely stressful	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟ <input type="checkbox"/> لم يكن عصبيا على الإطلاق <input type="checkbox"/> عصبيا نوعا ما <input type="checkbox"/> عصبيا <input type="checkbox"/> عصبيا للغاية
34	Physical injuries, infection and diseases	إصابات جسدية، عدوى، أمراض
	Was your child ever badly hurt or sick where you thought medical treatment is necessary? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل أصيب طفلك بأذى شديد أو مرض في أي وقت مضى حيث كنت تعتقد أن العلاج الطبي ضروري؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how stressful was this? <input type="checkbox"/> Not at all stressful <input type="checkbox"/> Somewhat stressful <input type="checkbox"/> Stressful <input type="checkbox"/> Extremely stressful	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟ <input type="checkbox"/> لم يكن عصبيا على الإطلاق <input type="checkbox"/> عصبيا نوعا ما <input type="checkbox"/> عصبيا <input type="checkbox"/> عصبيا للغاية
35	Immigration detention	احتجاز المهاجرين
	Upon arriving to a new country was your child detained and/or separated from their family? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	عند الوصول إلى بلد جديد، هل تم احتجاز طفلك و / أو انفصاله عن عائلته؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how stressful was this? <input type="checkbox"/> Not at all stressful <input type="checkbox"/> Somewhat stressful <input type="checkbox"/> Stressful <input type="checkbox"/> Extremely stressful	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟ <input type="checkbox"/> لم يكن عصبيا على الإطلاق <input type="checkbox"/> عصبيا نوعا ما <input type="checkbox"/> عصبيا <input type="checkbox"/> عصبيا للغاية

36	Asylum application Delay	تأجيل طلب اللجوء
	Were their delays in processing of your child's refugee application or they were not informed about progress of their refugee application for a long time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل كانت هناك تأخيرات أو فترة طويلة لمعالجة طلب اللجوء الخاص بطفلك أو لم يتم إبلاغهم بتطورات طلب اللجوء الخاص بهم لفترة طويلة؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how stressful was this? <input type="checkbox"/> Not at all stressful <input type="checkbox"/> Somewhat stressful <input type="checkbox"/> Stressful <input type="checkbox"/> Extremely stressful	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟ <input type="checkbox"/> لم يكن عصبيا على الإطلاق <input type="checkbox"/> عصبيا نوعا ما <input type="checkbox"/> عصبيا <input type="checkbox"/> عصبيا للغاية
37	Insecurity about refugee status	انعدام الأمن بشأن وضع اللاجئين
	Are you fearful that your child's refugee status might become revoked or that your child's residence permit might not be renewed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل يخاف طفلك من أن يلغى وضع اللجوء أو أن تصريح إقامة طفلك قد لا يتم تجديده؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how stressful was this? <input type="checkbox"/> Not at all stressful <input type="checkbox"/> Somewhat stressful <input type="checkbox"/> Stressful <input type="checkbox"/> Extremely stressful	إذا كانت الإجابة نعم، كم تعد هذا عصبيا لطفلك؟ <input type="checkbox"/> لم يكن عصبيا على الإطلاق <input type="checkbox"/> عصبيا نوعا ما <input type="checkbox"/> عصبيا <input type="checkbox"/> عصبيا للغاية
38	Forced repatriation	إعادة التهجير
	Is your child fearful of being sent back to their country of origin? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	هل يخاف طفلك من إعادته إلى بلده الأصلي؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	If yes, how stressful was this? <input type="checkbox"/> Not at all stressful <input type="checkbox"/> Somewhat stressful <input type="checkbox"/> Stressful <input type="checkbox"/> Extremely stressful	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟ <input type="checkbox"/> لم يكن عصبيا على الإطلاق <input type="checkbox"/> عصبيا نوعا ما <input type="checkbox"/> عصبيا <input type="checkbox"/> عصبيا للغاية
<b>Integrating into the community</b>		<b>الاندماج في المجتمع</b>
In the next section, you will be asked questions that measure your child's sense of belonging/ connection they feel from the community as well as the degree of support they perceive.		في القسم التالي ، ستطرح عليك أسئلة تقيس إحساس طفلك بالانتماء / الاتصال الذي يشعر به من المجتمع وكذلك درجة الدعم التي يتصورها.
39	Family reunification	لم شمل العائلة
	All of my child's immediate living family members (parents and single/unmarried siblings) are living with us in Germany <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	جميع أفراد عائلة طفلي المباشرة الذين على قيد الحياة (الآباء والأشقاء العازبون / غير المتزوجين) يعيشون معنا في ألمانيا <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	The presence of your immediate family is important to your child. <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all	وجود العائلة المباشرة هو شيء مهم بالنسبة لطفلك. <input type="checkbox"/> دائما صحيح <input type="checkbox"/> عادة صحيح <input type="checkbox"/> عادة ليس صحيحا <input type="checkbox"/> ليس صحيحا على الإطلاق

40	Presence of relatives	تواجد أفراد آخرين من العائلة.
	We have relatives other than my child's immediate family members living in Germany <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to answer	لدينا أقارب غير أفراد عائلة طفلي المباشرة يعيشون في ألمانيا <input type="checkbox"/> نعم <input type="checkbox"/> لا <input type="checkbox"/> أفضل عدم الاجابة
	Are you in contact with your relatives living in Germany? <input type="checkbox"/> Yes <input type="checkbox"/> No	هل أنتم على اتصال بأقاربك الذين يعيشون في ألمانيا؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا
	The presence of their relatives is important and helps your child get along <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all	إن وجود أقاربهم مهم ويساعد طفلك على التوافق <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق
41	Sense of belonging	الشعور بالانتماء
	Your child identifies with the community and feel like the community is their own. <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	ارتبط طفلك مع المجتمع ويشعر بأن المجتمع خاص به <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
42	Family support	الدعم الأسري
	There are family members your child can rely on when he encounters problems <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	هناك أفراد في الأسرة الذين يمكن لطفلك الاعتماد عليهم عندما يواجه مشاكل <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
43	Community support	الدعم
	There are plenty of people your child can rely on when they have problems  (For example: teachers, neighbours, or classmates) <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	هناك الكثير من الأشخاص الذين يمكن لطفلك الاعتماد عليهم عندما يواجه مشاكل  (على سبيل المثال: المعلمون أو الجيران أو زملاء الدراسة) <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
44	Having friendships	تكوين الصداقات
	Your child has really good friends that make them feel good <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	لدى طفلك حقاً أصدقاء جيدين وهذا يمنحهم بشعور جيد. <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة

45	Community connection	العزل الاجتماعي
	There are enough people your child feels close to in Germany <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	هناك ما يكفي من الأشخاص الذين يشعر طفلك بالقرب منهم في ألمانيا <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
46	Loss of community	فقدان المجتمع
	Your child misses the pleasure of the company of others <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	يفتقد طفلك متعة صحبة الآخرين <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
47	Fitting in with other children	
	Your child's circle of friends and acquaintances is too limited <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	دائرة أصدقاء ومعارف طفلي محدودة للغاية <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
48	Cultural differences	الاختلاف الثقافي
	Your child is having difficulties adjusting to cultural life in Germany (values, beliefs, traditions, etc.) <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	يواجه طفلك صعوبات في التكيف مع الحياة الثقافية في ألمانيا (القيم والمعتقدات والتقاليد وما إلى ذلك) <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
49	Language difficulties	صعوبات لغوية
	Your child has difficulties communicating in German? <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	يعاني طفلك من صعوبة التواصل باللغة الألمانية <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة
50	Parent language difficulty	صعوبة اللغة للوالد
	The German language has been a barrier for you to support your child  For example: the inability to communicate with your child's teacher <input type="checkbox"/> Always true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Usually not true <input type="checkbox"/> Not true at all <input type="checkbox"/> Prefer not to answer	شكلت اللغة الالمانية عائقا لك في دعم طفلك  على سبيل المثال: عدم القدرة على التواصل مع معلم طفلك <input type="checkbox"/> دائمًا صحيح <input type="checkbox"/> عادةً صحيح <input type="checkbox"/> عادةً ليس صحيحًا <input type="checkbox"/> ليس صحيحًا على الإطلاق <input type="checkbox"/> أفضل عدم الاجابة

51	Social security rights	حقوق الضمان الاجتماعي
	Your family has difficulty obtaining welfare (government) assistance, obtaining appropriate accommodation, or accessing medical care when needed?	تواجه عائلتك صعوبات في الحصول على المساعدات الحكومية أو الحصول على سكن مناسب أو الحصول على الرعاية الطبية عند الحاجة
	<input type="checkbox"/> Always true	<input type="checkbox"/> دائماً صحيح
	<input type="checkbox"/> Sometimes true	<input type="checkbox"/> عادةً صحيح
	<input type="checkbox"/> Usually not true	<input type="checkbox"/> عادةً ليس صحيحاً
	<input type="checkbox"/> Not true at all	<input type="checkbox"/> ليس صحيحاً على الإطلاق
	<input type="checkbox"/> Prefer not to answer	<input type="checkbox"/> أفضل عدم الاجابة

### 3.3.3 Preliminary pilot testing

#### 3.3.3.1 Data set and sample characteristics

In this study, 522 individuals accessed the survey link. Among them, 383 provided consent to participate gaining authorisation to begin the survey. After not meeting the eligibility requirements, 39 people were automatically directed to the survey's final page. While responding to demographic questions 163 participants closed the survey and another 6 closed while responding to the SDQ; these participants were excluded from this analysis as they did not start answering the BRACE questionnaire (demographic information for the full data set can be found in Appendix 10). The remaining 175 participants started answering the BRACE questionnaire. Out of those, 23 did not complete the survey, yielding an analytical sample of 152.

Demographic characteristics of the analytical sample are displayed in Table 12. The analytical sample consisted of 75% mothers and 21% fathers of whom 11% had no school degree, 46% some school/college/vocational education and 43% reported having a bachelor's degree or higher. Guardians generally stated that Arabic was the primary language used at home (53%), while some also mentioned Kurdish, German, and/or English; eight percent did not include Arabic in their responses.

Guardians were responding on behalf of their children, 42% of whom were male and 56% were female and were in the following age groups: 15% were under five, 43% were between the ages of six and ten, 25% were between 11 and 15 years old and 5% were 16 or older. The majority of the children did not have a physical or mental disability (80%), had been in refugee camps for 6 months or less (64%), were born in Syria

(55%) and had the Syrian nationality (76%), with the remainder from neighbouring Arab countries.

Participants reported arriving to Germany between 2009 and 2021, with most people arriving between 2014 and 2017; notably, 2015 was the most prevalent. The majority of parents reported that their child has a temporary residence permit, lives in an unshared apartment, and rated their child's German proficiency as good/very good.

**Table 12:** Characteristics of participants (n=152)

<b>Characteristics</b>	
<b>Guardian responding, n (%)</b>	
Mother	114 (75%)
Father	32 (21%)
Other	5 (3%)
Missing	1 (1%)
<b>Guardian's educational level, n (%)</b>	
No school degree	16 (11%)
Less than a high school diploma	12 (8%)
High school degree or equivalent	22 (14%)
Some college credit, no degree	21 (14%)
Vocational training	10 (7%)
Bachelor's degree	47 (31%)
Master's degree	15 (10%)
Doctorate degree	2 (1%)
Other	4 (3%)
Missing	3 (2%)
<b>Child gender, n (%)</b>	
Female	85 (56%)
Male	64 (42%)
Missing	3 (2%)
<b>Child age, n (%)</b>	
n, mean (SD) <sup>a</sup>	134, 9 (3.6)
≤ 5 yrs	23 (15%)
6 yrs - 10 yrs	66 (43%)
11 yrs - 15 yrs	38 (25%)
≥ 16 yrs	7 (5%)
Missing	18 (12%)
<b>Child has a mental/physical disability, n (%)</b>	
Yes	25 (16%)
No	121 (80%)
Missing	6 (4%)



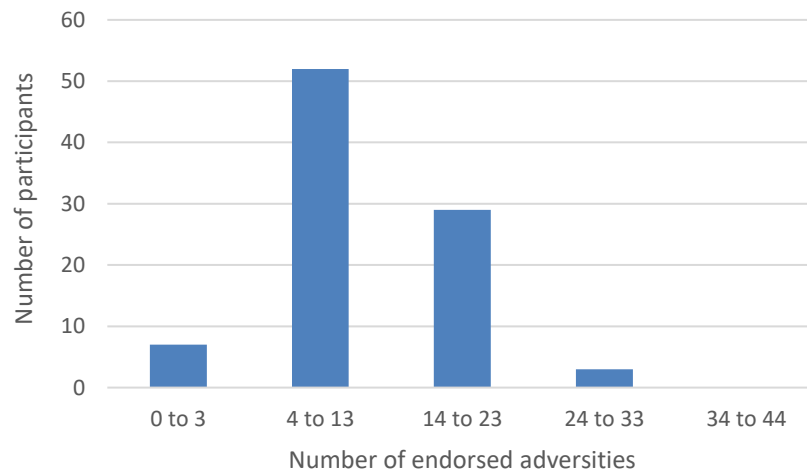
<b>Child's birth place</b>	
Syria	84 (55%)
Germany	24 (16%)
Turkey	8 (5%)
Lebanon	5 (3%)
Iraq	3 (2%)
Jordan	3 (2%)
United Arab Emirates	3 (2%)
Egypt	2 (1%)
Palestine	1 (1%)
Armenia	1 (1%)
Missing	18 (12%)
<b>Child's nationality, n (%)</b>	
Syrian	116 (76%)
Palestinian	9 (6%)
Jordanian	1 (1%)
Iraqi	4 (3%)
Other	5 (3%)
Missing	17 (11%)
<b>Length of stay in Germany (years ), n (%)</b>	
n, mean (SD) <sup>a</sup>	112, 5(1.7)
≤ 2 years	8 (5%)
3-5 years	69 (45%)
6-8 years	31 (20%)
≥ 9	4 (3%)
Missing	40 (26%)
<b>Year child arrived to Germany, n (%)</b>	
2009-2013	4 (3%)
2014-2017	93 (61%)
2018-2021	15 (10%)
Missing	40 (26%)
<b>Child's duration in refugee camps (months), n (%)</b>	
n, mean (SD) <sup>a</sup>	120, 3(5)
≤ 6 months	98 (64%)
7 - 12 months	17 (11%)
≥ 13 months	5 (3%)
Missing	32 (21%)
<b>Child's German language skills, n (%)</b>	
Very good	73 (48%)
Good	54 (36%)
Mediocre	18 (12%)
Weak	6 (4%)
Not at all	1 (1%)
Missing	0 (0%)
<b>Child's documentation status, n (%)</b>	
No residence status	6 (4%)
Permission to stay	18 (12%)

Temporary residence	94 (62%)
Permanent residence	26 (17%)
Tolerated Stay Permit	3 (2%)
Missing	6 (4%)
<b>Child's accommodation type, n (%)</b>	
Apartment / house (not shared)	127 (84%)
Apartment / house (shared)	17 (11%)
Informal/Unofficial camp	0 (0%)
Hotel	2 (1%)
Homeless	1 (1%)
Local authority care	3 (2%)
Other	1 (1%)
Missing	1 (1%)
<b>Family's financial status, n (%)</b>	
No private income	48 (32%)
Weak	38 (25%)
Average	59 (39%)
Strong	3 (2%)
Missing	4 (3%)
<b>Languages spoken at home, n (%)</b>	
Arabic	81 (53%)
Arabic and German	15 (10%)
Arabic and English	1 (1%)
Arabic and Kurdish	1 (1%)
Arabic, German and English	7 (5%)
English	1 (1%)
Kurdish	8 (5%)
Kurdish and German	1 (1%)
Kurdish, Arabic and German	1 (1%)
Kurdish, German and English	1 (1%)
Missing	35 (23%)
<sup>a</sup> standard deviation	

In comparison to the 152 individuals, who completed the BRACE questionnaire, the 23 excluded cases, who dropped out during the BRACE questionnaire, had similar demographic characteristics, with two exceptions: Drop-outs were more likely to report Arabic as the only language spoken at home (95% of the drop outs vs. 69 % of the analytical sample reported to speak Arabic at home only). Additionally, the children of the drop-outs were younger than those of the analytical sample (mean: 6.9 years vs. 9.1 years).

When assessing the full combined set of conventional, expanded and refugee ACE questions covering the 44 items, respondents reported ACEs, ranging from a

minimum of 2 to a maximum of 32 reported experiences (n=91), with a mean of 11 (SD=6) and a median of ten, the 10<sup>th</sup> percentile at four and the 90<sup>th</sup> percentile at 20. Focusing on participants who supplied complete responses (excluding those who chose "prefer not to answer"), the data revealed that 92% of the participants reported 4 ACEs or more (84/91), a cut off usually applied to ACE questionnaires for being associated with an increased risk of health problems [55, 176].



**Figure 9:** Participant distribution based on numbers of endorsed adversities (n=91)

Upon closer examination of the individual category groupings, it became evident that 55% of participants (65/119) reported no exposure to the conventional ACEs. Applying the aforementioned cut off, it was observed that the percentage of participants reporting four or more ACEs in the individual category groupings was 12% (14/119) for conventional ACEs, 53% (70/133) for expanded ACEs, and 84% (95/113) for refugee ACEs.

With regards to the protective experiences, all participants with full responses to these questions (n=146) reported at least one protective experience, with 34% reporting seven out of seven experiences. The mean number of endorsed protective items was six (SD=1.2) and a median of six, the 10<sup>th</sup> percentile at four and the 90<sup>th</sup> percentile at seven.

Table 13 below represents the distributions of participant responses (n=152) for the BRACE questionnaire. Protective factors (questions 39-45 highlighted in green) were more likely to be endorsed than adverse events. Specifically, factors such as

belonging (96%), family support (93%), friends (91%), and community connection (90%) and support (89%) were highly endorsed. Analysing the 4-point Likert scale responses for these items revealed that the majority of participants chose "always true" and "sometimes true."

Multiple relocation (95%) followed by fitting in (72%) and community loss (66%) were the most endorsed adversities. Other adversities that were reported by more than half of the participants were war (62%), parent language barrier (60%), cultural differences (55%) and forced relocation (53%). Of the 44 adversity items, child detention was the least prevalent exposure (1%) followed by child arrest (3%) and physical neglect (3%). While having the least prevalent exposure in this sample, 100% of the individuals who reported child detention and child arrest reported that these adversities were "extremely traumatic/stressful" for their child. Table 13 below also shows the distribution of responses for trauma and stress levels of those participants who indicated the occurrence of an ACE.

**Table 13:** Distributions of participant responses for the BRACE questionnaire (n=152)

#	Adversity or protective experience/ Questionnaire item	Distribution of responses to ACE items, n (%)
<b>1</b>	<b>Parental drug use</b>	
	No	135 (88.8%)
	Yes	16 (10.5%)
	o Yes but not at all traumatic	o 5 (31.3%)
	o Yes and somewhat traumatic	o 3 (18.8%)
	o Yes and traumatic	o 3 (18.8%)
	o Yes and extremely traumatic	o 5 (31.3%)
	Prefer not to answer	1 (0.7%)
<b>2</b>	<b>Arrest of family member</b>	
	No	130 (85.5%)
	Yes	20 (13.2%)
	o Yes but not at all traumatic	o 1 (5.0%)
	o Yes and somewhat traumatic	o 5 (25.0%)
	o Yes and traumatic	o 3 (15.0%)
	o Yes and extremely traumatic	o 11 (55.0%)
	Prefer not to answer	2 (1.3%)
<b>3</b>	<b>Domestic violence</b>	
	No	118 (77.6%)
	Yes	26 (17.1%)
	o Yes but not at all traumatic	o 0
	o Yes and somewhat traumatic	o 13 (50.0%)
	o Yes and traumatic	o 5 (19.2%)
	o Yes and extremely traumatic	o 8 (30.8%)
	Prefer not to answer	8 (5.3%)
<b>4</b>	<b>Verbal abuse</b>	
	No	127 (83.6%)

Yes	14 (9.2%)
○ Yes but not at all traumatic	○ 1 (7.1%)
○ Yes and somewhat traumatic	○ 5 (35.7%)
○ Yes and traumatic	○ 4 (28.6%)
○ Yes and extremely traumatic	○ 4 (28.6%)
Prefer not to answer	11 (7.2%)
<b>5 Physical abuse</b>	
No	133 (87.5%)
Yes	10 (6.6%)
○ Yes but not at all traumatic	○ 0
○ Yes and somewhat traumatic	○ 4 (40.0%)
○ Yes and traumatic	○ 3 (30.0%)
○ Yes and extremely traumatic	○ 3 (30.0%)
Prefer not to answer	9 (5.9%)
<b>6 Physical neglect</b>	
No	147 (96.7%)
Yes	5 (3.3%)
○ Yes but not at all traumatic	○ 0
○ Yes and somewhat traumatic	○ 1 (20.0%)
○ Yes and traumatic	○ 1 (20.0%)
○ Yes and extremely traumatic	○ 3 (60.0%)
Prefer not to answer	
<b>7 Parent divorce</b>	
No	128 (84.2%)
Yes	21 (13.8%)
○ Yes but not at all traumatic	○ 2 (9.5%)
○ Yes and somewhat traumatic	○ 6 (28.6%)
○ Yes and traumatic	○ 4 (19.0%)
○ Yes and extremely traumatic	○ 9 (42.9%)
Prefer not to answer	3 (2.0%)
<b>8 Parent distress</b>	
No	106 (69.7%)
Yes	39 (25.7%)
○ Yes but not at all traumatic	○ 11 (28.2%)
○ Yes and somewhat traumatic	○ 14 (35.9%)
○ Yes and traumatic	○ 9 (23.1%)
○ Yes and extremely traumatic	○ 5 (12.8%)
Prefer not to answer	7 (4.6%)
<b>9 Parent mental health</b>	
No	123 (80.9%)
Yes	25 (16.4%)
○ Yes but not at all traumatic	○ 2 (8.0%)
○ Yes and somewhat traumatic	○ 12 (48.0%)
○ Yes and traumatic	○ 5 (20.0%)
○ Yes and extremely traumatic	○ 6 (24.0%)
Prefer not to answer	4 (2.6%)
<b>10 Parent missing</b>	
No	112 (73.7%)
Yes	40 (26.3%)
○ Yes but not at all traumatic	○ 5 (12.5%)
○ Yes and somewhat traumatic	○ 20 (50.0%)
○ Yes and traumatic	○ 7 (17.5%)
○ Yes and extremely traumatic	○ 8 (20.0%)
Prefer not to answer	

<b>11 Family dispersion</b>	
No	95 (62.5%)
Yes	55 (36.2%)
○ Yes but not at all traumatic	○ 10 (18.2%)
○ Yes and somewhat traumatic	○ 26 (47.3%)
○ Yes and traumatic	○ 11 (20.0%)
○ Yes and extremely traumatic	○ 8 (14.5%)
Prefer not to answer	2 (1.3%)
<b>12 Parent Unemployment</b>	
No	83 (54.6%)
Yes	65 (42.8%)
○ Yes but not at all traumatic	○ 34 (52.3%)
○ Yes and somewhat traumatic	○ 19 (29.2%)
○ Yes and traumatic	○ 8 (12.3%)
○ Yes and extremely traumatic	○ 4 (6.2%)
Prefer not to answer	4 (2.6%)
<b>13 Financial Difficulty</b>	
No	107 (70.4%)
Yes	41 (27.0%)
○ Yes but not at all traumatic	○ 13 (31.7%)
○ Yes and somewhat traumatic	○ 11 (26.8%)
○ Yes and traumatic	○ 6 (14.6%)
○ Yes and extremely traumatic	○ 11 (26.8%)
Prefer not to answer	4 (2.6%)
<b>14 Death of loved one</b>	
No	125 (82.2%)
Yes	26 (17.1%)
○ Yes but not at all traumatic	○ 0
○ Yes and somewhat traumatic	○ 9 (34.6%)
○ Yes and traumatic	○ 7 (26.9%)
○ Yes and extremely traumatic	○ 10 (38.5%)
Prefer not to answer	1 (0.7%)
<b>15 War</b>	
No	57 (37.5%)
Yes	94 (61.8%)
○ Yes but not at all traumatic	○ 10 (10.6%)
○ Yes and somewhat traumatic	○ 22 (23.4%)
○ Yes and traumatic	○ 19 (20.2%)
○ Yes and extremely traumatic	○ 43 (45.7%)
Prefer not to answer	1 (0.7%)
<b>16 Destruction</b>	
No	110 (72.4%)
Yes	39 (25.7%)
○ Yes but not at all traumatic	○ 2 (5.1%)
○ Yes and somewhat traumatic	○ 3 (7.7%)
○ Yes and traumatic	○ 6 (15.4%)
○ Yes and extremely traumatic	○ 28 (71.8%)
Prefer not to answer	3 (2.0%)
<b>17 Military presence</b>	
No	97 (63.8%)
Yes	52 (34.2%)
○ Yes but not at all traumatic	○ 7 (13.5%)
○ Yes and somewhat traumatic	○ 13 (25.0%)
○ Yes and traumatic	○ 4 (7.7%)

	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 28 (53.8%)
	Prefer not to answer	3 (2.0%)
<b>18</b>	<b>Robbery</b>	
	No	113 (74.3%)
	Yes	36 (23.7%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 3 (8.3%)
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 7 (19.4%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 5 (13.9%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 21 (58.3%)
	Prefer not to answer	3 (2.0%)
<b>19</b>	<b>Kidnapping</b>	
	No	141 (92.8%)
	Yes	9 (5.9%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 2 (22.2%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 7 (77.8%)
	Prefer not to answer	2 (1.3%)
<b>20</b>	<b>Sexual abuse</b>	
	No	142 (93.4%)
	Yes	6 (3.9%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 1 (16.7%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 5 (83.3%)
	Prefer not to answer	4 (2.6%)
<b>21</b>	<b>Child arrest</b>	
	No	144 (94.7%)
	Yes	5 (3.3%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 5 (100.0%)
	Prefer not to answer	3 (2.0%)
<b>22</b>	<b>Shootings, bombs and riots</b>	
	No	84 (55.3%)
	Yes	66 (43.4%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 2 (3.0%)
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 17 (25.8%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 12 (18.2%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 35 (53.0%)
	Prefer not to answer	2 (1.3%)
<b>23</b>	<b>Physical harm to the child</b>	
	No	142 (93.4%)
	Yes	8 (5.3%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 1 (12.5%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 3 (37.5%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 4 (50.0%)
	Prefer not to answer	2 (1.3%)
<b>24</b>	<b>Physical harm to a loved one</b>	
	No	133 (87.5%)
	Yes	16 (10.5%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0

	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 2 (12.5%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 3 (18.8%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 11 (68.8%)
	Prefer not to answer	3 (2.0%)
<b>25</b>	<b>Police brutality</b>	
	No	130 (85.5%)
	Yes	19 (12.5%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 5 (26.3%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 5 (26.3%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 9 (47.4%)
	Prefer not to answer	3 (2.0%)
<b>26</b>	<b>Witness fighting/killing</b>	
	No	137 (90.1%)
	Yes	14 (9.2%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 2 (14.3%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 3 (21.4%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 9 (64.3%)
	Prefer not to answer	1 (0.7%)
<b>27</b>	<b>Discrimination</b>	
	No	135 (88.8%)
	Yes	17 (11.2%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 3 (17.6%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 5 (29.4%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 9 (52.9%)
	Prefer not to answer	
<b>28</b>	<b>Bullying</b>	
	No	120 (78.9%)
	Yes	30 (19.7%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 0
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 14 (46.7%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 6 (20.0%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 10 (33.3%)
	Prefer not to answer	2 (1.3%)
<b>29</b>	<b>Forced relocation</b>	
	No	69 (45.4%)
	Yes	81 (53.3%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 19 (23.5%)
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 26 (32.1%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 15 (18.5%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 21 (25.9%)
	Prefer not to answer	2 (1.3%)
<b>30</b>	<b>Multiple relocation</b>	
	Yes	152 (100.0%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 43 (28.3%)
	<input type="radio"/> Yes and somewhat traumatic	<input type="radio"/> 49 (32.2%)
	<input type="radio"/> Yes and traumatic	<input type="radio"/> 38 (25.0%)
	<input type="radio"/> Yes and extremely traumatic	<input type="radio"/> 22 (14.5%)
<b>31</b>	<b>Interrupted education</b>	
	No	101 (66.4%)
	Yes	44 (28.9%)
	<input type="radio"/> Yes but not at all traumatic	<input type="radio"/> 3 (6.8%)



	○ Yes and somewhat traumatic	○ 14 (31.8%)
	○ Yes and traumatic	○ 18 (40.9%)
	○ Yes and extremely traumatic	○ 9 (20.5%)
	Prefer not to answer	7 (4.6%)
<b>32</b>	<b>Inadequate Shelter</b>	
	No	120 (78.9%)
	Yes	27 (17.8%)
	○ Yes but not at all traumatic	○ 3 (11.1%)
	○ Yes and somewhat traumatic	○ 3 (11.1%)
	○ Yes and traumatic	○ 9 (33.3%)
	○ Yes and extremely traumatic	○ 12 (44.4%)
	Prefer not to answer	5 (3.3%)
<b>33</b>	<b>Dangerous route</b>	
	No	80 (52.6%)
	Yes	60 (39.5%)
	○ Yes but not at all traumatic	○ 10 (16.7%)
	○ Yes and somewhat traumatic	○ 11 (18.3%)
	○ Yes and traumatic	○ 15 (25.0%)
	○ Yes and extremely traumatic	○ 24 (40.0%)
	Prefer not to answer	12 (7.9%)
<b>34</b>	<b>Injuries or infection</b>	
	No	121 (79.6%)
	Yes	27 (17.8%)
	○ Yes but not at all traumatic	○ 3 (11.1%)
	○ Yes and somewhat traumatic	○ 1 (3.7%)
	○ Yes and traumatic	○ 8 (29.6%)
	○ Yes and extremely traumatic	○ 15 (55.6%)
	Prefer not to answer	4 (2.6%)
<b>35</b>	<b>Detention</b>	
	No	146 (96.1%)
	Yes	2 (1.3%)
	○ Yes but not at all traumatic	○ 0
	○ Yes and somewhat traumatic	○ 0
	○ Yes and traumatic	○ 0
	○ Yes and extremely traumatic	○ 2 (100.0%)
	Prefer not to answer	4 (2.6%)
<b>36</b>	<b>Application delay</b>	
	No	122 (80.3%)
	Yes	22 (14.5%)
	○ Yes but not at all traumatic	○ 6 (27.3%)
	○ Yes and somewhat traumatic	○ 8 (36.4%)
	○ Yes and traumatic	○ 1 (4.5%)
	○ Yes and extremely traumatic	○ 7 (31.8%)
	Prefer not to answer	8 (5.3%)
<b>37</b>	<b>Status insecurity</b>	
	No	103 (67.8%)
	Yes	43 (28.3%)
	○ Yes but not at all traumatic	○ 0
	○ Yes and somewhat traumatic	○ 15 (34.9%)
	○ Yes and traumatic	○ 6 (14.0%)
	○ Yes and extremely traumatic	○ 22 (51.2%)
	Prefer not to answer	6 (3.9%)
<b>38</b>	<b>Forced repatriation</b>	
	No	95 (62.5%)

Yes	51 (33.6%)
○ Yes but not at all traumatic	○ 1 (2.0%)
○ Yes and somewhat traumatic	○ 9 (17.6%)
○ Yes and traumatic	○ 12 (23.5%)
○ Yes and extremely traumatic	○ 29 (56.9%)
Prefer not to answer	6 (3.9%)
<b>39 Presence of family</b>	
No	60 (39.5%)
Yes	92 (60.5%)
○ Always true	○ 78 (84.8%)
○ Sometimes true	○ 9 (9.8%)
○ Usually not true	○ 3 (3.3%)
○ Not true at all	○ 1 (1.1%)
○ Prefer not to answer	○ 1 (1.1%)
Prefer not to answer	
<b>40 Presence of relatives</b>	
No	57 (37.5%)
Yes	94 (61.8%)
○ Always true	○ 49 (52.1%)
○ Sometimes true	○ 32 (34.0%)
○ Usually not true	○ 5 (5.3%)
○ Not true at all	○ 6 (6.4%)
○ Prefer not to answer	○ 2 (2.1%)
Prefer not to answer	1 (0.7%)
<b>41 Belonging</b>	
No - Not true at all	6 (3.9%)
Yes	146 (96.1%)
○ Always true	○ 47 (32.2%)
○ Sometimes true	○ 79 (54.1%)
○ Usually not true	○ 20 (13.7%)
Prefer not to answer	
<b>42 Family support</b>	
No - Not true at all	7 (4.6%)
Yes	141 (92.8%)
○ Always true	○ 71 (50.4%)
○ Sometimes true	○ 55 (39.0%)
○ Usually not true	○ 15 (10.6%)
Prefer not to answer	4 (2.6%)
<b>43 Community support</b>	
No - Not true at all	14 (9.2%)
Yes	135 (88.8%)
○ Always true	○ 41 (30.4%)
○ Sometimes true	○ 64 (47.4%)
○ Usually not true	○ 30 (22.2%)
Prefer not to answer	3 (2.0%)
<b>44 Friends</b>	
No - Not true at all	14 (9.2%)
Yes	138 (90.8%)
○ Always true	○ 53 (38.4%)
○ Sometimes true	○ 66 (47.8%)
○ Usually not true	○ 19 (13.8%)
Prefer not to answer	
<b>45 Community connection</b>	
No - Not true at all	15 (9.9%)

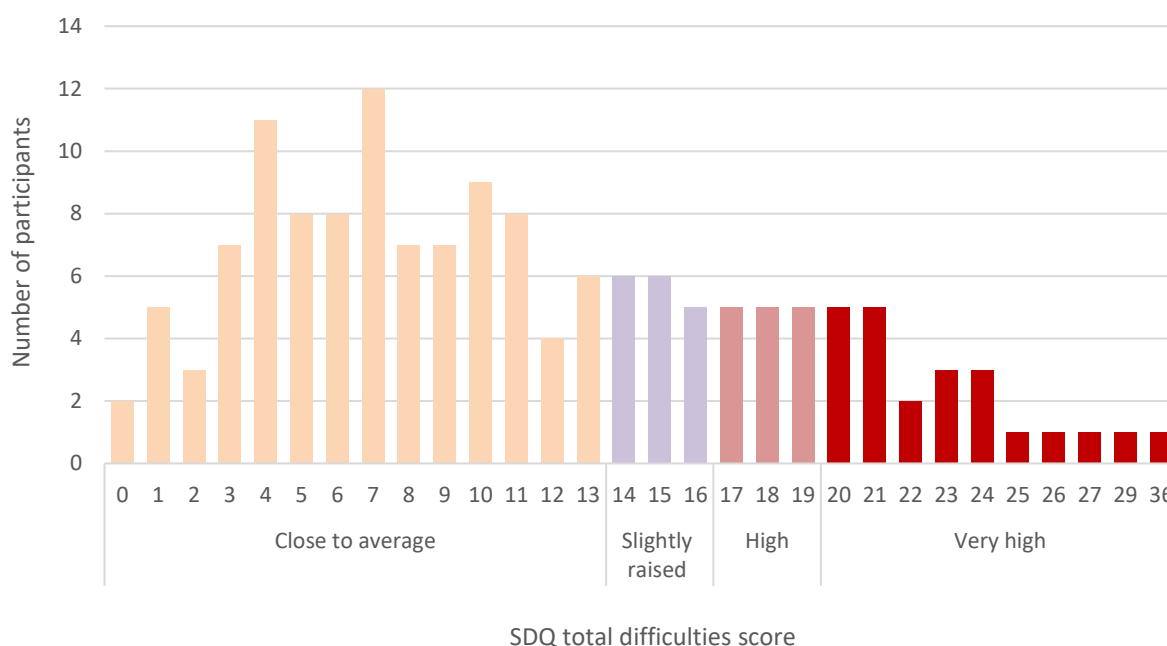
Yes	137 (90.1%)
o Always true	o 45 (32.8%)
o Sometimes true	o 61 (44.5%)
o Usually not true	o 31 (22.6%)
Prefer not to answer	
<b>46 Community Loss</b>	
No - Not true at all	50 (32.9%)
Yes	101 (66.4%)
o Always true	o 17 (16.8%)
o Sometimes true	o 36 (35.6%)
o Usually not true	o 48 (47.5%)
Prefer not to answer	1 (0.7%)
<b>47 Fitting in</b>	
No - Not true at all	42 (27.6%)
Yes	109 (71.7%)
o Always true	o 38 (34.9%)
o Sometimes true	o 40 (36.7%)
o Usually not true	o 31 (28.4%)
Prefer not to answer	1 (0.7%)
<b>48 Cultural Differences</b>	
No - Not true at all	68 (44.7%)
Yes	83 (54.6%)
o Always true	o 13 (15.7%)
o Sometimes true	o 34 (41.0%)
o Usually not true	o 36 (43.4%)
Prefer not to answer	1 (0.7%)
<b>49 Language difficulties</b>	
No - Not true at all	89 (58.6%)
Yes	62 (40.8%)
o Always true	o 10 (16.1%)
o Sometimes true	o 23 (37.1%)
o Usually not true	o 29 (46.8%)
Prefer not to answer	1 (0.7%)
<b>50 Parent language barrier</b>	
No - Not true at all	60 (39.5%)
Yes	91 (59.9%)
o Always true	o 11 (12.1%)
o Sometimes true	o 42 (46.2%)
o Usually not true	o 38 (41.8%)
Prefer not to answer	1 (0.7%)
<b>51 Social Security</b>	
No - Not true at all	83 (54.6%)
Yes	67 (44.1%)
o Always true	o 7 (10.4%)
o Sometimes true	o 26 (38.8%)
o Usually not true	o 34 (50.7%)
Prefer not to answer	2 (1.3%)

- The percentages of the responses highlighted in tan were determined based on the total number of participants who chose "yes" for that individual item.
- Question 30 (Multiple relocation) did not have a dichotomous response option and initially inquired about the number of occurrences, where all response options were treated as "yes."
- Questions 39-51 did not inquire about trauma/stress level and instead inquired about the applicability of statements.
- Questions 41 – 51 did not have an initial dichotomous response option, responses were treated as a "yes" if participants selected "always true, sometimes true or usually not true"
- Items highlighted in green are the protective items.

### 3.3.3.2 Scoring of health measures

#### SDQ

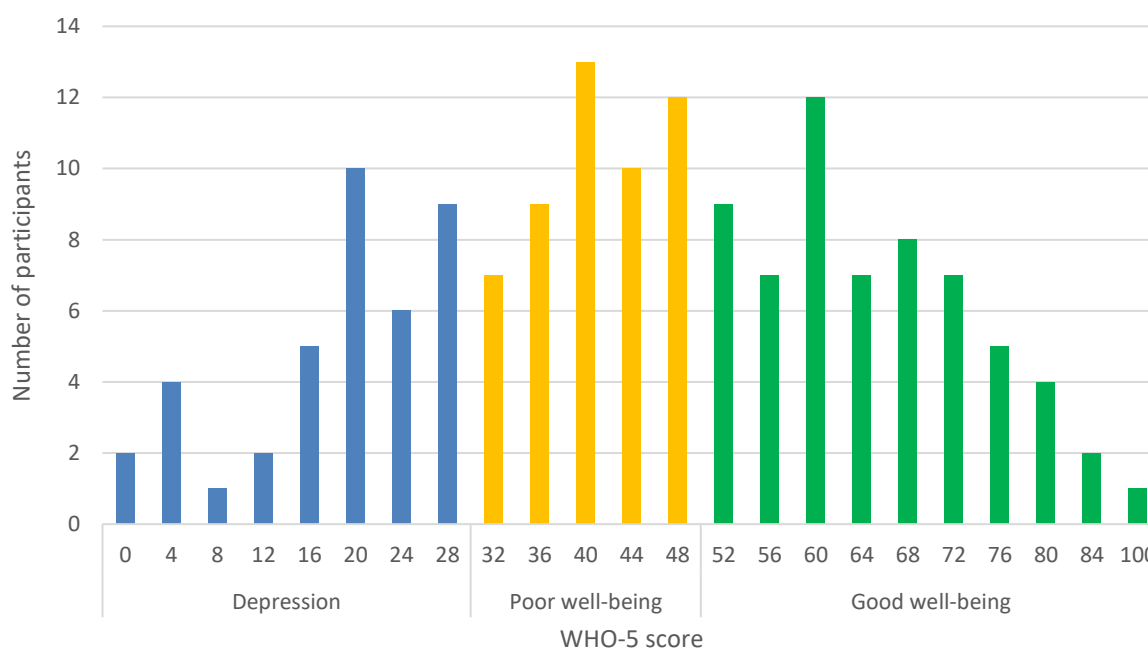
Depending on the SDQ's intended use, the developers offer different scoring options. For the pilot testing the total difficulty score was used, with a range of zero to forty, using the cut off scores stated in the manual. The SDQ uses four scoring categories each reflecting a representation of a child's behaviour based on cut offs arising from the scores of a UK population survey. In the pilot study, the SDQ scores of the participants had the following distribution in the categories: 63.8% (97/152) close to average, 11.2% (17/152) slightly raised, 9.9% (15/152) high and 15.1% (23/152) very high. Participants' SDQ total difficulties score ranged from zero to 36 (Figure 10). For this population the mean was 11.4 (SD=7), the median was 10, and the 10th and 90th percentiles were 3 and 21, respectively.



**Figure 10:** Distribution of participants SDQ total difficulties score (n=152)

#### WHO-5

The WHO-5 scale ranges from 0 to 100, a score of 100 denotes the highest possible wellbeing, a score under 50 indicates lower wellbeing, and 28 or less could suggest depression [150]. Approximately 60% (90/152) of the participants scored less than 50, as indicated in Figure 11. This sample had a mean of 45, (SD=21), a median of 44 and the 10<sup>th</sup> percentile at 20 and the 90<sup>th</sup> percentile at 72.



**Figure 11:** Distribution of participants WHO-5 scores (n=152)

### 3.3.3.3 Regression analyses

#### Univariate regression analysis

For the univariate regression models, the conventional ACE, the expanded ACE, the refugee ACE and the WHO-5 score were related to the SDQ yielding small to moderate effect sizes, with  $p < 0.02$  for the conventional and refugee ACE and the WHO-5 score. The expanded ACE score did not show a significant correlation with SDQ scores ( $p = 0.17$ ) (Table 14).

**Table 14:** Univariate regression analysis predicting SDQ scores (n=151)

Variable	adjusted R-squared	standardised beta	p-value
conventional ACE score	0.129	0.37	<0.001
expanded ACE score	0.006	0.11	0.170
refugee ACE score	0.037	0.20	0.016
WHO-5 score	0.181	-0.43	<0.001

#### Multivariate regression analysis

Multivariate regression analysis with conventional and expanded ACEs did not improve the ability to explain variance in the SDQ scores beyond what could be explained with the conventional ACE. On the other hand, the inclusion of refugee ACEs, with the conventional and expanded ACEs, into the regression model resulted

in a 2% increase in explained variance, yielding a standardised  $\beta$  value of 0.17 for the refugee ACE score. It also caused the conventional ACEs'  $\beta$  coefficient to decrease slightly from 0.39 to 0.38.

The variance also increased by 9% once the WHO-5 was included in the model, bringing the adjusted R-squared up to 0.234. The  $\beta$  coefficients also changed in response to this shift, falling from 0.39 to 0.26 for the conventional ACEs and from 0.17 to 0.13 for the refugee ACEs (Table 15). When the regression analysis was conducted with conventional ACEs, refugee ACEs and the WHO-5 (without the expanded ACEs) the adjusted R-squared increased by 0.003.

**Table 15:** multivariate regression analysis predicting SDQ scores (n=151)

Variable	adjusted R-squared	standardised beta	p-value
conventional ACE score	0.125	0.39	<0.001
expanded ACE score		-0.05	0.569
conventional ACE score	0.146	0.38	<0.001
expanded ACE score		-0.07	0.431
refugee ACE score		0.17	0.030
conventional ACE score	0.234	0.26	<0.001
expanded ACE score		-0.05	0.545
refugee ACE score		0.13	0.072
WHO-5 score		-0.33	<0.001
conventional ACE score	0.237	0.24	<0.001
refugee ACE score		0.13	0.080
WHO-5 score		-0.33	<0.001

## 4 DISCUSSION

Currently, no ACE questionnaire comprehensively addresses the experiences of refugee children, as indicated by the results of the systematic review in Phase 1. The BRACE questionnaire was designed to fill this gap and measure beyond refugee ACEs by additionally incorporating potential protective experiences. To ensure proper development of a reliable and valid questionnaire the development process involved an evaluation of existing ACE questionnaires, gaining insight from the population of concern and drafting of the initial version of the BRACE items, as well as testing its construct validity. The following sections will discuss the shortcomings of existing questionnaires when applied within a refugee population, the insight gained from the population of concern, and the results of the pilot test conducted using the BRACE questionnaire. This is then followed by discussing implications for future research and potential interventions.

### 4.1 Existing ACE questionnaires

*An adapted version of this section is available as a preprint - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>*

#### 4.1.1 Refugee studies

Despite the severity of the humanitarian crisis, which has an impact on every continent [177], minimal research has been done to assess ACEs in refugee children using validated questionnaires. This systematic review identified only two ACE questionnaires which were used to measure adversities in refugee children. The ICAST questionnaire, was utilised in both studies albeit in distinct forms (ICAST-P and ICAST-C).

The ICAST-P, a tool with a total of 39 items, only assesses a few conventional ACEs (emotional and physical abuse and neglect, economic hardship, and sexual abuse) and does not address a single adversity that is specific to refugees [161]. The ICAST-C does address several additional forms of adversity pertinent to refugee

children, however it includes only one refugee-specific adversity measuring exposure to war/conflict.

Using either ICAST questionnaire within a refugee setting presents significant implications for construct validity. A questionnaire's construct validity is in jeopardy when it fails to measure the concept that it is intended to measure [178, 179]. In these cases specifically, the absence of important refugee-specific items raises the issue of construct underrepresentation, which occurs when key features of a certain construct are not adequately represented [179]. Given that the ICAST scoring involves a cumulative score of all the items [161], this may over- or underestimate the participants responses, leading to an incorrect interpretation and use of scores [180]. The importance of evaluating the content of measurements to ensure that any ramifications are not the result of a test invalidity factor such as construct underrepresentation has been emphasised [181].

With the number of refugees increasing and prior studies indicating that both mental and physical illnesses are linked to the traumatic events refugee children encounter [182], it is crucial to include the difficulties influencing their wellbeing in ACE questionnaires.

#### *4.1.2 Adversities measured*

While the number of adversities addressed in today's questionnaires has greatly increased since the conventional ACEs were first recognised in 1998 [27], certain gaps still remain. Firstly, very few questionnaires address adversities specific to the refugee population. Phase 1 revealed 103 questionnaires that evaluate various adversities in children, but only 14 included a refugee-specific ACE. This suggests a scarcity of ACE questionnaires designed for refugee children, implying a lack of emphasis or attention on thoroughly evaluating their unique adversities.

Secondly, the questionnaires that do include a refugee-specific ACE have certain limitations. Although these questionnaires seem to cover all adversity categories, closer examination reveals that important experiences are missing. For instance, Table 4 indicates that the BARC Paediatric Adversity and Trauma Questionnaire [183] appears to cover all adversity categories. However, after the



breakdown into adversity forms is reviewed, the BARC Paediatric Adversity and Trauma Questionnaire does not address kidnapping (a form of community violence), which many refugee children may encounter [184], is not mentioned in the BARC questionnaire. Neither are financial difficulties [185], displacement [69], or immigration process [75], all of which have been identified as frequent refugee adversities in previous studies and were also strongly endorsed by respondents in the qualitative study in Phase 2.

In addition, upon deeper review of the 14 questionnaires, it was noticeable that the measurement of refugee-specific ACEs is constrained with a maximum of three refugee-specific questions. For example, as indicated in Table 4, the NatSCEV covered community violence and family dysfunction with 21 and 18 items respectively, while refugee-specific ACEs were only addressed with three questions. This demonstrates that refugee-specific ACEs are underrepresented especially since examples of refugee-specific ACEs focused on experiencing war, bombings, destruction, displacement, and separation from family due to immigration. This appears to be common practice as there are some studies that use a single item to assess refugee adversities [186]. As has been explained by participants in Phase 2, these exposures do cause severe harm to children, yet they are not the only causes of hardship. Scientific literature emphasises that an overly narrow focus on merely these difficulties leaves out crucial aspects of the refugee experience that directly affect the health and wellbeing of refugees [187, 188]. When difficulties faced by refugees are reduced to three or fewer questions, refugee experiences are understated, as are their effects on the psychological and physical health of refugee children.

It was also apparent that the questionnaires covering difficulties unique to refugees placed a substantial emphasis on flight and pre-flight stressors. Children who are refugees frequently endure tragedies and stressors not only in their home countries but also when traveling to safety and while living in host communities [67]. As indicated by participants in the qualitative study, during resettlement refugee children must adapt to a new community and culture while adjusting to school systems and peer groups in a foreign language that can occasionally be prejudiced against them. Participants also discussed the constant stress associated with immigration procedures brought on by the uncertainty of being able to stay in Germany. Previous studies have discussed the

significant detrimental effect of post-flight events on refugees' wellbeing [86, 189]. Limiting the scope of adversity measurement to particular migration stages runs the risk of missing important experiences that refugee children may face and falls short of giving a complete and accurate picture of their difficulties.

Table 16 below re-examines Table 1, this time indicating which ACEs have been addressed in the 14 identified questionnaires. From Table 16, it becomes apparent that none address all types of refugee relevant ACEs. Moreover, various forms of adversity relevant to refugee populations, such as military groups, immigration detention, immigration stress, and acculturation stress were not included in any of the identified measures. Thus, available ACE questionnaires fall short of accurately capturing and addressing all types of adversities faced by refugee children. A previous systematic review of instruments used to measure refugee trauma and health status also concluded that no empirically developed instrument assesses the whole range of trauma experiences in refugees [190].

However, it must be acknowledged that the questionnaires in Phase 1 were not created for refugee children; thus, their significance should in no way be diminished. Nevertheless, it becomes clear that a gap exists concerning measuring refugee children's adversities.

**Table 16:** Migration stages in which refugee-relevant ACEs occurred (based on previous research [67-82])

Refugee relevant ACEs	Stage of migration			
	Pre-flight	Flight	Post-flight	
<b>War/Conflict</b> 1, 3, 4, 7, 8, 10-14	Pre-flight			
<b>Shootings/bombs &amp; riots</b> 3, 8, 11				
Destruction of infrastructure				
Presence of militant groups				
<b>Displacement</b> 1, 10			Flight	
Deprivation of basic necessities 3, 9, 11				
<b>Beaten up by police/soldiers/militia etc.</b> 1				
Witnessing/Experiencing violence 1-8, 10-14				
Kidnapping 8, 10-13				
Extortion/exploitation/fraud				
Inadequate housing 4, 9, 11				
Arrest of the child 6, 12				
Assault 1-4, 8, 10-13				
Family dysfunction 1-14				Post-flight
Emotional and physical abuse and neglect 1, 3-7				
Sexual abuse 1-8, 10-14				
Parent missing				
Bereavement 1, 4-6, 10-14				
Crime/Theft 7, 8, 10, 11, 12, 13				
Economic hardship (unemployment, financial difficulties) 3, 9, 11				
Bullying 1-8, 10, 11, 14				
Interruption of education				
<b>Separation from family</b> 2, 4-6, 9, 11, 13				
Discrimination 1, 4-6, 8, 10, 11				
Immigration detention				
Immigration process				
Acculturation stress				

Refugee-specific adversity forms identified within this review are accentuated in bold

- |   |   |
|---|---|
| 1. ACE- International Questionnaire (ACE-IQ)                      | 7. Juvenile Victimization Questionnaire (JVQ)                     |
| 2. Addressing Social Key (ASK) Questions for Health Questionnaire | 8. Lifetime Destabilizing Factor (LDF) Index                      |
| 3. Adverse Childhood Experience Questionnaire-Revised (ACEQ-R)    | 9. Modified UCLA Trauma History Profile                           |
| 4. BARC Pediatric Adversity and Trauma Questionnaire              | 10. National Surveys of Children's Exposure to Violence (NatSCEV) |
| 5. Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Child)  | 11. Traumatic Events Screening Inventory for Children (TESI-C)    |
| 6. Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Teen)   | 12. Traumatic Events Screening Inventory for Children (TESI-PRR)  |
| ISPCAN Child Abuse Screening Tool (ICAST-C)                       | Yale-Vermont Adverse Childhood Experiences Scale (Y-VACS)         |

#### 4.1.3 Quality of existing ACE questionnaires

A few details regarding the psychometric characteristics of questionnaires were included in the majority of the studies identified in the systematic review. Only three out of the 14 questionnaires that evaluated ACEs specific to refugees had

psychometric features documented, and several psychometric aspects were missing [191]. Due to the extensive utilisation of the questionnaire in earlier investigations, some authors claimed that the psychometric properties were reliable [192]. Other times, generalisations such as the questionnaire has "acceptable psychometric features" were made [193]. Such statements are insufficient to demonstrate the questionnaire's quality. The papers that did include some information about psychometric characteristics focused mostly on internal consistency, as seen in Table 5. In this case, a Cronbach's alpha value was calculated to determine whether the items of a questionnaire measure the same characteristic. However this alone does not suffice to assess the quality of the questionnaire because by simply increasing the number of items, Cronbach's alpha value increases as well [116].

Cross-cultural validity was also underreported. Those few studies reporting on cross-cultural validity only described the translation method, e.g. forward translation [194] or back translation [195], and none of the identified studies (that used the questionnaires in a different culture) described its adaptability to the new setting. Cross-cultural adaptation is essential to minimise bias when a questionnaire is administered in a different language and context [196].

The psychometric properties of the respective questionnaires may have been published elsewhere, not identified within this systematic search. However, the absence of reports about the properties within the studies identified in this review remains problematic because reliability and validity vary with context, study type, population, and study purpose [116].

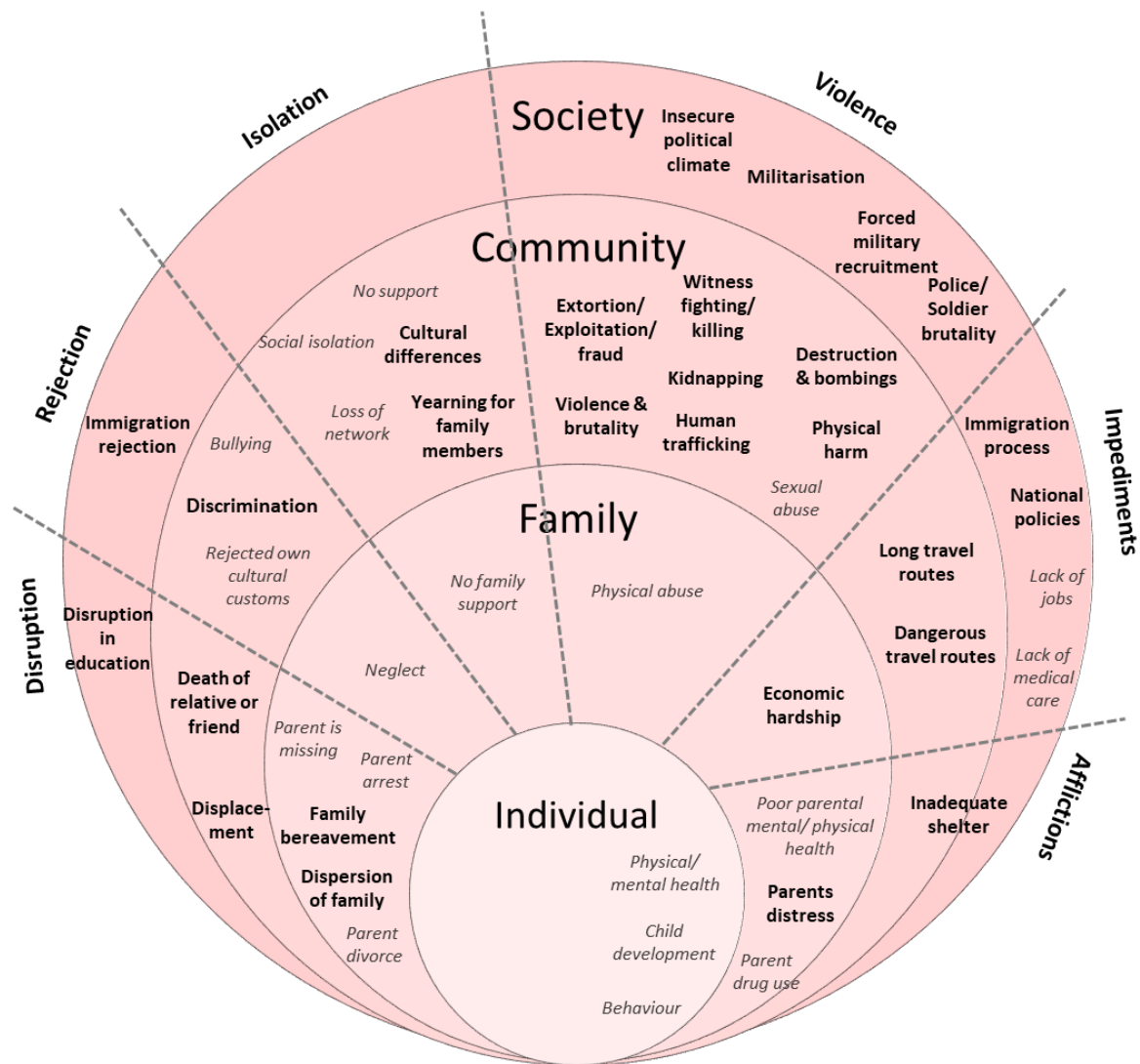
In general, questionnaires should meet valid and reliable standards by assessing their psychometric qualities to guarantee that they measure what they propose and give consistent results over time [116]. According to research, the evidence concerning the psychometric features of adversity questionnaires is scarce and typically of poorer quality [197, 198]. To obtain accurate data, researchers must consider factors that influence the quality of information, including respondent characteristics such as age or cultural appropriateness [109]. Given the varying validity and reliability of existing questionnaires, the consequences of ACEs may be confounded. Thus, it is critical to analyse the psychometric properties of

questionnaires, including cross-cultural validity if appropriate, to guarantee that the information obtained in a study is valid and reliable and may thus be utilised to assist in decision-making.

## **4.2 Insight from refugee parents and children**

*An adapted version of this section has been published as: Abdelhamid, S., et al., Negative and protective experiences influencing the well-being of refugee children resettling in Germany: a qualitative study. BMJ Open, 2023. 13(4): p. e067332 DOI: [10.1136/bmjopen-2022-067332](https://doi.org/10.1136/bmjopen-2022-067332).*

The qualitative study in Phase 2 indicated that throughout all migration stages, refugee children experience a range of distinct experiences from many different levels of the SEM. Refugee ACEs revolved around six themes whereas protective experiences revolved around two. In comparison to previous research, the study uncovered experiences unique to refugees that have not previously been disclosed in ACE research. The perceived negative and protective experiences are summarised in Figure 12 and Figure 13 respectively. Below follows a discussion of the reported experiences with support from earlier studies.

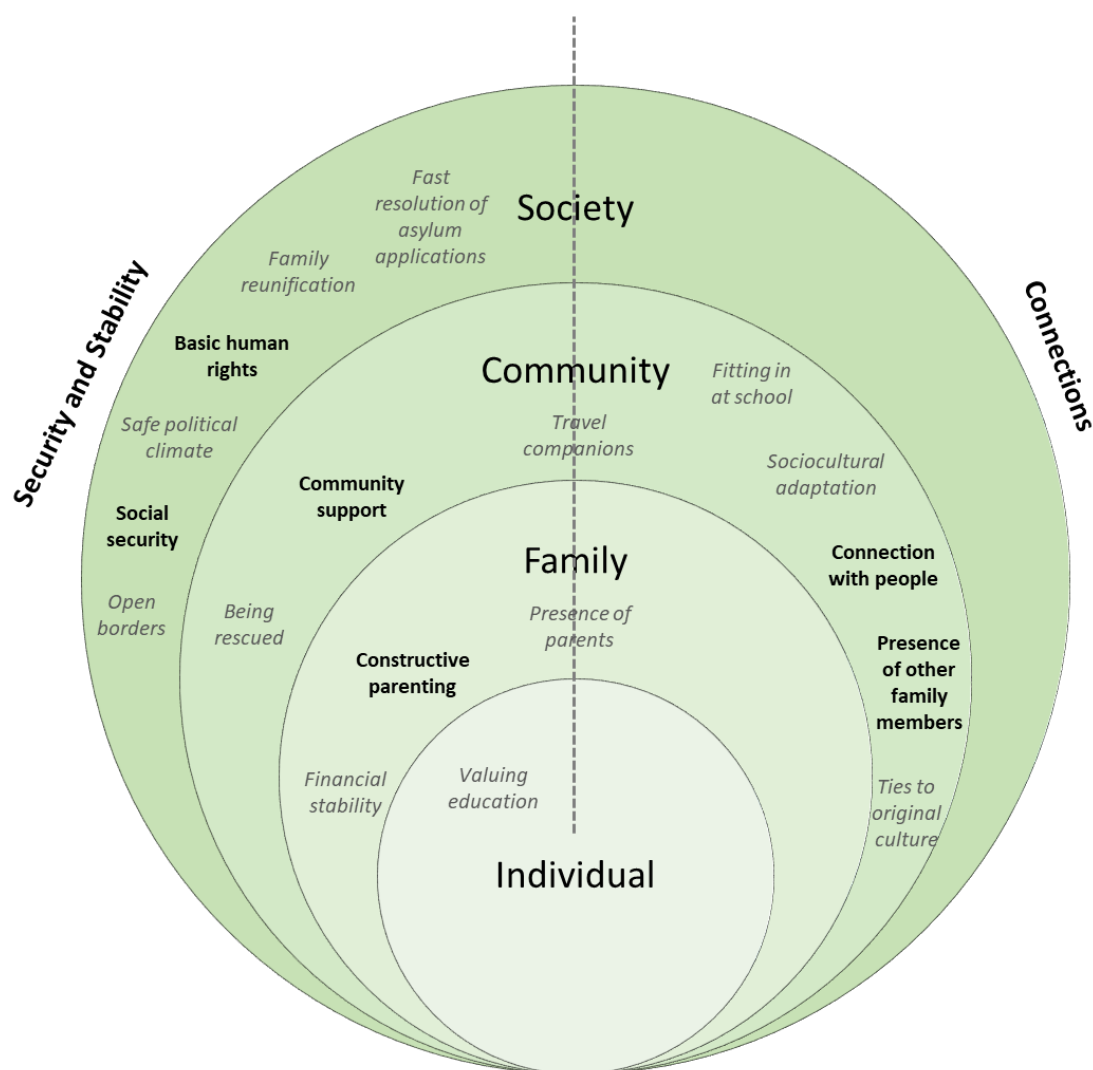


**Figure 12:** Six proposed themes and experiences\* perceived as potentially traumatic (adapted from Dahlberg, L.L. et al. 2002 [20])

\*Theme names have been shortened for better visualisation.

Experiences in bold were reported frequently by participants

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**Figure 13:** Two proposed themes and potentially protective experiences\* (adapted from Dahlberg, L.L. et al. 2002 [20])

\*Theme names have been shortened for better visualisation.

Experiences in bold were reported frequently by participants

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#### 4.2.1 Individual influences

Very few participants discussed how a refugee child's individual traits could influence their wellbeing. Three parents shared that they have a child with a developmental disability. They described how such an affliction took a toll on the child's physical, intellectual, and emotional growth, which was worsened by experiencing war, seeking refuge, and adapting to resettlement. These accounts appear to be novel insights with reference to refugee adversities. A US study that used data from national samples discovered that children with developmental disabilities faced significantly

higher levels of adversity [199]. However, a research gap exists when observing the potential interplay between refugee children's developmental disabilities and their life experiences.

Furthermore, a few participants discussed how pre-existing physical health problems made the refugee journey more painful and difficult. The challenges refugee children encounter often compound the detrimental effects of their pre-existing conditions, leading to heightened difficulties and poorer overall wellbeing. Mental health concerns were also discussed which was not surprising given that post-traumatic stress disorder (PTSD) affects 19%-54% of refugee children and depression affects 3%-30% of refugee children [200]. Several studies have highlighted the serious health concerns refugee children encounter ranging from infectious diseases to nutritional deficiencies, chronic disorders, and mental health problems [201, 202]. It is therefore important to consider the potentially diverse health profiles of refugee children and the potential correlation with the experiences they encountered.

A few participants characterised their children's negative behaviour by describing their child's negative mood, withdrawal, and low adaptability to different situations. A qualitative study in Australia also uncovered several behavioural factors including: withdrawal, isolation and distrust, anger and aggression, and risk taking behaviours [70]. The convergence of data validates the concern of behavioural difficulties of refugee children, as well as the need for holistic approaches to address their psychological wellbeing.

Owing to of the numerous adversities refugees face, the amount of adverse experiences expressed by participants outnumber the positive ones. This can be explained by the negativity bias, a natural human tendency to pay more attention to negative determinants than to positive ones [203]. This could be observed with regards to all levels of the SEM. Despite the negative circumstances, some participants did reveal important experiences which are summarised in Figure 13.

On an individual level, valuing education was considered as an important factor. Committing to school is known to instil a sense of stability and offer a feeling of hope



for a better future [204]. This finding highlights the transforming effect of education in refugee children's lives.

#### *4.2.2 Family influences*

Family influences were the initial foundation for ACE research among the general population [27]. It can be confirmed that many ACEs reported in previous literature (parent arrest, divorce, family death, parental neglect, physical abuse and parental mental health [27]) were also perceived as relevant for refugee children in this study. Family bereavement was one conventional ACE that was mentioned by a number of participants. According to research, children who experience a loss in the family may exhibit internalising symptoms for example depression, PTSD, and anxiety, as well as externalised symptoms like substance abuse, violence, and criminality [205].

Parental mental health represents another frequently encountered familial adversity. Previous studies have shown a correlation between parental health and children's general mental health [206]. While important, it is worth noting that a few participants commented on poor parental mental/physical health, and that the majority mostly focused on parental distress. Both children and adults identified parental distress as a primary concern. Increased caregiver distress had a correlation with higher levels of internalising and externalising difficulties in Eritrean adolescents living in an Ethiopian camp [207]. Parental distress was also found to negatively impact family functioning, which can contribute to poor behavioural adjustment in children, as parents unwittingly transfer their emotional burden and conflict to their child [208]. This implies that influence over children's wellbeing is not limited to parents with a diagnosed physical or mental health condition. Merely experiencing distress can have a detrimental effect, underlining the potential importance of including parental distress as a question in an adversity measure.

The weak endorsement of conventional ACEs such as parental physical abuse or neglect might be explained by the fact that participants appeared to emphasise stressors related to war, flight, and resettlement. Stressors that they perceived as more prominent at this stage of the child's life, yet a few did disclose that they were concurrent.

Refugees in this study also commonly commented on experiencing dispersion of family, which has been shown to cause anxiety in children due to uncertainty regarding their parent's whereabouts [69]. Additionally without parents' physical presence (whether it is due to dispersion, arrest, death or neglect), children tend to have behavioural problems, low academic achievement motivation and lack of self-esteem [209].

Economic hardship, which participants primarily experienced before and during flight, was another major topic associated with refugee children's struggles. Many participants discussed how parental job loss and depreciation of the local currency caused difficulties in affording necessities and safe refuge. In addition, it has been shown that economic hardship, such as that caused by long-term unemployed parents, can affect children's school performance and increase rates of early marriage or child labour [185].

From the interviews, conversations suggested that interactions between different factors can influence the wellbeing of the child, either directly or in combination. For instance, the consequences of economic hardship have also been shown to impact the wellbeing of refugee parents, in turn potentially affecting the emotional health of their children [74]. This potential correlation between parental health and children's mental health was also apparent in a 2018 study examining Syrian refugee children-parent dyads in Turkey [206]. The effects of economic hardship on parental health and its influence on children's wellbeing is an important recurring theme in refugee research.

These negative influences, whether anxiety or behavioural problems, could be buffered by potentially protective experiences, such as those illustrated in Figure 13. It might seem that the experiences perceived as protective are merely the opposite of experiences perceived as potentially traumatic, however, such experiences should be considered as fragments of a continuum [210]. For instance, constructive parenting is not simply parental presence (which is the opposite of an absent parent); it is a way of guiding the child's behaviour by comprehending their needs. Through constructive parenting, parents actively try to provide their children with security and stability [211].

On a similar note, two participants expressed the belief that orphaned children and unaccompanied minors would experience isolation due to the absence of family support, however none of the five unaccompanied minors in this study mentioned this as an adversity. It should be noted, nevertheless, that all unaccompanied minors indicated a strong desire to be reunited with their families. This draws attention to the subjective nature of the issue, implying that different people may perceive family support differently depending on their own circumstances and viewpoints. This finding suggests that even though unaccompanied minors may be physically alone in the host country, the presence of family support is still significant as they all had the desire to be reunited with their families. Similar findings came from a study that focused on unaccompanied minors. They assessed social support from three sectors (family, peers, and mentors) using the Multi-Sector Social Support Inventory. Their results showed that despite the physical absence of their families in the host country, unaccompanied minors predominantly depended on family for social support [212].

#### *4.2.3 Community influences*

The majority of the events recounted by participants were from the community level of the SEM, which includes the child's environment and their relationships with relatives, friends, teachers, neighbours and strangers. Nearly all participants regardless of their origin mentioned the many forms of community violence shown in Figure 12, suggesting that it is uniformly of high importance. Previous research has disclosed the relationship between these types of community-violence and individual afflictions, citing high levels of mental distress, depression, anxiety and post-traumatic stress disorder as unfavourable outcomes [68]. This strong endorsement necessitates the inclusion of community level adversities in ACE questionnaires.

Interestingly, none of the children under 13 (ages eight, ten and twelve) discussed community violence, perhaps due to age-related limitations in recall or lack of personal exposure. This raises important questions regarding the timing of ACEs and their influence on child health and development. According to some researchers, ACEs may have various effects on children depending on the specific ages at which they are experienced [213]. There has been an epigenetic association between mental health and the occurrence of ACEs during some periods of infancy and early childhood, but not during others [214].

The majority of child and adult participants also discussed inadequate shelter as a potential adversity. The UNHCR defines shelter as "a habitable covered living space that provides a secure and healthy living environment with privacy and dignity in order to benefit from protection from the elements, space to live and store belongings as well as privacy, comfort and emotional support" [215]. However, that was not what refugees described when discussing the different forms of shelter they lived in. Inadequate shelter is a potential health problem for refugee children. Physically, it can lead to the spread of diseases that may occur in overcrowded settings, and mentally, it can result in stress/anxiety from living in an insecure environment [77]. The implication highlights the critical role of adequate shelter in promoting the wellbeing of refugee children.

Moreover, strong support existed for displacement in which community life is disrupted due to countless relocations. With resettlement efforts being slow (less than one percent of the 20.7 million refugees of concern to UNHCR in 2020 were resettled [216]) refugees are compelled to take long and dangerous routes with numerous obstacles sometimes leading to psychological and physical health repercussions due to traumatic events during flight [69]. Displacement may prolong uncertainty, impede access to education and healthcare, hinder opportunities for parents to earn a sustainable living, and impede arrival in a safe/secure environment. This illustrates the perceived consequences of displacement which interacts with other community-level and family-level circumstances innately influencing a child's wellbeing.

Several participants mentioned yearning for family members and not having a social community or a social support system. Intriguingly, all children under the age of 13 mentioned that they missed cousins, uncles, aunts, or grandparents. Discussions in previous studies also pointed out the importance of the sense of belonging and not being isolated on the social and emotional levels [204].

Feelings of isolation were also mentioned in terms of cultural differences, As with other studies [217], participants stated this was mostly owing to the difficulties in communicating in German and juggling two cultures. Interestingly, refugee children were more likely to comment on cultural differences than refugee parents. This could

be because children are more likely to be in contact with the host culture, due to school enrolment, and that the majority of the participants in this study were homemakers, thus limiting their contact with other people.

Previous work highlights the salience of discrimination that refugees perceive in their resettlement countries [70, 71, 74, 75, 82]. However, in this study, discrimination was more commonly encountered in participants' home countries and en route, arising from historical conflicts such as the intolerance Kurdish people face in Iraq, Syria, and Turkey [218]. As with cultural differences, discrimination can affect children's feeling of belonging, lower self-esteem, reduce their aspirations, and negatively impact their mental and physical health [68]. Regardless of the stage of migration at which discrimination might have occurred, it is a significant issue that individuals from marginalised or minority groups often face.

Despite refugee children facing various challenges, this study reiterates earlier findings of community support and the resulting connections playing a protective role. Community support came in many shapes and forms as previously described in the results. This emphasises how important support networks from the community help promote resilience by aiding refugees with their needs [219]. Community connections were also perceived as important, for instance through having travel companions. Traveling the route with other people allowed the refugees to form strong bonds with others who were going through their same experiences and understood what the other was going through. Establishing connections with relatives or other refugees can help maintain ties to original culture [220]. Equally as important are connections with people from the host community which allow for sociocultural adaptation [82]. These connections provide refugees with a sense of belonging and social unity [82]. Neglecting to consider protective factors, such as supportive relationships, access to resources, and coping mechanisms, may overlook important factors that can mitigate the negative effects of adversities on children's health outcomes.

#### *4.2.4 Societal influences*

Societal influences such as political climate, societal norms and policies can also impact a child. In several accounts participants reported disruption of education. Despite efforts to offer schooling to refugee children, accessibility depends more on

the migration/asylum phase than on the child's educational needs [221] leaving many children without education. Disruption to education was experienced on a global level during the COVID-19 pandemic. The disruption of traditional classroom instruction caused by the pandemic had a number of negative consequences for students' education, including learning loss, disengagement, and unequal access to proper alternate learning arrangements [222]. Furthermore, the extended stress induced by uncertainty about the pandemic's progression or when it would end resulted in a distressing environment for many, undermining the necessary attention and dedication to education [222]. Refugees already had difficulty accessing education due to insecurity in their home countries or constant relocation, and the COVID-19 pandemic further aggravated this problem. A child's critical thinking, confidence and stability are hindered by this societal-level disruption, consequently affecting their wellbeing [223]. Because refugee children faced a double burden in the COVID-19 pandemic, they are at greatest risk of being disproportionately affected [224]. Since education is fundamental to children's growth and wellbeing, it is necessary to account for its disruption as a potential adversity.

Additionally, strong support existed for the perceived detrimental effects of militarisation, its negative impact is seldom mentioned in other studies [73]. Constant blockades preventing children from going to schools, preventing goods or people from entering or leaving, continuous interrogations, and unwarranted raids of homes cause children to constantly feel in danger [72]. This gap is critical because societal violence disrupts other societal constructs such as education and often triggers community violence in turn affecting children's health and yielding mistrust in police and soldiers that are meant to keep citizens safe. Militant presence and police/soldier brutality are exposures rarely discussed in ACE or refugee qualitative literature. Despite their prevalence, there is little understanding of how militarisation can potentially impact refugee children's lives, a gap that requires further investigation.

Furthermore, discussions about immigration rejection and policies that impede refugee progress are acknowledged in refugee research. The former causes children to feel rejected by society and are in constant fear and anxiety of another rejection or deportation [71]. The latter increases the duration of uncertainty, insecurity, and distress [70, 75, 76]. Yet conversations about national policies such as the Dublin

regulation [225] and negotiations such as the European Union-Turkey deal of 2016 [226] are often made without acknowledging the outcomes such policies might have on refugee children. Although the implementation of such national policies are meant to aid the humanitarian crisis, these policies are perceived by some refugees as forms of rejection because in certain instances they result in transfers of asylum seekers, detentions, and travel restrictions. This underscores the importance of taking national policies and negotiations into account when assessing refugee children's adversities as their wellbeing and sense of security can greatly be influenced.

Societal influences perceived as protective for refugee children include open borders, fast resolution of asylum applications, basic human rights and a safe and stable society including social security. Open borders enable safe passage without detention, while quick resolution of asylum applications reduces stress, facilitates resettlement and school enrolment, all beneficial for the child's wellbeing [84].

Similarly, the majority of the interviewees vocalised that they were now living in a place committed to ensuring their basic human rights including the right to life, freedom, work and education. This example of a safe and stable society is not merely the opposite of war or else it could have been found in transit/neighbouring countries. Refugees in Germany were provided with social security to be able to live with dignity as full, equal members of society [227], potentially contributing to their stability and sense of belonging [228].

In short, these interviews suggest many adversities and protective experiences at all levels of the SEM, affecting the child's wellbeing. The next step was to further examine these experiences by incorporating them into a suitable measure that measures beyond refugee ACEs.

### **4.3 Development of the BRACE questionnaire**

#### *4.3.1 Item selection, development, and structure*

Provided with the information from the qualitative interviews, and gaps discovered from the review, the BRACE questionnaire becomes a tool that draws on sound research to focus on a group of vulnerable children that have yet to receive much needed attention with regards to their unique ACEs.

Participants' inputs from the qualitative interviews for the development of questionnaires, is significant as in earlier studies [97]. With their guidance, the questions not only more accurately represent participants' unique perspectives, but also are more likely to be comprehensive. To enhance the questionnaire, existing ACE questions were adapted to ensure contextually relevant items for the new target population were included [130]. This strategy of adaptation is a widespread approach employed by ACE researchers when developing new measures [229-231]. By combining findings from the systematic review and qualitative interviews, the scope of what qualifies as an ACE broadens to also encompass experiences that are relevant for refugee children.

The 51 items developed here constitute the initial version of the BRACE questionnaire. It acknowledges the presence of the conventional ACEs but also includes expanded and refugee-specific ACEs, which are commonly neglected in other measures. It additionally recognises the presence of protective experiences and their potential influences on a child's wellbeing. It is a measure that takes into account the experiences encountered throughout all stages of migration regardless of the source from the SEM.

#### *4.3.2 Cross cultural adaptation*

After initially developing and structuring the questionnaire in English, the BRACE questionnaire needed to be translated and adapted to be answered by the Arabic-speaking refugee population. The Arabic language can be classified into three groups: colloquial Arabic, classical Arabic and Modern Standard Arabic. Colloquial Arabic refers to the regional dialects, classical Arabic is the language used in the Qur'an, and Modern Standard Arabic is the "formal" Arabic used for reading and writing [232]. Following the example established by other research questionnaires [233, 234], this project used Modern Standard Arabic. Using Modern Standard Arabic allowed the questionnaire to become accessible to a broader range of Arabic-speaking participants and prevented potential communication gaps caused by varied regional dialects.

When carrying out the translation process, it was important to ensure that the culturally adapted instrument was similar to the English version [116]. To achieve this,



conventional practice suggests the utilisation of both forward and back translation methods [143], however this study exclusively used forward translation, a decision based on several considerations. The aim of the study was not to conduct cross-cultural comparisons between users of the English and the Arabic version, thus rendering it acceptable to perform forward only translation [143]. Instead, the goal was ensuring that the key concepts and intended interpretations were effectively conveyed, rather than strictly sticking to exact duplication. Hence, forward only translation was efficient as it offered adaptability to the desired linguistic and cultural context [232]. Additionally, forward translation was preferred due to time and cost commitments. Despite the criticisms of this approach, thorough consideration of linguistic and cultural issues was given, and during the cognitive interviews, input from the target group was included, allowing for an accurate assessment among Arabic-speaking refugee parents.

While the goal of the cognitive interviewing was to reveal patterns of interpretation and respondents' strategies for answering, along with assessing the suitability of survey instruments, participants' feedback also helped improve the terminology used. The initial translation used in cognitive pretesting had aimed to accurately preserve the meaning of the English questionnaire, however interviews with the target population revealed that in a few questions this might not sound natural or idiomatic. Incorporating their feedback potentially enhanced the overall quality of the questionnaire by avoiding misunderstandings and answer biases, and also generating a more engaging and user-friendly experience. Hence, cognitive pretesting, as recommended in the literature, should be employed for both newly developed and translated instruments [235].

### *4.3.3 Preliminary evaluation of the pilot test*

#### *4.3.3.1 Participants demographics*

The demographics of the pilot sample provide crucial details about the study population. The arrival year reported by the majority of participants coincides with the peak of refugee influx into Europe, meaning that the survey comprises a sample of families who dealt with the difficult challenges that took place during this period.

Nevertheless, observations suggest that the population demonstrated characteristics of refugees with a comparatively privileged standing. For instance, 43% of the guardians in the pilot sample had a bachelor's degree or higher qualification. Given the association found in earlier studies, their children may benefit from this familial educational background. For example, having a less educated parent has been recognised as a risk factor influencing children's social and emotional development in the context of Syrian refugee children [236].

Furthermore, there is strong evidence that the unfavourable conditions in refugee camps harms refugee's mental health. In this study, the majority of children had a relatively brief stay in refugee camps, which could be indicative of a less distressing flight. To put matters in perspective, globally refugees spend an average length of 10 and 15 years in refugee camps [237], while the average duration in refugee camps for children in the pilot study was 3 months (SD=5).

Additionally, the absence of physical or mental problems in the majority of the sample suggests a generally healthy population that might encounter fewer obstacles. Notably, 84% of participants rated their child's German ability as good/very good, which may be a sign of their child's successful integration and adaptation. Similarly, evidence of current stability in terms of immigration status and living circumstances was also implied as the majority of participants indicated that their children have temporary residence permits and live in unshared apartments.

#### 4.3.3.2 Response patterns

##### BRACE questionnaire

This preliminary analysis set out to investigate the extent to which refugee children are exposed to adverse events addressed in the BRACE questionnaire. Even though the participants might be considered privileged in comparison to other refugee samples, the average number of endorsed adversities in this study was 11 out of 51 assessed ACEs ( $SD=6$ ). These results are comparable to other studies in the field. One study conducted in Norway and Belgium, asked unaccompanied refugee minors to answer the Stressful Life Events self-report questionnaire (SLE) to measure their traumatic experiences. Those unaccompanied minors also reported a high number of traumatic experiences, with an average of 6.41 of 12 assessed ACEs ( $SD=2.25$ ) [238]. Another study in Germany measured the traumatic experiences of asylum seeking minors with the Child and Adolescent Trauma Screen (CATS) in which their participants reported 8.82 different traumatic experiences out of 15 assessed ACEs on average ( $SD=2.99$ ) [175].

The BRACE project, however, differs in a few key aspects from these two studies. The SLE utilises 12 different items to assess types of traumatic events and the CATS utilises 15 [175, 238]. Given the limited number of items in both questionnaires, compared to the 51-item BRACE questionnaire, it is believed that many refugee relevant adversities are missing. Although the wider item pool of the BRACE questionnaire could lead one to expect a higher average count of endorsed adversities, there are a number of reasons why this may not be the case. Firstly, a previous study identified that the ACE burden significantly rises with age [188]. The mean age of children in the pilot study was 9 years ( $SD=3.6$ ), compared to 16.28 years ( $SD=1.69$ ) for those responding to the CATS, and 16.13 years ( $SD=0.84$ ) for those responding to the SLE. Secondly, it is speculated that participant recall bias may be a contributing factor. This assumption is because participants in the studies in Norway and Belgium were enrolled within weeks of their arrival, and in the German study, participants had spent an average of 1.75 years, as opposed to the BRACE pilot test where participants had been in Germany for an average of five years. Another potential explanation is proxy bias. Both aforementioned studies used self-report questionnaires whereas the BRACE questionnaire is a parent report. Parents might under-report children's trauma exposure as indicated by research demonstrating low agreement on

traumas reported between parents and children [239]. Regardless, the number of endorsed adversities in the BRACE questionnaire is still deemed as high, considering that the majority of ACE research uses a cut off score of four to suggest a high likelihood of unfavourable consequences [55, 176].

The current findings also indicate the importance of assessing refugee-specific ACEs. Multiple relocation, community loss, fitting in, war, parent language barrier, cultural differences and forced relocation were the most endorsed adversities and are all refugee-specific. On the other hand, each conventional ACE was reported by less than a third of participants. Moreover, the data revealed that 55% of participants with a complete dataset had no exposure to the conventional ACEs. These participants would have been unrecognised if they had answered a questionnaire measuring exposure to conventional ACEs alone. This highlights the necessity of an inclusive questionnaire that includes exposures relevant to refugee children.

The distribution of Likert scale responses for trauma and stress levels also draws attention to the varying degree of severity of ACEs for different individuals. For example in this pilot, for parental drug use, 31% of participants who answered yes to this item stated that it was not at all traumatic, while another 31% stated that it was an extremely traumatic exposure. Existing questionnaires have been criticised for their inability to determine the severity of ACEs [240]. This criticism is warranted because the traditional use of a cumulative score to predict actual risk can be inaccurate. A person that views a specific experience as not at all traumatic should not be equated to a person who viewed the same experience as extremely traumatic. The latter might have suffered an intense, prolonged, and unremitting exposure to this single adversity, compared to the former; yet they would both be awarded the same point when calculating a cumulative score. This warrants further testing using item response theory to determine whether the inclusion of Likert response options vs a simple dichotomous scale would further improve the explained variance with undesirable outcomes.

Moreover, it was important to recognize that child detention and child arrest had the lowest prevalence in the study sample, yet their severity was reported as extremely traumatic by all participants who reported this exposure. The incarceration of refugee

children has been extensively discussed in international literature. The negative effects of even short-term imprisonment on children's health include trauma-related disorders, developmental delays, behavioural problems, and potentially suicidal tendencies [241]. This suggests that these experiences may have detrimental consequences, regardless of their infrequent occurrence, and should not be underestimated. It also encourages a re-evaluation of the appropriateness of excluding experiences from the qualitative study because of minimal participant endorsement.

On the other hand, respondents to the BRACE questionnaire greatly endorsed protective factors (Table 13), highlighting the importance of taking into account both positive and negative childhood experiences. A study in Australia which investigated protective factors for refugee children showed similar results, disclosing that 63% of children in their study had four or more protective factors [242]. However, the protective factors they examined differed than those included in this study. The Australian study focused on protective and modifiable factors that may be useful to clinicians and policymakers. They reported that the most frequently cited protective factors were father present on arrival, African origin, having relatives in Australia before arrival, ethnic community ties and general community support [242]. Based on the existing literature, questionnaires that measure refugee protective experiences are not available [243]. This causes researchers to select protective factors at their discretion, making it difficult to compare findings. However, the wellbeing and health of refugee children have been proven to be connected to several of the protective items found in the BRACE questionnaire, as evidenced in published systematic reviews [84, 244]. Analysis of positive experiences that predict resilience is a critical, frequently disregarded, component when understanding adversity.

### SDQ

The SDQ is a widely used measure of emotional or behavioural problems in both refugee children and the general population [245]. In this pilot study, the mean total difficulties score was 11.4 (SD=7). This mean total difficulties score was higher than the general German population reported at 7.8 (SD=5.2) from 2,406 participants that were randomly selected from a national representative sample of children (ages 7-16 years) [246]. In an Australian study measuring the SDQ scores of newly arrived refugee children (aged 4-17 years) the total difficulties scores had a mean of 8.5

(SD=6.7) [242]. Additionally, the Australian study found that 13% of refugee children in their sample fell within the high or very high range for the total difficulties scores [242], whereas this pilot test revealed a higher percentage, 25%, in those two ranges. This indicates that the refugee children in the pilot test might be experiencing more emotional or behavioural problems compared to both the general population in Germany and other refugee children. Nevertheless it is important to note that SDQ results differ with cohort age and ethnicity [188].

#### WHO-5

The WHO-5 is a sensitive and specific screening tool for depression [150]. The sample in the pilot study had a relatively low mean of 45 (SD=21) which according to the cut off score of 50 would imply parents' reduced wellbeing. A comparison can be made with a study done in Denmark, where Arabic-speaking refugee parents showed a higher mean WHO-5 score of 59.56 (SD=3.93) before the implementation of an intervention [247]. A variety of aspects, such as cultural challenges, language difficulties, poor social networks, and unresolved legal or immigration situations, could explain this disparity. Nonetheless, this data highlights that the parents in this pilot sample had a reduced wellbeing.

#### 4.3.3.3 Construct validity – regression analysis

Several studies have found a significant correlation between ACEs and SDQ total difficulties scores [248, 249]; accordingly, a similar association was expected within the context of this pilot test. Univariate regression analysis indicated that the conventional ACEs and refugee ACEs have a statistically significant moderate association with the SDQ scores. The refugee ACEs were seen to have a reduced effect size, however it remained significant, which suggests that the refugee ACEs may have an independent yet meaningful impact on SDQ scores.

This was also echoed in the multivariate analysis. Including the refugee ACEs in the multivariate regression analysis improved the association with the SDQ score by two percent, and caused a slight decrease in the standardised coefficient of conventional ACEs. The former finding implies that refugee ACEs can improve the

predictive power of the BRACE questionnaire, while the latter implies it can be independent.

On the other hand, in both univariate and multivariate regression the expanded ACEs had a weaker and not statistically significant correlation with the SDQ. This was a surprising finding as many items of the expanded ACEs (such as discrimination or financial difficulties) are refugee relevant and are supported in the literature for having an effect on children's emotional or behavioural wellbeing [68, 74]. A possible explanation could be because the expanded ACEs had minimal endorsement in this small pilot sample. Additionally, a higher association might have existed if the assessment of ACEs utilising BRACE occurred closer to the actual adversities faced. This motivates additional research into the expanded ACEs' possible effects. In contrast, this could also imply that refugee-specific items customised to the target population could effectively replace expanded ACEs. Therefore, it is encouraged that future studies include a variety of additional refugee-related data to provide further understanding of unfavourable childhood experiences associated with refugee children.

The WHO-5 wellbeing scores had the highest effect size, which was also statistically significant, suggesting a moderate to strong association with SDQ scores. The larger effect size indicates that higher wellbeing scores of a parent are linked to better or more positive behavioural outcomes for their child. This correlation was also observed in Syrian parents of preschool children living in Lebanese and Jordanian refugee camps [250]. The parents' WHO-5 improved significantly after the intervention compared to baseline as did the total difficulties score of the children.

In addition, the results of the multivariate regression show that the variance in SDQ scores increased significantly by nine percent when the WHO-5 variable was added. The standardised coefficients, for the conventional ACEs and the refugee ACEs both dropped suggesting that the inclusion of the parental wellbeing (measured using the WHO-5) might have had a confounding effect on the link between the other variables and SDQ scores.

#### 4.4 Study strengths and limitations

*An adapted version of this section is available as a preprint - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>*

This project has several strengths, first is being the first systematic review to evaluate whether and to what extent existing ACE questionnaires can be used to identify the adversities of refugee children. It is also the first to explore refugee children's experiences at all stages of migration in different social-ecological contexts and uncover experiences not described in previous ACE work. In addition, it is the first to develop an ACE questionnaire designed specifically to address the experiences of refugee children.

Regarding the systematic review, a few limitations exist - for example, some current questionnaires might not have been identified because the search was limited to articles published in English, thus limiting the international scope of the review. Additionally, articles were excluded if some respondents were outside the desired age range because they did not fit the definition of a child, thus inferring that the questionnaire is not explicitly designed for children. This review may also be subjected to publication bias, as searches outside the mentioned databases were not made. A final limitation is that information about the modifications made by certain studies to the original version of questionnaires was not collected.

Despite these limitations, using the explicit methodology of a systematic review allowed for the identification of 14 questionnaires on a global level that assess at least one refugee-specific ACE in children. The results provide a detailed overview of assessed forms of adversities categorised into domains to assist future researchers in identifying useful questionnaires. Additionally, this review draws attention to the existing gaps and the need for a questionnaire that addresses the unique adversities of refugee children.



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*Parts of this section have been adapted from the publication: Abdelhamid, S., et al., Negative and protective experiences influencing the well-being of refugee children resettling in Germany: a qualitative study. BMJ Open, 2023. 13(4): p. e067332 DOI: [10.1136/bmjopen-2022-067332](https://doi.org/10.1136/bmjopen-2022-067332).*

The qualitative phase also had a few limitations that should be acknowledged. As common in qualitative research, restraints on generalisability occur. The majority of interviews were with Arabic speaking participants. However, Arabic speaking refugees made up more than 36% of the refugee seeking population in Germany [117], and at the time of data collection the majority of refugees globally were from Syria [251]. The necessary use of interpreters might have resulted in comments that were under-translated or entirely lost in translation. However, it should be noted that the author's first language is Arabic, thus making translation errors less likely. Furthermore, the author was aware of limitations caused by translations and tried to overcome this impediment by employing interpreters that were bilingual and had interpreting experience with refugees. All interpreters were also coached prior to the interview regarding the importance of their work, the aims of this study and methods to avoid under translation/rephrasing or misinterpretation of the interviewee's answer. Similarly, an inability to confirm the presented findings through member checking raises the possibility of misinterpretation. However, member checking may also have a harmful impact on participants: recommendations exist that this process should either be avoided or implemented with caution when studying marginalised populations or traumatised participants [252] as re-engagement with the study topic and reading the presented findings might cause re-traumatisation [253].

Nevertheless, through the employment of interpreters, access to refugees from a variety of ethnic backgrounds was feasible, making it possible to recognise emerging themes that were salient across cultures. Moreover, the aim was to ensure the rigor of this study by using qualitative methods such as using a semi-structured interview guide, audio recording, professional transcription, use of a computer software to organise codes, duplicate coding, and thematic extraction derived from the data via research team discussions. Another strength is that refugee children were interviewed about their own experiences, allowing them to add their own perceptions and voice matters that were important to them. Additionally, the combination of group and

individual interviews, even though different data collection techniques, can be beneficial as they have the potential to increase knowledge of a phenomenon [254]. Group interviews offer opportunities to explore the range of mutual views [255] while individual interviews provide more in-depth information [256].

A few other restrictions apply to the questionnaire development. The decision to develop the questionnaire as a parent-report and administer it to caregivers was influenced by the study design. Parents may express a proxy bias, since they are expressing their own perception and might not be aware of some events their child might have experienced [109]. However, parent-report questionnaires are beneficial in targeting younger children since their limited language and reading skills make it difficult to provide accurate accounts of ACEs [257]. Given that the BRACE questionnaire was going to be administered online and with the absence of a system for referral and treatment, the decision was made that it might be ineffective or harmful to ask children directly about their adversities. The reason for this is that it could stigmatise and re-traumatise already vulnerable children [258]. In response to this issue, parents were asked during the cognitive interviews how they felt about answering the BRACE questionnaire and while some revealed that it brought back difficult memories, none considered it harmful.

In addition, the number of participants for the cognitive interviews could be considered a restriction. The earlier interaction with potential participants that was feasible for the second phase of the project was no longer possible due to COVID lockdown restrictions. While effort was made to find volunteers who were representative of the study's target demographic, it is possible that the number of participants in the cognitive pretesting could be considered small, however research has shown that even modest pretest samples for cognitive interviews can enhance questionnaires [259]. Cognitive pretesting for this study directly improved item clarity and comprehension and allowed for early identification of technical problems. These interviews also helped confirm that the majority of items are interpreted as intended, reflecting the high content validity of the BRACE questionnaire, and providing insight into the cognitive processes involved in participant responses.

Caution should be taken regarding the generalisability of the questionnaire. This questionnaire was created based on qualitative research with mostly Middle Eastern refugees who were resettled in Germany, a high-income country. Future research with refugees from other backgrounds, internally displaced people or refugees resettling in low-income countries may add to the findings presented in this project and shed more light on issues related to the generalisability of the BRACE questionnaire.

A significant strength of the BRACE questionnaire is that the items were developed based on interviews with refugee participants themselves reporting their personal experiences. This made it possible to measure experiences that might not have been previously recognised. The BRACE questionnaire's ability to quantify both exposure and the severity/frequency of adversities is another advantage. For that reason, while developing the BRACE questionnaire it was important that response options included severity/frequency.

Another limitation is due to the distribution of the survey online. Because this survey was conducted online, it excludes groups of people such as those without internet access or those who do not utilise the platforms where advertisements were posted, which could cause coverage bias [260]. Additionally, internet users tend to be younger, more educated, and more financially secure than the overall population [260], which might explain the privileged standard of the study participants. However, the cognitive pretesting demonstrated that an online questionnaire is acceptable for screening for childhood adversity with refugee parents. The results highlighted the advantages of using an internet platform to reach participants for cognitive interviews during the COVID pandemic. Despite the lockdown restrictions, the study managed to collect rich qualitative data on questionnaire items and possible missing concepts. This method enabled access to individuals who would be difficult to reach through other channels, it was time saving and cost effective [261].

Cognitive pretesting also worked well as a process for identifying translation problems. The lack of back translation during the translation process, as outlined by the Consensus-based Standards for the Selection of Health Measurement Instruments (COSMIN) Checklist [262], could be considered a potential limitation. However, it was considered unnecessary as evidence suggesting that back translation might not be

mandatory was discovered [263]. Additionally, the translation and adaptation of the BRACE questionnaire followed several other procedures outlined by the COSMIN Checklist. Adherence to these guidelines, including the involvement of multiple forward translators who worked independently and the resolution of discrepancies, contributes to the questionnaire's construct validity. In addition, as in prior studies, it was found that cognitive pretesting was an effective method for detecting problematic questions [264].

Lastly, the pilot testing highlighted several factors that should be modified in the BRACE questionnaire. The eligibility criteria need to emphasize that respondents must be parents of children meeting the definition of refugee. The analysis may have been impacted by the fact that some parents reported that their child was born in Germany, thus they might not have encountered pre-flight or flight adversities.

Additionally, the analysis of the collected data showed that the different response options in the BRACE questionnaire (as depicted in Table 3) introduced some challenges. Including a mix of dichotomous and Likert scale vs. questions with only a Likert scale could lead to response bias as participants may respond differently to dichotomous questions than to Likert-scale questions, which may alter the validity of their responses [109]. The numerous response options made it difficult to compare the results of the different question types directly, which might further complicate the analysis process. For this reason, it is recommended that the next iteration of the BRACE questionnaire feature a single set of standard response options.

On a similar note, considering the response options of question 30 (Multiple relocation), which was asking about the number of relocations, any response option would indicate an affirmative response. This raised a concern since this could be misleading. Therefore, it is recommended to reconsider the response option specifically for question 30 and perhaps rephrase it so it can be answered using a dichotomous scale.

It was also discovered during quality assessment of qualitative analysis after questionnaire development that two strongly endorsed protective factors from the

qualitative interviews (valuing education and constructive parenting) were not included in the BRACE questionnaire and should be included in the next iteration.

Regardless, the quantitative analysis, which revealed the informative benefit of including refugee-specific items into the ACE questionnaire, is a major strength of the pilot test study. Most importantly, one should recognise that developing a questionnaire necessitates ongoing effort with constant testing and re-testing.

## **4.5 Implications**

### *4.5.1 Next steps*

For accurate evaluation of the impact of ACEs on children's outcomes, as well as to understand how ACE assessment might inform or improve larger efforts to promote the wellbeing of children in any given context, a comprehensive questionnaire with good psychometric properties is crucial. Hence, the next step would be to evaluate the psychometric properties of the BRACE questionnaire after making the recommendations outlined in the strengths and limitations section. Doing so will help improve the questionnaire and ensure that it is valid and reliable.

Given the dynamic and continuously shifting demographics of refugee populations as a result of conflicts and global events [86], it is also critical to realise the significance of adjusting the BRACE questionnaire to fit the demands of different populations. Adapting the questionnaire increases accessibility and inclusion [196], enabling the screening of people from different backgrounds. By applying cultural adaptations, the questionnaire can also develop into a tool that is more sensitive to the cultural views and life experiences shared by different refugee groups, potentially increasing the validity and reliability of its assessment of adversity and protective experiences. Similarly adapting the questionnaire in a child-report version can reach unaccompanied minors and can ensure that data is collected directly from the child experiencing the adversities.

#### 4.5.2 Potential application

*Parts of this section have been adapted from the publication: Abdelhamid, S., et al., Negative and protective experiences influencing the well-being of refugee children resettling in Germany: a qualitative study. BMJ Open, 2023. 13(4): p. e067332 DOI: [10.1136/bmjopen-2022-067332](https://doi.org/10.1136/bmjopen-2022-067332).*

The BRACE questionnaire can serve multiple purposes in understanding and addressing the experiences of refugee children. It can aid in the identification of their adversities and provide valuable insights into their prevalence. Using it can capture incidents that often go unreported and aid in identifying children that are reluctant to disclose their negative experiences due to the sensitivity of the matter or associated stigmas [265].

Once validated the BRACE questionnaire can be used by different professionals and organisations from various fields. For instance, it may be used in academic research to examine the prevalence, impact, and long-term effects of refugee experiences on a variety of health and social outcomes. It can also be used to assess the intergenerational transmission of adversities in refugee populations. Using the BRACE questionnaire, researchers may also investigate the timing of adversities and protective experiences to assess their impact on child health and development. It can also be used to examine the differences in exposure between different refugee populations or to compare between different host environments. It could also be used to examine exposure differences between unaccompanied refugee children, refugee children who migrated with their parents, and those born in host countries. Its potential applications in academic research is numerous.

The BRACE questionnaire can also be used in schools for implementing systematic screenings. The BRACE questionnaire, which includes experiences relevant to both the general population and refugee children, equips school personnel, including teachers, counsellors, and administrators, with a comprehensive tool to identify students in need of additional support. Given the potential for schools to provide easily accessible mental healthcare, aid with language barriers, and provide essential assistance [266], implementing BRACE screening in educational settings holds substantial benefits. Schools can direct refugees to available programs and

providers, as well as potentially alleviate worries about social stigma, both of which are known barriers to seeking mental healthcare among refugee populations [267].

Furthermore, policymakers and public health authorities can use the BRACE questionnaire to learn about the prevalence and impact of negative and positive experiences in their population. In the United States, ACE-related research has informed state policy by introducing laws to promote awareness, prevention, screening, or treatment of ACEs to mitigate their harmful effects [268]. In the same way, data from the BRACE questionnaire can be used to inform policy decisions, resource allocation, and the development of preventive strategies to alleviate the long-term consequences of adversities faced by the general population while also accounting for the ever-growing refugee population.

Healthcare professionals, psychologists, and/or therapists may also use the BRACE questionnaire as a screening tool when conducting early refugee health assessments. Worldwide 196 countries signed the United Nations Convention on the Rights of the Child (CRC) which recognizes in Article 24 that all children, including refugees, have the right to the greatest possible standard of healthcare [108]. In Europe, Article 13 of the Reception Conditions Directive stipulates that EU member states may require medical screening for applicants of international protection (asylum seekers or people seeking subsidiary protection), yet such examinations are not mandatory [269]. For refugee children, fulfilling these commitments may include assessing refugee children's experiences using the BRACE questionnaire. A health evaluation is required in Germany; however, it has typically focused on physical health with the goal of identifying communicable diseases to protect the host community [270]. One barrier to including other examinations is the lack of a suitable screening tools for refugee children [271]. It is critical to identify potential difficulties refugee children might face as soon as possible in order to refer vulnerable children to diagnostic or treatment services. Using the BRACE questionnaire can increase the likelihood of detecting vulnerable children who would otherwise go unnoticed.

If screening using the BRACE questionnaire recognises that the child's individual characteristics are affected this can lead to an increase in referrals to services that can care for ACE-related consequences or encourage prevention of

future exposure. Referral to mental health services, such as counselling or therapy, can aid in the management of children's mental disorders and help them develop coping skills [272, 273]. Referral to medical services, can aid in the treatment of specific health concerns [274]. Referral to educational support services, such as tutoring, can help these children overcome academic challenges [275]. Finally, referral to service agencies, such as child protective services, homeless shelters, or migration lawyers, can help ensure their safety and security [276, 277].

From the qualitative study, insights were gained regarding the familial level adversities that refugees encounter. It has already been noted that these adversities could account for many negative outcomes; however, they can also shape the humanitarian response by guiding the implementation of familial interventions. Childhood is a critical developmental stage that requires guidance, love and parental support [278]. Interventions can include parenting support and education, mental health counselling, healthcare tailored to the family's needs and coordinating care between legal guardians, educational institutions, the healthcare sector, and social services [279]. Parenting programs in refugee settings have shown successful outcomes in reducing parental stress, improving parent-child interactions, thereby improving childhood development in young children [278]. Efforts to identify resources and support the development of coping strategies for refugee parents and their children are needed and may reasonably take the form of interventions to aid in building resilience.

When interventions to stop adversities might seem impossible, one can resort to the protective factors participants mentioned during the interviews to care for the children. For instance, building connections and implementing community-building initiatives are crucial on a community level. School attendance offers children the opportunity to integrate with people from the community possibly build friendships [280], while leisure activities such as football establish relationships, enhance social integration, and promote wellbeing [281]. Additionally, acknowledging unfavourable experiences such as discrimination can open up dialogues leading to solutions that decrease discrimination or equip children with skills to overcome it. Nevertheless, children should be supported to ensure healthy psychosocial development [182].



With regards to societal-level factors, policy action must ensure that the best interests of the child are met. For instance, a few participants in the qualitative study described their misfortune of being detained when crossing the borders between countries. Policies resulting in the closing of borders must ensure that children will not be detained or separated from their families and will receive their inalienable rights outlined by the CRC [108]. Furthermore, certain policies such as reuniting children with their families should be prioritised. In addition, solutions to guarantee safe access to schools pre-flight, adequate funding for organisations to support continued education during flight, and rapid enrolment and educational assistance post-flight should be discussed, as Article 28 in the CRC recognises the right of the child to education. Another opportunity for aid is relieving economic hardships. Post-flight communities in high-income countries such as Germany have been able to assist in resettling refugees through housing, medical care, and minimum living expenses [227]. However, the struggle remains for those left behind, solutions such as cash-based interventions (cash transfers to refugees for greater choice, dignity, and empowerment) should be amplified [282]. It is also vital that governments and non-governmental organisations strive to minimise negative exposures pre-flight and during flight, firstly by responding to the humanitarian needs of those suffering from militarisation and community violence through the delivery of aid and granting civilians safe passage. Secondly, by modifying emergency responses into more durable long-term solutions, such as relocating refugees from camps to more private/suitable accommodation.

Positive experiences from the questionnaire can be useful in assessing, monitoring, and developing interventions that make the lives of refugee children better. With the addition of protective experiences to ACE questionnaires, one can test whether protective experiences buffer the negative outcomes of adversities [92, 93]. In addition, one can acknowledge the existence of such protective experiences and use them as a basis for developing interventions [277]. This could involve increasing support or community engagement, and monitoring the success of such interventions through the measurement for these protective experiences.

## **4.6 Conclusion**

Regardless of the availability of numerous questionnaires there is no one-size-fits-all measure for every situation. The understanding of childhood adversity and its

long-term effects continues to evolve. However, the research presented in this dissertation has helped to highlight a dimension that has been under-represented in previous work. Refugee children clearly face multiple and ongoing challenges. Given the continuous growth in the refugee population and previous research highlighting an increased prevalence of mental and physical health disorders among children associated with ACEs, it is undeniably important to understand the adversities affecting the wellbeing of refugee children and experiences that may be protective. This study adds new concepts to consider when examining ACEs in refugee children such as family dispersion, displacement, immigration, and national policies. In addition, participants discussed constructive parenting, attaining basic human rights, and having opportunities to build connections as potential protective experiences.

This dissertation built a new questionnaire expanding the adversity categories to include those faced by refugee children and aid in this understanding. A combination of adapting existing questionnaires and incorporating information from qualitative interviews with refugee parents and children proved effective in developing the BRACE questionnaire. Refugee children can be screened for ACE exposure using this 51-item parent-report questionnaire, allowing for early detection of exposure and possible prevention of future incidents. Overall, the BRACE questionnaire serves as a versatile tool to assess, monitor, and support the wellbeing of refugee children, facilitating evidence-based interventions and long-term solutions.

## 5 SUMMARY

Conflict, forced migration and searching for safety in a foreign land are all experiences common to refugee children. They experience potentially traumatic events that are distinct from the general population, yet current adverse childhood experience studies do not cover these events. To address this gap, this dissertation aimed to develop the Beyond Refugee Adverse Childhood Experience (BRACE) questionnaire to comprehensively assess both adverse and protective experiences of refugee children during all stages of migration and all levels of the social-ecological model.

This was accomplished through three phases: The first involved a systematic review aimed at identifying current adverse childhood experience questionnaires to determine their suitability for assessing refugee children's adversities. The second aimed to identify potentially traumatising and protective experiences subjectively perceived as influencing refugee children's wellbeing. The final phase involved developing a core set of adversity and protective questions with items specific to the refugee child based on the information from the two earlier phases; then conduct a pilot test with the developed questionnaire.

A systematic search was conducted across five databases for articles published between 01/2010 and 03/2022. Included studies used an ACE questionnaire that recognised multiple adversities in healthy children and were published in English. A total of 103 ACE questionnaires were identified from 506 studies. Only 14 of the 103 questionnaires addressed a refugee-specific adversity. Their ability to capture refugee children's experiences was limited as available questionnaires used a maximum of three items to assess refugee-specific adversities, covering only a fraction of potential adversities relevant to refugee children.

For the second phase, semi-structured interviews with 47 refugee parents and 11 children (aged 8-17) were conducted between 11/2018 and 01/2020. Interviews were recorded, transcribed, coded, and analysed using thematic analysis. Unveiled experiences revolved around eight major themes including six themes revolving around potentially traumatising experiences: disruption, rejection, isolation, violence, impediments and affliction; and two themes revolving around possible protective experiences: security/stability and connections. This qualitative phase highlighted

several important aspects to consider when examining refugee children's experiences, such as family dispersion, displacement, strict immigration, and national policies.

Categories and associated adverse/protective experiences derived from the qualitative interviews built the foundation of the BRACE questionnaire. Where appropriate, items from validated questionnaires identified in the systematic review were used to assess exposure. Nineteen items were developed for this project, and 33 items were adapted from existing questionnaires. The item set was finalised after translation into Arabic and cognitive pretesting (n=12) resulting in the initial 51 item Arabic parent-report version. This consisted of 51 items divided amongst 25 categories grouped into conventional, expanded and refugee specific adversities and protective experiences, covering 44 adversities and 7 protective experiences.

Initial pilot testing of the BRACE questionnaire was conducted online between 09/2020 and 02/2022, involving an analytical sample of 152 participants. When assessing the full set of adversity questions (44 items), respondents' reported adversities ranged from a minimum of 2 to a maximum of 32 reported experiences (n=91 with a full data set), with a mean of 11 (SD= 6). Notably, the data also revealed that 55% of participants reported no exposure to the conventional ACEs while, on the other hand, refugee ACEs were reported frequently. Regression analysis showed that refugee ACE scores positively correlate with the scores from the Strength and Difficulties Questionnaire and can improve the predictive power of conventional adversity measures. Overall, the data indicated that including refugee ACE items is crucial for addressing the adversities faced by these vulnerable children.

The research presented in this dissertation has helped to highlight a dimension that has been under-represented in previous adverse childhood experience work. It has built and tested a new questionnaire expanding the adversity categories to include those faced by refugee children. As the refugee population continues to grow, the BRACE questionnaire is of high relevance. It can be used to identify the children most at risk of developing negative outcomes, contribute to the understanding of potential pathways of adverse experiences influencing health as well as the interplay between adverse and protective experiences. It can also raise awareness of refugee-specific ACEs and become a starting point to design evidence-based intervention and prevention programs.

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## 7 APPENDIX

### 7.1 Appendix 1: Search Strategy for Systematic Review

#### PubMed

"child abuse"[MH] OR  
"child abuse, sexual"[MH] OR  
Adverse Childhood Experience\*[tw] OR  
Adverse Childhood event\*[tw] OR  
Adverse child experience\*[tw] OR  
Adverse experience\*[tw] OR  
"household dysfunction"[tw] OR  
"child abuse" OR  
"childhood abuse" OR  
"child neglect"[tw] OR  
"childhood neglect"[tw] OR  
"child maltreatment"[tw] OR  
"childhood maltreatment"[tw] OR  
"child trauma"[tw] OR  
"childhood trauma"[tw] OR  
"childhood stress"[tw] OR  
"childhood violence"[tw] OR  
"child violence"[tw]

child[MH] OR  
infant[MH] OR  
adolescent[MH] OR  
child\*[tw] OR  
infant[tw] OR  
infants[tw] OR  
adolescent[tw] OR  
adolescents[tw] OR  
baby[tw] OR  
babies[tw] OR  
toddler[tw] OR  
toddlers[tw] OR  
teenager[tw] OR  
teenagers[tw] OR  
teen[tw] OR  
teens[tw] OR  
preteen[tw] OR  
preteens[tw] OR  
youth[tw]

Questionnaire\*[tw] OR  
survey\*[tw]

#### Bemerkungen

**Filter age:** NOT ("adult"[Mesh] NOT ("infant"[Mesh] OR "child"[Mesh] OR "adolescent"[Mesh]))

## Web of Science Core Collection

"Adverse Childhood Experience\*" OR  
 "Adverse Childhood event\*" OR  
 "Adverse child experience\*" OR  
 "Adverse experience\*" OR  
 "household dysfunction" OR  
 "child abuse" OR  
 "childhood abuse" OR  
 "child neglect" OR  
 "childhood neglect" OR  
 "child maltreatment" OR  
 "childhood maltreatment" OR  
 "child trauma" OR  
 "childhood trauma" OR  
 "childhood stress" OR  
 "childhood violence" OR  
 "child violence"

"child\*" OR  
 "infant" OR  
 "infants" OR  
 "adolescent" OR  
 "adolescents" OR  
 "baby" OR  
 "babies" OR  
 "toddler" OR  
 "toddlers" OR  
 "teenager" OR  
 "teenagers" OR  
 "teen" OR  
 "teens" OR  
 "preteen" OR  
 "preteens" OR  
 "youth"

"Questionnaire\*" OR  
 "survey\*"

### Bemerkungen

Filter: Age Groups: Childhood (birth-12 yrs), Adolescence (13-17 yrs)  
 Recherche mit der Einstellung Title. Eingrenzung Publikationen ab 2008

## PsychInfo

### DE "Child Abuse" OR

"Adverse Childhood Experience\*" OR

"Adverse Childhood event\*" OR

"Adverse child experience\*" OR

"Adverse experience\*" OR

"household dysfunction" OR

"child abuse" OR

"childhood abuse" OR

"child neglect" OR

"childhood neglect" OR

"child maltreatment" OR

"childhood maltreatment" OR

"child trauma" OR

"childhood trauma" OR

"childhood stress" OR

"childhood violence" OR

"child violence"

"child\*" OR

"infant" OR

"infants" OR

"adolescent" OR

"adolescents" OR

"baby" OR

"babies" OR

"toddler" OR

"toddlers" OR

"teenager" OR

"teenagers" OR

"teen" OR

"teens" OR

"preteen" OR

"preteens" OR

"youth"

"Questionnaire\*" OR

"survey\*"



**Academic Search Complete** (published first as Premier) (via EBSCO host)

"Adverse Childhood Experience\*" OR  
"Adverse Childhood event\*" OR  
"Adverse child experience\*" OR  
"Adverse experience\*" OR  
"household dysfunction" OR  
"child abuse" OR  
"childhood abuse" OR  
"child neglect" OR  
"childhood neglect" OR  
"child maltreatment" OR  
"childhood maltreatment" OR  
"child trauma" OR  
"childhood trauma" OR  
"childhood stress" OR  
"childhood violence" OR  
"child violence"

"child\*" OR  
"infant" OR  
"infants" OR  
"adolescent" OR  
"adolescents" OR  
"baby" OR  
"babies" OR  
"toddler" OR  
"toddlers" OR  
"teenager" OR  
"teenagers" OR  
"teen" OR  
"teens" OR  
"preteen" OR  
"preteens" OR  
"youth"

"Questionnaire\*" OR  
"survey\*"

## 7.2 Appendix 2: Interview Guide for Qualitative Interviews

I want to start by thanking you for helping us with this research today. I welcome you to this meeting and want you to know that I am very happy to have each of you with us today. You are asked to help us better understand what you consider are potentially traumatic and positive life events that happen to refugee children. These negative experiences could be incidents that are incredibly upsetting, life-threatening or have an impact on your child's physical/psychological wellbeing. While a positive experience is one that is pleasant and helpful to your child. Our objective is an important one. Identifying negative factors provides opportunities to intervene and treat these issues as well as prevent other negative outcomes from happening. Likewise identifying positive factors provides an opportunity to build on these positive factors and improve refugee children's health and wellbeing.

Your input about these things is very important because you are an expert in your own life and know more about your friends and family than we do. Success will depend on your equal and full participation. Each of you here is an important group member, please feel free to share from your experience or experience of someone you know. There are no right or wrong answers, and I am not here to judge your comments in any way. I appreciate, the willingness of every one of you to fully share your ideas. The ideas which you generate in this meeting will become the basis for organisational planning for a questionnaire which will hopefully be used in the future to identify those in need and identify how to help them.

Do you have any questions?

Great, let's get started.

Question 1: When you were in your home country...

What comes to your mind when you think about potentially traumatizing experiences for your children?

What were some events that happened that were upsetting or made you feel scared, or sad, angry or uncomfortable? These things can happen to any child not just you.

What are some positive experiences that you think protected your children?

What are some things that made you feel safe or happy that they were there?

Question 2: During your journey to Germany...

What comes to your mind when you think about potentially traumatizing experiences for your children?

What were some events that happened that were upsetting or made you feel scared, or sad, angry or uncomfortable? These things can happen to any child not just you.

What are some positive experiences that you think protected your children?

What are some things that made you feel safe or happy that they were there?

Question 3: As you resettle here in Germany...

What comes to your mind when you think about potentially traumatizing experiences for your children?

What were some events that happened that were upsetting or made you feel scared, or sad, angry or uncomfortable? These things can happen to any child not just you.

What are some positive experiences that you think protected your children?

What are some things that made you feel safe or happy that they were there?

These were the questions that I wanted to ask. Is there anything that you would like to add? Would you like to mention something that I did not ask you about?

Thank you very much for your participation, your contribution is greatly appreciated.

## 7.3 Appendix 3: Code book for qualitative data management

Heading/ grouping	Code	Brief description
Individual		Identifies biological and personal history factors such as age, gender, etc...
Age		Children of different ages will experience a traumatic event in a different ways  Example: My child is too young to remember/understand what was happening my child was old enough to be aware of what was happening
	Young age	
	Old age	
Child Development		Child development is the transitional stage of physical and psychological development during which dependent children grow into independent adolescents
	Matured	Matured: become fully grown or developed
	Loss of childhood	Lose of innocence can mean the lose of child like belief in the inherent happiness and goodness of life through an experience that makes the child personally aware of one of the evils of the world.
Behaviour		The way in which one acts or conducts oneself, especially towards others.
	Child has behavioural issues	Common behavioural Issues include <ul style="list-style-type: none"> <li>• Defiance</li> <li>• Inattention</li> <li>• Physical aggression</li> <li>• Blaming others</li> <li>• Antisocial behaviour</li> <li>• Stealing</li> </ul>
Mental/ physical health		Mental health is the level of psychological wellbeing or an absence of mental illness.  Physical health is defined as the condition of your body, taking into consideration everything from the absence of disease to fitness level.
	Child at ease	If the child is at ease, they are feeling comfortable and relaxed.
	Healthy	in a good physical or mental condition; in good health
	Psychological trauma/ unrest	Psychological, or emotional trauma, is damage or injury to the psyche after living through an extremely frightening or distressing event and may result in challenges in functioning or coping normally after the event.  Examples: child is afraid of 'normal' things ex. fireworks: they think it is gunshots they cannot forget what they have seen it is mentioned that they are paranoid or have been effected psychologically
	Poor Physical health	Health conditions, like illnesses, injuries and impairments, that affect their ability to function or enjoy life.
	Developmental disorder	Developmental disorder is an umbrella term covering intellectual disability and pervasive developmental disorders
	Pressure on the child	Kids who feel like they're under constant pressure may experience constant anxiety. High amounts of stress can also place children at a greater risk of developing depression or other mental health issues.
	Self-injury	Deliberately hurting your own body, such as cutting or burning, is a harmful way to cope with emotional pain, intense anger and frustration.
Familial		Relationships with a child's closest social circle partners and family members-influences their behaviour and contribute to their experience.
Parenting		
	Constructive parenting	Useful or beneficial parenting

	Explaining the circumstances to the children	Clarifying what is happening, what their current situation is
	Strong parents	Strong parents teach, practice, engage, and model strength so that their kids can learn the skills they need to become strong adults
	Good organisation	Parent able to plan one's activities efficiently.
	Being patient	Patience is a person's ability to wait something out or endure something tedious, without getting riled up
	Having hope	To have hope is to want an outcome that makes your life better in some way. It not only can help make a tough present situation more bearable but also can eventually improve our lives because envisioning a better future motivates you to take the steps to make it happen.
	Parent at ease	Parent is feeling comfortable and relaxed.
	Masking reality from children	Concealing the state of things as they actually exist  Example: telling children that the flight is like a family vacation Pretending it's a game
	Accepting the circumstances	Tolerate or submit to what is happening
	Strong faith	Having trust that God will make things better
	Impaired parenting	Inability of the primary caretaker to create, maintain, or regain an environment that promotes the optimum growth and development of the child
	Parental drug use	Use of illegal drugs by a parent
	Arrest of a parent	An arrest is the act of apprehending and taking a person into custody  NOTE: Please note the difference between arrest and immigration detention  Immigration detention is the policy of holding individuals suspected of visa violations, illegal entry or unauthorised arrival, and those subject to deportation and removal in detention
	Physical abuse	A parent, stepparent, or adult living in your home pushed, grabbed, slapped, threw something at the child, or hit the child so hard that they had marks or were injured.
	Neglect	Neglect  Emotional neglect: the opposite of someone in the family helped the child feel important or special, the child felt loved, people in their family looked out for each other and felt close to each other, and the family was a source of strength and support.  Physical neglect: There was no one to take care of the child, protect the child, and take them to the doctor if needed, the child didn't have enough to eat, their parents were too drunk or too high to take care of them.
	Parental separation or divorce	The process of terminating a marriage or marital union
	Parents (adult) distress/helplessness	Parental distress usually involves excessive worrying about the potential for things to go wrong. Some people also often appear anxious in the way they act in certain situations, such as constantly crying, being afraid regularly, always stressed  When people feel that they have no control over their situation, they might behave in a helpless manner. This inaction can lead people to overlook opportunities for relief or change.
	Poor parental mental health	A household member was depressed or mentally ill or a household member attempted suicide.
	Poor parental physical health	Poor physical health is when the body is in bad condition, it is burdened with disease or abnormality, and the condition of poor wellbeing. It is when the body is not functioning as it was designed to function.  Example: broken leg or losing a limb

Family composition		
	Presence of parents	Parents' intentional and reassuring presence in a child's life
	Missing (feeling) family	Craving the presence of a family member (in any form) that is not with them.
	Parent missing	Parent may be away for lengthy periods and their whereabouts are unknown
	Death of parent(s)	Mother/father is dead  NOTE: Death is categorised by the relationship of the person that died to the child
	Orphans	An orphan is a child whose parents have died, are unknown, or have permanently abandoned them.
	Death of a sibling	Brother/sister is dead  NOTE: Death is categorised by the relationship of the person that died to the child
	No family support system	Members of the family do not provide the child with practical or emotional support.
	Dispersion of family	Members of the family are scattered in different areas (cities/countries/living places)
	Children travel with adults (not parents)	Children migrate with someone who is not a parent or legal guardian
Economic/ Financial circumstance		
	Financial stability	Having the funds to pay your expenses
	Economic hardship	Difficulty caused by having too little money or too few resources
	Change in financial situation	Impact on their overall financial state
	Parental unemployment	Parents being without job
	Poverty	the state of being extremely poor
	Unable to afford basic necessities	The basic needs approach is one of the major approaches to the measurement of absolute poverty. A traditional list of immediate "basic needs" is food (including water), shelter and clothing.
	Financial difficulties	Financial problems or financial pressure is a situation where money worries are causing you stress.  Example: <ul style="list-style-type: none"> <li>• not having enough money (ex. to continue the journey)</li> <li>• not able to afford a lawyer</li> <li>• does not have money to buy clothing</li> <li>• having to sell belongings</li> <li>• not able to afford school tuition</li> <li>• things are too expensive</li> </ul>
Community/ Environment		Settings, such as schools, workplaces, and neighbourhoods, in which social relationships occur and seeks to identify the characteristics of these settings
Undesired cultural customs		Unwanted cultural traditions
	Arranged marriage	A marriage planned and agreed by the family members of the couple concerned.
	Child marriages	Child Marriage is defined as a marriage of a girl or boy before the age of 18 and refers to both formal marriages and informal unions in which children under the age of 18 live with a partner as if married.  Child marriage violates children's rights and places them at high risk of violence, exploitation, and abuse.
	FGM	Female genital mutilation (FGM), also known as female genital cutting and female circumcision, is the ritual cutting or removal of some or all of the external female genitalia

Social and cultural network		Connections with people from the community for socialising
	Sense of belonging	The human emotional need to be an accepted member of a group. Whether it is family, friends, co-workers, a religion, or something else.
	General (unspecified) support	They mention that they received support but it is not stated clearly or exactly from who or what kind of support
	Practical support	Helping to ease some of the stress or exhaustion that people may be experiencing, e.g. Providing them with a place to stay Providing protection Helping with carrying things help with transport writing letters Help learning the language help with translating support with resettlement  Resettlement is the transfer of refugees from an asylum country to another State that has agreed to admit them and ultimately grant them permanent settlement
	Informational support	Informational support is the provision of advice, guidance, suggestions, or useful information to someone.
	Financial/ Material assistance	Aid in the form of money or practical goods, as opposed to effort  NOTE: I have separated this category depending on the source of the material aid either from NGO's or relatives/colleagues/people from the community...there is also 'Government financial/material aid' under Society --> Social entitlements
	Provide emotional support	Emotional support involves showing empathy, reassurance, compassion and genuine concern for others.
	Providing leisure activities	Providing activities that are often done for enjoyment, amusement, or pleasure and are considered to be "fun".
	Ties to original culture	Links to their home experience, knowledge, beliefs, values, attitudes, religion, roles etc.
	Contact with extended family	Staying in touch with family members via phone, skype, etc...
	Presence of other family members	Relatives that exist or are present with them in a place
	Having family in host country	Relatives also living in Germany
	Travel companions	A person with whom one spends a lot of time with during the journey
	Having friendships	Friendship is a relationship of mutual affection between people.
	Being welcomed	Being greeted in a polite or friendly way. React with pleasure or approval towards refugees.
	Extended family disputes	Disagreement or arguments with relatives
	Social isolation	Social isolation is a state of complete or near-complete lack of contact between an individual and society.
	Loss of community	A community is a group of people who interact with one another, for example, as friends or neighbours. Second, this interaction is typically viewed as occurring within a bounded geographic territory, such as a neighbourhood or city. Third, the community's members often share common values, beliefs, or behaviours.
	No social life	When someone does not have friends, family or community ties.
	Worried about extended family	Anxious or troubled about relatives
	Forming bad friendships	A friend that has a bad influence on the child
	Lose touch with a friend	Cease to be in communication with a friend
	Conflict with other refugees	Disagreement or argument with other refugees

	No support	Lack of assistance
	Discrimination	Discrimination: the unjust or prejudicial treatment of different categories of people, especially on the grounds of race, age, or sex.
	Death	The state of being dead  NOTE: Death is categorised by the relationship of the person that died to the child
Acculturation		Acculturation is a process of social, psychological, and cultural change that stems from the balancing of two cultures while adapting to the prevailing culture of the society. Acculturation is a process in which an individual adopts, acquires and adjusts to a new cultural environment
	Translating for parents	Child translates from German to mother tongue so parents can understand
	Avoid people from own culture	Keep away from people from own culture
	Sociocultural adaptation	Sociocultural adaptation is defined in terms of behavioural skills. as an ability to "fit in" or effectively interact with members of the host culture. It has been associated with variables that influence culture learning and acquisition of social skills in the host culture.
	Hosted by German family	German families become host or foster a refugee
	Connection with people from host community	Communication or direct involvement with someone in Germany
	Cultural differences	Differences between people within any given culture include differences in education, cuisine, social standing, religion, personality, belief structure, past experience, affection shown in the home, and a myriad of other factors will affect human behaviour and culture.
	Difficult to integrate	Finding difficulty in participating in or joining the new host community
	Lack of opportunity to learn own religion and language	Lack of access/limited options for children to learn parents religion and mother tongue
	Change in customs/ life routine	An alteration in the common way of doing things. Customs is something that many people do, and have done for a long time.  Examples: <ul style="list-style-type: none"> <li>• The way they eat/the food they eat</li> <li>• Family traditions (visiting grandparents in the weekend)</li> <li>• Change in school</li> <li>• Change in routine</li> </ul>
	Unable to raise children their way	Feeling that they do not have a choice on their parenting style with their children (ex. due to government regulations/involvement)
	Different religion	Different faith
	Child finds German difficult	Child is struggling or finds it difficult to learn German
	Parent does not know German	Parents are unable or find difficulty to speak German
Violence and brutality		Extreme cruelty, deliberate violent meanness
	Closed roads/ blockade	Closed roads: people do not have freedom of movement in the streets, they must pass checkpoints  Blockade: an act or means of sealing off a place to prevent goods or people from entering or leaving
	Experience bombings/ shelling/ bullets/ tear gas	Experiencing armed conflict or bombs, heavy fire of artillery, gunfire, or tear gas
	Trapped inside the house	Confined inside the home
	Brainwashing children	The process of pressuring children into adopting radically different beliefs by using systematic and often forcible means.



	Forced labour	Situations in which persons are coerced to work through the use of violence or intimidation
	Sexual abuse / Rape	Sexual abuse is unwanted sexual activity, with perpetrators using force, making threats or taking advantage of victims not wanting/able to give consent. Rape is unlawful sexual activity carried out forcibly or under threat of injury against a person's will
	Destruction	Damage to something that it no longer exists or cannot be repaired. Examples: destruction of home, school, workplace etc.
	Presence of gangs/ road bandits	Gang is an organised group of criminals.  A road bandit is robber or outlaw belonging to a gang and typically operating in an isolated or lawless area
	Presence of militant group	Existence of people that favour confrontational or violent methods in support of a political or social cause. Usually move around carrying weapons.
	Seeing dead bodies	Seeing people who died either those who drowned or were killed or died on route
	Human trafficking	Human trafficking: the action or practice of illegally transporting people from one country or area to another, typically for the purposes of forced labour, organ harvesting, or sexual exploitation.
	Police/soldier brutality	Police brutality is the use of excessive and/or unnecessary force by personnel affiliated with law enforcement duties when dealing with suspects and civilians.
	Physical harm to the child	Non-accidental trauma or injury to the child
	Physical harm to loved ones	Non-accidental trauma or injury to parent, sibling, uncle, etc.
	Torture	Torture: the action or practice of inflicting severe pain on someone as a punishment or in order to force them to do or say something
	Witness fighting/killing	Displaying or engaging in violence, combat, or aggression.
	Exposure to drugs	Drugs are easily available/accessible
	Robbery	When someone takes the property of another, with the intent to permanently deprive the person of that property, by means of force or fear
	Kidnapping	Kidnapping is the taking away of a person by force, threat, or deceit, with intent to cause him or her to be detained against his or her will. Kidnapping may be done for ransom or for political or other purposes.
	Torment	Torment: severe physical or mental suffering
	Harassment	Harassment: illegal behaviour towards a person that causes mental or emotional suffering, which includes repeated unwanted contacts without a reasonable purpose, insults, threats, touching, or offensive language
	Exploitation	Taking advantage of someone's need for a job and paying them only pennies to perform work so you can get rich is an example of exploitation.
	Extortion	Extortion means forcing someone into giving you something through threats.
	Fraud/ swindling	Use deception to deprive (someone) of money or possessions. Obtain (money) fraudulently.
Displacement		Forced displacement (also forced migration/immigration) is the involuntary or coerced movement of a person or people away from their home or home region, resulting from a variety of external causes including natural disasters, violence, ethnic cleansing and other persecution.
	Having a home	Having a place to live
	Rescued	They were saved from a dangerous or difficult situation
	Multiple relocations	Moving to a new place several times
	Forced relocation	Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalised violence, violations of human rights or natural or human-made disaster
	Leaving belongings behind	Not taking some possessions with them

	Physical injuries, infections and disease	Injury or illness
	Lack of food and water (availability)	Food or water and not available due to being on route, living in a blockade area, etc.
	Inadequate shelter	Living in refugee camps or tents or streets etc.
	Lack of basic utilities	Utilities: electricity, gas, water, or sewerage
	Homeless children	Children are without a home, and therefore typically living on the streets.
	Living in a container	Using shipping containers as housing for refugees
	Living in tunnels	Living in an underground shelter
	Living in a camp	A refugee camp is a temporary settlement built to receive refugees and people in refugee-like situations
	Living in a tent	Simple tent structures are commonly made of canvas military issue tents which are criticised for being heavy, bulky, uninsulated, poorly made and for rotting in under a year
	Overcrowding	Overcrowding: the presence of more people or things in a space than is comfortable, safe, or permissible.
	Sleeping in the streets/forests/mountains	Sleeping in unsecure locations such as the streets, forests, or mountains
	Unhygienic living space	Living in a place that is not clean or sanitary.
	Long travel distance/duration	Refugee journeys can last several days and require walking long distances
	Dangerous travel route	Hazardous journey
	Travelling in a box truck	Travelling in a truck with an enclosed cuboid-shaped cargo area
	Travelling in an open vehicle	Traveling in a pickup truck that has an enclosed cab and an open cargo area with low sides and tailgate.
	Generally dangerous	Did not specify what exactly was dangerous
	Crossing borders under gunfire	Boarder patrol shooting at refugees as they are trying to enter the country illegally
	Drowning	Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid.
School		Exposures that happened in school
	Fitting in at school	Being accepted and loved by classmates or teachers, enjoy attending school
	Valuing education	Believing that getting an education is important
	Bullying	Bully: seek to harm, intimidate, or coerce (someone perceived as vulnerable).
	Child not interested in continuing education	Child does not value education
	Repeating school years	Children repeating grades or falling behind in school
Society		Societal factors include the health, economic, educational and social policies that help to maintain economic or social inequalities between groups in society.
Human rights		Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work and education, and many more. Everyone is entitled to these rights, without discrimination.
	Access to education	The ability of all people to have equal opportunity in education, regardless of their social class, gender, ethnicity background or physical and mental disabilities.
	Freedom	Freedom is a condition in which people have the opportunity to speak, act and pursue happiness without unnecessary external restrictions.
	Equality	Equality is a state of affairs in which all people within a specific society or isolated group have the same status in possibly all

		respects, possibly including civil rights, freedom of speech, property rights and equal access to certain social goods and social services.
	Being respected	Respect is a positive way of treating or thinking about something or someone
	Children's rights	Children's rights are a subset of human rights with particular attention to the rights of special protection and care afforded to minors.
	Lack of access to education	Lack of Education due to Schools closed Poor educational infrastructure No financial support for poor families
	No respect	Lack of respect is a negative way of treating or thinking about something or someone
	No child rights	Children's rights are absent
Political climate		The political climate is the aggregate mood and opinions of a political society at a particular time. It is generally used to describe when the state of mood and opinion is changing or unstable rather than in a state of equilibrium
	Good future with opportunities	Destined to be happy and successful; exciting future; positive future - A person is capable to reach their full potential and follow their inner passion
	Stability	Stability is a calm, stable life where you don't have wild ups and downs.
	Safe	The state of being free from danger or threat.
	No future	No chance to succeed
	Lack of safety/security	Not secure from liability to harm, injury, danger, or risk
	Corrupt government	Political corruption is the abuse of public power, office, or resources by elected government officials for personal gain, by extortion, soliciting or offering bribes. It can also take the form of office holders maintaining themselves in office .
	No 'governing' control	No laws or regulations taking place
	Inflation in prices	Price inflation is an increase in the price of a standardised good/service
	War	A state of armed conflict
	Revolution	A forcible overthrow of a government or social order, in favor of a new system.
Immigration process		Immigration, process through which individuals become permanent residents or citizens of another country
	Fast resolution of asylum application	Making decisions on asylum applications in a good time frame
	Family reunification	Because of the presence of one or more family members in a certain country, therefore, enables the rest of the divided family or only specific members of the family to immigrate to that country as well.
	Immigration policies	Immigration policy is any policy of a state that deals with the transit of persons across its borders into the country
	Reunification regulations	There are certain regulations that for example:  Refuse the asylum application if the child asking for reunification has turned 18 Grant permission to the parents to be reunited with the unaccompanied minor (under 18) but not their siblings Require that the parent have a job and housing to be able to reunite the children
	Separation from relatives	Relocate uncles/aunts to a different city
	Does not have a passport/ID	Does not have any document that may be used to prove their identity
	Long waiting period	Waiting for a long time for: asylum decision or waiting in camps, waiting for resettlement or family reunification
	Complex bureaucracy	Excessively complicated administrative procedure

	Insecurity about legal refugee status	Uncertain if their asylum application will be accepted or rejected, or uncertain that they will prolong their residence permit
	Rejected asylum application	Refusal of asylum application
	Fear of repatriation	Repatriation: return of someone to their own country.
National policies		Policies that apply to the whole country
	Opening borders to refugees	"Open borders" refers to national policies allowing immigrants to enter the country with little or no restriction.
	Dublin procedure - Have their fingerprints taken	The Dublin procedure determines the European country in which your asylum procedure must be processed. In principle, the state responsible for your asylum application is the European country you have first entered when you arrived in the EU or the one which has issued you an entry visa. - If, for instance, your fingerprints have been first filed in another European country or in case you have applied for asylum in another European country before Germany, that European country is responsible for your asylum procedure, which means Germany can send you back there.
	Closed borders	A closed border is a border that prevents movement of people between different jurisdictions
	Wanted for military service	<p>According to the Syrian Military Law, all Syrian men, including registered Palestinians from Syria, between the ages 18 to 42 are required to serve in the military for a period of 18 to 21 months, depending on their level of education.</p> <p>In Eritrea, by law, every high school finalist undertakes 18 months of national service, which include six months of military training. However, the period of enlistment may be extended during times of national crisis and the typical period of national service usually lasts between five and 10 years, but can last for up to 20.</p> <p>In Afghanistan, if they are forced to join Taliban</p>
	Restricted travel	Certain countries do not grant a visa to people with refugee status
	Immigration detention	<p>Immigration detention is the policy of holding individuals suspected of visa violations, illegal entry or unauthorised arrival, and those subject to deportation and removal in detention until a decision is made by immigration authorities to grant a visa and release them into the community, or to repatriate them</p> <p>NOTE: Please note the difference between arrest and immigration detention</p> <p>An arrest is the act of apprehending and taking a person into custody</p>
Social security rights		<p>Social security, consists of different social security funds.</p> <p><b>FAMILY</b> Maternity and paternity benefits Family benefits</p> <p><b>HEALTH</b> Benefits for those in need of care Health insurance benefits in kind in the event of illness Health insurance cash benefits in the event of illness</p> <p><b>INCAPACITY</b> Disability benefits Benefits for accidents at work and occupational diseases "Social compensation" benefits</p> <p><b>OLD-AGE AND SURVIVORS</b> Pensions and other old age benefits Survivors' benefits</p> <p><b>SOCIAL ASSISTANCE</b> Guaranteed minimum resources</p> <p><b>UNEMPLOYMENT</b> Unemployment benefits</p> <p><b>MAIN RESIDENCE</b> "Habitual residence"</p> <p><a href="https://ec.europa.eu/social/BlobServlet?docId=13751&amp;langId=en">https://ec.europa.eu/social/BlobServlet?docId=13751&amp;langId=en</a></p>

	Access to job opportunities	The possibility for a person to enter into employment
	Government financial/ material aid	Aid in the form of money or practical goods from the government  NOTE: I have separated this category depending on the source of the material aid, there is also 'Financial/Material assistance' under Support --> Social and Cultural network
	Access to medical care	Access to healthcare refers to the ease with which an individual can obtain needed medical services
	Provide shelter	3 types of accommodation for asylum seekers: Initial reception centers, including particular types of centers such as arrival centers, special reception centers and AnkER-centres; Collective accommodation centers; Decentralised accommodation.  <a href="https://www.asylumineurope.org/reports/country/germany/reception-conditions/housing/types-accommodation">https://www.asylumineurope.org/reports/country/germany/reception-conditions/housing/types-accommodation</a>
	Lack of job opportunities	Workers who want to work are unable to find jobs
	Lack/ inadequate financial/ material aid	Aid is lacking the quality or quantity required; insufficient for its purpose.
	Lack of medical care	Difficulty with which an individual can obtain needed medical services
	Difficulties to find permeant housing	Finding affordable housing is difficult
	Lack of access to legal services and representation	An applicant usually has to cover the costs for legal representation for the purpose of judicial review of detention and representation in the asylum procedure. There is a possibility to apply for legal aid in the context of judicial review of detention, but this is rarely granted since legal aid is dependent on how the court rates the chances of success.

## 7.4 Appendix 4: Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

No	Item	Guide questions/description	Reported / Missing
<b>Domain 1: Research team and reflexivity</b>			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	<input checked="" type="checkbox"/> Reported
2.	Credentials	What were the researcher's credentials?  <i>E.g. PhD, MD</i>	<input checked="" type="checkbox"/> Reported
3.	Occupation	What was their occupation at the time of the study?	<input checked="" type="checkbox"/> Reported
4.	Gender	Was the researcher male or female?	<input checked="" type="checkbox"/> Reported
5.	Experience and training	What experience or training did the researcher have?	<input checked="" type="checkbox"/> Reported
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	<input checked="" type="checkbox"/> Reported
7.	Participant knowledge of the interviewer	What did the participants know about the researcher?  <i>e.g. personal goals, reasons for doing the research</i>	<input checked="" type="checkbox"/> Reported
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator?  <i>e.g. Bias, assumptions, reasons and interests in the research topic</i>	<input checked="" type="checkbox"/> Reported
<b>Domain 2: study design</b>			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study?  <i>e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</i>	<input checked="" type="checkbox"/> Reported
Participant selection			
10.	Sampling	How were participants selected?  <i>e.g. purposive, convenience, consecutive, snowball</i>	<input checked="" type="checkbox"/> Reported

11.	Method of approach	How were participants approached?  <i>e.g. face-to-face, telephone, mail, email</i>	<input checked="" type="checkbox"/> Reported
12.	Sample size	How many participants were in the study?	<input checked="" type="checkbox"/> Reported
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	<input checked="" type="checkbox"/> Reported
<b>Setting</b>			
14.	Setting of data collection	Where was the data collected?  <i>e.g. home, clinic, workplace</i>	<input checked="" type="checkbox"/> Reported
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	<input checked="" type="checkbox"/> Reported
16.	Description of sample	What are the important characteristics of the sample?  <i>e.g. demographic data, date</i>	<input checked="" type="checkbox"/> Reported
<b>Data collection</b>			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	<input checked="" type="checkbox"/> Reported
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	<input checked="" type="checkbox"/> Reported
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	<input checked="" type="checkbox"/> Reported
20.	Field notes	Were field notes made during and/or after the interview or focus group?	<input checked="" type="checkbox"/> Reported
21.	Duration	What was the duration of the interviews or focus group?	<input checked="" type="checkbox"/> Reported
22.	Data saturation	Was data saturation discussed?	<input checked="" type="checkbox"/> Reported
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	<input checked="" type="checkbox"/> Reported
<b>Domain 3: analysis and findings</b>			
<b>Data analysis</b>			
24.	Number of data coders	How many data coders coded the data?	<input checked="" type="checkbox"/> Reported
25.	Description of the coding tree	Did authors provide a description of the coding tree?	<input checked="" type="checkbox"/> Reported
26.	Derivation of themes	Were themes identified in advance or derived from the data?	<input checked="" type="checkbox"/> Reported
27.	Software	What software, if applicable, was used to manage the data?	<input checked="" type="checkbox"/> Reported

28.	Participant checking	Did participants provide feedback on the findings?	<input checked="" type="checkbox"/> Reported
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified?  <i>e.g. participant number</i>	<input checked="" type="checkbox"/> Reported
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	<input checked="" type="checkbox"/> Reported
31.	Clarity of major themes	Were major themes clearly presented in the findings?	<input checked="" type="checkbox"/> Reported
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	<input checked="" type="checkbox"/> Reported



## 7.5 Appendix 5: Forms of adversity addressed in all 103 questionnaires identified in the systematic review

Name of Questionnaire	ADVERSITY CATEGORIES										
	Emotional abuse	Physical abuse	Emotional neglect	Physical neglect	Sexual abuse	Family dysfunction	Community Violence	Economic Hardship	School victimizations	Other	Refugee specific ACEs
Juvenile Victimization Questionnaire (JVQ)	x	x		x	x	x	x		x		x
Childhood Trauma Questionnaire (CTQ)	x	x	x	x	x						
Conflict Tactics Scale Parent-Child (CTSPC)	x	x	x	x	x						
Adverse Childhood Experience (ACE) Questionnaire	x	x	x	x	x	x					
Childhood Trauma Questionnaire-Short Form (CTQ-SF)	x	x	x	x	x						
Minnesota Student Survey (MSS)	x	x	x	x	x	x			x		
Violence Exposure Scale for children (VEX-R)	x	x				x	x				
UNICEF Measures for National-Level Monitoring of Orphans and other Vulnerable Children	x	x									
International Child Abuse Screening Tool (ICAST)-C	x	x	x	x	x	x	x				x
Childhood Trust Events Survey (CTES)	x	x	x	x	x	x	x	x	x	x	
Childhood Experience of Violence Questionnaire (CEVQ)	x	x			x	x			x		
Coddington Life Events Scale for Children (CLES-C)						x		x	x	x	
Screen for Adolescent Violence Exposure (SAVE)	x	x					x		x		
Conflict Tactics Scale (CTS)	x	x									
International Child Abuse Screening Tool Child Institution Version (ICAST-CI)	x	x		x	x				x		
Traumatic Events Screening Inventory (TESI)	x	x		x	x	x	x			x	x
Child Life Events Scale (CLES)						x	x			x	

Name of Questionnaire	Emotional abuse	Physical abuse	Emotional neglect	Physical neglect	Sexual abuse	Family dysfunction	Community Violence	Economic Hardship	School victimizations	Other	Refugee specific ACEs
National Survey of Adolescents (NSA)		X			X	X	X	X		X	
Adolescent Life Events Questionnaire (ALEQ)	X		X	X		X		X	X	X	
Adverse Childhood Experiences Questionnaire Abuse Short Form (ACE-ASF)	X	X			X						
Child Abuse Questionnaire (Croatia)	X	X	X	X		X					
Child Abuse Screening Checklist (CASC)	X	X		X							
Child Adversity Scale (CAS)	X	X			X	X	X			X	
Child Exposure to Domestic Violence Scale (CEDV-R)	X	X			X	X	X	X	X	X	
Child Exposure to Violence Checklist (CEVC)	X	X			X	X	X		X		
Child Psychological Maltreatment Questionnaire (CPMQ)	X	X	X							X	
Childhood Traumatic Events Scale (CTES*)		X			X	X				X	
Children's Life Events Scale (CLES*)	X	X	X		X	X			X	X	
Children's Stress Questionnaire (CSQ)	X		X		X	X		X	X	X	
Children's Trauma Assessment Center Screen Checklist	X	X	X		X	X	X	X		X	
Conflict Tactics Scale: Child (CTS-C)	X	X			X						
Developmental Trauma Inventory (DTI)	X	X	X	X	X	X	X	X			
International Child Abuse Screening Tool (ICAST)-P	X	X		X	X						
Korean Child Youth Panel Survey (KCYPS)	X	X							X		
Life Event Scale (LES)						X	X		X	X	
Life Incidence of Traumatic Events (LITE) questionnaire	X	X			X	X	X			X	
Lifetime Destabilizing Factor (LDF) Index						X		X		X	X

Name of Questionnaire	Emotional abuse	Physical abuse	Emotional neglect	Physical neglect	Sexual abuse	Family dysfunction	Community Violence	Economic Hardship	School victimizations	Other	Refugee specific ACEs
Maltreatment and Abuse Chronology of Exposure (MACE) scale	x	x	x	x	x	x			x		
National Longitudinal Survey of Children and Youth (NLSCY)	x	x	x	x		x	x		x	x	
Traumatic Events Checklist	x	x	x		x	x	x		x	x	
Traumatic Experience Questionnaire (TEQ)		x		x	x	x					
Addressing Social Key (ASK) Questions for Health Questionnaire		x	x	x	x	x	x	x	x	x	x
Adverse Family Experiences scale						x	x	x		x	
Alaska Childhood Understanding Behaviors Survey (CUBS)						x	x	x			
BARC Pediatric Adversity and Trauma Questionnaire	x	x	x	x	x	x	x	x	x	x	x
Child Psychological Abuse and Neglect Scale	x		x								
Early Trauma Inventory Self Report-Short Form (ETISR-SF)	x	x			x	x	x			x	
Japanese Maltreatment Questionnaire - version 17	x	x	x								
List of Threatening Experiences Questionnaire (LTE-Q)						x	x	x		x	
Maltreatment Checklist	x	x	x	x	x	x				x	
Parental Acceptance-Rejection Questionnaire (PARQ)	x	x	x	x		x					
Parenting Practices Questionnaire	x	x									
Pediatric Hurt-Insult-Threaten-Scream-Sex (PedHITSS)	x	x			x						
Personal Report of Childhood Abuse Scale (PRCAS)	x	x	x		x						
Referral Reason Checklist	x	x	x	x	x	x		x		x	
Stressful Life Events Schedule (SLES)							x	x		x	
Yale-Vermont Adverse Childhood Experiences Scale (Y-VACS)	x	x		x	x	x	x		x	x	x

Name of Questionnaire	Emotional abuse	Physical abuse	Emotional neglect	Physical neglect	Sexual abuse	Family dysfunction	Community Violence	Economic Hardship	School victimizations	Other	Refugee specific ACEs
ACE Score Calculator	X	X	X	X	X	X					
ACE-International Questionnaire (ACE-IQ)	X	X	X	X	X	X	X		X	X	X
Adverse Childhood Experience (ACEQ-R) Questionnaire	X	X	X	X	X	X	X	X	X		X
Adverse childhood experiences questionnaire–expanded	X	X	X	X	X	X	X		X	X	
Adverse Family Experience questionnaire						X	X	X		X	
Behavioral Risk Factor Surveillance System (BRFSS)	X	X			X	X					
Brazilian National Survey of School Health		X			X		X		X		
Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Child)	X	X	X	X	X	X	X		X	X	X
Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Teen)	X	X	X	X	X	X	X		X	X	X
Child Abuse and Neglect Questionnaire (CAN-Q)	X	X	X	X							
Child Abuse Inventory (CAI)	X	X									
Child abuse self-report scale (CASRS)	X	X		X	X	X					
Japanese child maltreatment scale	X	X	X	X							
Child Trauma Screen (CTS)		X			X		X			X	
Child Victimization Experiences Questionnaire	X	X	X	X	X						
Childhood Experience of Care and Abuse Questionnaire (CECA)	X	X	X	X	X						
Childhood Experiences Measure	X	X	X	X		X	X	X	X	X	
Childhood Life Events Scale-Parent Report (CLES-PR)		X			X					X	
Children's Health, Well-being and Services survey (LTH)	X	X		X		X		X	X	X	
Chinese screen questionnaire of child abuse	X	X	X		X						
CORONA-CODOMO Survey	X	X		X	X	X					

Name of Questionnaire	Emotional abuse	Physical abuse	Emotional neglect	Physical neglect	Sexual abuse	Family dysfunction	Community Violence	Economic Hardship	School victimizations	Other	Refugee specific ACEs
Dimensions of Discipline Inventory (DDI)	x	x									
Family Aggression Screening Tool (FAST)	x	x				x					
Haitian Violence Against Children Survey (VACS)	x	x			x		x				
Life Events Questionnaire (LEQ)											
Lifetime Childhood Adversity (LCA)						x		x		x	
Lifetime Incidence of Traumatic Events (LITE-PR)	x	x			x	x	x			x	
Los Angeles County Women, Infants and Children (LAC WIC) Survey						x		x			
Modified UCLA Trauma History Profile	x				x	x	x			x	x
National Survey of Children's Health (NSCH)						x	x	x	x	x	
National Surveys of Children's Exposure to Violence (NatSCEV)	x	x	x	x	x	x	x	x	x	x	x
Negative Life Events Scale (NLES)					x					x	
Northeast Ohio Youth Health Survey	x	x	x	x	x	x					
Pediatric Maltreatment and Abuse Chronology of Exposure (PediMACE)	x	x	x	x	x	x				x	
Quick Parenting Assessment (QPA)	x	x									
Stress and Resilience in Adolescence (STAR-A)	x	x	x	x	x						
The self-report youth questionnaire						x	x		x	x	
TRacking Adolescents' Individual Lives Survey (TRAILS)	x	x			x	x		x	x	x	
Traumatic Event Survey for children (TES)		x			x	x	x			x	
Traumatic Events Characteristics Survey (TECS)											
Traumatic Events Screening Inventory for Children (TESI-C)	x	x	x		x	x	x			x	x
Traumatic Events Screening Inventory for Children (TESI-PRR)	x	x		x	x	x	x			x	x

Name of Questionnaire	Emotional abuse	Physical abuse	Emotional neglect	Physical neglect	Sexual abuse	Family dysfunction	Community Violence	Economic Hardship	School victimizations	Other	Refugee specific ACEs
Youth Risk Behavior Survey (YRBS)	x	x			x	x					
Child Abuse Questionnaire (Iran)	x	x	x								

## 7.6 Appendix 6: BRACE Questionnaire used in cognitive interviews (English and Arabic versions)

BRACE Questionnaire				
	Children in many parts of the world have been exposed to violence, bad treatment or stressful events from within the home. This is an important problem for children in all parts of the world. These next questions are about certain things your child may actually have heard or seen in your home.			قد يتعرض الأطفال في أنحاء كثيرة من العالم للعنف أو المعاملة السيئة أو ضغوطات أحداث بداخل المنزل. هذه من أهم المشاكل التي تتعلق بالأطفال في جميع أنحاء العالم. تدور الأسئلة التالية حول أشياء معينة ربما سمعها طفلك أو شاهدها في منزلك
<b>1</b>	<b>Parental drug use</b>			أحد الوالدين يتعاطى المخدرات
	Did your child live with anyone who was a problem drinker, alcoholic, or used street drugs?	Yes No	نعم لا	هل عاش طفلك مع شخص كان لديه مشكلة إدمان الخمر أو المخدرات؟
	If yes, how traumatic was this for your child?	Not at all traumatic Somewhat traumatic Traumatic Extremely traumatic	لم يكن صادما على الإطلاق صادم نوعا ما صادم صادم للغاية	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
<b>2</b>	<b>Arrest of a family member</b>			اعتقال أحد الوالدين
	Has your child ever known or seen a family member arrested, jailed, imprisoned, or taken away by police, soldiers, or other authorities?	Yes No	نعم لا	هل سبق لطفلك أن شاهد أو رأى أحدا من أفراد الأسرة يعتقل أو يسجن أو يؤخذ من قبل الشرطة أو الجيش أو جهات حكومية أخرى؟
	If yes, how traumatic was this for your child?	Not at all traumatic Somewhat traumatic Traumatic Extremely traumatic	لم يكن صادما على الإطلاق صادم نوعا ما صادم صادم للغاية	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
<b>3</b>	<b>Domestic violence</b>			العنف المنزلي
	Has any adult in your home ever slapped, hit, kicked, punched, or beat the other up?	Yes No	نعم لا	هل قام من قبل أي شخص راشد في المنزل بصفع أو ضرب أو ركل أو لكم أو ضرب الآخر؟
	If yes, how traumatic was this for your child?	Not at all traumatic Somewhat traumatic Traumatic Extremely traumatic	لم يكن صادما على الإطلاق صادم نوعا ما صادم صادم للغاية	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
<b>4</b>	<b>Emotional abuse</b>			الإساءة العاطفية
	Does a parent or other adult in your home regularly swear at your child, insult	Yes No	نعم لا	هل يقوم أحد الوالدين أو شخص راشد آخر في منزلك يشتم طفلك

	your child, or put your child down?			باستمرار ، أو يهينه ، أو يجعله محبطاً؟
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادماً على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعاً ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>5</b>	<b>Physical abuse</b>			الاعتداء الجسدي
	Has a parent or other adult in your household ever hit, beat, kicked, or physically hurt your child in any way?	Yes	نعم	هل قام أحد الوالدين أو شخص راشد آخر في منزلك بصدمة طفلك أو ضربه أو ركله أو إيذائه جسدياً بأي شكل؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادماً على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعاً ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>6</b>	<b>Neglect</b>			الإهمال
	Has your child ever gone through a period when they lacked the appropriate care for example: when a parent/guardian did not give your child enough food, no one took your child to the doctor when they were sick, or made sure your child had a safe place to stay?	Yes	نعم	هل سبق ومر طفلك بفترة كان يفتقر فيها إلى الرعاية اللازمة؟ على سبيل المثال: لم يقدم أحد الوالدين / ولي أمر لطفلك ما يكفي من الطعام، أو لم يأخذ أحد طفلك إلى الطبيب عندما كان مريضاً، أو لم تكن متأكد من أن طفلك يبقى في مكان آمن
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادماً على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعاً ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>7</b>	<b>Parental separation or divorce</b>			انفصال الوالدين أو الطلاق
	Was there a major upheaval between you and your spouse/partner (such as divorce, separation)?	Yes	نعم	هل كانت هناك اضطراب كبير بينك وبين زوجك / شريكك (مثل الطلاق أو الانفصال)؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادماً على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعاً ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	



<b>8</b>	<b>Parent's distress/helplessness</b>			محنة أو عجز الوالدين
	Does a parent or other adult in your home regularly feel stressed or helpless?	Yes	نعم	هل يشعر أحد الوالدين أو شخص آخر راشد في منزلك بالتوتر أو العجز بشكل متكرر؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>9</b>	<b>Parent's mental health</b>			الصحة النفسية للوالدين
	Was a household member depressed or mentally ill for a long period of time?	Yes	نعم	هل كان أحد أفراد الأسرة مكتئباً أو مريضاً نفسياً لفترة طويلة؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>10</b>	<b>Parent missing</b>			فقد أحد الوالدين
	Did a parent or someone who takes care of your child ever have to leave, he or she had to be away for several months or longer, or your child has never seen them again?	Yes	نعم	هل اضطر أحد الوالدين أو أي شخص يعتني بطفلك للغيب، أي اضطر إلى المغادرة لعدة أشهر أو أكثر، أو أن طفلك لم يرهما مرة أخرى؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>11</b>	<b>Separation from family/family dispersion</b>			الانفصال عن الأسرة / تشتت الأسرة
	Was your child ever completely separated from their parent(s) or sibling(s) for a long time, when they were living apart from each other (or in a separate city/country)?	Yes	نعم	هل سبق وأن انفصل طفلك عن أحد والديه أو اخوته لفترة طويلة؟ عندما كانوا يعيشون منفصلين عن بعض (أو في مدينة / بلد آخر)؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	

		Extremely traumatic	صادم للغاية	
<b>12</b>	<b>Parental unemployment</b>			البطالة عند الوالدين
	Have there ever been any times when a parent or guardian lost a job or could not find work?	Yes	نعم	هل كان هناك وقت فقد فيه أحد الوالدين أو ولي أمر وظيفة أو لم يتمكن من العثور على عمل؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>13</b>	<b>Financial difficulties</b>			صعوبات مالية
	Were there times when your family didn't have enough money for food or rent or other things it needs?	Yes	نعم	هل كان هناك وقت لم يكن لدى عائلتك ما يكفي من المال للطعام أو الإيجار أو الأشياء الأخرى الأساسية؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>14</b>	<b>Death of a loved one</b>			وفاة شخص مقرب
	Did your child experience a death of a very close friend or family member?	Yes	نعم	هل عانى طفلك من وفاة صديق مقرب أو أحد أفراد الأسرة؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	These next questions are about experiences your child may have seen, heard or lived through in their neighbourhood or community (not in the home or on TV, movies, or the radio).		الأسئلة التالية تتعلق بالتجارب التي قد يشاهدها طفلك أو يسمعها أو يعيشها في الحي أو المجتمع (ليس في المنزل أو في التلفزيون أو الأفلام أو الراديو)	
<b>15</b>	<b>War</b>			حرب
	Has your child ever been directly exposed to war, armed conflict or terrorism?	Yes	نعم	هل سبق تعرض طفلك مباشرة في مكان حرب أو صراع مسلح أو إرهاب؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>16</b>	<b>Destruction</b>			تدمير
		Yes	نعم	

	Was your child ever in a disaster when the building they were in such as the home, school or hospital was destroyed and was no longer safe to be in?	No	لا	هل سبق وكان طفلك في كارثة عندما تدمر المبنى الذي كانوا فيه مثل المبنى الذي تعيشون فيه أو المدرسة أو المشفى ولم يعد آمنا للبقاء فيه؟
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>17</b>	<b>Presence of militant group</b>			وجود جماعة مسلحة
	Did your child ever live in a place that was under the control of a military like group/terrorists	Yes	نعم	هل سبق وعاش طفلك يوما ما في مكان تحت سيطرة مجموعات مسلحة أو إرهابية؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>18</b>	<b>Robbery</b>			سرقة
	Has someone ever robbed or tried to rob your child or your family?	Yes	نعم	هل سبق لأحد ما أن سرق أو حاول أن يسرق من طفلك أو من أحد أفراد الأسرة؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>19</b>	<b>Kidnapping</b>			خطف
	Has someone ever kidnapped your child?	Yes	نعم	هل قام أحد ما ذات مرة باختطاف طفلك؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>20</b>	<b>Sexual abuse</b>			الاعتداء الجنسي
	Has any older person ever touched your child sexually against their wishes or forced your child to touch them sexually?	Yes	نعم	هل حاول من قبل شخص أكبر سنا لمس طفلك جنسيا ضد رغبته أو أجبره على لمسه جنسيا؟
		No	لا	
		Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي

	If yes, how traumatic was this for your child?	Somewhat traumatic	صادم نوعا ما	تعرض إليها طفلك بسبب هذا الأمر؟
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
<b>21</b>	<b>Shootings, bombs and riots</b>			تجربة التفجير أو القصف أو الرصاص أو الغاز المسيل للدموع
	Was your child in a place in real life where they could see or hear people being shot, bombs going off, or street riots?	Yes	نعم	هل كان طفلك في مكان في الواقع حيث كان بإمكانه رؤية أو سماع أشخاص يتعرضون لإطلاق النار، أو انفجارات قنابل، أو أعمال شغب في الشوارع؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	If yes, how many times has this ever happened to your child?	Once	مرة واحدة	إذا كانت الإجابة نعم، فكم مرة حدث هذا لطفلك؟
		A few times	بضع مرات	
		Occasionally	مرات عديدة	
		Many times	كثير من الأحيان	
<b>22</b>	<b>Physical harm to the child</b>			الاعتداء الجسدي للطفل
	Did anyone hit or attack your child on purpose with/or without an object or weapon (such as sticks, rocks, guns, knives, or other things that would hurt)?	Yes	نعم	هل سبق وأن قام شخص ما بضرب طفلك عن قصد مع أو بدون سلاح (مثل العصي أو الصخور أو البنادق أو السكاكين أو الأشياء الأخرى التي قد تؤذي)؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	If yes, how many times has this ever happened to your child?	Once	مرة واحدة	إذا كانت الإجابة نعم، فكم مرة حدث هذا لطفلك؟
		A few times	بضع مرات	
		Occasionally	مرات عديدة	
		Many times	كثير من الأحيان	
<b>23</b>	<b>Physical harm to loved one</b>			الاعتداء الجسدي على شخص مقرب
	Has your child ever seen or heard a family member being hit, punched, kicked very hard or killed?	Yes	نعم	هل سبق لطفلك أن رأى أو سمع أحد أفراد الأسرة يتعرض للضرب واللطم والركل بقوة أو القتل؟
		No	لا	

	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	If yes, how many times has this ever happened to your child?	Once	مرة واحدة	إذا كانت الإجابة نعم، فكم مرة شاهد طفلك ذلك؟
		A few times	بضع مرات	
		Occasionally	مرات عديدة	
		Many times	كثير من الأحيان	
<b>24</b>	<b>Police/soldier brutality</b>			وحشية الشرطي أو العسكري
	Has your child ever seen someone being hit, pushed or threatened wrongfully by a police officer or soldier?	Yes	نعم	هل سبق وأن رأى طفلك شخص ما يتعرض للضرب أو التهديد أو الدفع بشكل غير عادل من قبل رجال الشرطة أو الجيش؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	If yes, how many times has this ever happened to your child?	Once	مرة واحدة	إذا كانت الإجابة نعم، فكم مرة حدث هذا لطفلك؟
		A few times	بضع مرات	
		Occasionally	مرات عديدة	
		Many times	كثير من الأحيان	
<b>25</b>	<b>Witness fighting/killing</b>			مشاهدة قتال / قتل
	Has your child ever seen someone in your neighbourhood be beaten up, shot at or killed?	Yes	نعم	هل سبق لطفلك أن رأى شخصا في منطقتك يتعرض للضرب أو إطلاق النار عليه أو قتله؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	If yes, how many times has this ever happened to your child?	Once	مرة واحدة	إذا كانت الإجابة نعم، فكم مرة حدث هذا لطفلك؟
		A few times	بضع مرات	
		Occasionally	مرات عديدة	
		Many times	كثير من الأحيان	
<b>26</b>	<b>Discrimination</b>			التمييز
	Was your child hit or attacked because of their skin colour, religion, or where their family comes from? Or because of a physical problem they have?	Yes	نعم	هل تعرض طفلك للضرب أو الاعتداء بسبب لون بشرته أو دينه أو أصول عائلته؟ أو بسبب مشكلة جسدية لديهم؟
		No	لا	

	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	If yes, how many times has this ever happened to your child?	Once	مرة واحدة	إذا كانت الإجابة نعم ، فكم مرة حدث هذا لطفلك؟
		A few times	بضع مرات	
		Occasionally	مرات عديدة	
		Many times	كثير من الأحيان	
<b>27</b>	<b>Bullying</b>			<b>التنمر</b>
	Did any kids pick on your child by chasing your child or grabbing their hair or clothes, make them do something they didn't want to do, call them names, say mean things to them, or say they didn't want them around?	Yes	نعم	هل قام أي طفل بالترصد لطفلك عن طريق مطاردة طفلك أو الإمساك بشعره أو ملابسه ، أو جعله يفعل شيئا لا يريد القيام به ، أو يطلق عليه ألقاب ، أو يقول أشياء بغيضة له ، أو يقول إنه لا يريده في الجوار؟
		No	لا	
	If yes, how traumatic was this for your child?	Not at all traumatic	لم يكن صادما على الإطلاق	إذا كانت الإجابة نعم، ما مدى الصدمة النفسية التي تعرض إليها طفلك بسبب هذا الأمر؟
		Somewhat traumatic	صادم نوعا ما	
		Traumatic	صادم	
		Extremely traumatic	صادم للغاية	
	If yes, how many times has this ever happened to your child?	Once	مرة واحدة	إذا كانت الإجابة نعم ، فكم مرة حدث هذا لطفلك؟
		A few times	بضع مرات	
		Occasionally	مرات عديدة	
		Many times	كثير من الأحيان	
<b>28</b>	<b>Forced relocation</b>			<b>نقل قسري</b>
	Has your family ever had to permanently leave their home?	Yes	نعم	هل اضطرت عائلتك لمغادرة منزلها بشكل دائم؟
		No	لا	
	If yes, how stressful was this for your child?	Not at all stressful	لم يكن عصيبا على الإطلاق	إذا كانت الإجابة نعم ، فكم كان هذا عصيبا لطفلك؟
		Somewhat stressful	عصيبا نوعا ما	
		Stressful	عصيبا	
		Extremely stressful	عصيبا للغاية	
<b>29</b>	<b>Multiple relocations</b>			<b>عمليات تنقل متعددة</b>
	Since the unrest started, how many times did your child have to live in a new place?	1 to 2 times	مرة الى مرتين	منذ بدء الاضطرابات، كم مرة اضطر طفلك للعيش في مكان جديد؟
		3 to 5 times	ثلاث الى خمس مرات	
		6 to 10 times	ست الى عشرة مرات	
		More than 10 times	أكثر من عشرة مرات	
	How stressful was this?	Not at all stressful	لم يكن عصيبا على الإطلاق	كم كان ذلك عصيبا لطفلك؟
		Somewhat stressful	عصيبا نوعا ما	
		Stressful	عصيبا	
		Extremely stressful	عصيبا للغاية	

<b>30</b>	<b>Interruption of education</b>			انقطاع التعليم
	Were there long periods of time when your child was not able to attend school?	Yes No	نعم لا	هل كانت هناك فترات طويلة لم يتمكن فيها طفلك من الذهاب إلى المدرسة؟
	If yes, how long (in total) was their education interrupted?	1 or 2 months	شهر أو شهرين	إذا كانت الإجابة نعم ، فكم من الوقت (إجمالي) توقف تعليمهم؟
		3 to 5 months	٣ إلى ٥ شهور	
		6 to 12 months	٦ إلى ١٢ شهرًا	
		More than 12 months	أكثر من ١٢ شهر	
	If yes, how stressful was this for your child?	Not at all stressful	لم يكن عصيبا على الإطلاق	إذا كانت الإجابة نعم ، فكم كان هذا عصيبا لطفلك؟
		Somewhat stressful	عصيبا نوعا ما	
		Stressful	عصيبا	
		Extremely stressful	عصيبا للغاية	
<b>31</b>	<b>Inadequate shelter</b>			مأوى غير مناسب
	Was there ever a time in your child's life when their family had to live on the street, in the forest or in a camp because they had no place to stay?	Yes No	نعم لا	هل كان هناك وقت في حياة طفلك عندما كان على عائلته أن تعيش في الشارع أو في الغابة أو في المخيم لأنه لم يكن لديهم مكان للإقامة؟
	If yes, how stressful was this?	Not at all stressful	لم يكن عصيبا على الإطلاق	إذا كانت الإجابة نعم، كم كان ذلك عصيبا لطفلك؟
		Somewhat stressful	عصيبا نوعا ما	
		Stressful	عصيبا	
		Extremely stressful	عصيبا للغاية	
<b>32</b>	<b>Dangerous travel route</b>			طريق سفر خطر
	Would you consider the route your child took to reach Germany to be dangerous? (ex. there was a high risk of drowning, being robbed, dehydrating, they were shot at, or chased while crossing a boarder)	Yes No	نعم لا	هل تعتقد أن الطريق الذي سلكه طفلك للوصول إلى ألمانيا خطر؟ (على سبيل المثال ، كانت هناك مخاطر كبيرة كالتعرض للغرق أو السرقة أو الجفاف أو إطلاق النار عليهم أو مطاردتهم أثناء عبور الحدود)
	If yes, how stressful was this?	Not at all stressful	لم يكن عصيبا على الإطلاق	إذا كانت الإجابة نعم، كم كان هذا عصيبا لطفلك؟
		Somewhat stressful	عصيبا نوعا ما	
		Stressful	عصيبا	
		Extremely stressful	عصيبا للغاية	
<b>33</b>	<b>Physical injuries, infection and diseases</b>			إصابات جسدية، عدوى، أمراض
	Was your child ever badly hurt or sick where you thought	Yes No	نعم لا	هل أصيب طفلك بأذى شديد أو مرض في أي وقت مضى حيث كنت

	medical treatment is necessary?			تعتقد أن العلاج الطبي ضروري؟
	If yes, how stressful was this?	Not at all stressful	لم يكن مرهق على الإطلاق	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟
		Somewhat stressful	عصبيا نوعا ما	
		Stressful	عصبيا	
		Extremely stressful	عصبيا للغاية	
<b>34</b>	<b>Immigration detention</b>			احتجاز المهاجرين
	Upon arriving to a new country was your child detained and/or separated from their family?	Yes	نعم	عند الوصول إلى بلد جديد، هل تم احتجاز طفلك و / أو انفصاله عن عائلته؟
		No	لا	
	If yes, how stressful was this?	Not at all stressful	لم يكن مرهق على الإطلاق	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟
		Somewhat stressful	عصبيا نوعا ما	
		Stressful	عصبيا	
		Extremely stressful	عصبيا للغاية	
<b>35</b>	<b>Application Delay</b>			
	Were their delays in processing of your child's refugee application or they were not informed about progress of their refugee application for a long time?	Yes	نعم	هل كانت هناك تأخيرات أو فترة طويلة لمعالجة طلب اللجوء الخاص بطفلك أو لم يتم إبلاغهم بتطورات طلب اللجوء الخاص بهم لفترة طويلة؟
		No	لا	
	If yes, how stressful was this?	Not at all stressful	لم يكن عصبيا على الإطلاق	إذا كانت الإجابة نعم، كم كان هذا عصبيا لطفلك؟
		Somewhat stressful	عصبيا نوعا ما	
		Stressful	عصبيا	
		Extremely stressful	عصبيا للغاية	
<b>36</b>	<b>Insecurity about refugee status</b>			انعدام الأمن بشأن وضع اللاجئ
	Are you fearful that your child's refugee status might become revoked or that your child's residence permit might not be renewed?	Yes	نعم	هل يخاف طفلك من أن يلغى وضع اللجوء أو أن تصريح إقامة طفلك قد لا يتم تجديده؟
		No	لا	
	If yes, how stressful was this?	Not at all stressful	لم يكن عصبيا على الإطلاق	إذا كانت الإجابة نعم، كم تعد هذا عصبيا لطفلك؟
		Somewhat stressful	عصبيا نوعا ما	
		Stressful	عصبيا	
		Extremely stressful	عصبيا للغاية	
<b>37</b>	<b>Repatriation</b>			إعادة التهجير
	Is your child fearful of being sent back to their country of origin?	Yes	نعم	هل يخاف طفلك من إعادته إلى بلده الأصلي؟
		No	لا	



	If yes, how stressful was this?	Not at all stressful	لم يكن عَصيباً على الإطلاق	إذا كانت الإجابة نعم، كم كان هذا عَصيباً لطفلك؟
		Somewhat stressful	عَصيباً نوعاً ما	
		Stressful	عَصيباً	
		Extremely stressful	عَصيباً للغاية	
	In the next section, you will be asked questions that measure your child's sense of belonging/ connection they feel from the community as well as the degree of support they perceive.		في القسم التالي ، سَتُطرح عليك أسئلة تقيس إحساس طفلك بالانتماء / الاتصال الذي يشعر به من المجتمع وكذلك درجة الدعم التي يتصورها.	
<b>38</b>	<b>Family reunification</b>			لم شمل العائلة
	All of my child's immediate living family members (parents and single/unmarried siblings) are living with us in Germany	Yes	نعم	جميع أفراد عائلة طفلي المباشرة الذين علي قيد الحياة (الآباء والأشقاء العازبون / غير المتزوجين) يعيشون معنا في ألمانيا
		No	لا	
	The presence of your immediate family is important to your child.	Strongly agree	موافق تماماً	وجود العائلة المباشرة هو شيء مهم بالنسبة لطفلك.
		Agree	موافق	
		Disagree	غير موافق	
		Strongly disagree	غير موافق مطلقاً	
<b>39</b>	<b>Presence of relatives</b>			تواجد أفراد آخرين من العائلة.
	We have relatives other than my child's immediate family members living in Germany	Yes	نعم	لدينا أقارب غير أفراد عائلة طفلي المباشرة يعيشون في ألمانيا
		No	لا	
	The presence of their relatives is important and helps your child get along	Strongly agree	موافق تماماً	إن وجود أقاربهم مهم ويساعد طفلك على التوافق
		Agree	موافق	
		Disagree	غير موافق	
		Strongly disagree	غير موافق مطلقاً	
<b>40</b>	<b>Sense of belonging</b>			الشعور بالانتماء
	Your child identifies with the community and feel like the community is their own.	Strongly agree	موافق تماماً	ارتبط طفلك مع المجتمع ويشعر بأن المجتمع خاص به
		Agree	موافق	
		Disagree	غير موافق	
		Strongly disagree	غير موافق مطلقاً	
<b>41</b>	<b>Support</b>			الدعم
	There are plenty of people your child can rely on when they have problems	Strongly agree	موافق تماماً	هناك الكثير من الأشخاص الذين يمكن لطفلك الاعتماد عليهم عندما يواجه مشاكل
		Agree	موافق	
		Disagree	غير موافق	
		Strongly disagree	غير موافق مطلقاً	
<b>42</b>	<b>Having friendships</b>			تكوين الصداقات
	Your child has really good friends that make them feel good	Strongly agree	موافق تماماً	لدى طفلك حقا أصدقاء جيدين وهذا يمنحهم بشعور جيد.
		Agree	موافق	
		Disagree	غير موافق	
		Strongly disagree	غير موافق مطلقاً	
<b>43</b>	<b>Community connection</b>			العزل الاجتماعي
		Strongly agree	موافق تماماً	

	There are enough people your child feels close to in Germany	Agree Disagree Strongly disagree	موافق غير موافق غير موافق مطلقا	هناك ما يكفي من الأشخاص الذين يشعر طفلك بالقرب منهم في ألمانيا
<b>44</b>	<b>Loss of community</b>			فقدان المجتمع
	Your child misses the pleasure of the company of others	Strongly agree Agree Disagree Strongly disagree	موافق تماما موافق غير موافق غير موافق مطلقا	يفتقد طفلك متعة صحبة الآخرين
<b>45</b>	<b>Fitting in with other children</b>			
	Your child's circle of friends and acquaintances is too limited	Strongly agree Agree Disagree Strongly disagree	موافق تماما موافق غير موافق غير موافق مطلقا	دائرة أصدقاء ومعارف طفلي محدودة للغاية
<b>46</b>	<b>Cultural differences</b>			الاختلاف الثقافي
	Your child faces difficulties adjusting to the cultural life in Germany (values, beliefs, traditions, lack of access to the foods they like etc.)	Strongly agree Agree Disagree Strongly disagree	موافق تماما موافق غير موافق غير موافق مطلقا	يواجه طفلك صعوبات في التكيف مع الحياة الثقافية في ألمانيا (القيم والمعتقدات والتقاليد وعدم الوصول إلى الأطعمة التي يحبونها وما إلى ذلك)
<b>47</b>	<b>Language difficulties</b>			صعوبات لغوية
	Your child has difficulties communicating in German?	Strongly agree Agree Disagree Strongly disagree	موافق تماما موافق غير موافق غير موافق مطلقا	يعاني طفلك من صعوبة التواصل باللغة الألمانية
<b>48</b>	<b>Parent language difficulty</b>			صعوبة اللغة للوالد
	The German language has been a barrier for you to support your child  For example: the inability to communicate with your child's teacher	Strongly agree Agree Disagree Strongly disagree	موافق تماما موافق غير موافق غير موافق مطلقا	شكلت اللغة الألمانية عائقا لك في دعم طفلك  على سبيل المثال: عدم القدرة على التواصل مع معلم طفلك
<b>49</b>	<b>Social security rights</b>			حقوق الضمان الاجتماعي
	Your family has difficulty obtaining welfare (government) assistance, obtaining appropriate accommodation, or accessing medical care when needed?	Strongly agree Agree Disagree Strongly disagree	موافق تماما موافق غير موافق غير موافق مطلقا	تواجه عائلتك صعوبات في الحصول على المساعدات الحكومية أو الحصول على سكن مناسب أو الحصول على الرعاية الطبية عند الحاجة

## 7.7 Appendix 7: Socio-demographic questions used in cognitive interviews (English and Arabic versions)

English version		النسخة العربية	
Question	Response option	خيارات الإجابة	السؤال
Sociodemographic information		معلومات ديمغرافية واجتماعية	
1	Are you the child's	Mother Father Other	والدة الطفل والد الطفل غير ذلك
			ما هي علاقتك بالطفل
2	How old is your child?		كم يبلغ عمر طفلك؟
3	Which city does your child currently live in?		في أي مدينة يقيم طفلك حالياً؟
4	Where was your child born?		أين وُلد طفلك؟
5	What is your child's gender?	Male Female Other	ذكر أنثى آخر
			ما هو جنس طفلك؟
6	What is your child's nationality?		ما هي جنسية طفلك؟
7	Where did your child live before they came to Germany?		أين كان يعيش طفلك قبل قدومه إلى ألمانيا؟
8	When did your child leave this country? (month/year)		متى غادر طفلك ذلك البلد؟ (الشهر، السنة)
9	Please name the countries your child transited through:		يرجى تسمية البلدان التي مر بها طفلك
10	When did your child arrive in Germany? (month/year)		متى وصل طفلك إلى ألمانيا؟ (الشهر، السنة)
11	How did your child come to Germany (mark all that apply)?	By airplane By boat Crossing borders by walking Using land transport (for example: bus, train or car)	بالطائرة بالقارب عبر الحدود مشياً مستخدماً وسائل النقل البرية (مثال: الحافلة، القطار أو السيارة)
			كيف وصل طفلك إلى ألمانيا؟ (ضع علامة على كل ما ينطبق)

12	Did they apply for asylum in a country other than Germany?	Yes, they applied for asylum in:	نعم، قدّم طلب اللجوء في:	هل تقدّم طفلك بطلب اللجوء في بلد ما غير ألمانيا؟
		No	لا	
13	How much time did they spend in refugee camps?			كم من الوقت قضى طفلك في مخيمات اللجوء؟
14	How well would you rate your child's German language skills?	Very good	جيد جداً	ما تقييمك لمهارات اللغة الألمانية لطفلك؟
		Good	جيد	
		Mediocre	متوسط	
		Weak	ضعيف	
		Not at all	أبداً	
15	Which residence status does your child have?	No residence status	لا يوجد إقامة	ما حالة الإقامة التي يحملها طفلك؟
		They have applied for asylum and have permission to stay	لقد طلبوا اللجوء ولديهم إذن بالبقاء	
		They have a temporary residence permit	لديهم إقامة مؤقتة	
		They have a permanent residence permit	لديهم إقامة دائمة	
		They are not in the asylum procedure ex: I have received a negative decision and have a "Duldung" (Tolerated Stay Permit)	ليسوا في إجراءات اللجوء على سبيل المثال: لقد تلقيت قراراً سلبياً وحصلت على "Duldung" (تصريح الإقامة المتسامح)	
Family information			معلومات عن العائلة	
16	Where do you live?	With the child	مع الطفل	أين تعيش؟
		Another place in Germany	بمكان آخر في ألمانيا	
		Another place in the European Union	بمكان آخر في الاتحاد الأوروبي	
		Outside the European Union (but not home country)	خارج الاتحاد الأوروبي (لكن ليس في البلد الأصل)	
		Home country	في البلد الأصل	

17	What is the highest degree or level of school you have completed? If currently enrolled, highest degree received	I do not have a school degree	ليس لدي تأهيل دراسي	ما هي أعلى درجة أو مستوى دراسي أكملته؟ إذا كنت ملتحق حالياً ، فأعلى درجة حصلت عليها
		I have a school degree but less than a high school diploma	لدي شهادة مدرسية ولكن أقل من شهادة المدرسة الثانوية	
		I have a high school degree or equivalent	لدي شهادة ثانوية أو ما يعادلها	
		Some college credit, no degree Trade/technical/vocational training Associate degree Bachelor's degree Master's degree Professional degree Doctorate degree	التحق بالكلية بدون شهادة التدريب التجاري / الفني المهني / درجة الزمالة درجة البكالوريوس ماجستير درجة إحترافية درجة الدكتوراه	
		I have another degree, namely:	لدي درجة أخرى ، وهي:	
		18	Did you work in your home country?	
19	Are you currently employed in Germany?	Yes, I work as No	نعم، أعمل كـ لا	هل تعمل حالياً في ألمانيا؟
20	Where does your spouse/partner currently live?	With your child	مع الطفل	أين يعيش زوجك / شريكك حالياً؟
		Another place in Germany	بمكان آخر في ألمانيا	
		Another place in the European Union	بمكان آخر في الاتحاد الأوروبي	
		Outside the European Union (but not home country)	خارج الاتحاد الأوروبي (لكن ليس في البلد الأصل)	
		Home country	في البلد الأصل	
Is Deceased	متوفى			
21	Did your spouse/partner work in your home country?	Yes, they worked as	نعم، عمل كـ	هل عمل زوجك/ شريك حياتك في بلدك الأصل؟
		No	لا	
22	Is your spouse/partner currently employed in Germany?	Yes, they work as	نعم، يعمل كـ	هل يعمل زوجك/ شريك حياتك حالياً في ألمانيا؟
		No	لا	

23	Number of siblings that your child has that are alive:			عدد الأشقاء الذين على قيد الحياة لطفلك
24	Number of siblings that your child has that are deceased:			عدد الأشقاء المتوفين لدى طفلك
25	Number of siblings that your child has in Germany:			عدد الأشقاء لدى طفلك الذين يعيشون في ألمانيا
26	Number of siblings that your child has that are outside of Germany:			عدد الأشقاء لدى طفلك خارج ألمانيا
27	What type of accommodation does your child currently stay in?	Apartment / house (not shared)	شقة / بيت (غير مشترك)	ما هو نوع السكن الذي يقيم فيه طفلك حالياً؟
		Apartment / house (shared)	شقة / بيت (مشترك)	
		Camp (Container)	مخيم (مسبق الصنع)	
		Camp (Tent)	مخيم (خيمة)	
		Informal/Unofficial camp	مخيم غير رسمي/ غير قانوني	
		Hotel	فندق	
		Homeless	بلا مأوى	
		Local authority care	برعاية السلطة المحلية	
	Other:		آخر:	
28	How many people live in the same accommodation?			كم عدد الأشخاص الذين يسكنون في نفس السكن؟
29	How many bedrooms are there at this accommodation?			كم عدد غرف النوم في هذا السكن؟
30	Who pays the rent in your child's apartment/house ?	No rent – Owned apartment / house	لا يوجد إيجار – أمتلك شقة / منزل	من الذي يدفع إيجار أو تكاليف السكن لطفلك؟
		My friends / family / relatives pay the rent	أصدقائي / عائلتي / أقربائي يدفعون الإيجار	

		No rent – Hosted for free by employer	لا يوجد إيجار - صاحب العمل يستضيفني مجاناً	
		I pay the rent	أنا أدفع الإيجار	
		The state / municipality pays the rent	الدولة أو البلدية تدفع الإيجار	
		NGOs / charities / civil society organisations pay the rent	عن طريق منظمات غير حكومية – جمعيات خيرية – منظمات المجتمع المدني	
		Other:	آخر:	
31	Please choose one of the following that best describes your family's financial status.	Weak	ضعيف	يُرجى اختيار أحد الخيارات التالية التي تصف الحالة المالية لعائلتك على أفضل وجه
		Middle	متوسط	
		Strong	جيد	
32	Which language do you speak with your child?			ما اللغة التي تتحدث بها مع طفلك؟

## 7.8 Appendix 8: Strengths and Difficulties questionnaire

### أستبيان مواطن القوة والصعوبة SDQ (4-17 سنة) للوالدين

يرجى الاجابة على كل بند ب : غير صحيح, صحيح نوعا ما , او صحيح بالتأكيد بوضع علامة  تحت الاجابة المناسبة . حاول ان تكون دقيقا في اجابتك. سوف يساعدنا كثيرا اذا اجبت على كل بند حتى وان كنت غير متأكد او ترى انه غير مناسب. يرجى ان تكون اجابتك حول سلوك الطفل خلال الستة الأشهر الأخيرة او هذه السنة الدراسية .

اسم الطفل: .....  ولد  بنت

تاريخ الميلاد : .....

صحيح بالتأكيد	صحيح نوعا ما	غير صحيح	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يهتم بمشاعر الاخرين
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	لا يستطيع البقاء او الاستقرار في مكان واحد . كثير الحركة
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كثيرا ما يشكو من صداع او الام في البطن او الشعور بالغثيان
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يشرك الاخرين بسهولة فيما يخصه { لعب, أقلام, ألعاب, حلويات ....الح}
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كثيرا ما تتناوب نوبات من الغضب الشديد أ و سريع الغضب
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يحب العزلة. يميل الى اللعب لوحدة
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	مطيع على وجه العموم. عادة يفعل ما يطلبه منه الكبار
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يقلق من اشياء كثيرة. كثيرا ما يبدو عليه القلق
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يساعد الاخرين اذا ما حدث لاحدهم مكروه
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يتعلم او يتلوى باستمرار {جسمه في حركه مستمره اثناء جلوسه}
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	لديه على الاقل صديق واحد جيد
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كثيرا ما يتعارك مع الاخرين من نفس سنه او يستأسد عليهم
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كثيرا ما يكون غير سعيد, حزين او يبكي بسهولة
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	في الغالب محبوب ممن هم في سنه
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يتشتت انتباهه بسرعة وقليل التركيز
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	عصبى او متشبهت {متعلق} بالاخرين في المواقف الجديدة. من السهل ان يفقد ثقته بنفسه
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	لطيف مع من هم أصغر منه
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كثيرا ما يكذب , يخدع او يغش
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يستهزأ منه او يستأسد عليه من هم في سنه
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كثيرا ما يتطوع لمساعدة الاخرين {الوالدين, المدرسين, الاطفال الاخرين}
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يفكر قبل ان يتصرف
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يسرق من البيت او المدرسة او من أماكن اخرى
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ينسجم بشكل أفضل مع الكبار عنه مع الاطفال في نفس سنه
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يخاف من اشياء كثيرة . من السهل تخويفه
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يتابع اداء الواجبات حتى النهايه . لديه انتباه جيد



## 7.9 Appendix 9: WHO-5 Wellbeing Index

## WHO- خمسة معيار التقدم ( نسخة 1999 )

ضع من فضلك عند كل من الاسئلة الخمسة التالية علامة ضرب في المربع ( خانة ) التي هي أقرب من كيفما شعرت في الأسبوعين الماضيين. لاحظ بأن درجة أعلى هي لافضل حالة.

مثال: إذا كنت شعرت بأنك كنت سعيدا و بمزاج جيد في أكثر بقليل من نصف الوقت من فترة الأسبوعين الماضيين، فضع علامة ضرب في المربع ذو رقم 3 الموجود في الركن العلوي اليمنى.

بتاتا	قليل من الوقت (نادرا)	أقل بقليل من نصف الوقت	أكثر بقليل من نصف الوقت	أكثر الأحيان	دائما	في الأسبوعين الماضيين
0	1	2	3	4	5	1 .. كنت سعيدا و بمزاج جيد
0	1	2	3	4	5	2 .. كنت أشعر بالهدوء و الاسترخاء
0	1	2	3	4	5	3 .. كنت أشعر بالحيوية و النشاط
0	1	2	3	4	5	4 .. كنت استيقظ نشطا و مرتاحا
0	1	2	3	4	5	5 .. كانت أيامي مليئا بأشياء محببة لنفسى

## 7.10 Appendix 10: Participant Demographics in the BRACE Questionnaire Psychometric Analysis

Variable	n=522	
	n	%
<b>Guardian responding (parent)</b>		
Mother	181	34.7
Father	34	6.5
Other	6	1.1
Missing	301	57.7
<b>Gaurdian's educational level (ParentEducation)</b>		
No school degree	16	3.1
Less than a high school diploma	16	3.1
High school degree or equivalent	28	5.4
Some college credit, no degree	25	4.8
Vocational training	10	1.9
Bachelor's degree	62	11.9
Master's degree	19	3.6
Doctorate degree	2	0.4
Other	7	1.3
Missing	337	64.6
<b>Child gender (Gender)</b>		
Female	121	23.2
Male	100	19.2
Missing	301	57.7
<b>Child age (age)</b>		
≤ 5 yrs	57	10.9
6 yrs - 10 yrs	94	18.0
11 yrs - 15 yrs	46	8.8
≥ 16 yrs	8	1.5
Missing	317	60.7
<b>Child has a mental/physical disability (Disability)</b>		
yes	34	6.5
no	185	35.4
Missing	303	58.0
<b>Child's nationality (nationality)</b>		
Syrian	169	32.4
Palestinian	13	2.5
Jordanian	2	0.4
Iraqi	4	0.8
Other	12	2.3
Missing	322	61.7
<b>Year child arrived to Germany (ArrivalDate_SQ002_SQ001)</b>		
2009	1	0.2
2011	1	0.2
2012	1	0.2
2013	2	0.4
2014	16	3.1
2015	63	12.1

2016	32	6.1
2017	15	2.9
2018	7	1.3
2019	5	1.0
2020	3	0.6
2021	2	0.4
Missing	374	71.6
<b>Child's duration in refugee camps (CampDuration)</b>		
≤ 6 months	139	26.6
7 - 12 months	19	3.6
≥ 13 months	5	1.0
Missing	359	68.8
<b>Child's German language skills (GermanProficiency)</b>		
Very good	103	19.7
Good	71	13.6
Mediocre	27	5.2
Weak	12	2.3
Not at all	4	0.8
Missing	305	58.4
<b>Child's documentation status (ResidenceStatus)</b>		
No residence status	6	1.1
Permission to stay	35	6.7
Temporary residence	132	25.3
Permanent residence	30	5.7
Tolerated Stay Permit	3	0.6
Missing	316	60.5
<b>Child's accomodation (AccomodationType)</b>		
Apartment / house (not shared)	158	30.3
Apartment / house (shared)	20	3.8
Informal/Unofficial camp	1	0.2
Hotel	2	0.4
Homeless	1	0.2
Local authority care	3	0.6
Other	2	0.4
Missing	335	64.2
<b>Family's financial status (FinancialStatus)</b>		
No private income (depend on social welfare)	56	10.7
Weak (there is a private income but cannot live comfortably)	42	8.0
Average (there is a private income and live comfortably)	78	14.9
Strong (possess abundant possessions and material wealth)	3	0.6
Missing	343	65.7
<b>Languages spoken at home (MotherTongue)</b>		
Arabic	107	20.5
Arabic and German	17	3.3
Arabic and English	1	0.2
Arabic and Kurdish	1.0	0.2
Arabic, German and English	8	1.5
English	2	0.4
Kurdish	12	2.3

Kurdish and German	1	0.2
Kurdish, Arabic and German	1	0.2
Kurdish, German and English	1	0.2
Missing	371	71.1

## 8 CURRICULUM VITAE

### PERSONAL DETAILS

Name und First name: Abdelhamid, Shaymaa

Date of Birth: 15.07.1990

Place of Birth: Cairo, Egypt

### SCHOOL EDUCATION

1998 – 2008 American International School – Riyadh, Saudi Arabia

08/2008 International Baccalaureate (IB) Diploma

### UNIVERSITY EDUCATION

10/2008 – 06/2013 Bachelor of Science in Pharmacy and Biotechnology  
German University in Cairo, Egypt

09/2014 – 07/2016 Masters in Public Health  
University of York, United Kingdom

Dissertation title: How effective are school feeding programs in improving nutritional and educational outcomes in young people?

04/2018 – Present Research assistant and doctoral student  
Medical Faculty Mannheim, University of Heidelberg,  
Germany

Supervisor: Prof. Dr. med. Joachim E. Fischer  
Doctoral project as part of the graduate college (GRK) 2350

### LANGUAGE SKILLS

Arabic Mother tongue

English Mother tongue

German B2 proficiency

Italian A2 proficiency

## **PUBLICATIONS**

*Abdelhamid, S., et al., Negative and protective experiences influencing the well-being of refugee children resettling in Germany: a qualitative study. BMJ Open, 2023. 13(4): p. e067332 DOI: [10.1136/bmjopen-2022-067332](https://doi.org/10.1136/bmjopen-2022-067332).*

*Preprint (under review at European Child & Adolescent Psychiatry) - Abdelhamid, S., et al., Assessing Adverse Childhood Experiences in Young Refugees: A Systematic Review of Available Questionnaires. Preprints 2023, 2023 DOI: <https://doi.org/10.20944/preprints202303.0027.v1>*

*Work in preparation:*

*Abdelhamid, S., et al., Development of the Beyond Refugee Adverse Childhood Experience (BRACE) Questionnaire (in preparation)*

*Abdelhamid, S., et al., Psychometric properties of the Beyond Refugee Adverse Childhood Experience (BRACE) Questionnaire (in preparation)*

## **POSTERS**

*Abdelhamid, S., et al., Beyond Refugee Adverse Childhood Experiences (BRACE): Developing and Validating an Adverse Childhood Experiences Questionnaire for Refugee Children. Mannheim, Germany at Deutsche Gesellschaft für Kinder- und Jugendpsychiatrie, 2019*

*Abdelhamid, S., et al., Voices of the displaced: risk and protective factors affecting refugee children – results from a qualitative study for the BRACE project. Tallinn, Estonia at International Congress on Child Abuse and Neglect, 2022*

*Abdelhamid, S., et al., Suitability of tools assessing adverse childhood experiences in young refugees – a systematic review. Dublin, Ireland at 16<sup>th</sup> European Public Health Association Conference, 2023 (upcoming)*

*Abdelhamid, S., et al., Assessing adverse childhood experiences in young refugees – development of the BRACE questionnaire. Dublin, Ireland at 16<sup>th</sup> European Public Health Association Conference, 2023 (upcoming)*

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