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ORIGINAL CONTRIBUTION

Incidence of psychiatric disorders among accompanied and unaccompanied asylum-seeking children in Denmark: a nation-wide register-based cohort study

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Abstract

One in four asylum applicants in Europe are children, and 23% of whom are unaccompanied and may be at increased risk of mental illness. This study contributes to the limited evidence base by comparing the incidence of psychiatric disorders among unaccompanied and accompanied refugee children. We linked a cohort of refugee children who obtained right of residency in Denmark between 01 January 1993 and 31 December 2010 to the Danish Psychiatric Central Register, and calculated incidence rates per 100,000 person years and incidence rate ratios of overall psychiatric disorder, psychotic disorders, affective disorders, and neurotic disorders for accompanied and unaccompanied minors using Poisson regression. We adjusted the analyses for sex, age at residency, and age at arrival (aIRR). Stratified analyses were conducted by nationality. Unaccompanied minors had significantly higher rates of any psychiatric disorder (aIRR: 1.38, 95% CI 1.14–1.68) and neurotic disorders (aIRR: 1.67, 95% CI 1.32–2.13) than accompanied minors. Among children from Afghanistan, unaccompanied minors had significantly higher rates of any psychiatric disorder (aIRR: 2.23, 95% CI 1.26–3.93) and neurotic disorders (aIRR: 3.50, 95% CI 1.72–7.11). Among children from Iraq, unaccompanied minors had higher rates of any psychiatric disorder (aIRR: 2.02, 95% CI 1.18–3.45), affective disorders (aIRR: 6.04, 95% CI 2.17–16.8), and neurotic disorders (aIRR: 3.04, 95% CI 1.62–5.70). Unaccompanied children were found to experience a higher incidence of any psychiatric disorder and neurotic disorders. Strategies are needed to address the specific mental health and social needs of unaccompanied minors.

Keywords Refugee · Asylum seeker · Unaccompanied · Child · Mental health

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Introduction

Refugee and asylum-seeking populations in Europe are increasing, with over 1 million migrants arriving in Europe in 2015 [1, 2]. In Denmark, for example, 10,861 residence permits were granted for asylum in 2015 compared with 6104 the previous year [3]. In 2015, 31% of the 1,015,718 migrants who arrived by sea to Europe were children [4]. One in four asylum applicants in Europe are children (approximately 800 children per day), and in 2015, 88,300 unaccompanied children applied for asylum in the EU, comprising 23% of all child asylum applications [4].

Asylum-seeking and refugee children have been shown to be at increased risk of poor mental health outcomes due to exposure to pre- and post-migration trauma, separation from family, poor living conditions and destitution, social exclusion and discrimination, and barriers to accessing health and social services [3, 5–8]. Unaccompanied children (migrating without a parent or guardian) may be

at additionally increased risk of these factors, as well as adverse events including trafficking, sexual abuse, loss of or separation from loved ones, or violence, and psychological distress may be both severe and long lasting [3, 9]. This was highlighted in a recent systematic review [5] on risk factors for mental illness in asylum-seeking and refugee children, which identified that having a single parent or being unaccompanied was associated with an increased risk of poor mental health outcomes, and unaccompanied children were more likely to experience adverse events [5, 8].

However, there is insufficient research examining the relationship between unaccompanied status and mental health among asylum-seeking or refugee children, and a lack of large-scale studies (e.g., register-based studies) [5]. Furthermore, the previous research on unaccompanied children predominantly focuses on Post-traumatic Stress Disorder (PTSD) [10, 11], and other key mental health outcomes are underrepresented. The limited evidence base on asylum-seeking and refugee children, and unaccompanied children in particular, may be attributed to significant barriers to reaching this group, including fear of contact with services or government, language, poor mental or physical health, mobility or instability in living situations, and social isolation [10].

There is a significant need for robust research on the mental health of asylum-seeking and refugee children, and especially unaccompanied children, to inform policies and practices to address these children's social and health needs, particularly in light of the increasing numbers of asylum-seeking and refugee children arriving in Europe [3].

To address these gaps in the evidence base, this study aims to examine the relationship between unaccompanied status and the incidence of psychiatric disorders among refugee children in Denmark using a unique nation-wide cohort of refugee children.

Methods

Study population

We conducted a register-based historical prospective cohort study using a cohort including all migrants who obtained right of residency in Denmark as refugees or through family reunification between 1 January 1993 and 31 December 2010, created in collaboration with the Danish Immigration Service. The cohort includes information on a range of parameters related to obtaining residency including whether child asylum seekers were accompanied or unaccompanied. For further details on this cohort, see Norredam et al. [12].

Data collection and measures

Upon obtaining right of residency in Denmark, each migrant is given a personal identification number. We used this number to obtain information on psychiatric disorder for asylum-seeking children in the cohort from the Danish Psychiatric Central Register, which includes data on inpatient or outpatient psychiatric hospital contacts.

Asylum-seeking children in the cohort were followed from their 18th birthday until end of follow-up according to (1) emigration; (2) death; (3) date of in- or outpatient psychiatric disease admission; or (4) 30th June 2012, whichever came first. As previously done [13], we used diagnosis upon discharge of first psychiatric hospital contact as a proxy for having a psychiatric disorder. Diagnoses in the psychiatric central register were classified according to ICD-10 classifications. As this coding system was introduced in January 1994, replacing the ICD-8, only ICD-10 diagnoses from 1 January 1994 onwards were included. Inpatient contacts were included in the Danish Psychiatric Central Register from this date; however, outpatient contacts were not included until 1 January 1995, and thus are not included for the period between 1 January 1994 and 1 January 1995. Inpatient and outpatient contacts are pooled in the analyses.

We examined the incidence of overall psychiatric disorder (ICD-10 diagnoses F00–F90) as the main outcome. We also examined the incidence of the three most common diagnostic categories: (1) psychotic disorders, F20–29 (including schizophrenia, schizotypal, and delusional disorders); (2) affective disorders F30–39 (e.g., mood disorders); and (3) and neurotic disorders, F40–48 (e.g., neurotic, stress-related, and somatoform disorders). Personal identification numbers were also used to obtain information from the Danish Immigration Service and the Population Register regarding date of birth, sex, nationality, age at migration and age upon being granted residency.

Statistical analysis

Descriptive analyses were conducted using Chi-squared and *t* test analyses, as well as Kaplan–Meier survival curves and the log-rank test. We used Poisson regression to calculate incidence rates of psychiatric disorder after 18 years of age among accompanied and unaccompanied asylum-seeking children. We also calculated both crude and adjusted incidence rate ratios (IRR) and 95% confidence intervals. We calculated IRR in a crude model, in a model for age and sex at arrival and finally in fully adjusted model using sex, age at arrival, age at residence permit, and nationality. We did not make a separate

variable for waiting time, as this is implicit when adjusting together for age at arrival and age at residence permit. We identified an interaction between unaccompanied status and country of origin, and therefore, we preformed separate analyses by nationality.

Ethical approval

This study was approved by the Danish Data Protection Agency. No further ethical approval was required in Denmark for registry-based research. Data were accessed and analysed in an anonymous form via online access to the database at Statistics Denmark.

Results

Study population

We included 1252 unaccompanied refugee children and 11,446 accompanied refugee children in the study. Out of the original cohort, 9339 refugee children were excluded due to dying before the age of 18 ($n = 46$), emigrating before 18 ($n = 1350$), being under 18 years at study termination and thus no follow-up data were available ($n = 6726$), being quota refugees ($n = 1216$) or having a date of death preceding the date of emigration ($n = 1$).

Characteristics of accompanied and unaccompanied refugee children

Table 1 shows the characteristics of accompanied and unaccompanied refugee children in the study. A significant

Table 1 Characteristics of unaccompanied asylum-seeking children and their accompanied group of comparison ($n = 12\,698$)

Variable	Unaccompanied ($n = 1252$)		Accompanied ($n = 11\,446$)		p value
	%	n	%	n	
Gender					< 0.001
Female	26.6	333	47.1	5396	
Male	73.4	919	52.9	6050	
Country of origin					< 0.001
Afghanistan	24.1	302	6.6	754	
Somalia	22.6	283	11.1	1268	
Bosnia-Hercegovina	17.7	222	40.6	4651	
Iraq	10.0	125	12.4	1414	
Sri Lanka	7.3	91	1.7	189	
Iran	3.8	48	1.9	212	
Palestine	2.3	29	10.3	1173	
Kosovo	1.4	17	5.5	632	
Other	10.8	135	10.1	1153	
Median (IQR) age at arrival					
Years	14.9	(11.4; 16.2)	6.9	(3.3; 10.6)	
Missing (n)	58		233		
Median (IQR) age at residency					
Years	15.0	(12.0; 17.0)	9.0	(5.0; 12.0)	
Missing (n)	0.0	0	0.0	0	
Median (IQR) waiting time					
Years	0.74	(0.4; 1.6)	1.98	(0.9; 2.6)	
Missing (n)	58		233		
Events during follow-up					< 0.001
Psychiatric diagnosis	11.3	142	7.0	800	
Emigration	12.8	160	10.4	1190	
Death	0.6	8	0.3	31	
Population at end of study	75.2	942	82.3	9425	
Median (IQR) age at first psychiatric diagnosis					
Years	21.6	(19.4;25,2)	22.6	(19.8;26.1)	

difference was identified in the gender distribution of accompanied and unaccompanied refugee children ($p < 0.001$), with girls accounting for 47.1% of accompanied refugee children compared to only 26.6% of unaccompanied children. There were also significant differences in the distribution of countries of origin among accompanied and unaccompanied refugee children ($p < 0.001$). The greatest proportion of unaccompanied refugee children came from Afghanistan (24.1%), Somalia (22.6%), Bosnia-Hercegovina (17.7%), and Iraq (10%), whilst the greatest proportion of accompanied refugee children migrated from Bosnia-Hercegovina (40.6%), Iraq (12.4%), and Somalia (11.1%). Unaccompanied minors were older than accompanied minors when they arrived in Denmark and obtained residency. Accompanied minors waited longer for their residence permits than unaccompanied minors.

Differences in psychiatric disorders among unaccompanied compared to unaccompanied asylum-seeking children

The distribution of follow-up events also differed among accompanied and unaccompanied refugee children, and 11.3% of unaccompanied children vs. 7.0% of accompanied children had a psychiatric diagnosis. Table 2 shows the incidence rates (IR) and incidence rate ratios (IRR) of psychiatric disorder among accompanied and unaccompanied asylum-seeking children. The IR for overall psychiatric disorder was 1483 (95% CI 1258–1748) per 100,000 person years among unaccompanied asylum-seeking minors, compared with 1081 (95% CI 1009–1159) among accompanied children. The incidence of overall psychiatric disorder was found to be significantly higher among unaccompanied asylum-seeking children in both the crude (IRR: 1.37, 95% CI 1.15–1.64) and adjusted analyses (aIRR: 1.38, 95% CI 1.14–1.68).

The incidence of psychotic disorder was higher among unaccompanied asylum-seeking children [428 (95% CI 317–577) per 100,000 person years vs. 251 (95% CI 218–289); crude IRR: 1.71 (95% CI 1.23–2.38)], though not after adjustments for sex, age at residence permit and age at arrival. Unaccompanied children also had a significantly higher incidence of neurotic disorders (969 (95% CI 793–1185) per 100,000 person years vs. 572 (95% CI 521–629)] in both the crude (IRR: 1.69, 95% CI 1.36–2.11) and adjusted analyses (aIRR: 1.67, 95% CI 1.32–2.13).

Differences in diagnosis of a psychiatric disorder by country of origin

Table 3 shows incidence rates of psychiatric disorders among accompanied and unaccompanied asylum-seeking children by country of origin. Among children from Afghanistan, unaccompanied children had a higher incidence of overall

Table 2 Psychiatric disorders among accompanied and unaccompanied asylum-seeking children

Incidence rate (IR) (per 100 000 pyrs)	Accompanied			Unaccompanied		
	n	Person years Median (IQR)	Rate (95% CI)	*n*	Person years Median (IQR)	Rate (95% CI)
Overall psychiatric disorder	800	8.0 (2.9;11.3)	1081 (1009–1159)	1483	5.7 (2.5;9.8)	1483 (1258–1748)
Psychotic disorders	192	8.5 (3.7;11.5)	251 (218–289)	428	6.0 (2.6;10.1)	428 (317–577)
Affective disorders	180	8.6 (3.6;11.5)	243 (203–271)	328	6.0 (2.6;10.2)	328 (233–461)
Neurotic disorders	433	8.3 (3.0;11.4)	572 (521–629)	969	5.9 (2.6;10.0)	969 (793–1185)

Incidence rate ratios (IRR)	Accompanied (ref.)	Unaccompanied Crude IRR	Adjusted IRR[a]
Overall psychiatric disorder (DF00–90)	1	1.37 (1.15-1.64)	1.38 (1.14–1.68)
Psychotic disorders (DF20–29)	1	1.71 (1.23-2.38)	1.29 (0.89–1.86)
Affective disorders (DF30–39)	1	1.40 (0.96-2.03)	1.33 (0.89–2.01)
Neurotic disorders (DF40–48)	1	1.69 (1.36–2.11)	1.67 (1.32–2.13)

Incidence rate ratios (IRR)	Accompanied (ref.)	Unaccompanied Crude IRR	Adjusted IRR[b]
Overall psychiatric disorder (DF00–90)	1	1.37 (1.15–1.64)	1.36 (1.12–1.66)
Psychotic disorders (DF20–29)	1	1.71 (1.23–2.38)	1.27 (0.88–1.83)
Affective disorders (DF30–39)	1	1.40 (0.96-2.03)	1.34 (0.89–12.03)
Neurotic disorders (DF40–48)	1	1.69 (1.36–2.11)	1.64 (1.29–2.10)

[a]Adjusted for sex and age at arrival

[b]Adjusted for sex, age at residence permit, age at arrival and nationality

Table 3 Incidence rate ratios of psychiatric disorder among accompanied and unaccompanied asylum-seeking children by country of origin

Regions of origin	N (accompanied/unaccmopanied)	Crude IRR for overall psychiatric disorder (DF00–90)	Adjusted[a] IRR for overall psychiatric disorder (DF00–90)	N (accompanied/unaccmopanied)	Crude IRR for psychotic disorders (DF20–29)	Adjusted[a] IRR for psychotic disorders (DF20–29)	N (accompanied/unaccmopanied)	Crude IRR for affective disorders (DF30–39)	Adjusted[a] IRR for affective disorders (DF30–39)	N (accompanied/unaccmopanied)	Crude IRR for neurotic disorders (DF40–48)	Adjusted[a] IRR for neurotic disorders (DF40–48)
Accompanied (ref.)		1	1		1	1		1	1		1	1
Unaccompanied												
Somalia	87/24	0.92 (0.58–1.44)	0.84 (0.51–1.39)	53/7	0.43[a] (0.20–0.95)	0.47 (0.21–1.05)	15/5	1.12 (0.41–3.07)	0.68 (0.19–2.46)	32/12	1.26 (0.65–2.46)	0.99 (0.47–2.06)
Afghanistan	37/42	2.83[a] (1.82–4.40)	2.23[a] (1.26–3.93)	8/13	3.96[a] (1.64–9.56)	2.64 (0.82–8.48)	13/5	0.92 (0.29–3.31)	0.98 (0.29–3.31)	21/34	4.05[a] (2.35–6.98)	3.50[a] (1.72–7.11)
Bosnia-Hercegovina	315/12	0.59 (0.33–1.04)	0.57 (0.31–1.03)	53/5	1.47 (0.59–3.67)	1.12 (0.40–3.12)	67/3	0.69 (0.22–2.20)	0.64 (0.20–2.06)	185/6	0.50 (0.22–1.12)	0.43 (0.18–1.05)
Iraq	105/22	1.60[a] (1.01–2.54)	2.02[a] (1.18–3.45)	28/7	1.80 (0.79–4.12)	0.99 (0.37–3.60)	19/9	3.42[a] (1.55–7.56)	6.04[a] (2.17–16.8)	55/18	2.64[a] (1.44–4.19)	3.04[a] (1.62–5.70)
Sri Lanka	13/10	1.47 (0.64–3.34)	2.29 (0.86–6.06)	4/2	0.95 (0.17–5.21)	2.71 (0.34–21.4)	2/2	1.92 (0.27–13.6)	1.83 (0.20–16.5)	10/6	1.14 (0.14–3.13)	1.91 (0.58)
Iran	23/8	1.82 (0.81–4.06)	1.28 (0.51–3.26)	6/3	2.58 (0.65–10.3)	1.36 (0.29–6.40)	7/3	2.27 (0.59–8.77)	1.67 (0.30–9.48)	10/3	1.56 (0.43–5.67)	1.29 (0.31–5.29)
Palestine	94/5	1.08 (0.44–2.64)	0.79 (0.25–2.52)	13/2	3.08 (0.69–13.6)	1.49 (0.19–11.9)	24/0	N/A	N/A	57/3	1.07 (0.33–3.41)	0.86 (0.21–3.61)
Kosovo	48/1	0.44 (0.06–3.17)	0.60 (0.08–4.56)	6/0	N/A	N/A	15/0	N/A	N/A	25/1	0.87 (0.12–6.40)	1.18 (0.14–9.68)
Other	78/18	1.56 (0.94–2.61)	1.75 (0.98–3.11)	21/4	1.23 (0.42–3.58)	1.23 (0.38–3.99)	18/6	2.20 (0.87–5.53)	2.52 (0.88–7.23)	38/12	2.15[a] (1.12–4.11)	2.01 (0.96–4.22)

[a]Adjusted for sex, age at residence permit, age at arrival

psychiatric disorder (aIRR: 2.23, 95% CI 1.26–3.93) and neurotic disorders (aIRR: 3.50, 95% CI 1.72–7.11). In the crude analyses, unaccompanied children from Afghanistan had almost four times higher IRR of psychotic disorders compared with accompanied children (IRR: 3.96, 95% CI 1.64–9.56), but this was attenuated after adjustments (aIRR: 2.64, 95% CI 0.82–8.48).

Among children from Iraq, unaccompanied children had higher rates of psychiatric disorder (aIRR: 2.02, 95% CI 1.18–3.45), affective disorders (aIRR: 6.04, 95% CI 2.17–16.8), and neurotic disorders (aIRR: 3.04, 95% CI 1.62–5.70). Unaccompanied children from Somalia were found to have a lower incidence of psychotic disorder than accompanied Somali children in the crude analyses (IRR: 0.43, 95% CI 0.20–0.95), but this was attenuated in the adjusted analysis (aIRR: 0.47, 95% CI 0.21–1.05).

Discussion

This cohort data pointed to disparities in the incidence of psychiatric disorder between unaccompanied and accompanied refugee and asylum-seeking children in Denmark. These findings are in line with previous research suggesting asylum-seeking and refugee children, and unaccompanied children in particular, may be at increased risk of poor mental health outcomes [5–9].

The increased risk of overall psychiatric disorder among children who sought asylum without a parent or guardian points to the need for specific support for unaccompanied children, including not only health, but also social services [5]. This may be particularly salient due to loss of social support especially the network of family and friends, which may impact on children's resilience and coping efforts [14]. Interventions and support infrastructure targeted at improving access to and the quality of healthcare for these groups should be tailored to the specific context (e.g., receiving country), children's characteristics (e.g., age and gender), and factors such as nationality, which this study has found to impact the risk of psychiatric disorders among refugee children as shown by the increased rates of psychiatric disorder among unaccompanied children from Afghanistan and Iraq compared to their accompanied peers. There is also evidence that targeting interventions for culturally homogenous groups (e.g., based on country of origin) increases their effectiveness in reducing psychological symptoms [15].

Our findings, further, highlight the need for culturally relevant targeted strategies addressing the needs of these groups, which should also take into consideration key stages of the migration trajectory and children's exposure to stressors in their countries of origin, during the migration trajectory, and following arrival. Such stressors may include exposure to trauma (e.g., violence, conflict, and sexual abuse), which is often prolonged and repeated, or migration-related factors such as insecure legal or residential status, social exclusion, discrimination, and acculturation stressors [3, 14, 16].

Services should also be structured to address the multifaceted health and social needs these populations may experience, and integrate mental, physical, and somatic health care, for example, through joint care pathways [3]. This must be accompanied by increased efforts to screen for and identify mental (and other) health needs in these populations, recognising the diverse symptoms or illness models that may be present in these communities. Such programmes would also benefit from both incorporating a range of treatments (e.g., cognitive behavioural treatment as well as art or music therapy), and utilising cross-cultural teams to address the social, legal, and linguistic needs that may accompany children's health needs [14]. To adequately meet these needs within the scope of available resources in receiving countries, efforts must be made to adapt health infrastructures (e.g., through task sharing or shifting), support resilience, and facilitate access to early care to reduce poorer and more costly health outcomes in the longer term [3].

Due to limited family support resources, unaccompanied refugee and asylum-seeking children are likely to underutilise health services [17], thus, it is important to identify innovative strategies to promote child health, engagement with services, and integration (including education). In this context, interventions situated in the community, for example, school-based interventions, may be particularly important for unaccompanied children, as they have been shown to be effective in improving mental health, in addition to emotional and social functioning and integration [18, 19]. Furthermore, utilising community-based approaches and focusing on engagement with and capacity building for target communities are particularly important in developing successful and sustainable interventions relevant to specific cultural groups, including integrating local understandings of trauma and illness [20].

The need to facilitate access to high-quality health and social services for refugee and asylum-seeking children is becoming increasingly important in light of more restrictive health and social services for asylum seekers in Europe. This is reflected by significant cuts in access to benefits for refugees and immigrants in Denmark [21], which have been criticised for violating the UN's 1951 refugee convention [22]. Policy, including health specific legislation or guidance, as well as social policies, must prioritise the health, human rights, and welfare of these groups, including the quality and safety of their living environments (either socially, or in relation with living conditions, e.g., in reception centres or foster homes).

In addition to developing social and health services targeted at these groups, however, there is also a need for

immigration policies to recognise the increased risk of psychiatric disorder experienced by unaccompanied asylum-seeking children. Strategies to actively minimise asylum process stressors (e.g., such as reducing waiting times for immigration decisions, limiting length of stay in asylum accommodation, or seeking to avoid multiple displacements/relocations of asylum-seeking children during this process, which have been shown to be key risk factors [23–26]), may help to reduce the risk of psychiatric disorder. In addition, living conditions, employment/education, and access to family or social support have been shown to be important mediators in asylum seekers and refugees from these communities, and should also be integrated into existing integration structures [25].

Strengths and limitations

This study includes a large sample of accompanied and unaccompanied refugee children, making an important contribution to the limited evidence base on the mental health of these groups. The cohort study also included a diverse sample of children, and measured multiple diagnoses, broadening the data available on the mental health of unaccompanied and accompanied refugee and asylum-seeking children, which has predominantly been focused on specific groups (e.g., countries of origin) or diagnoses (e.g., PTSD).

It is important to note that the data represent first time hospital contact after the 18th birthday, and thus the sample may include individuals who sought care at Danish psychiatric hospitals prior to receiving residence permission (e.g., whilst seeking asylum), seeking treatment before 18 years of age or those who had contact with psychiatric services through other routes, for example, in education or social services. These individuals may also have had contact with mental health services in their countries of origin prior to migrating, which is not identifiable from the data.

It is also worthwhile noting that the outcome examined is incidence of psychiatric disorder in this sample, but as it is based on diagnosis in the hospital setting, it does not shed light on the incidence of untreated disorder in this population. The literature has highlighted significant barriers to accessing services, particularly among forced migrants, and unaccompanied minors in particular. Thus, the estimates in this study are likely to underrepresent the burden of mental illness in these populations. In any research on the health of diverse populations, it is also important to reflect on the validity of measures of mental health, as cultural differences in language, idioms of distress, or illness models may impact on the meaning or presentation of symptoms [27–29].

The sample may also not be representative of the wider population of refugee children in Denmark, due to the underrepresentation of this group in data. Specifically, the incidence of mental illness may be even higher among harder to reach children, particularly girls, who are underrepresented in this sample as well as the literature. This may be attributed to factors like social isolation, indentured servitude or forced marriage, or exposure to interpersonal violence [6]. These factors may put female asylum-seeking and refugee children at additionally increased risk of poor mental health outcomes, further elevating the increased risk of mental illness among girls as compared to boys [5, 6, 10].

Conclusions

Our findings specifically point to the increased risk of any psychiatric disorder and neurotic disorders among unaccompanied asylum-seeking children compared to accompanied minors, particularly among children from Afghanistan and Iraq. Further research on risk factors for poor mental health outcomes, particularly exposure to adverse or traumatic events in childhood and migration or culture/country specific predictors, is needed to provide more insight into the relationship between unaccompanied status and psychiatric disorder.

There is a clear need to improve access to mental health services, as well as other key services like housing or education, in this hard to reach population [3, 10], both to reduce the risk of psychiatric disorder and facilitate children's engagement with interventions. This must include developing and evaluating strategies to identify key needs (e.g., mental health screening) and address key barriers to services including language, a lack of trust in or fear of accessing services, poor mental or physical health, mobility or instability in living situations, and social isolation [3, 10, 30]. This is particularly important in light of the growing population of unaccompanied refugee and asylum-seeking children in Europe, and increasingly restrictive health and social services across Europe, including for mental health care [31].

Compliance with ethical standards

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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