What is the Impact of Placement Type on Educational and Health Outcomes of Unaccompanied Refugee Minors? A Systematic Review of the Evidence

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Abstract

Record numbers of unaccompanied refugee minors have been arriving in high-income countries since 2015. Child welfare agencies and non-governmental organisations tasked with providing services have struggled to cope with demands on their services as a result. Despite this, there is little research on how best to meet their needs and in particular what services can mitigate the psychological difficulties they face. As a result, the evidence base for social services for refugee children remains very limited. This paper is a systematic review and meta-analysis of the evidence on the relationship between care placement type and the educational, mental health and physical health outcomes of unaccompanied refugee minors. We searched ten databases and identified 3877 citations which were screened for inclusion. Nine studies were included in the final review, with seven included in the meta-analysis. Eight studies examined the link between accommodation type and mental health outcomes, and two analysed the relationship between accommodation type and education. There were no studies looking at physical health outcomes. Included studies suggest that foster care and placements that are culturally sensitive may be associated with better mental health outcomes. This review highlights the paucity of research on the impact of services provided by child welfare agencies and non-governmental organisations.

Keywords Unaccompanied refugee minors · Foster care · Mental health · Education · Systematic review

Introduction

Unaccompanied refugee minors (URMs) are arriving in Europe in unprecedented numbers since 2015, posing a challenge to governments and non-governmental organisations (NGOs) trying to meet their needs (DfE 2017; Eurostat 2017). Many unaccompanied refugee minors have complex needs and often suffer from mental health problems which result from experiences of war and violence (Bronstein and Montgomery 2011; Fazel et al. 2012; Fazel and Stein 2002; Hodes 2000; Huemer et al. 2009; Lustig et al. 2004). To ensure the best outcomes for unaccompanied refugee minors, care strategies should be firmly based on evidence.

However, research findings on forced migrant children have not been widely appraised and applied to practice in this area of social work.

This systematic review examines the evidence on the relationship between placement (accommodation) type and the educational and health (physical and mental) outcomes of URM. It explores whether the type of placement they are offered plays a role in mitigating the effects of forced migration and improving outcomes. In doing so, it aims to inform policy and practice with this population.

Unaccompanied Refugee Minors

Unaccompanied refugee minors (hereafter URMs) are defined here as young people under the age of 18 who are outside of their country of origin, unaccompanied by a parent or customary caregiver and subject to immigration control because of forced migration. This includes those fleeing violence and those who have been trafficked.

Precise data about URM in the world are lacking. Figures on asylum applications provide some indication of the

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numbers: 95,205 asylum applications were recorded for unaccompanied or separated children in European countries in 2015 (Eurostat 2017). Sweden received 34,295 asylum applications from unaccompanied or separated children, while Germany recorded 22,255 (Eurostat 2017). The main countries of origin of URM in Europe were Syria, Afghanistan, Eritrea, Iraq and Somalia (Eurostat 2016). Smaller numbers of children migrate without a primary caregiver through government-sponsored resettlement programmes, mainly to the USA and Australia (UNHCR 2011). Available data from the USA and Europe suggest that the majority of URM are between the ages of 14 and 18, with less than 20% under 14 (European Commission 2013; Office of Refugee Resettlement 2013a).

URM experiences significant adversity in their country of origin, in transit to and on arrival in the host country. As a result, URM suffers from disproportionately higher levels of mental health problems, including post-traumatic stress disorder, depression and anxiety, than children who migrate with their parents or peers who are not migrants (Bronstein and Montgomery 2011; Fazel and Stein 2002; Fazel et al. 2012; Huemer et al. 2009; Lustig et al. 2004). Recent longitudinal analyses also show that mental health problems in URM persist throughout adolescence (Vervliet et al. 2013). While the bulk of current research evidence is on mental health, there is also evidence showing that some unaccompanied refugee minors have complex physical health needs, including incomplete immunisations, for example (Geltman et al. 2008; Levenson and Sharma 1999). It is not clear how these health needs are being met by the services responsible for their care, but one study suggests that children benefit from being placed in foster care (Wade et al. 2005). Research has also shown that education plays an important role in the resettlement of URM, with many eager to learn English and gain qualifications (Chase et al. 2008; Wade et al. 2012). However, their enthusiasm for education is often hampered by difficulties accessing the right provision, confusion about entitlements and language barriers (O'Higgins and Evans 2013).

Placement Options for URM

In high-income countries, the welfare and provision of services to URM are usually the responsibility of regional or national child welfare agencies or immigration authorities; these are tasked with providing accommodation as well as other services, including access to education and health services. In some cases, these duties are devolved in part or completely to non-governmental, private or voluntary, organisations (de Ruijter de Wildt et al. 2015).

In this study, we refer to the provision of accommodation for children in care as placements. Depending on local and national policies, placements may include foster care

(accommodation with a family other than their own), kinship care (with a member of the child's extended family), semi-independent accommodation (usually shared housing), independent accommodation, or residential or group home. In some countries, URM is also placed in small or large detention centres dedicated to URM (de Ruijter de Wildt et al. 2015).

In the UK and USA, foster care is generally the preferred option, particularly for younger children (Brownlees and Finch 2010; Chase et al. 2008; de Ruijter de Wildt et al. 2015; Dorling et al. 2017; Office of Refugee Resettlement 2013b; Wade et al. 2005, 2012). Aside from the provision of accommodation, children looked after by the state receive additional social services and targeted assistance, for example access to education and health services, including psychological treatment (Pecora et al. 2010).

This review examines how different placement types are associated with the outcomes for unaccompanied refugee minors, in particular mental and physical health and educational outcomes. The proposed hypothesis is that stable housing provision and a supportive living environment are key elements contributing to good outcomes for URM. Foster care is thought to provide both these elements to a greater degree than other placement types (Hek 2007).

The Need for a Systematic Review

Porter and Haslam (2005) demonstrated, in a meta-analysis of pre- and post-displacement factors associated with (adult and youth) refugee mental health, that stable housing provision was a significant predictor of psychological well-being. A systematic review of risk and protective factors for (accompanied and unaccompanied) refugee children's mental health concluded that a sense of safety and well-being at home was likely to be an important factor (Fazel et al. 2012). Little research has been conducted on the outcomes for URM in different placement types, and these are therefore not well understood (de Ruijter de Wildt et al. 2015; Fernandez and Barth 2010; Wade et al. 2012). This review addresses this gap in the literature and aims to inform policy and practice. Given the complex needs of URM, responding with adequate and effective social services is crucial. Understanding the impact of different placement types on outcomes is therefore paramount and urgent. Moreover, children's services and voluntary agencies invest heavily in the provision of quality accommodation for children in their care.

Methods

Inclusion Criteria

To assess the state of the evidence, a systematic search of the literature was performed. Any quantitative empirical study carried out in a high-income country that analysed the relationship between placement type and mental or physical health or educational outcomes of URM was included. Comparison groups were important to establish the impact of different placement types, so studies in one placement type only were excluded. We anticipated that the research would be limited, so we accepted studies using any quantitative methodology, but we recognise that only well-designed randomised controlled trials and quasi-experimental studies can determine causality between placement type and outcomes.

Search Strategy

Ten databases were searched (MEDLINE, PsycINFO, Applied Social Science Index and Abstracts (ASSIA), CINAHL, Cochrane Library, Campbell Collaboration Library, Education Resources (ERIC), Social Service Abstracts, Sociological Abstracts, International Bibliography of the Social Sciences) in April 2017. References lists and table of contents of relevant journals were searched by hand. A number of sources were also searched on the Internet, including government, charity and research (e.g. Chapin Hall) or policy (e.g. Australian Policy Online) websites. Several key experts were contacted by email. Searches were conducted in English only.

The following string of search terms was used: (“foster care*” or “foster home*” or “foster famil*” or “foster parent*” or “foster placement*” or “children* home” or “group home” or “residential unit” or “residential care” or “looked after child*” or “looked-after child*” or “child* in care” or “alternative care” or “out-of-home care” or “out of home care” or accommodation or “semi-independent” or “kinship care*”) AND (refugee* or (asylum adj1 seek*) or asylum-seek* or (forced adj1 migra*) or migrant* or separated or unaccompanied) AND (child* or kid* or youth* or young* or adolescen* or teen* or boy* or girl* or minor*). The three authors conducted the search and screened titles and abstracts. Studies for inclusion were agreed by all authors.

Analytic Strategy

The results are first described narratively and then numerically through meta-analysis. A meta-analysis was only conducted for the studies including mental health outcomes, because only two studies with educational outcomes and

none with physical health outcomes were identified (see description of included studies).

For this meta-analysis, data were extracted from the included studies if it included sufficient information for an effect size to be calculated. Extracted data are listed in Table 1. For the purpose of the meta-analysis, accommodation type was separated into two groups based on the inclusion of foster care. Group A includes foster care (and in certain studies also includes other types of accommodation that have been grouped with foster care), and Group B does not include foster care.

Data were extracted for meta-analysis from seven of the eight included studies that had a mental health outcome (see Table 1). In three of these studies, more than one mental health outcome was included for the same sample population. (The second mental health outcome is shown in italics in Table 1.) To avoid giving undue weight to these studies, only one outcome measure was chosen for each population. Bean et al. (2007) and Derluyn and Broekaert (2007) both present data for two mental health outcomes from a single population. PTSD was selected as the primary outcome for Bean et al. (2007), and depression as the primary outcome for Derluyn and Broekaert (2007). Meta-analysis was also computed with the other outcome in these two studies; this did not substantially change the findings. Porte and Torney-Purta (1987) on the other hand present data for a single mental health outcome from two overlapping sample populations. Data from this study are presented for the groups with larger sample sizes. A forest plot comparing the included and excluded data for Bean et al. (2007), Derluyn and Broekaert (2007), and Porte and Torney-Purta (1987) is shown in Fig. 3.

Meta-analysis was performed using the Comprehensive Meta-Analysis (CMA) software. Standard mean differences (SMD) were calculated for each study within CMA; SMD was used as the studies report different scales. Meta-analysis was performed using a random-effects model because of heterogeneity in the included studies (Higgins and Green 2011). Results are presented as forest plots.

Description of Included Studies

The search yielded 4240 citations; 3877 citations after duplicates were removed. Forty-nine studies were analysed in full; 40 were excluded (see Fig. 1). Nine studies were included in the final systematic review; seven included a mental health outcome, one included an educational outcome and one included both. No papers identified examined physical health outcomes. Included studies are presented in Tables 2 and 3.

Table 1 Data extracted for meta-analysis

Study name	Measure	Group A	Group B	Standard difference in means
Bean et al. (2007)	PTSD (RATS)	Large reception centre (n = 275)	Other accommodation (n = 645)	0.12
Bean et al. (2007)	Depression/Anxiety (HSCL-37A)	Large reception centre (n = 275)	Other accommodation (n = 645)	0.18
Bronstein et al. (2012)	PTSD (RATS)	Semi-independent accommodation (n = 83)	Foster care (n = 139)	0.44
Derluyn and Broekaert (2007)	Depression subscale (HSCL-37A)	Large-scale centre (n = 58)	Foster care (n = 13)	0.59
Derluyn and Broekaert (2007)	Externalising subscale (HSCL-37A)	Large-scale centre (n = 58)	Foster care (n = 13)	0.25
Hodes et al. (2008)	PTSD (IES)	Independent living (n = 26)	Foster care (n = 32)	0.78
Hollins et al. (2007)	GHQ-28	Hostel/B&B (n = 23)	Friend/relative/foster (n = 8)	1.32
Porte and Torney-Purta (1987)	Depression (CES-D)	Group home (n = 19)	Foster care with Caucasian family (n = 29)	−0.86
Porte and Torney-Purta (1987)	Depression (CES-D)	Group home (n = 19)	Foster care with Indochinese family (n = 10)	4.03
Seglem et al. (2011)	Depression (CES-D)	Other accommodation (n = 318)	With a family (n = 96)	0.29

PTSD post-traumatic stress disorder, *RATS* reactions of adolescents to stress, *HSCL-37A* Hopkins Symptoms Checklist-37 adolescents (for use with refugee children), *CES-depression* Centre for Epidemiological Studies Depression Scale, *GHQ* General Health Questionnaire, *BDSR* Birleson Depression Self-Rating Scale

Critical Appraisal of Included Studies

The CASP checklists and consort statement were used as guidelines for critical appraisal (CASP 2017; von Elm et al. 2007).

Bean et al. (2007) was the only study to use a random sample, while others analysed convenience samples. Only three included studies report differences between participants and non-participants (Bean et al. 2007; Bronstein et al. 2012; Seglem et al. 2011). Sample sizes varied from 78 (Hodes et al. 2008) to 582; no author presented power calculations (Bean et al. 2007). In terms of study design, all included studies were observational, and none used randomisation or other quasi-experimental methods. This is not surprising as randomisation is challenging in practice in social care (Dixon et al. 2014; Mezey et al. 2015). Not all studies provided detailed demographic data on participants, and none outlined whether baseline differences between children in different types of placements were compared. Therefore, observed and unobserved differences may confound the relationship between placement type and outcomes. All but one study (Bean et al. 2007) was cross-sectional; therefore, alternative explanations for the findings cannot be ruled out. Most studies controlled for age, gender and time in country, however, important factors about young people's experiences are omitted, for example age at which past event(s) in country of origin occurred, number and type of previous

placements and other sources of support (Vervliet et al. 2013). Information about children's care histories is also omitted; therefore, it is not known whether children may have spent time in other placement types prior to the current one. Seven studies used child self-report measures only, and two studies supplemented information from children's self-reports with teacher and guardian (Bean et al. 2007) and social worker (Derluyn and Broekaert 2007) questionnaires. One study included clinical interviews with mental health professionals (Hollins et al. 2007), and one study examined the child's environmental setting from the point of view of professionals with the standardised BIC-Q (Kalverboer et al. 2017). Not all measures may be valid for unaccompanied refugee minors, and self-report measures may be biased by recall and social desirability bias (Bean et al. 2006; Bowling 2009; Crawley 2010; Nederhof 1985). Reporting of symptoms may also vary according to age, gender, cultural background, literacy level, etc. (Jakobsen et al. 2011). Studies that use a mixture of self-report and professional reports and analyse concordance of data, for example, Bean et al. (2007) may provide a more accurate picture of mental health symptoms.

Fig. 1 Flow diagram for inclusion of studies

Findings

The overall findings are summarised in a narrative form and in a meta-analysis for mental health outcomes. Included studies examined large- and small-scale centres, living alone, living with a partner/spouse, living with birth family, living with extended family (kinship care), group or residential home, semi-independent accommodation and various types of foster care. The findings of each study are summarised in Tables 2 and 3.

In general, young people living alone or in large-scale detention centres had worse mental health than young people living in foster care, with family or in other placements with dedicated support. However, when different foster care placements are compared, studies found that youth living with people from the same ethnic background had better mental health outcomes than those placed with families who didn't share the same ethnicity. Moreover, Geltman et al.

(2005) found that unaccompanied refugee young people living in group homes with youth from the same ethnicity fared better than peers living in foster care with white American families. Porte and Torney-Purta (1987) found that youth living in group homes isolated from others of their ethnicity had similar low scores to youth in foster care with white American families.

To investigate the hypothesis that foster care is associated with improved mental health, a meta-analysis was conducted. A statistically significant effect was found that favours foster care (Fig. 2). However, given the heterogeneity of the data and methods of individual included studies, this meta-analysis should be interpreted cautiously as a hypothesis-generating analysis.

When the meta-analysis was run again with other measures in the included studies, it also found a significant effect favouring foster care, see Fig. 3.

Table 2 Included studies with mental health outcomes

Study	Location	N	Comparison groups (% of total sample)	Methodology	Findings
Bean et al. (2007)	Netherlands	582	Detention (29.7) was compared to foster care or living with family as one group (35.6)	Longitudinal self-report, teacher and guardian questionnaires: HSCL-37A, SLE, RATS, CBCL, CBCL teachers	Accommodation type significantly predicted HSCL internalising and RATS total scores over time, with those living in large reception centres reporting worse outcomes
Bronstein et al. (2012)	UK	222	Foster care (62.6), semi-independent and emergency accommodation (37.4)	Cross-sectional. Self-report questionnaires: SLE and RATS	Cumulative trauma and living arrangements were identified as having a significant relationship with PTSD, with those living in foster care experiencing lower levels of PTSD symptoms. Young people in foster care also reported fewer sleep problems
Derluyn and Broekaert (2007)	Belgium	166	Large-scale centres (adults and children (39), small centres (32), foster care (8), alone (17) or mainstream care arrangements (4)	Cross-sectional. Self-report and social worker questionnaires: HSCL-37A, SLE, RATS, CBCL, CBCL teachers	Girls had higher scores on almost all subscales. Placement type was associated with HSCL-37A depression subscale scores, with the lowest scores for young people living alone and on the externalising subscale with young people living alone or in foster care scoring lowest
Geltman et al. (2005)	USA	304	Foster care with American family no Sudanese (16), foster care with American family and other Sudanese (36), group home with other Sudanese (20) and living with family or friends (18)	Cross-sectional. Interviews and self-report questionnaires: CHQ, HTQ and ways of coping	20% of the sample scored on diagnostic range for PTSD Living in a group home or in foster care with an American family but no Sudanese youth, as opposed to living with a Sudanese family (kin or not), was associated with a higher risk of PTSD and lower CHQ scores; feeling lonely or isolated where they live, and less participation and satisfaction with group activities were also correlated to PTSD scores Feeling safe at home and in school was associated with lower PTSD scores
Hodes et al. (2008)	UK	78	Foster care (41), children's homes (93.8), semi-independent (21.8) or independent (33.3)	Cross-sectional. Self-report questionnaires and assessments. Case file reviews	Contrasts showed that with foster care as baseline, living with one parent or other family member was associated with significantly lower scores and living independently was associated with significantly higher scores for PTSD symptoms, indicating worse outcomes for young people living independently. Placement type was a significant predictor on the Impact of Events Scale and for depression

Table 2 (continued)

Study	Location	N	Comparison groups (% of total sample)	Methodology	Findings
Hollins et al. (2007)	UK	99	Foster care (8), children's homes (30), shared housing (38) or bed and breakfasts (B&B) (23)	Cross-sectional. Self-report questionnaire: GHQ, diary sheet and clinician interview	Those in B&Bs significantly more worried (78%) about housing, safety, housemates, whereas 88% of those living with friends and foster family liked where they lived 35% of older YP reported important psychological difficulties, whereas only 1 (5%) of younger group (living in foster care or children's homes) Living in unsupported housing was associated with 'caseness' on the GHQ Mean depression score for the total sample was 18.25 (more than 2 points above clinical cut-off of 16 for depression) There were significant differences between groups by living arrangement; children in foster care (score 26) or group homes (score 24) with white Americans had higher scores than their peers living with same ethnicity foster families (score 12) or their own families (score 13) Regression analysis showed ethnicity of foster carers was significant in predicting depression scores
Porte and Torney-Purta (1987)	USA	82	Foster care with white American family (35.3), foster care with Indochinese family (12), group home (23), living with own family (29).	Cross-sectional. Self-report questionnaires: CES-depression	ANOVA was also conducted to examine differences in depressive symptoms between living arrangements. When including all groups in the analysis, these differences were not significant. An independent <i>t</i> test was then carried out and found a small significant difference between the scores of young people living with a family compared to all other living arrangements together
Seglem et al. (2011)	Norway	414	Foster or kinship care (21.3), group home (30.3), with partner (9.6) or alone (37)	Cross-sectional. Self-report questionnaires: CES-depression	

HSCL-37A Hopkins Symptoms Checklist-37 adolescents (for use with refugee children), *SLE* stressful life events, *RATS* reactions of adolescents to stress, *CBCL* child behaviour checklist, *CES-depression* Centre for Epidemiological Studies Depression Scale, *CHQ* Child Health Questionnaire, *HTQ* Harvard Trauma Questionnaire, *GHQ* General Health Questionnaire, *BDSR* Birtleson Depression Self-Rating Scale

Table 3 Included studies with educational outcomes

Study	Location	N	Comparison groups (% of total sample)	Methodology	Findings
Kalverboer et al. (2017)	Netherlands	132	Foster family (33), Small living unit (23), Small living group (19), Campus (26)	Interviews used to complete the BIC-Q on quality of living environment	Minors in family foster care were significantly more likely to attend an ordinary Dutch school than those in living units, living groups, or campuses. Family foster care had a significantly higher percentage of minors for which the quality of education is judged 'satisfactory' or good' compared to campus (93 vs 64.7%)
Porte and Torney-Purta (1987)	USA	82	Foster care with white American family (35.3), foster care with Indochinese family (12), group home (23), living with own family (29)	Cross-sectional. Self-report questionnaires reporting GPA	Children in "ethnic homes" (foster care with Indochinese family and own family) had adjusted mean GPA's that were .23 to .41 points higher than children in non-ethnic homes ($t=2.45, p<.017$). Children in ethnically matched settings were more likely to view success in school as a result of their own efforts. The study hypothesises this result as specific to Asian adult models who stress both the importance of education and effort as the pathway towards educational success

The term "ethnic home" used in the Porte and Torney-Purta paper reflects the terms used in the original paper

GPA Grade point average; average of classroom marks ranging 0–4.0, BIC-Q Best Interest of the Child Questionnaire

Fig. 2 Meta-analysis of effect of placement type on mental health outcomes. Note: Bean et al. (2007), Bronstein et al. (2012) and Hodes et al. (2008) report a measure of post-traumatic stress disorder (PTSD). Derluyn and Broekaert (2007), Porte and Torney-Purta (1987), and Seglem et al. (2011) report a measure of depression. Hollins et al. (2007) report a measure of general mental health

Discussion

Both researchers and practitioners tend to assume that foster care is a better placement option for children living away from their parents because it offers more supportive accommodation to URM. The theory is that foster care provides a substitute family environment with individual attention, consistency in care, and the establishment of new supportive relationships to overcome past trauma and build physical

and mental health and educational attainment (Oppedal and Idsoe 2015). Research has documented many ways in which foster carers have connected URM with opportunities, including attendance at well-regarded schools (Kalverboer et al. 2017; Rana et al. 2011; Wade et al. 2012).

Our meta-analysis of mental health outcomes finds an overall standard difference in means of 0.33 ($p=0.027$) between URM in foster care and those in other types of accommodation. This effect size is small to medium according to Cohen's classification (Cohen 1977). However, it is

Fig. 3 Meta-analysis of effect of placement type on mental health outcomes. Note: Meta-analysis of measures of mental health from Bean et al. (2007), Porte and Torney-Purta (1987) and Derluyn and Broekaert (2007). Bean et al. (2007) present a measure of post-traumatic stress disorder (PTSD) and a measure of depression and anxiety in the same population. Porte and Torney-Purta (1987) present a

measure of depression in two different foster care populations (foster care with Indochinese families or foster care with Caucasian families) but using the same control group. Derluyn and Broekaert (2007) present a measure of depression and a measure of externalising behaviour in the same population

important to emphasise three major limitations of this meta-analysis. First, the meta-analysis includes studies using several different measures of mental health, which increases heterogeneity. Second, there is a risk of bias as only certain studies were reported with sufficient detail to be suitable for meta-analysis (and the studies that were not reported in as much detail may have had less positive effects for foster care). Third, it was not always possible to analyse foster care alone versus all other placement types: in some instances data were only given for groups of placement types. In those cases, foster care was analysed together with a different placement type, and this could also bias the results.

The apparent benefits of foster care are further thrown into doubt when the results of the included studies are critically analysed. For example, several studies in this review (Bronstein et al. 2012; Hodes et al. 2008; Hollins et al. 2007) hypothesise that foster care can improve mental health, but little emphasis is given to other interpretations of the findings, for example that children with fewer mental health problems on arrival are placed in foster care. On the one hand, best interest guidelines for placement decisions suggest that young people who are assessed as “vulnerable” should be placed in foster care (Brownlees and Finch 2010; Dorling et al. 2017). This might increase the proportion of children with mental health difficulties in foster care. On the other hand, care policies also give preference to foster care for children who arrive in care at a younger age, whereas young people over the age of 16 tend to be placed in semi-independent accommodation (Brownlees and Finch 2010; Chase et al. 2008; Wade et al. 2005). Although the relationship between age and psychological distress in URM is unclear (Fazel et al. 2012), cross-sectional studies indicate

that younger URM are less likely to display symptoms of psychological distress than older young people (Porter and Haslam 2005). Six of the eight included studies (Bean et al. 2007; Bronstein et al. 2012; Derluyn and Broekaert 2007; Hodes et al. 2008; Hollins et al. 2007; Seglem et al. 2011) found that older URM were more likely to experience psychological difficulties. It follows that current policies may inadvertently be encouraging social workers to place (older) young people with greater difficulties in placements other than foster care. This may particularly be the case if mental health difficulties manifest as challenging behaviour and therefore as inappropriate for a placement with a family (Crea et al. 2017). Geltman et al. (2005) acknowledge this in their research and state that the symptoms of PTSD may in fact be a factor in placement decisions.

An important theme to come out of the included papers is the association between ethnically matched placements and better mental health outcomes. Two studies compared URM living with white Americans and URM living with a family that contained at least one other person of their ethnicity (Sudanese or Indochinese) (Geltman et al. 2005; Porte and Torney-Purta 1987). In both studies, children had better outcomes if they were placed with an ethnically matched group. In their study of Indochinese unaccompanied refugee children, Porte and Torney-Purta (1987) found that scores on the CES-depression scale were similar for children in group homes and for children in foster care with white American families, while children in ethnically matched foster care (with at least one Indochinese adult) had scores that were half as high, and similar to refugee children who were living with their own families. Children in ethnically matched care arrangements also had significantly higher grade point

averages, which was hypothesised to be a reflection of an Asian adult influence that stressed the importance of academic effort and attainment. Geltman et al. (2005) similarly found that Sudanese URM placed in foster care with an American family alone had worse mental health outcomes than children placed with an American family and other Sudanese individuals. An interesting difference with the Porte and Torney-Purta (1987) study is that Geltman et al. (2005) did not specify that the Sudanese individual should be an adult: foster care with an American family with ethnically matched children also therefore appears to be associated with better mental health.

Finally, context is likely to play an important role in much of what is explored in this review: social care service provision to unaccompanied refugee children, placement decisions, psychological support available, etc. Subgroup analyses would perhaps shed some light on these contextual effects; however, the number of included studies in this review was too small to do this. Further research should consider such analyses.

Implications for Research

As well as a general dearth in studies on the relationship between placement type and educational and health outcomes, only one longitudinal study and no experimental or quasi-experimental studies were identified for the review. Future research should address this gap in the literature.

One of the clearest messages from this research was the dearth of quantitative studies looking at the impact of care arrangements. In particular, no included studies analysed associations with physical health outcomes and only two examined educational outcomes (one of which used attendance and a subjective measure of quality of education). More studies are needed with better measures. In one case, we contacted an author who had data on physical outcomes and placement type, but the author had not done the relevant analyses and had recently destroyed the data. To the extent possible, data should be preserved and shared to improve knowledge.

This review also does not explore how to improve outcomes in placement, whether through better matching with placement type or foster family, through everyday practices (Sirriyeh 2013), or through other targeted interventions. This is an area for future primary and review research.

Implications for Practice

The evidence that different placements affect the mental health and educational attainment of URM is weak and cannot yet reliably inform practice. However, practitioners

and foster care providers should take note of the finding that unaccompanied refugee children often suffer from poor mental health, and focus their attention on ensuring that they are providing for the needs of these young people.

Until we reach a clear answer on the best type of accommodation for URM, investment should be made in the provision and quality of all placement types, including group homes and semi-independent accommodation, to make these environments as conducive as possible to good mental health.

At an organisation level, social services may need to reconsider how they recruit foster carers, to ensure that more ethnically or culturally matched foster carers are available. If there are not sufficient numbers of ethnically matched adult foster carers, then consideration should be given to placing URM together in a foster family, ensuring carers are culturally sensitive, and expanding out of home provision of culturally adapted social activities (for example in the form of special after school clubs or weekend groups).

Compliance with Ethical Standards

Conflict of interest The three authors declare they have no conflict of interest.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

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