



Understanding child and youth migrant wellbeing: Reflections from a systematic literature review in the Western Pacific region

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ABSTRACT

One of the key social determinants of health that can impact children and young people is migration. Advances in health research have seen a shift away from a biomedical model of health to understanding health as a multifactorial, holistic state - mentally, physically, and socially. The aim of this article is to illustrate how different methods (i.e., adult-centric, child/youth-centered) and frameworks (i.e., biomedical, strengths-based) can impact on research findings in childhood research. Drawing on findings from a systematic review, we examine the approaches taken in eleven studies investigating the health and wellbeing of young migrants in the Western Pacific region. The systematic review highlighted a range of methods (quantitative surveys, drawings, photo novellas) that were used to capture child/youth perspectives, and identify contextual factors beyond immediate biomedical factors that impacted their wellbeing. Adult-centric biomedical approaches were limited in understanding these broader environmental contexts, yet these approaches were prevalent in this body of literature. We highlight the importance of developing more strengths-based approaches and child/youth-centered methods to gain a comprehensive understanding of social and physical environments that child and youth migrants draw upon to support their wellbeing.

Introduction

Migration can impact child and youth wellbeing negatively including through risks associated with the country of origin, during the journey, and ultimately in the country of destination (World Health Organization, 2018). Conversely, opportunities for supporting wellbeing exist through provision of comprehensive and appropriate health and migration services and supportive socio-cultural norms in the new host country. Advances in health and wellbeing research have seen a shift away from a biomedical model of health (i.e., the absence of disease) to understanding health as a multifactorial, holistic state - mentally, physically, and socially (Engel, 1977; Saylor, 2004; World Health Organization, 1946). This shift acknowledges the important role of preventative medicine and health promotion alongside the changing burden of disease, and complex relationships between health and social determinants including inequity, poverty, globalization, urbanization, and social and cultural change (Marmot and Wilkinson, 2005; World

Health Organization, 2014; World Health Organization, 2014). The shift also enables a re-framing towards strengths-based (as opposed to deficits-based) approaches that highlight and support the assets that individuals and their communities bring and draw on to promote wellbeing (Lerner, 2009; McKnight and Block, 2010), including the value of youth-centric and interactive methods for engagement.

Socio-ecological models to understand social and physical contexts of wellbeing

Socio-ecological approaches can provide a wider concept of wellbeing than biomedical approaches, recognizing that individuals exist within broader social and physical environments and systems that can impact wellbeing (Brofenbrenner, 1979). Such approaches enable the identification of factors of importance across varying layers of influence, for example the socio-cultural environment, physical aspects of the local neighborhood environment, and wider built, organizational, economic,

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and political systems that influence wellbeing (Sallis et al., 2008). Social determinants of wellbeing exist across these ecological layers, including socio-economic factors, psychosocial risk factors, and community and societal characteristics (Ansari et al., 2003). For example, for young people, wellbeing is impacted by safe and supportive social contexts and relationships (family, school, peers), and wider structural factors including socio-economic drivers and access to education (Viner et al., 2021). These factors are intrinsically related to the experiences of migrant and refugee children and young people, who may be separated from important social relationships, have socio-economic challenges, and experience barriers to participation in education. Taking a socio-ecological and social determinants approach can be in contrast to biomedical approaches which tend to focus on the individual. Accordingly, biomedical approaches have been criticized for their tendency to blame individuals for poor health outcomes and often fail to consider the socio-ecological systems in which individuals live.

Considerations for research with children

The United Nations Convention on the Rights of the Child (Committee on the Rights of the Child, 1989) recognizes children's rights to share their views and have these respected and reflected in policy and practice. In line with the UNCRC, the 'new' social studies of childhood foregrounds children as competent social actors, and a specific group with unique ways of seeing and experiencing the world (Holloway and Valentine, 2000; Holloway and Valentine, 2004; McNamee and Seymour, 2013). This framing sees children (and young people) as more than simply pre-adult "becomings" (James et al., 1998) and supports the rationale for child/youth-centred approaches. In wellbeing research, children's rights can be fostered through child/youth-centered methods that are underpinned by strengths-based frameworks which privilege children's assets and what they can do, in contrast to a focus on deficits. Photovoice (Wang and Burris, 1997), draw/write/tell (Angell et al., 2014), and go-along interviews (Carpiano, 2009) are examples of methods that can facilitate direct and meaningful engagement with children in ways that work for them. Focus groups can be child/youth friendly through shifting perceived power balance due to higher participant-to-researcher ratios, providing a safe peer environment, reducing pressure on individuals to answer every question, and giving the opportunity to share ideas verbally rather than having to write (Hennessy and Heary, 2005). Similarly, in-depth interviews with children have been noted as beneficial (in comparison to written data collection), as "interacting through conversation allowed the researcher to expand their knowledge of certain topics and gave individuals the chance to express their thoughts, perceptions and feelings in their own words" (Fernandes et al., 2014) (p. 152). Such approaches enable children/youth to use their own frames of reference when talking about what is important to them, rather than assuming that children see health and wellbeing in the same way as adults. This may be especially important where data collection methods are not in participants' first languages. These methods are in contrast to adult-centric methods such as biomedically-focused quantitative surveys using complex terminology and relying solely on written forms of data collection, which may garner narrow, pre-defined (read *adult*) perspectives and limit engagement.

In the context of this research, it is important to consider the nuanced juncture of age (e.g., children being perceived as adult "becomings" versus competent social actors) and migration (acknowledging the combined effect of being a minority ethnic group and positioned as migrant in the host country). The combined effects of being a young migrant can result in needing to negotiate multiple identities (Compton-Lilly et al., 2017) and to navigate a "complex trajectory of belongings" (p. 29) (Leurs, 2015). Ultimately, migrant children and young people can be disproportionately impacted and marginalized (Soberano et al., 2018), and "silenced through adultist discourses about migration decision-making and experiences" (p. 1159) (White et al.,

2011).

Here, we pause to reflect on Gkiouleka et al.'s (Gkiouleka et al., 2018) work framing health as being affected by the "intertwined influence of both individual social positioning and institutional stratification" (p. 92) and Moffitt et al.'s (Moffitt et al., 2020) challenge to understand the "lived experiences of those navigating what it means to be marked as a racialized other" (p. 1). In this research, we shift the gaze from institutional stratification and "racialized" othering to a broad focus on research methods and approaches, and the social positioning of migrant children and young people within these. We propose that researchers must attend to the varying "identity negotiations of children [and young people]" (p. 115) (Compton-Lilly et al., 2017), in particular considering how approaches can highlight or hide nuances in perceptions and experiences across differing identities.

Research aim

Progress is being made in activating child and youth voices to understand wellbeing from a socio-ecological perspective (Clark et al., 2020; Office of the Children's Commissioner and Oranga Tamariki - Ministry for Children, 2019) and using child/youth-centered methods. Recent systematic reviews have summarized literature that has explored health and wellbeing experiences with child and youth migrants internationally (Curtis et al., 2018; Thompson et al., 2019) and in the Western Pacific region (Spencer et al., 2019; Spencer et al., 2020). These reviews have demonstrated the ubiquity of biomedical frameworks and adult-centric methods to understand child/youth migrant wellbeing, and have critiqued the dominant focus on Westernized biomedical notions of health. Here, we aim to build on the Western Pacific systematic review by exploring and critiquing the use of biomedical versus strengths-based approaches and adult-centric versus child/youth-centered approaches in more detail. The Western Pacific region is of particular interest as it is the largest of the six WHO global regions and has seen significant increases in migration over the last decade, particularly to Australia and Aotearoa New Zealand. For example, the Australian Census indicates that over 1 million people were born overseas in the 2016 Census compared with 2011 (Australian Bureau of Statistics 2015). In Aotearoa New Zealand, international migrants as a percentage of the total population increased from 17.6% in 2000 to 22.7% in 2017 (United Nations Department of Economic and Social Affairs Population Division 2017). The net migration rate was 11.4 per 1,000 people in the year ending June 2019, reflecting annual net migration of about 56,000 for a population of about 4.9 million. This rate is similar to Australia's in 2017–18, but more than triple recent migration rates in the United States and United Kingdom (Statistics New Zealand 2019).

Findings from studies included in the Western Pacific review have been published elsewhere and contextualized within extant literature in child migrant wellbeing (Spencer et al., 2019; Spencer et al., 2020). We do not seek to repeat this information in the current paper. Here, we provide a broad summary of all studies included, but hone in on the smaller number of studies that used strengths based and child/youth-centered approaches in order to highlight the utility and importance of such approaches. A particular focus is on highlighting how such approaches can garner a deeper understanding of factors important for child wellbeing than biomedical approaches (e.g., through understanding broader social and environmental contexts where health behaviours are supported or hindered). We also provide new critiques in terms of specific methods used (e.g., language, qualitative versus quantitative approaches). Finally, we produce practical recommendations for future research (including literature reviews) that supports children's rights and facilitates understanding of the social and spatial factors important for child and youth migrant wellbeing.

Methods

Studies were identified following a standardized approach developed by a global team of experts in child health and migrant wellbeing (Curtis et al., 2018; Thompson et al., 2019). In total, four systematic reviews were undertaken across four regions: Europe, Western Pacific, the Americas, and Africa. The purpose of these reviews was to develop region-specific and global information on the health experiences of migrant children and young people from their own perspectives. Full search details for all reviews are provided elsewhere (Curtis et al., 2018; Thompson et al., 2019). Briefly, database searches (MEDLINE, EMBASE, PsychINFO, CINAHL, Cochrane Database of Systematic Reviews, Web of Science, Applied Social Science Index and Abstracts, International Bibliography of the Social Sciences) were conducted in 2017. A range of search terms were used to capture research in child migrant health. Inclusion criteria were: (1) studies that collected data directly with children or youth (aged ≥ 18 years), (2) participants were first generation migrants (i.e., they had migrated across national borders into or within the Western Pacific region during their own lifetimes), and (3) studies conducted in the Western Pacific region. First generation migrants were a population of specific interest as we sought to understand their experiences as migrants, rather than those of their parents. Bibliographies were searched for relevant articles. The mixed methods appraisal tool (MMAT) (Pace et al., 2012) was used for article quality assessment. Data were extracted on methods, key findings, and quality assessment scores. A narrative synthesis was undertaken to describe key findings with regard to research methods and frameworks used, and implications for research and practice.

Results and discussion

Eleven studies were included; six reported quantitative findings and five reported qualitative results (Table 1). All quantitative studies employed biomedical approaches and none of these reported child/youth-centered methods. A mixture of biomedical/non-biomedical approaches was observed in qualitative studies, and the extent to which methods were child/youth-centered ranged significantly across studies (e.g., from focus groups (De Anstiss and Ziaian, 2010) and interviews (Posselt et al., 2015) in English to multiple-methods including drawing, photo novellas and journals with native language support (Sampson and Gifford, 2010)).

Where home countries were indicated, participants had migrated from Africa, Asia, and Europe, most commonly Sudan ($n = 6$ studies), and Afghanistan and Liberia (both $n = 5$) (Fig. 1). The most common host country was Australia ($n = 9$ studies), followed by Aotearoa New Zealand and South Korea (both $n = 1$). Participant ages ranged from 8-25 years. Ten articles had a MMAT score of three or above (of a maximum score of four), with dominant limitations being limited reporting of study contexts and response rates (Spencer et al., 2020). Ages of participants ranged from 8-25 years; a majority of studies involved older children and adolescents aged 13-17 years. Next, we discuss key findings in relation to approaches and measures employed. We consider the strengths and limitations of these with particular regard to generating a socio-ecological understanding of child and youth migrant wellbeing.

Ubiquity of biomedical approaches and adult-centric methods

In total, these studies highlight the pervasiveness of biomedical approaches to understanding health and wellbeing problems for child and youth migrants. While the findings are unquestionably important, they only tell one part of the story, with a "preeminent focus on objective measures of child health to the neglect of the underlying processes and complexities, which might explain these, including children's own contributions to their health" (p. 477) (Fairbrother et al., 2016). In doing so, this negates the possibilities for children's agency in their own health

and downplays the individual nuances in understanding the impact of migration on children by marginalizing their perspectives.

The importance of strengths-based approaches

An exception to the predominantly deficits-based biomedical research was Di Cosmo et al. (Di Cosmo et al., 2011), who employed a positive research framework to understanding substance use by drawing on the "immigration paradox" hypothesis. This hypothesis suggests that better academic, psychological and physical health are often observed in recent immigrants compared with their non-immigrant or second-generation immigrant peers despite commonly experiencing socio-economic hardship. Substance use (smoking, marijuana use, alcohol consumption) was investigated in youth migrants to Aotearoa New Zealand. First and second-generation immigrants showed significantly lower risks of smoking compared with their non-immigrant peers. Similar trends were apparent for consuming alcohol and marijuana weekly. This highlights the potential impact that strengths or deficits approaches might have on research findings and implications for policy and practice through validating existing biases and achieving predictable outcomes (Gharabaghi and Anderson-Nathe, 2017). It is crucial that researchers consider the impact of deficits versus strengths-based framing of their research and the impact this may have on developing appropriate, meaningful, and effective initiatives and services for child and youth migrant wellbeing.

Strengths-based approaches can also yield illuminating insights on the importance of social and physical environments for wellbeing, alongside highlighting positive wellbeing aspects for child and youth migrants. Correa-Velez et al. (Correa-Velez et al., 2010) framed their research around the opportunities that resettlement of young refugees offers in terms of "building a safe haven for building a stable life and a hopeful future but also the opportunity to belong." (p. 1399). This strengths-based study investigated factors associated with refugee and migrant youth making a "good start" in Australia, and factors that positively impacted settlement and wellbeing. The authors acknowledged the "considerable resources these [migrant] youth bring to their new country" (p.1399) and the leadership potential of these young people. Adult/researcher-centric data collection methods were used, including quantitative approaches to assess subjective wellbeing, health status, and happiness, alongside potential predictors drawing on a socio-ecological framework. Findings showed adolescents arrived with high levels of wellbeing, which remained high over three years. Refugee wellbeing was situated predominantly within the host community, and findings recognized the crucial role of community social inclusiveness in promoting or hindering refugee wellbeing.

The importance of child/youth-centered methods

Fernandes et al. (Fernandes et al., 2014) showed the utility of child/youth-centered approaches in their study of illness and health with children. Unsurprisingly, the semi-structured questions focusing on illness and health captured biomedical perspectives from children, including getting sick through contamination, passing germs, and lack of hygiene; the role of western medicine in recovering from illness and maintaining health (e.g., Panadol [paracetamol] and vitamins); and the adverse impact of fast food on their wellbeing. However, the researchers reflected on the value of using an in-depth verbal form of data collection interspersed with drawing throughout the interviews. One benefit was that children shared perspectives well beyond the immediate physical characteristics of illness and health. Children identified broader socio-ecological factors as being important elements of their wellbeing, highlighting how they understand environmental opportunities available to them to be healthy (and threats to this) within the contexts of where they live (Fernandes et al., 2014).

In a similar vein, De Anstiss and Ziaian (De Anstiss and Ziaian, 2010) conducted focus groups with refugee adolescents aged 13-17 years into

Table 1
Methods, wellbeing outcomes, main findings, and quality assessment scores of included studies.

Lead author [reference]; participant ages (years)	Study aim	Wellbeing outcome(s) and measurement	Main findings	MMAT score; Method
Correa-Velez (Correa-Velez et al., 2010); 11-19 years	Identify the psychosocial factors that assist refugee youth in making a good start in their new country, and to describe in depth, the contexts, settings and social processes that support, enhance and facilitate settlement and wellbeing.	Quantitative questionnaire used to assess subjective wellbeing (WHOQOL-BREF), subjective health status (1 item; 5-point Likert scale), and happiness (1 item; 4-point Likert scale). Language not specified.	Significant predictors of wellbeing were region of birth, age, time in Australia, sense of control, family and peer support, performance in school, family status, experiences of discrimination and bullying, social inclusion and exclusion. General reluctance to venture beyond close friendships (i.e., no support seeking from family or professionals) for help with psychosocial problems due to a range of individual, cultural, and service-related barriers	4; Qual
De Anstiss (De Anstiss and Ziaian, 2010); 13-17 years	Fill a number of gaps in knowledge left by previous quantitative research on mental health service help-seeking, including rates and patterns of service utilization across service sectors, use of informal supports, and actual and perceived barriers to services.	Focus groups (n = 13) using a semi-structured question guide to understand reasons for/against seeking mental health services help. The guide was tested with two non-participating adolescents who were recent arrivals to Australia, and some questions were simplified as a result. Terminology was also adapted to support dialogue and ensure comprehension (e.g., "help" used instead of "service" because no equivalent "services" existed in the home country).		4; Biomed, Qual
Di Cosmo (Di Cosmo et al., 2011); 13-17 years	Investigate the immigrant paradox in a large nationally representative sample of students from secondary schools in New Zealand, comparing first and second-generation immigrants to their non-immigrant peers, and comparing first and second-generation immigrants.	Quantitative questionnaire used to measure frequency (weekly or more often) of substance use (cigarettes, marijuana, alcohol), delivered in English.	Immigrants showed significantly lower risk of smoking cigarettes compared with non-immigrants. Similar trends were observed for consuming alcohol or marijuana weekly.	4; Biomed, Quant
Fernandes (Fernandes et al., 2014); 8-12 years	Gather children's understandings of health and illness, their own experiences of illness and the way they deal with it.	In-depth interviews conducted in English using structured questions to measure children's perceptions of sickness and health (precursors, protective factors, symptoms, remedies) interspersed with drawings to support discussions. The researchers noted as English was not participants' first language they had difficulties with writing and spelling and preferred not to read and write.	Most children emphasized the environment (weather) as a potential cause of illness. Children used a biomedical framework to explain the cause of illness. Preventative behaviors such as exercising, eating well, sleeping well, keeping warm, and taking medicines and vitamins were raised.	4; Biomed, Qual
Griffith (Griffith et al., 2014); 13-17 years	Examine the influence of socioeconomic factors and acculturation on obesity among African migrant adolescents in Australia.	Adolescents' height and weight were objectively measured to calculate BMI (kg/m ²). Migration-related factors and socio-demographic variables were quantitatively assessed using a questionnaire in English.	Sex and parental BMI were associated with adolescent BMI after adjusting for adolescent age, adolescent gender, religion, parental BMI, parental education level and annual income. In examining migration-related factors and adolescent BMI, after adjusting for gender and parental BMI, parental acculturation patterns and pre-migration life environment were associated with adolescent BMI, explaining, respectively, 6.5 and 4.0% of the variance in BMI. An integrated parental acculturation pattern was negatively associated with adolescent BMI ($\beta = -0.17$; $P < 0.05$).	4; Biomed, Quant
Lee (Lee et al., 2012); mean 16 years	Evaluate the mental health of North Korean adolescent refugees residing in South Korea.	Mental health quantitatively assessed by the K-CBCL (translated into Korean) including internalized, externalized, and total problems scales and eight subscales (sociality, academic performance, total social function, social withdrawal, somatic symptoms, depression/anxiety, thought problems, attention problems).	Adolescent refugees had lower mental health than the comparison group for sociality, academic performance, total social function, social withdrawal, somatic symptoms, depression/anxiety, thought problems, attention problems, internalized problems, and total problems.	2; Biomed, Quant
McMichael (McMichael and Gifford, 2010); 16-25 years	Identify sexual and reproductive health literacy among resettled refugee youth.	Semi-structured focus groups (n = 23) conducted separately for females and males), and in-depth interviews (n = 14, either one-to-one or with pairs of friends) to understand young people's knowledge, attitudes and experiences in relation to sexual health issues. While the majority of participants were noted as having good English language skills, interpreters were used in two focus groups with young people from Burma.	Many young people were inadequately informed about names of sexually transmitted infections and modes of transmission and symptoms. Many knew about HIV and AIDS but there was a perception that it was not a risk in Australia. Young people's narratives identified four key protective strategies: contraception, abstinence, maintaining trusting relationships and avoiding risky partners.	4; Biomed, Qual

(continued on next page)

Table 1 (continued)

Lead author [reference]; participant ages (years)	Study aim	Wellbeing outcome(s) and measurement	Main findings	MMAT score; Method
Mellor (Mellor et al., 2012); 13-17 years	Investigate the relationship between the weight status of adolescent African immigrants to Australia and parenting style and family functioning.	Adolescents' height and weight were objectively measured to calculate BMI (kg/m ²). Socio-demographic factors, parenting style, and family functioning were quantitatively assessed using a questionnaire in Amharic, Arabic, administered by a trained bilingual researcher. For the 14 families from Burundi, Congo, Tanzania, Kenya and Djibouti a trained bilingual interviewer translated the English version of the questionnaires into their languages, and recorded participants' responses in English.	Parenting style and family functioning were not strong predictors of BMI. For adolescents, inconsistent discipline and lack of parental supervision accounted for significant variance in BMI.	3; Biomed, Quant
Posselt (Posselt et al., 2015); 12-25 years	Identify challenges encountered by young people from refugee backgrounds with co-existing mental health and alcohol and other drug problems.	Semi-structured interviews to understand difficulties of resettling in Australia, challenges associated with experiencing comorbidity, and barriers and facilitators to accessing support. Interviews were all conducted in English (authors noted "All participants possessed reasonable conversational English so interpreters were not required" (p. 294).	Limited education and employment opportunities were identified as a common reason for initially engaging in substance use. Taking on parental responsibilities due to being separated from their parents placed additional pressure on the young people. Racism and discrimination contributed to feelings of isolation, poor self-worth and psychological problems. New-found freedom in the host country was seen as a potential contributing factor to substance use, as was increased exposure and availability of harmful substances. Substances were used as a coping mechanism. There was a lack of familiarity with the terms: mental illness, depression, anxiety or PTSD, but a familiarity and experience of the symptoms of these.	4; Qual, Biomed outcome with ecological focus
Sampson (Sampson and Gifford, 2010); 11-19 years	Explore the relationship between place-making, well-being and settlement among recently arrived youth with refugee backgrounds in Melbourne, Australia.	Multiple qualitative methods to elicit connections to place – annotated neighborhood drawings; photo novellas of their street, house, school, and neighborhood; settlement journals; and ethnographic data from conversations and field notes. Participants were supported to write comments in English with the aid of interpreters, bi-lingual teacher aids, and research assistants.	Negotiating transitions into unfamiliar physical and social terrains was challenging. An array of places - both public and private - were identified as important settlement landscapes, the most significant being their own home, their school, local parks and libraries. The places that make up their settlement landscapes are associated with being able to pursue a range of potentials largely absent in the places of their past: learning and playing; beautiful and green places; quiet, relaxing and comfortable places; places for building relationships with friends and family; and avoidance of places associated with conflict or danger.	4; Qual
	Perform a retrospective analysis of cross-sectional data to investigate differences in dietary intake in immigrant children compared to non-immigrants, whether dietary intake changes with length of stay in Australia and whether these changes in dietary intake are related to self-reported wheeze with increasing length of stay in Australia.	Asthma symptoms (including self-reported wheeze) were assessed using quantitative video questionnaire (including assistance/clarification in English and the participant's native language where required) and spirometry. Clinical assessment of allergies (skin prick test), and interviewer-administered diet history questionnaire of usual weekly meal and snack consumption (interpreters were used for 25% of participants).	Students who spoke a language other than English had more nutritious eating profiles. Intake of foods high in saturated or trans fatty acids were positively associated with length of stay in Australia. No associations between nutrient intake or whole food intake and self-reported wheeze were observed.	3; Biomed, Quant

Biomed = biomedical focus; BMI = Body mass index; K-CBCL = Korean version of the Child Behavior Checklist; MMAT = Mixed Methods Appraisal Tool, range 1 (low) to 4 (high); PTSD = Post-Traumatic Stress Disorder; Qual = qualitative methods; Quant = quantitative methods; WHOQOL-BREF = Abbreviated version of the World Health Organization Quality of Life-100 instrument.

Australia, focusing on understanding mental health help-seeking behaviors. While the questions focused on biomedical issues, interview data yielded detailed additional insights relating to the importance of social support and close friendship networks for help-seeking. These findings align with Viner et al.'s (Viner et al., 2021) conclusion that "supportive peers are crucial to helping young people develop to their full potential and attain the best health in the transition to adulthood"

(p. 1641). Quality of friendships, particularly in terms of feeling supported and being able to disclose information, may play an important protective role (Cuadros and Berger, 2016). Linking young migrants with supportive peer networks could be an effective strategy to help buffer negative impacts of moving and support wellbeing for this population.

The limited role that parents/caregivers and healthcare professionals

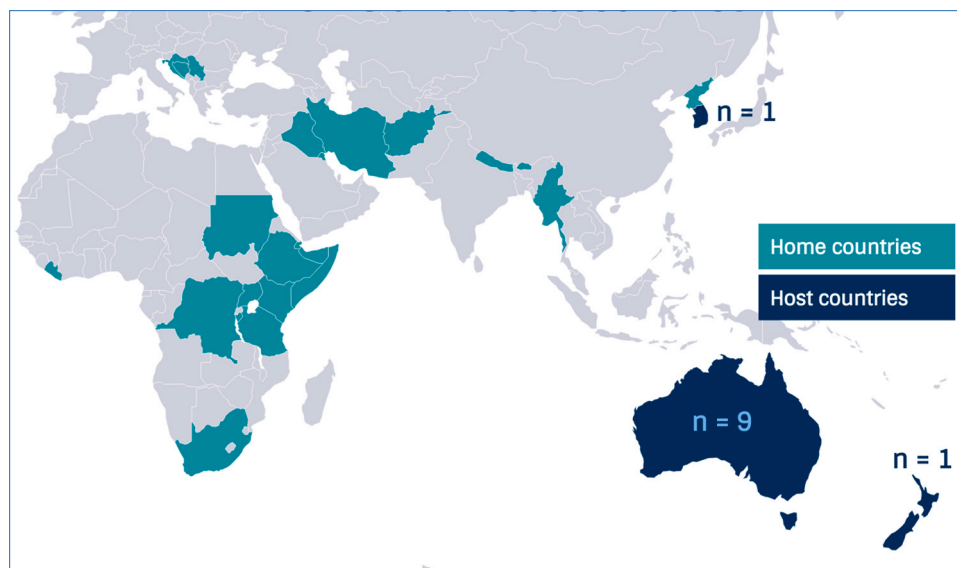


Fig. 1. Map of home and host countries of study participants, with number of studies conducted in each host country indicated.

played in support for this group was highlighted, alongside a range of barriers to help-seeking outside friendships. Similarly, in semi-structured interviews focusing on mental health and substance use, the most frequently reported challenge in accessing support for refugee youth was social disconnection (Posselt et al., 2015). As well as service provision, other frequently reported issues were broader social and economic factors, including education and employment, and housing and homelessness. This study also highlighted the nuanced connections between refugee status, ethnicity and age on youth wellbeing. Young people in this study had left their parents as refugees, and because of their age were expected to take on parenting responsibilities, limiting opportunities for study or employment. The combination of these issues alongside socio-economic challenges, racism and discrimination experienced in their host country had culminated in barriers to mental and physical wellbeing. The use of in-depth interviews with youth in a study of sexual health also yielded important insights regarding the broader context of health behaviors, including the role of belonging, social inclusion/exclusion, building strong communities, and everyday experience in promoting the health and wellbeing in refugee youth (McMichael and Gifford, 2010). Overall, articles demonstrate how social and physical environmental features related to child and youth migrant wellbeing can be illuminated when qualitative and creative approaches and child/youth-centered approaches are utilized in research that uses a biomedical lens.

The importance of using child/youth-centered methods and strengths-based approaches

As indicated above, biomedical studies that utilized child/youth-centered methods signaled that children's understanding of wellbeing and drivers of wellbeing is much broader than immediate health and wellbeing problems. These methods also helped to reveal the importance of social relationships and physical environments for these young people. Such information is important to understand the precursors and barriers to wellbeing, and can also be useful to explain biomedical findings. For example, the study of De Anstiss et al. (De Anstiss and Ziaian, 2010) was conducted to fill a number of gaps arising from earlier quantitative research on rates of mental health service help-seeking. The authors conducted focus groups using semi-structured questions to explore reasons for or against seeking mental health services. Findings revealed the importance of social relationships for help-seeking and the combination of a range of individual, cultural, and service-related

barriers to mental health service help-seeking.

The value of using a strengths-based lens *and* child/youth-centered methods in offering unique insights on socio-ecological aspects of child wellbeing was highlighted in the study of Sampson and Gifford (Sampson and Gifford, 2010). The authors used photo-novellas, neighborhood drawings, journals, field notes, and narrative and ethnographic data from conversations with young migrants to explore their wellbeing. They also employed an alternative approach to the biomedical framework for understanding refugee and migrant health, introducing the need to examine "emplacement" – a positive framework for understanding how place-making activities for young refugees in Australia can nurture social relationships. This in-depth, strengths-based approach enabled a deeper understanding of the role of therapeutic landscapes in refugee youth health, and the ability of these youth to identify and seek out such landscapes for their wellbeing. For example, health promoting aspects of place were identified that were considerably different from participants' home countries, including places that enabled learning and playing, experiencing nature, and aesthetically pleasing places, and that enabled spending time in quiet and relaxing places. Therapeutic landscapes arise "where the physical and built environments, social conditions and human perceptions combine to produce an atmosphere which is conducive to healing [physical, mental and spiritual]" (p. 96) (Gesler, 1996). This definition aligns with an socio-ecological framework and demonstrates the importance of exploring the range of environmental contexts that can impact wellbeing (Bell et al., 2018). In this context, natural environments may be especially important places for supporting wellbeing through facilitating activity and providing respite from stressors (Adams and Savahl, 2017; Smith et al., 2021; Tillmann et al., 2018; Vanaken and Danckaerts, 2018; Zhang et al., 2020).

Reflections and moving forward

The aim of this paper was to explore and critique the use of biomedical versus strengths-based approaches and adult-centric versus child/youth-centered approaches to understand child and youth migrant wellbeing. We aimed to highlight the utility and importance of child/youth-centered, strengths-based approaches and produce practical recommendations for future research, including future reviews of the literature. We drew from a recent systematic review of child and youth migrant health, and in doing so, provided a robust method of identification and quality assessment of literature included. Systematic reviews are recognized as providing the highest level evidence (Burns et al.,

2011), or at least a high quality lens, through which to view and assess evidence (Murad et al., 2016). Accordingly, it is essential that review protocols and implications consider the potential biases that may be introduced where biomedical study designs are often prioritized. For example, this examination revealed a propensity for quantitative studies to draw on biomedical frameworks, and that no quantitative studies used child/youth-centered methods. We have shown how such approaches hide the important role of social and physical environments in child and youth wellbeing, limit nuanced understandings of multiple identities in wellbeing, and provide a narrow, deficits-based understanding of wellbeing. If review protocols exclude qualitative research, there is a risk that such limited understandings of child and youth migrant wellbeing are perpetuated. If reviews do exclude qualitative research, it is recommended that the potential implications of this approach are considered when interpreting findings.

In part, it is likely this biomedical approach could be informed by a desire to understand and support refugee wellbeing, recognizing that child and youth refugees have often been exposed to significant life challenges, including persecution, physical harm, or civil unrest (World Health Organization 2018). The biomedical focus may reflect the procedural elements of migration to a new country including rigorous medical questionnaires and examinations (European Centre for Disease Prevention and Control 2018). This process could 'set the scene' for understanding health and wellbeing from the migrant and practitioner/researcher perspective, and any ensuing dialogue with, and about, migrants to a new country. Similarly, the biomedical model is reflected in dominant public health priorities, where disease prevention and reduction remain at the forefront of public health discourse (Ministry of Health 2018). It is recommended that more comprehensive models of wellbeing, which include physical health but also encompass broader concepts of wellbeing, and associated influential factors including social determinants of health across socio-ecological layers are considered in future research.

With the exception of four studies (McMichael and Gifford, 2010; Mellor et al., 2012; Sampson and Gifford, 2010; Wood et al., 2015), most data collection was conducted in the host country language (Korean or English) with no language support. One study tested and simplified language or changed terms to align with comparable services in the home country to support comprehension (De Anstiss and Ziaian, 2010). A number of researchers reflected on the value of qualitative approaches to draw out topics of importance to children and youth. Fernandes et al. (Fernandes et al., 2014) noted that children preferred not to read or write as they had difficulties with writing and spelling. Verbal data collection (in English) was noted as valuable to enable participants to express their perceptions in their own words (Fernandes et al., 2014), and participants in the study of Posselt et al. (Posselt et al., 2015) were noted as having reasonable conversational English (and so were perceived as not requiring an interpreter). Increased efforts are needed to consider language and how it opens up, or shuts down, opportunities for young people to share their views. It is possible that conducting data collection in participants' native language (or offering this as an option) supports children and young people (especially those who have recently moved to their host country) to express themselves with ease and so could be beneficial in future research. Multiple methods (drawings, photo novellas, etc.) were not only valued but "required to adequately address the dilemmas of visual data and enable an in-depth interpretation of experiences of place." (p. 118) (Sampson and Gifford, 2010). Using more than one method to collect data is recommended to allow for variation in participant abilities and preferences.

In sum, despite a growing interest in this area (Curtis et al., 2018; Spencer et al., 2019; Spencer et al., 2020; Thompson et al., 2019) there is limited research to understand child migrant health experiences from the child/youth perspective, and a lack of research exploring experiences and perspectives of younger children. While studies presented here predominantly relate to those aged approximately 13-17 years, it is likely that the concepts regarding multiple methods, language, and

strengths-based approaches will also apply to younger children. Biomedical approaches dominate the literature, which can limit a comprehensive understanding of strengths that child and youth migrants upon to support their health. Social determinants across all socio-ecological layers including social support, social connections, and physical environments need to be supported and acknowledged as key contributors to wellbeing including facilitating support seeking activities. Strengths-based, child/youth centered approaches are needed to understand the wide range of factors contributing to child and youth migrant wellbeing (and from their perspectives), using socio-ecological frameworks and considering the social determinants of health. A number of other recommendations have been made for future research, including for researchers to consider: (1) the impact of deficits versus strengths-based framing of their research, (2) the potential biases that may exist in literature reviews where biomedical study designs and quantitative research studies are prioritized, (3) using comprehensive models of wellbeing that consider social determinants of health across socio-ecological levels to understand wellbeing (e.g., considering the impacts of quality friendships and therapeutic landscapes), (4) using more than one method to collect data to allow for variation in participant abilities and preferences, and (5) how language can support or hinder opportunities for children and young people to share their perspectives and experiences. Ultimately, insights gained can help to better inform the development of tailored child and youth-centered health promotion responses to support young migrants' wellbeing.

Declaration of Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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