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'Tiny humans' outdoors: understanding the factors that mediate opportunities for babies and toddlers

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ABSTRACT

This paper contributes new knowledge and understanding to an area of international interest in research, policy and practice about the marginalisation of babies and toddlers through its novel outdoor focus. Drawing on a qualitative systematic literature review and adopting a 'spatialities' lens, it explores the factors that mediate the experiences of 'tiny humans' outdoors. It finds that since their access to, and interactions within, outdoor spaces are dependent upon adults both directly and indirectly, **who** these adults are (social characteristics) and **how** they are (cultural values and practices), are critical mediating factors. The outdoors emerges as a socially stratified space in which socio-economic status, class, ethnicity, and (dis)ability intersect in ways that can include or marginalise even from before birth. It is also a cultural space in which values are expressed, transmitted and reproduced through care practices which may (or not) foster a sense of social and spatial inclusion. Finally, the outdoors is a political space in which power relations play out. We argue that, given the rise in babies and toddlers attending ECEC settings globally, these may offer potential sites for developing counter-hegemonic practices that challenge the marginalisation of tiny humans and those that care for them.

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Babies; toddlers; outdoors;
marginalisation; nature;
ECEC

Introduction

This paper contributes new knowledge and understanding to a multi-disciplinary research concern about the marginalisation of babies and toddlers through its novel focus on outdoor spaces. Within the field of Early Childhood, the marginalisation of the youngest children has been a concern for many years (Powell and Goouch 2012; Sims et al. 2018). The problem, as Guard (2023, 607) explains is not just that research focused on babies, and those who work with them, has not been prioritised but also that they are 'overlooked, forgotten, and marginalised in early years policy and practice'. Writing in this journal, Holt and Philo (2022, 3–4) also question why 'our tiny humans' are 'largely absent' from academic research in the discipline of Children's Geographies. Whilst much progress has been made in understanding and acknowledging the agency of young children (and those who educate and care for them), babies and toddlers are a noticeable exception. Ulla (2017) suggests that this is because they do not conform to the concept of the 'ideal' child, i.e. a child who is physically mobile, active and awake. This perspective resonates with Holt and Philo's description of babies and

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toddlers as ‘very strange sorts of human’ (Holt and Philo 2022, 1) due to their dependency on others and inability to self-represent in the way most older children and adults can.

The marginalisation of tiny humans is expressed spatially as they are ‘reckoned out of place’ in certain (typically adult) spaces (Holt and Philo 2022, 3–4). Writing from the perspective of the sociology of childhood, Jenks (2005, 419) provocatively uses the metaphor of ‘weeds’ to describe young children in adult spaces drawing attention to their everyday separation:

... children either occupy designated spaces ... as in nurseries ... or they are conspicuous by their inappropriate or precocious invasion of adult territory. Childhood, then, is that status of personhood that is by definition often in the wrong place.

This idea of being in the wrong place or ‘spatial transgression’ applies to the presence of babies and toddlers in adult spaces and those occupied by older children.

Our specific interest is in outdoor spaces and in understanding the factors that mediate both access to, and interactions within, these spaces for babies and toddlers. This under-researched issue is significant since hegemonic perspectives position the outdoors as an inherently more democratic and inclusive space (Royal Foundation 2020). Whilst sparse, research focused on practices in Early Childhood Education and Care (ECEC) settings offers insights about the ways babies may be excluded from outdoor spaces due to dominant cultural narratives about the outdoors (Kemp and Josephidou 2023). In settings (already a space separated from the everyday life of adults), the youngest children are ‘sited, insulated and distanced’ (Jenks 2005) from pre-schoolers in separate babyrooms. Research demonstrates how they may then be further ‘confined within’ separate outdoor spaces (Kernan and Devine 2010) designed to be ‘artificial, “safe” and non-challenging’ (Morrissey, Scott, and Wishart 2015, 31) due to safety concerns. Even in settings where outdoor provision is prioritised, opportunities to engage with nature are often scarce (Josephidou and Kemp 2022). It is perhaps not a coincidence that the most widely used measure of nature connectedness is focused on children aged 7 and over (Richardson et al. 2019) thus perpetuating ideas that the youngest children are ‘out of place’ in natural environments. This research highlights tensions implicit within the narrative of ‘keeping babies safe outdoors’ that dominates in the Global North since adult accountability for the young child’s welfare can rob them of their agency and restrict their access to outdoor (particularly natural) spaces.

Whilst the issue of access to the outdoors in general, and specifically to natural environments, is recognised as significant from a social equity perspective, the very youngest children are often out of scope. The Monitoring of Engagement with Natural Environments (MENE) report for children and young people for example, identified significant inequalities in nature engagement opportunities based on both socio-economic context and ethnicity in England (Natural England 2019). The report found that children and families living in less affluent contexts and from ethnic minority backgrounds are more likely to lack access to green spaces and less likely to spend time outdoors. The data related to babies and toddlers is limited but their interdependence on adults to facilitate outdoor access is emphasised suggesting that the same inequalities would apply.

These social justice concerns have been intensified by the Covid-19 pandemic which emphasised the significance of access to outdoor space internationally (Aguilar-Farias et al. 2021). It is not just a question of physical access, but also the sense of cognitive and emotional (dis)connection to outdoor and natural environments that is important to understand (Barragan-Jason et al. 2023). Whilst tiny humans might be born with an innate connectedness with nature, or biophilia (Kellert and Wilson 1995), a multitude of socio-cultural factors including race, ethnicity, gender and socio-economic status can foster a sense of disconnection or not belonging (Beery et al. 2023). Natural/green spaces are not always experienced positively, and a lack of engagement may arise from an ‘intimate knowledge of nature’ or an ‘innate or learned response to risk’, as well as from more general concerns about crime, pollution and adverse health impacts (Beery et al. 2023, 471). There is then a need to understand what nature is, and the perceived value of spending time outdoors from a multitude of perspectives if social equity is to be taken seriously and dominant social and cultural norms challenged.

The preceding discussion positions our research focus on the intersection of multiple disciplines including children's geographies, early childhood studies, sociology and nature (dis)connection and suggests there is much to be gained from taking an interdisciplinary perspective to expand knowledge and understanding of this critical issue. It is important to acknowledge potential disciplinary tensions, particularly in relation to language. For example, the discipline of early childhood, centred on the idea of the confident, powerful child, might challenge descriptive terms such as 'less-than-human' 'barely human' (Holt and Philo 2022) or the suggestion that the baby performs the 'fiction' of the 'autonomous, thinking, rational human subject' (Holt 2013, 645 [abstract]). We argue that acknowledging such tensions and 'staying with the trouble' (Haraway 2018) is necessary if we are to extend conceptual understanding of the complex relationships between very young children and outdoor spaces.

The focus for this paper is the question 'what factors mediate the experiences of babies and toddlers in outdoor spaces?' To address this question, we draw on data from a qualitative systematic literature review with a broader focus – the experiences of babies and toddlers outdoors – a full report of which has been published elsewhere (Kemp, Josephidou, and Bolshaw 2023). Here, our focus is on one aspect of the dataset that emerged as part of the initial analytic process – the factors that mediate their outdoor experiences – with the aim of developing understanding of the nature and extent to which marginalisation occurs in outdoor spaces. To support this focused analysis, a conceptual framework has been developed which builds on the multi-disciplinary perspectives already introduced.

A spatialities lens

Our starting point is Keith and Pile's (1993, 6) concept of spatialities and how this might offer the means to understand 'the ways in which the social and the spatial are inextricably realised in one another' in outdoor contexts. Central to spatialities is the idea that space cannot be understood 'as if it were merely a passive abstract arena on which things happen' (2) but as 'the template from which the secrets of reality are to be read' (3). As Soja (1989, 6) warns, spaces are complex, dynamic and political places:

We must be insistently aware of how space can be made to hide consequences from us, relations of power and discipline are inscribed into the apparently innocent spatiality of social life, how human geographies become filled with politics and ideology.

This thinking is particularly relevant for exploring marginalisation as it derives from a desire to make visible otherwise hidden dimensions of social and cultural domination (Soja 1989). Associated with what Soja (1989) referred to as the 'spatial turn', the need to understand the relationships between spaces and power continues to be both relevant and timely. Outdoor spaces, in particular, tend still to be positioned as innocent backdrops for human activity notable for their natural beauty, physical features or, in the context of early childhood, enabling characteristics (affordances); a stance Barragan-Jason et al. (2023, 1) refer to as 'nature for people'. As LeFebvre (1991) has argued, a distinction exists between how a place may be perceived and then the lived experiences within it. Writing about nature disconnection, Beery et al. (2023, 472) call for a refocusing of research onto socio-cultural and power dimensions highlighting the need to pay attention to the ways in which 'ideological orientations, political relations, socio-cultural norms and institutional arrangements' can mediate experiences outdoors. Whilst social characteristics (e.g. class, ethnicity, economic status) are well understood, culture is a more complex term. Here we follow Beery et al. (2023) who use Hall and Du Gay's (1996) definition of culture as 'the actual grounded terrain of practices, representations, languages and customs of any specific society' (476) which can produce and reproduce a sense of nature (dis)connection.

When thinking about the outdoor spatialities of the youngest children, it is important to acknowledge that they cannot be viewed in isolation but rather as a unit of child/adult/space

because of their ‘tight interdependencies’ (Cortés-Morales 2021, 367). Holt and Philo (2022, 3) refer to ‘the mother-baby nexuses’ and draw on others’ terminology including Newell’s (2013) ‘admixtures of mother, very young children and the ‘vibrant materialities’ of breast-feeding equipment’ and Clement and Waitt’s (2018) ‘mother-child-pram assemblage’. These terms share a sense of decentring the child (Krafft 2020), with a refocus on the child/space nexus. Such thinking challenges the idea of ‘child-centredness’ which positions the individual child at the centre of their own world and has been identified as a ‘regime of truth’ at the heart of early childhood (Adriany 2015). However, the research cited above focuses only on the home context and the adult as mother. Given the growing significance of out of home care for babies and toddlers, there is a need to understand what is happening in different contexts. Tebet, Impedovo, and Loani (2023), for example, focus on the significance of borders in ECEC settings and explore the ways babies experience and negotiate both visible and invisible boundaries in their everyday interactions. This is contributing to different ways of thinking both about the spaces that babies access and the ways they actively produce experiences within them.

As well as seeking to make visible, or to name, the ‘secrets’ of reality, this kind of spatial thinking is a call to push back against ‘oppressive boundaries set by race, sex and class domination’ (hooks 1991, 145) and to develop strategies of resistance. Nxumalo (2020, 36), for example, argues for the need to disrupt ‘deficit constructions of Black relations to so called natural places’. hooks (1991) argues that there is a power in marginality; rather than being ‘site[s] of deprivation’ (151) marginal, or what Zukin (1991) terms liminal, spaces offer the potential for ‘radical possibility’ (149). It is in margins that counter-hegemonic discourses and practices can be produced. Indeed, acknowledging the ‘specialised and privileged’ character of nature-based educational approaches, Nelson, Pacini-Ketchabaw, and Nxumalo (2018) suggest ECEC is a context in which these could and should be reimagined. Taken together these theories and perspectives provide a powerful lens for revealing and resisting underlying social, cultural and political norms about the place of babies and toddlers in outdoor spaces within the published literature.

Methodology

The systematic literature review on which this paper is based was designed in accordance with procedures developed by the Evidence for Policy Practice Information and Co-ordinating Centre (EPPI-Centre) (Gough, Oliver, and Thomas 2017); the process is summarised in Figure 1.

Search strategy

Search terms were based on those used for a previous narrative review (Kemp and Josephidou 2021) although terms that specifically referenced the early years setting (baby room; daycare; ECE) were omitted to reflect its broader focus on outdoor spaces beyond the setting. Synonyms drawn from academic literature and professional knowledge were collected and a pilot search was carried out to refine the search terms. The final search strategy can be seen in Figure 2.

Internationally published literature was searched using EBSCO (including Academic Search Complete (ASC), British Education Index (BEI), Education Research Complete (ERC) and Education Resources Information Centre (ERIC)) and SCOPUS. The search took place in November-December 2022 and the fields included were titles and keywords. Publications were limited to those published between 2002 and 2022. The publication search began after 2001, to coincide with the publication of the pivotal document from the OECD, *Starting Strong* (2001).

Inclusion and exclusion criteria

After screening for duplicates and ‘red herrings’ (papers clearly unrelated to the research question), all remaining articles were sorted according to the inclusion exclusion criteria. The inclusion

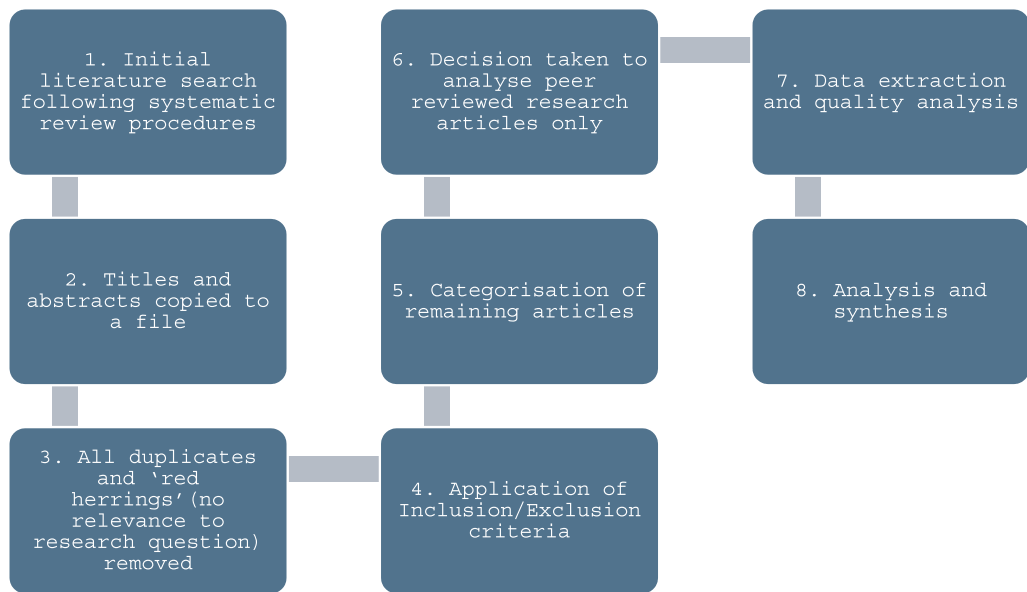


Figure 1. Overview of the research design and procedure.

criteria required that studies focused on children aged between, and including, birth to two years, discussed their experiences outdoors and/or in natural environments, were available electronically, and were written after 2001. As the search was carried out in November and December 2022, papers published after this time have not been included in our analysis. [Figure 3](#) below sets out the criteria against which papers were excluded.

After screening all remaining sources ($n = 126$) were categorised as below:

- academic journals ($n = 89$)
- news periodical ($n = 1$)
- periodicals ($n = 17$)
- professional magazines ($n = 10$)
- trade publication ($n = 1$)
- books ($n = 2$)
- book chapters ($n = 6$)

(("infant-toddler pedagogy" OR infant* OR baby OR babies OR toddler* OR newborn* OR "birth to two" OR "birth to 2" OR "0 to 2" OR "0-2" OR "1-3" OR "1 to 3" OR "under threes" OR "under 3s" OR "birth to three" OR "birth to 3" OR "0 to 3" OR "0-3" OR "zero to three" OR "zero - three" OR "one year old" OR "one-year-old" OR "two year old" OR "two-year-old" OR "mixed age" OR "mixed-age") AND (outdoor* OR outside OR natur* OR out-of-doors OR external OR playground))

Figure 2. Final search terms.

Exclusion criteria
Does not discuss children aged birth to two
Does not include children's experiences outdoors and/or in nature
Not available electronically
Not written before 2002

Figure 3. Exclusion criteria.

The 89 academic journal articles were then taken forward for data extraction.

Quality appraisal

At the outset of the Data Extraction process, a further quality screening took place. Each researcher recorded key information to support a judgment in terms of rigour and recorded a score as detailed below:

- (1) low ($n = 2$)
- (2) low/medium ($n = 0$)
- (3) medium ($n = 23$)
- (4) medium/high ($n = 11$)
- (5) high ($n = 5$)

Papers recorded as low often had key information missing such as a lack of clarity surrounding how the analysis had been undertaken whereas papers recorded as high were deemed to have all necessary elements stated explicitly including limitations. During the data extraction process, it became necessary to exclude further papers and the rationale and numbers for this can be seen in [Figure 4](#). This resulted in 41 papers being taken forward for data analysis.

The 41 included articles had dates of publication spanning from 2007 to 2022. Authors were writing from the context of 15 different countries although the majority were from the Global North (see [Figure 5](#)).

Analysis

The analysis of the data was done thematically using Nvivo 12 software. [Figure 6](#) sets out the relationship between the 21 initial analytic nodes and the key themes.

In this paper our focus is on the third theme – the factors that mediate the outdoor experiences of babies and toddlers to enable deeper exploration of, what is, diverse and complex territory. It is diverse because of the variety of geographical contexts and scales, disciplinary and methodological approaches included in the dataset. The complexity derives from the interdependencies between babies and toddlers, the adults who care for them, and the outdoor spaces they experience – the outdoor spatialities. It is important to note here that many studies we reviewed focus on adult views and do not acknowledge this complexity, particularly those adopting a quantitative methodology. Additionally, in some cases babies and toddlers were not the focus of the research but were included as part of a wider age range. Due to these overarching limitations and the novelty of the focus we have chosen to start by ‘reporting’ the findings before moving to a more critical analysis in the discussion and conclusions.

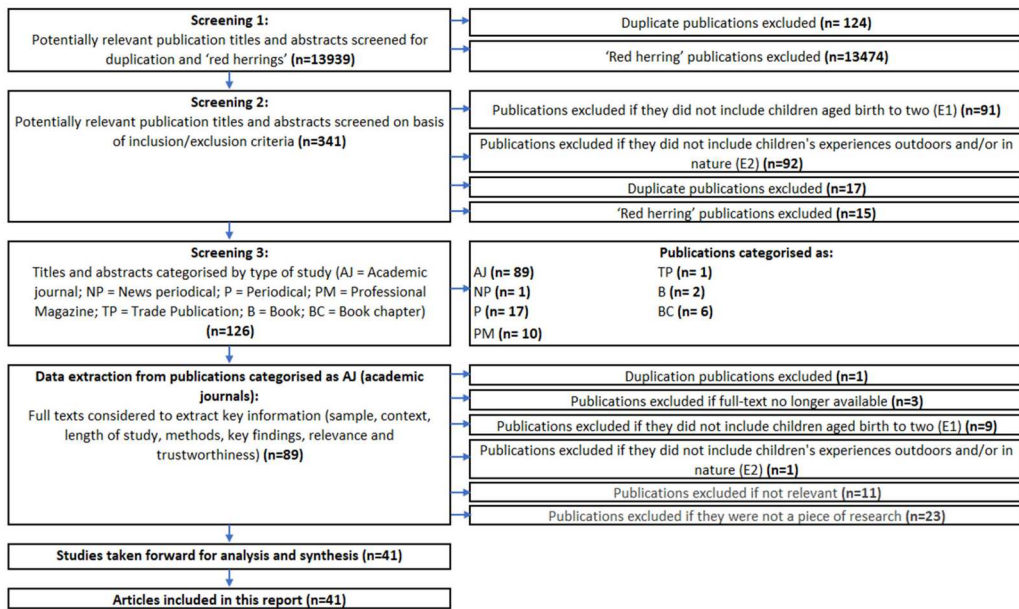


Figure 4. Flow diagram to illustrate the elimination process.

Findings

Outdoor spatialities of babies and toddlers

This review highlights the importance of three types of outdoor spaces to babies and toddlers – the home environment, shared community spaces such as parks and playgrounds, and the ECEC setting. Around half of the papers reviewed were focused on ECEC settings, demonstrating their growing significance in the lives of under twos. Whilst these outdoor spaces may be physically separate, research clearly demonstrates that where children and their families live, and how they use community outdoor spaces such as playgrounds, influences how they engage when outdoors in a setting context (Chen and Hamel 2022) and vice versa (Carsley et al. 2017). There is also a growing body of evidence that documents some of the physical characteristics of outdoor spaces that are important to the holistic development of babies. High environmental quality (greenness) is associated with a range of health and well-being benefits even from before birth (Ferraro et al. 2017; Huang et al. 2021; Jimenez et al. 2020, 2021; Nielsen, Amrhein, and Osornio-Vargas 2017; Tourula, Pölkki, and Isola 2013). Naturalness and the presence of natural features is recognised as supporting different aspects of learning and development from risk-taking (Kleppe 2018; Little and Stapleton 2023; Murray and Williams 2020) to language development (Hackett, MacLure, and McMahon 2021), maths (Lee 2012), science (Klaar and Öhman 2012) and physical activity (Dinkel et al. 2019; Gubbels et al. 2018; Morrissey, Scott, and Wishart 2015; Ng et al. 2020). Finally, the research highlights the importance of enclosed outdoor spaces for babies and toddlers to support their development of social, emotional and physical connectedness (Hackett, MacLure, and McMahon 2021; Hall et al. 2014; Moser and Martinsen 2010).

The supporting adult is identified as a critical social actor in mediating the experiences of babies and toddlers in these outdoor spaces due to their fundamental interdependence and this may be a parent, other family or community member or ECEC practitioner. For the youngest children, familiarity with the outdoor environment and specific features needs to be carefully facilitated (Chen and Hamel 2022; Fantasia et al. 2021; Little 2022; Sharp et al. 2018; Jennissen, Koos, and Denning 2018; Rouse 2015, 2016). This spatial familiarity can be developed through

Country	Author	Number of papers included in the review (n= 41)
USA	Chen and Hamel (2022); Dinkel et al. (2019); Hager et al. (2015); Hall, Howe, Roberts, Foster Shaffer and Williams (2014); Jennissen, Koos and Denning (2018); Jimenez et al. (2020); Jimenez et al. (2021); Murray and Williams (2020); Stanton-Chapman and Schmidt (2017)	9
Australia	Little (2022); Little and Stapleton (2021); Malone and Moore (2019); Mangan, Leavy and Jancey (2018); Morrissey, Scott and Wishart (2015); Ng et al. (2020); Rouse (2015); Rouse (2016)	8
Canada	Carsley et al. (2017); Hystad et al. (2014); Nielsen, Amrhein, Osornio-Vargas, and DoMiNO Team (2017); Sharp et al. (2018)	4
England	Hackett, MacLure and McMahon (2021); Josephidou and Kemp (2022); Josephidou, Kemp and Durrant (2021); Kemp and Josephidou (2021)	4
Finland	Tourula et al (2011); Tourula, Isola, Hassi, Bloigu and Rintamäki (2010); Tourula, Pölkki, and Isola (2013);	3
Germany	Boxberger and Reimers (2019); Fantasia, Oña, Wright, and Wertz (2021); Weck (2019)	3
Norway	Kleppe (2018); Moser and Martinsen (2010)	2
Chile	Aguilar-Farias et al. (2021)	1
China	Huang et al. (2021)	1
Ghana	Monroe et al. (2015)	1
Hungary	Belasko, Herrán and Anguera (2019)	1
Netherlands	Gubbels, Van Kann, Cardon and Kremers (2018)	1
Spain	Ferrero et al. (2017)	1
Sweden	Klaar and Ohman (2012)	1
New Zealand	Lee (2007)	1

Figure 5. Summary of papers included for review by country.

everyday care practices such as dressing to go outdoors (Belasko, Herrán, and Anguera 2019); sleeping outdoors (Monroe et al. 2015; Tourula et al. 2010, 2011; Tourula, Pölkki, and Isola 2013) and being included in everyday family and community life (Malone and Moore 2019). In the research we reviewed, who the supporting adult is (social characteristics) and what they do (cultural values and practices) were identified as key mediating factors.

Social characteristics: socio-economic status, class, ethnicity and disability

Our analysis identifies a range of intersecting family characteristics that have been shown to influence access to outdoor spaces in general and more specifically to some of the spatial characteristics (greenness, high environmental quality, natural features) that are important for the holistic development of babies and toddlers. The relationship between high socio-economic status and outdoor

Node	Files (number of articles they occurred in)	Number of references	Theme	Sub-theme
Spatial context	41	45		
Outdoor spaces	18	34	1.What babies and toddlers need from outdoor spaces	High environmental quality (greenness)
Health	11	22		
Sensory stimulation	8	17		Natural features
Nature	14	35		
Risk	6	7		
Learning	5	9		
Physical activity	12	25		Safe and Enclosed spaces
Safety	7	21		
Role of adult	20	40		
Sleep	5	6	2.What babies and toddlers need from adults outdoors	Connective care practices
Care	3	10		
Social relationships	1	1		Facilitated Familiarity
Autonomy	4	6		
Language	1	3		
Marginalisation/inclusion	8	25		
Class	6	14	3.Mediating Factors	Social characteristics
Socio-economic	9	17		
Ethnicity	5	7		Cultural values and practices
Culture	10	26		
Pandemic	1	1		

Figure 6. Analytic nodes and themes.

residential quality was highlighted by Jimenez et al. (2020; 2021) in their quantitative cohort studies exploring the health effects of early life exposure to green space in the USA. They found that young children living in the greenest spaces were not only more likely to live in households with income higher than US\$70,000 but were also more likely to be white and have college-educated parents highlighting the intersection between socio-economic status, education and race. This is important because residential greenness is associated with beneficial birth outcomes (Hystad et al. 2014) and improved executive function and behaviour (Jimenez et al. 2021). High socio-economic status is also associated with having the financial means to attend a nature-based ECEC setting (Murray and Williams 2020) and access the diverse learning and development opportunities that natural environments offer.

Socio-economic status has also been identified as a factor that mediates access to outdoor community spaces. Hager et al. (2017) focus on low-income mother/toddler dyads in the USA and found that whilst the physical activity of toddlers was stimulated by being outdoors, access to appropriate outdoor spaces such as parks and playgrounds was a barrier. Class is a factor that adults may use to select which outdoor community spaces to spend time in with their very young children. Weck's (2019) qualitative study explores the playground choices of middle-class parents in inner

city Germany. She identifies ‘a normative and normalised middle-classness’ which led around half of the parents interviewed to choose ‘playgrounds with more homogeneous middle-class visitors, even if they had to take a longer route or travel well outside their neighbourhood’ (Weck 2019, 718). Other parents actively chose to access a more socially diverse playground. However, although they did not physically separate themselves from other social groups, neither did they interact. This led to a ‘creeping exclusion’ of working-class parents over time in community playgrounds due to the ‘ostentatious consumption practices’ (720) of middle-class parents. Class and its expression in social conduct and parenting behaviours were significant factors in parents’ decision-making about which playground to use and hence the outdoor experiences of their child. Stanton-Chapman and Schmidt (2017, 242) focus on toddlers with a disability and note ‘the segregation that takes place on the playground between children with disabilities and children who are typically developing’. Their study highlights the range of social participation barriers that exist for families with very young children with a disability.

Although very few papers specifically focus on babies and toddlers from ethnic minority backgrounds (see Malone and Moore 2019), ethnicity is identified as a significant variable associated with outdoor access in some larger-scale quantitative studies. A systematic literature review on outdoor play found that ‘children of mothers of an ethnic minority played less time outdoors than children of mothers from the ethnic majority (Boxberger and Reimers 2019, 13). The authors cite previous studies that report lower levels of physical activity among ethnic minorities to argue that different role modelling of outdoor behaviours may account for this difference whilst recognising that issues of access and opportunity due to residential characteristics are also likely to play a part. Interestingly, this research also identified a negative relationship between high parental education and outdoor play due to a tendency to engage them in more structured activities and less free play. Similarly, writing from the perspective of Chile, Aguilar-Farias et al. (2021, 8) found that infants from the most affluent and most highly educated families were most impacted by the Covid pandemic because their parents did not prioritise free play. In contrast, Carsley et al.’s (2017) Canadian study found no direct association with maternal education but highlights an inverse relationship between daycare attendance and time spent outdoors when at home. They suggest working parents may be relying on settings to provide time outdoors.

Cultural values and practices

Research positions the outdoors as a space in which adults (both parents and practitioners) pass on values through their everyday care-giving practices that either support or limit social, cultural and environmental connections from birth. Research in a Hungarian setting focused on how adults supported children to get ready to go outside. This interaction, which could be dismissed as a simple, practical routine, takes on a new perspective when understood as a means of passing on cultural values about the outdoors. Indeed, the researchers argue that ‘the care routines provided by the caregiver are the main tool for cultural learning and creation at this age’ (Belasko, Herrán, and Anguera 2019, 874). This idea is also evident in research from Northern Finland which foregrounds the way in which parents want to pass on their sense of nature connection to their children through the practice of outdoor sleeping. Outdoor sleeping is recognised as a ‘culturally bound custom’ (174) the benefits of which are ‘self-evident’ (Tourula, Pölkki, and Isola 2013, 176). It requires an in-depth understanding of how to regulate the temperature of the sleeping baby through appropriate clothing and insulation of the pram; these are a set of cultural practices that are passed down through the generations (Tourula et al. 2011). Similarly, Monroe et al. (2015, 6) describe the practice of outdoor sleeping in Ghana.

Mothers often placed infants and young children in the courtyard to nap on a mat, a mattress or a cloth during early evening hours, bringing them inside for the night between 20.00 and 21.00. While sleeping outside, these children were often observed uncovered, wearing little or no clothing. Mothers would take them back outside briefly if they woke up during the night.

In both cases, the practice of sleeping outdoors is explicitly inclusive and enables babies and toddlers to be included in the everyday social life of the family and wider community. In this extract, Tourula, Polkki and Isola (2013, 174) demonstrate how it enables parents to integrate the outdoor activities of the family 'pushing prams in the snow while pulling a sibling in a sledge and often also walking the family dog on a leash'. Similarly, in Ghana, 'Mothers carried infants on their backs while doing chores and socialising' (Monroe et al. 2015, 5). This sense of socio/cultural/environmental connection is powerfully expressed in a paper by Malone and Moore (2019, 19–20) which is 'grounded in an Aboriginal worldview and inhabited the space where animal, land and peoples link':

The Walang surround her. Small, black and noisy. The sea waters pick up the stones and throw them back and from time to time she looks out and observes this. It is windy. She crouches and strikes them together. She strikes and grinds. She rolls the Walang in her hands and finds a rust-coloured stone and begins to chip and grind it on another black stone. Budya has observed the grinding of ochre in Aboriginal community contexts. She encounters the Walang by striking them together and mimics the grinding of ochre. She repeats this rhythmically in her play and it is an act that she comes back to.

Here, an aspect of everyday community life, the grinding of ochre is enacted through sensory encounters with stones (walang) highlighting the Aboriginal perspective that sees humans as fundamentally interdependent with each other and the natural world.

These values and practices contrast starkly with those evidenced in papers from the Global North. For example, Morrissey, Scott, and Wishart (2015, 43) note that after 'greening' the setting environment, 'natural elements such as stick shelters and plants were perceived as unsafe by practitioners' resulting in children being kept away rather than facilitated to engage safely. Similarly, Josephidou, Kemp, and Durrant's (2021) study of English ECEC settings found that natural elements were often replaced by artificial ones such as 'fake grass' or removed due to safety concerns. Murray and Williams (2020) highlight the way in which parental perspectives can impact the way their children engage with the outdoors and may lead to avoidant behaviours in very young children. This suggests that adults can play a critical role in limiting the experiences of babies and toddlers outdoors both directly through their behaviours (removing access) and indirectly (transmitting values and beliefs).

Fantasia et al.'s (2021, 11) quantitative study of how infants interact with plants in an outdoor garden in a German context is significant here as it evidences an in-built response to treat natural elements as potentially dangerous.

infants exhibit caution when approaching plants in a naturalistic setting: they were significantly less likely to take the initiative to approach plants before their caregiver, and caregivers most often were the first member of the dyad to smell and touch the plants. This finding is consistent with a growing set of laboratory studies that have found that 8- to 18-month-old infants take longer to touch plants and touch them less frequently than other types of objects.

This highlights the importance of role-modelling safe engagement with nature rather than avoidance during infancy. Similarly, Hackett, MacLure, and McMahon (2021, 918) document the reactions of toddlers to forest school, 'At first, the dis-comforting new-ness of the outdoor setting was evident in the children's silence, closed body language and fearful facial expressions'. Supported by a responsive adult, the children 'quickly embraced' the woodland environment demonstrating the mutual inter-dependence of the social and environmental.

A relatively recent concern relates to the way cultural changes might be impacting adults' ability to facilitate very young children's engagement outdoors. Mangan, Leavy, and Jancey (2018) focus on mobile phone use amongst parents whilst caring for young children in playgrounds. Three-quarters of the parents observed used their mobile phone during the observational period and most stated that they think it is possible to supervise adequately when using their phone. Although instances where parents were observed ignoring their child or exiting an interaction were relatively few, this research raises concerns about the way in which mobile phone use may affect outdoor interactions with very young children. This is particularly so when considered alongside Hagar et al.'s (2017)

research that found that maternal interaction was a key factor associated with higher levels of toddler engagement outdoors.

Discussion

Returning to Holt and Philo's (2022) provocative conceptualisation of tiny humans who experience spatial marginalisation, our spatialities lens suggests that the picture is complex and diverse when it comes to outdoor environments. The findings identify some of the social and cultural norms that are understood to influence access to, and interactions within, outdoor spaces for babies and toddlers: **who** the supporting adults are (social characteristics) and **how** they are (cultural values and practices), emerge as key mediating factors. However, the pervasive adult gaze in the research we reviewed means that the agentic expression of both babies and the outdoor spaces is under-explored. Also, the concepts of the outdoors and nature are largely taken for granted, potentially reinforcing 'oppressive boundaries' (hooks 1991, 145) and perpetuating rather than challenging socio-cultural norms. In the discussion that follows, we develop these ideas and position the outdoors as complex social, cultural and political spaces in which a sense of belonging may be fostered or inhibited for and by the youngest children.

The outdoors as a socially stratified space

Even before birth, a complex and intersecting range of social factors influence the access of babies and toddlers to the outdoors more generally, and specifically to natural environments. The effects of socio-economic status, class, education, race and disability are documented in the research we reviewed and play out across all types of outdoor spaces revealing strong social norms about who belongs. Data from the Global North shows that babies and toddlers born into working-class families of low socio-economic status, and from a non-majority ethnic background, as well as those with a disability or behavioural issues, are most likely to experience marginalisation through lack of access to outdoor spaces.

The spatial characteristics that this analysis has identified as important to very young children (high environmental quality; natural features; safe, enclosed spaces) are spaces of privilege whether in the home (Jimenez et al. 2021), community (Weck 2019) or setting (Murray and Williams 2020). Hackett, MacLure, and McMahon (2021, 926) argue that this is because the outdoors has been commoditised, as it is seen as being, 'more lively, innocent, authentic or virtuous than indoor worlds of manufactured objects and digital lives, or of urban locations'. Nxumalo (2020, 41) goes further suggesting that it is these romantic and purist notions of what counts as nature (characteristics reinforced by research) that underpin social norms about who belongs outdoors and need to be 'complicated' by more critical studies. She powerfully argues that,

banal anti-Blackness emerges ... through the deficit framing of children for whom nature is constructed as an individual 'fix' without considerations of underlying systemic conditions that cause for instance a lack of access to green spaces and food gardens. (37)

This notion of (outdoor) space as 'innocent' is also dismissed by Keith and Pile (1993) who assert that rather it is brimming with political and ideological ideas; ideas that can only be perceived using 'spatial imagination'. Without this imagination, a way of viewing outdoor spaces prevails that aligns with 'classed, raced and ableist value systems' (Hackett, MacLure, and McMahon 2021, 926).

The outdoors as a space in which cultural values are expressed, transmitted and reproduced

Our analysis highlights the importance of cultural values and positions the outdoors as a space in which these are produced, expressed and transmitted through interactions between babies and

toddlers, their caregivers and the environment. We have argued previously (Josephidou and Kemp 2022; Kemp, Josephidou, and Watts 2022) that the dominant cultural values of the Global North identify nature as risky for very young children and the outdoors as a place to be physically active. This results in a generalised separation of babies and toddlers from the outdoors, from natural elements, and from older children exemplifying Holt and Philo's (2022) argument about the spatial marginalisation of the youngest children.

Here we demonstrate the way in which connective cultural values can be transmitted through care practices in outdoor spaces. Centred on an ethic of care toward both humans and the 'more than human', such practices are associated with indigenous understandings (Malone and Moore 2019), holistic and posthuman epistemologies (Hackett, MacLure, and McMahon 2021; Josephidou and Kemp 2022), and the Global South (Monroe et al. 2015). Research in Northern Finland (Tourula et al. 2010, 2011; Tourula, Pölkki, and Isola 2013) exemplifies the way in which the cultural practice of outdoor sleeping (itself a form of 'spatial transgression' within the dominant narrative of the Global North) is seen to promote closeness to nature and support outdoor family life and is understood, like breastfeeding, as part of being a good parent. Even within these papers the focus tends to be on the transmission of cultural values from adult to child rather than on the 'tight interdependencies' (Cortés-Morales 2021, 367) that characterise earliest childhood.

Cultural care practices can be subjected to intense scrutiny by others. Particularly in the context of home and community, being outdoors brings with it a greater sense of exposure and openness to criticism and critique. In Germany, Weck (2019) argues that whilst visiting a playground to socialise is understood as part of being a good parent, middle-class parents also make choices about which to visit based on the identity they want to project (e.g. conformity or resistance). Elsewhere, in Ghana the risk of malaria is challenging the practice of outdoor sleeping (Monroe et al. 2015) whilst in Finland it is changes in social and environmental context that are concerns for parents (Tourula, Pölkki, and Isola 2013, 175). The outdoors is then a space in which cultural care practices have particular symbolic power – they demonstrate 'goodness' and fit within existing cultural norms. Consequently, such practices can further reinforce structural social and environmental inequalities and injustices by privileging particular ways of being outdoors (Nxumalo 2020).

The outdoors as a political space: ECEC as sites of resistance

The discussion so far makes it impossible to ignore the issue of power and the power-relations. Our analysis reveals the outdoors as a space of socio-cultural privilege (particularly those that are of high environmental quality and incorporate natural features). Even something as seemingly innocuous as a playground can be a site of class-based struggle and a space in which some babies and their families would be reckoned 'out of place' (Holt and Philo 2022). These social and cultural characteristics of the outdoors are largely invisible and unrecognised and yet they are powerful mediators of both access and interactions. Additionally, by adopting a largely uncritical position, we suggest it is not only normative practices but also research that is potentially reinforcing rather than challenging purist ideals about 'so called natural places' (Nxumalo 2020, 36) and deficit conceptions of babies. The process of starting to 'name' and make visible these socio-cultural norms and practices, is understood as a necessary first step in developing counter-hegemonic discourses (hooks 1991).

There is also a need 'to identify the spaces where we begin the process of re-vision' (hooks 1991, 145). We have previously demonstrated how owner/managers in an English ECEC context challenge and resist neoliberal values through their leadership of outdoor pedagogy in babyrooms (Kemp and Josephidou 2023). Here we suggest that ECEC settings offer potential as 'new spaces of resistance' (Keith and Pile 1993, 5) or 'site[s] of radical possibility' (hooks, 1991, 149) where dominant discourses of power about who belongs outdoors can be challenged (Nelson, Pacini-Ketchabaw, and Nxumalo 2018). Given the marginalisation that can occur in outdoor spaces in the home and community, they offer potential as sites to develop more inclusive outdoor practices for babies and toddlers and their families, to 'see and create, to imagine alternatives' (hooks 1991,

150). The current growth and support for provision for under twos globally creates a particular opportunity for the sector to take a leading role. The close connectivity between home and settings for this age group suggests a potential to influence practices not just within the setting, but also in the homes and communities of the babies and toddlers that attend.

Conclusions

This paper contributes new knowledge and understanding about some of the factors that mediate access to, and interactions within outdoor spaces for babies and toddlers, and hence can contribute to their marginalisation. By applying a spatialities lens, the outdoors is revealed as a socially stratified space in which socio-economic status, class, ethnicity, and (dis)ability intersect in ways that can either include or marginalise even from before birth. At the same time, it is a cultural space in which values and norms about how to behave and who belongs outdoors are expressed, transmitted and reproduced through care practices which may (or not) foster a sense of social and spatial marginalisation. Finally, the outdoors emerges as a space ‘filled with politics and ideology’ (Keith and Pile 1993, 4), a perspective at odds with the often romantic, innocent perspective of the outdoors in early childhood.

Significantly, this ‘spatial consciousness’ (Keith and Pile 1993) also reveals the (sometimes) normative ideas (and ideals) about the youngest children, their beings and their potential for agentic expression implicit in the body of research we reviewed. Similarly, concepts of nature and the outdoors remain largely unproblematised. This means that rather than the dynamic and complex baby/adult/environment nexus, it is the perspective of adults that this research foregrounds.

There is then, a need to develop, counter-hegemonic discourses and practices (hooks 1991). In relation to the former, like Barragan-Jason et al. (2023), we call for further collaboration between disciplines to extend and disrupt normative discourses. This is important not just from a (tiny) human health and well-being perspective but also in the context of the environmental polycrisis given the association between nature engagement and pro-environmental behaviours (Krafft 2020; Richardson et al. 2019). We suggest that focusing attention on the experiences of the youngest children outdoors can reveal otherwise hidden understandings of human/nature relations and suggest other ways of being in the world (for example, indigenous perspectives, holistic and posthuman epistemologies and practices from the Global South). At the same time, ECEC settings may offer potential sites for developing counter-hegemonic practices that challenge social boundaries, the dominant cultural narrative of the Global North and the associated power relations that marginalise tiny humans and those that care for them (Nxumalo 2020).

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