Received: 20 July 2022 | Revised: 19 October 2022 | Accepted: 31 October 2022

DOI: 10.1111/hsc.14106

Health and Social Care in the community WILEY

POLICY PAPER

Nurturing children's development through healthy eating and active living: Time for policies to support effective interventions in the context of responsive emotional support and early learning

Helen Skouteris PhD[1,2] | Rachael Green PhD[1] | Alexandra Chung PhD[1] | Heidi Bergmeier PhD[1] | Lisa H. Amir PhD[3] | Sukhpreet Kaur Baidwan MBChB[4] | Angel Marie Chater PhD[5] | Catherine Chamberlain PhD[3,6,7,8] | Ruth Emond PhD[9] | Kay Gibbons BAppSc[10] | Michelle Gooey MPH[1] | Kostas Hatzikiriakidis BPsych[1] | Emma Haycraft PhD[11] | Andrew P. Hills PhD[12] | Daryl J. Higgins PhD[13] | Oliver Hooper PhD[11] | Sue-Anne Hunter MSW[14] | Pam Kappelides PhD[15] | Sue Kleve PhD[16] | Jacynta Krakouer MSP[1] | Julie C. Lumeng MD[17] | Yannis Manios PhD[18,19] | Athar Mansoor PhD[20] | Michael Marmot PhD[21] | Louise C. Mâsse PhD[22] | Karen Matvienko-Sikar PhD[23] | Zandile June-Rose Mchiza PhD[24] | Caroline Meyer PhD[25] | George Moschonis PhD[26] | Emily R. Munro PhD[27] | Teresia Margareta O'Connor MPH[28] | Adrienne O'Neil PhD[29] | Thomas Quarmby PhD[30] | Rachel Sandford PhD[11] | Janet U. Schneiderman PhD[31] | Simone Sherriff MPH[32] | Doug Simkiss PhD[25,33,34] | Alison Spence PhD[35] | Elizabeth Sturgiss PhD[36] | Dave Vicary PhD[37] | Rebecca Wickes PhD[38] | Luke Wolfenden PhD[39] | Mary Story PhD[40] | Maureen M. Black PhD[41,42]

[1]Health and Social Care Unit, School of Public Health and Preventive Medicine, Monash University, Victoria, Melbourne, Australia

[2]Warwick Business School, University of Warwick, Coventry, UK

[3]Judith Lumley Centre, School of Nursing and Midwifery, La Trobe University, Victoria, Bundoora, Australia

[4]Child Development Centre Birmingham Heartlands Hospital, Birmingham, UK

[5]Centre for Health, Wellbeing and Behaviour Change, University of Bedfordshire, Luton, UK

[6]Centre for Health Equity, The University of Melbourne, Victoria, Melbourne, Australia

[7]Ngangk Yira Research Centre for Aboriginal Health and Social Equity, Murdoch University, Murdoch, Australia

[8]The Lowitja Institute, Collingwood, Victoria, Australia

[9]University of Stirling, Stirling, UK

[10]Institute for Health & Sport, Victoria University, Victoria, Melbourne, Australia

[11]School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, UK

[12]School of Health Sciences, University of Tasmania, Tasmania, Launceston, Australia

[13]Australian Catholic University, Victoria, Fitzroy, Australia

[14]Yoorrook Justice Commission, Victoria, Melbourne, Australia

[15]Department of Management, La Trobe University, Victoria, Bundoora, Australia

[16]Department of Nutrition, Dietetics and Food, School of Clinical Sciences, Monash University, Victoria, Clayton, Australia

[17]University of Michigan, Michigan, Ann Arbor, USA

[18]Department of Nutrition and Dietetics, Harokopio University of Athens, Athens, Greece

[19]Institute of Agri-food and Life Sciences, Hellenic Mediterranean University Research Centre, Heraklion, Greece

[20]The Hong Kong University of Science and Technology, Hong Kong, Hong Kong

[21]University College London, London, UK

[22]BC Children's Hospital Research Institute/School of Population and Public Health, University of British Columbia, British Columbia, Vancouver, Canada

[23]School of Public Health, University College Cork, Cork, Ireland

[24]Non-communicable Disease Research Unit, South African Medical Research Council & School of Public Health, Faculty of Community and Health Sciences, University of the Western Cape, Bellville, South Africa

[25]Executive Office, Warwick Medical School, University of Warwick, Coventry, UK

[26]Department of Food, Nutrition and Dietetics, School of Allied Health, Human Services and Sport, La Trobe University, Victoria, Bundoora, Australia

[27]Tilda Goldberg Centre for Social Work and Social Care, University of Bedfordshire, Luton, UK

[28]USDA/ARS Children's Nutrition Research Center, Department of Pediatrics, Baylor College of Medicine, Texas, Houston, USA

[29]Institute for Mental and Physical Health and Clinical Translation (IMPACT), Food & Mood Centre, School of Medicine, Deakin University, Victoria, Geelong, Australia

[30]Carnegie School of Sport, Leeds Beckett University, Leeds, UK

[31]Department of Nursing, Suzanne Dworak-Peck School of Social Work, University of Southern California, California, Los Angeles, USA

[32]The Sax Institute, Sydney, Australia

[33]Birmingham Community Healthcare NHS Foundation Trust, Birmingham, UK

[34]Aston University, Birmingham, UK

[35]Institute for Physical Activity and Nutrition (IPAN), School of Exercise and Nutrition Sciences, Deakin University, Geelong, Victoria, Australia

[36]School of Primary and Allied Health Care, Monash University, Frankston, Victoria, Australia

[37]Good Shepherd, Melbourne, Victoria, Australia

[38]Griffith Criminology Institute, Griffith University, Brisbane, Queensland, Australia

[39]School of Medicine and Public Health, College of Health, Medicine and Wellbeing, The University of Newcastle, Callaghan, New South Wales, Australia

[40]Duke Global Health Institute, Durham, North Carolina, USA

[41]School of Medicine, University of Maryland, College Park, Maryland, USA

[42]Research Triangle Institute International, Research Triangle Park, North Carolina, USA

Correspondence
Helen Skouteris, Health and Social Care Unit, School of Public Health and Preventive Medicine, Monash University, 553 St Kilda Road, Melbourne, VIC 3004, Australia.
Email: helen.skouteris@monash.edu

Funding information
NHMRC Investigator; Medical Research Future Fund Preventive Health Research Initiative; NHMRC Fellowship; NHMRC Postgraduate Scholarship

Abstract

Fostering the growth, development, health, and wellbeing of children is a global priority. The early childhood period presents a critical window to influence lifelong trajectories, however urgent multisectoral action is needed to ensure that families are adequately supported to nurture their children's growth and development. With a shared vision to give every child the best start in life, thus helping them reach their full developmental potential, we have formed the International Healthy Eating Active Living Matters (HEALing Matters) Alliance. Together, we form a global network of academics and practitioners working across child health and development, and who are dedicated to improving health equity for children and their families. Our goal is to ensure that *all* families are free from structural inequality and oppression and are empowered to nurture their children's growth and development through healthy eating and physical activity within the context of responsive emotional support, safety and security, and opportunities for early learning. To date, there have been disparate approaches to promoting these objectives across the health, community service, and education sectors. The *crucial importance* of our collective work is to bring these priorities for early childhood together through multisectoral interventions, and in so doing tackle head on siloed approaches. In this Policy paper, we draw upon extensive research and call for collective action to promote equity and foster positive developmental trajectories for all children. We call for the delivery of evidence-based programs, policies, and services that are co-designed to meet the needs of all children and

families and address structural and systemic inequalities. Moving beyond the "what" is needed to foster the best start to life for all children, we provide recommendations of "how" we can do this. Such collective impact will facilitate intergenerational progression that builds human capital in future generations.

KEYWORDS
child development, nurturing care, healthy living, health equity

Fostering the growth, development, health and wellbeing of children has been recognised as a global priority. At the heart of achieving the ambitious and transformational vision of the 2030 Agenda for Sustainable Development is the goal for all children to have the best start in life, irrespective of where they are born, their ethnicity, and cultural heritage (United Nations, 2015). The COVID-19 pandemic has exacerbated health and social inequalities, particularly amongst communities who already experience disadvantages (Mishra et al., 2021). Women and children are particularly likely to be adversely impacted (Kotlar et al., 2021; Yoshikawa et al., 2020). These disparities are largely driven by structural inequalities such as racism, poverty, paucity of food, job insecurity, lack of access to health care, employment opportunities, and access to stable housing (Skouteris et al., 2021). Unless urgent action is taken, we will not achieve the transformation necessary to give every child the best start in life. In direct response, we (the authors of this article) have formed the International Healthy Eating Active Living Matters (HEALing Matters) Alliance. Our goal is to ensure that *all* families are empowered, free from structural inequality and oppression, and have the capacity to nurture their children's growth and development. This can be achieved by encouraging and supporting families to breastfeed, facilitating access to adequate nutritious food, and promoting appropriate physical activity within a context that provides safety, responsive caregiving, and opportunities for early learning. This goal is underpinned by extensive research and a commitment to promoting the rights of children:

- *Every child has the right to thrive*. Investing in early child development is central to improving the lifelong wellbeing of children (World Health Organization, United Nations Children's Fund & World Bank Group, 2018). This is a human right for all children that requires the elimination of structural inequalities.
- Rigorous evidence shows clear links between adequate nutrition and physical activity (provided in the context of responsive emotionally supportive care, safety, security, play and learning) and optimal physical, cognitive, and socio-emotional growth and development (World Health Organization, United Nations Children's Fund & World Bank Group, 2018).
- Healthy eating, active living, and healthy development are fundamentally intertwined (Lioret et al., 2020) and linked to parenting/caregiving, with particular reference to practices that influence children's dietary intake and participation in physical activity (Hesketh et al., 2020). All families need to be supported to provide for their children without material, environmental, and systemic constraints, while also ensuring that the safety of families is prioritised.
- Unhealthy eating, inadequate physical activity, and high levels of sedentary behaviours are associated with excessive weight gain and poorer mental health in the formative early childhood years, with both short-term and long-term negative implications for their health in adolescence and adulthood (O'Neil et al., 2014; Sahoo et al., 2015). As such, investment in early intervention and prevention during childhood is critical.
- The fundamental role that breastfeeding can play in reducing health and economic costs is often poorly recognised and operationalized. Society-wide support is needed to normalise breastfeeding across all socioeconomic levels and cultures (Rollins et al., 2016). High levels of breastfeeding are critical to supporting food security in infants and young children (Salmon, 2015).

What is known?

- Promoting growth and development and improving the health and wellbeing of children is a global priority.
- Socioeconomic disadvantage and the experience of structural and systemic inequalities adversely impact families' capacity to provide children with the best start to life.
- Policies across health and social care that address the determinants that feed into structural and systemic inequalities are critical in promoting developmental growth.

What this paper adds?

- The paper outlines a commitment to ensure that all families are free from structural inequality and oppression.
- The paper calls for evidence-based health and social care policies and practices that encompass the principles of nurturing care to promote childhood growth and development.
- The paper outlines how we can foster the best start to life for children via collective responsibility.

Child nutrition is the responsibility of both parents, yet so far, this responsibility falls mostly on mothers. Fathers' involvement in feeding infants and young children is of paramount importance, and greater attention towards how fathers can be supported in meeting the nutrition needs of their children is required (Mithra et al., 2021; Ogada et al., 2014).

- Exclusive breastfeeding rates differ within and between countries. In low- and middle-income countries (LMICs) women in poor families breastfeed for longer than women with greater wealth; whilst in high-income countries (HICs), women with higher education and income are more likely to breastfeed compared to women with relatively lower education or income (Victora et al., 2016).
- The prevalence of childhood overweight and obesity in LMICs is increasing. Populations are now experiencing the double-burden of malnutrition, where overnutrition (overweight and obesity) coexists with undernutrition (micronutrient deficiencies, and childhood stunting and wasting) at country, household and individual levels (Popkin et al., 2020). Research documents that poverty is closely linked to hunger and food insecurity, and needs to be ameliorated for all children and families (Shung-King et al., 2019).
- In HICs, children experiencing socioeconomic disadvantage are more likely to consume foods that are high in saturated fats, added sugars, and salt, be less active and more sedentary, and more likely to live with obesity and live in economically disadvantaged neighbourhoods, compared to children with greater social and economic resources (Cameron et al., 2015; Chung et al., 2018; Spence et al., 2018).
- The prevalence of childhood overweight and obesity disproportionately impacts First Nations children, particularly in settler-colonial countries (Anderson et al., 2016; Bullock et al., 2017; Dyer et al., 2017; Katzmarzyk, 2008). For many First Nations peoples worldwide, colonisation has created pervasive structural inequalities, taking the form of dispossession, displacement, and intergenerational trauma. Discrimination and sustained racism against First Nations peoples and communities is evident in settler-colonial contexts, such as Australia, Turtle Island/North America and Aotearoa/New Zealand, where significant and persistent health inequalities for First Nations children and families also remain.

In this Policy paper, we declare our positionality to argue that policies and practices across health and social care must focus on supporting families to nurture their young children's growth and development through healthy eating and active living, within the context of responsive emotional support and opportunities for early learning. Families living with disadvantage are not homogeneous, often have intersecting axes of disadvantage, and tailored approaches are required to meet the diverse needs of individual children and their families. Similarly, children are neurodiverse and differ in temperament, behaviour, and cognitive profile, and their developmental needs evolve over time. Societal and cultural norms also influence a child's developmental trajectory. For example, children raised in collective societies may be more autonomous at a younger age compared to children raised in accordance with Western, individually-oriented contexts (SNAICC, 2011). We also acknowledge that the removal of structural barriers as social determinants of health, such as inequality and oppression, is required to enable *all* families to thrive in an environment that supports the development of children. Finally, although the focus of this Policy paper and our commitment to nurturing the growth and development of children encompasses all families who experience disadvantage, we acknowledge the pervasiveness of inequities experienced by First Nations communities that are deeply entrenched in the historical impact and cultural implications of colonialism (Underwood et al., 2019).

1 | AN APPLICABLE MODEL TO SUPPORT FAMILIES IN NURTURING CHILDREN'S DEVELOPMENT THROUGH HEALTHY EATING AND ACTIVE LIVING

Supporting families in establishing healthy habits early in life sets the course for a trajectory of healthy growth and development. Children who consume healthy diets and are physically active are more likely to become the next generation of adults with healthy dietary and physical activity behaviours (Mikkilä et al., 2005; Telama et al., 2014). To act and move beyond "what" needs to be done, we must consider "how" to implement collective responsibility to support parents, families, and communities. Health and social care policies that are important for the promotion of child growth and development cannot ignore the "how". This necessarily includes addressing the underlying determinants of inequalities in children's health and development, with governments and communities having key roles to ensure all families have access to adequate resources and supportive environments, thereby enabling them to provide nurturing care to their children (Black et al., 2021). There is increasing evidence to highlight the benefits to offsetting disadvantage in early childhood. Realising the much-desired vision of the Sustainable Development agenda requires *a substantial paradigm shift* in the way that child development is addressed (Black et al., 2020). As a prominent example, the Global Nurturing Care Framework for Early Child Development (World Health Organization, United Nations Children's Fund & World Bank Group, 2018) is an evidence-based framework (Black et al., 2017), which can be used to support parents and families who are affected by various forms of disadvantage and oppression by promoting healthy eating and physical activity, responsive emotional support, safety, security and early learning (see Figure 1).

The formative years from conception to age five (also known as the first 2000 days) represent a critical window with multiple teachable 'moments' to establish and reinforce healthy lifestyles that can persist throughout childhood and into adolescence and adulthood (Skouteris et al., 2021). This is a window of opportunity to ensure coordinated and equitable provision of evidence-based programs and services that support inherent strengths and resilience in families and communities (Arabena, 2014).Nurturing care ensures that

FIGURE 1 Global Nurturing Care Framework including Components of Nurturing Care and Enabling Environments for Nurturing Care (reproduced with permission from The Nurturing Care Framework for Early Childhood Development: A framework for helping children survive and thrive to transform health and human potential).

all children have strong physical and mental health, adequate nutrition comprising exclusive breastfeeding from birth to six months of age, appropriate complementary feeding and transition to a healthy family diet, responsive caregiving, safety and security, and opportunities for early learning (World Health Organization, United Nations Children's Fund & World Bank Group, 2018). In *The Lancet* series on *Advancing Early Childhood Development*, the absence of nurturing care was identified as a primary reason why children are at risk of not thriving (Britto et al., 2017). This is often the result of structural disadvantage, not individual choice (Featherstone et al., 2019), and reinforces the need to address the underlying social and physical environmental determinants of health that enable parents and families to provide nurturing care. The Nurturing Care Framework can be used as a guide to nurturing children's growth and development from conception to the formative developmental years. Here we also emphasize necessary adaptations to ensure that policies and practices reach children throughout the first five years (Black et al., 2021; Skouteris et al., 2021).

2 | UNPACKING THE "WHY": THE IMPORTANCE OF SUPPORTING A NURTURING APPROACH TO CARE

Human relationships are the building blocks of, and driving force for, healthy child development. Indeed, neuroscientific evidence confirms positive associations between nurturing care and children's health, growth, and development, underlining the role of nurturing care in promoting optimal brain development during early childhood and attenuates the detrimental effects of poverty and health inequality on brain development (Black et al., 2017). In accordance with this evidence, pioneering research conducted by members of this Alliance has shown that the quality of parent-child relationships, as exemplified by dyadic parent-child feeding interactions, is crucial to children's development of healthy eating and weight-related behaviours (Bergmeier et al., 2020). We have also highlighted the importance of nurturing mutually responsive caregiver connections in children up to 5 years of age in our recent work which reframed the early childhood obesity prevention narrative through an equitable nurturing approach. This work was the result of the Salzburg Global Seminar, "Halting the Childhood Obesity Epidemic" (Skouteris et al., 2021).

Our collective expertise spans across developmental and socio-ecologically informed research focusing on children who have experienced adverse childhood experiences (ACE)s, including children known to statutory child protection services. This research has shown the positive associations between responsive caregiving and child growth and development (Bethell et al., 2017). This is demonstrated, for example, in our multi-sectoral Healthy Eating Active Living (HEALing) Matters Program for children living in out-of-home care (sometimes referred to as looked-after children; Green et al., 2022). HEALing Matters is underpinned by the ethos that the home environment, and the interpersonal relationships that exist between children and their caregivers, are crucial to initiating and maintaining healthy behaviours. Children in out-of-home care face great barriers to health and wellbeing, often as a result of the life circumstances they were born into and the trauma they have experienced and sometimes continue to experience (Smales et al., 2021). These children are also more likely to be living with overweight/obesity (Cox et al., 2014), experience an increased risk of chronic disease and mental illness, and a likelihood of being disengaged from school. HEALing Matters moves beyond a solely behavioural approach to health and wellbeing, to one that promotes responsive caregiving, safety and security and opportunities for young people to learn about healthful behaviours. HEALing Matters focuses on how healthy eating and physical activity can provide powerful ways of demonstrating trust, safety, security, predictability, a sense of belonging, and the provision of support and care that is attuned to the needs of children and families. Whilst this is necessary for all children, it is especially important for children experiencing ACEs.

3 | THE CASE FOR COMMUNITY INVOLVEMENT AND BREAKING DOWN SILOES

There is no doubt that there is a strong rationale and evidence for a holistic approach where nurturing children's development through

healthy eating and active living is achieved by enabling and promoting responsive caregiving, a sense of safety and security, and opportunities for early learning. The necessity of a comprehensive, multisectoral approach to children's development was illustrated by a recent meta-analysis that showed the relative specificity of nutritional interventions on growth and nutrition, but not on neurodevelopment (Prado et al., 2019). At the same time, this meta-analysis highlighted how responsive caregiving and learning interventions impacted neurodevelopment, but not growth and nutrition (Prado et al., 2019). Meeting the holistic developmental needs of all children is the *paradigm shift* in policies that we call for here. Doing so requires policy makers and all other stakeholders to engage with the Nurturing Care Framework in an authentic and meaningful way. This means that when developing policies and programs that are informed by this framework, funders, service providers, communities and individual families should be involved from the beginning. Monitoring and evaluation to examine the impact of policies and programs, including their impact across socioeconomic and cultural groups will be essential. Generating new knowledge to inform the implementation of systems-wide, evidence-based strategies to nurture children's development is therefore vital. Development of this knowledge requires rigorous family and community involvement that draws upon lived experiences to ensure that policies and programs are relevant and feasible for the families using them. It is critical that solutions are responsive to the family's priorities and relevant to the spheres of social-cultural, community and political level influences in which the parent/caregiver-child relationship exists. Doing so requires that initiatives are co-designed with the voice of families and communities that are central to the conceptualization and implementation of systems-wide life-course approaches (Skouteris et al., 2021).

For all children to thrive, support is also required from multiple sectors (e.g., health, nutrition, income support, social and legal protection, education and care, housing) (Black et al., 2020; Britto et al., 2017). Solutions to operationalize equity must aim to break down silos across basic and applied science, disciplines, sectors, and life stages, address the social determinants of health, and advance the tailoring and optimization of interventions. This necessitates a significant shift that includes coordination and collaboration across sectors that may not have a history of working together. The sectors that have the most contact with young children and their families are health, including antenatal care and health care (predominantly during the first two years of life, albeit in some countries this may be extended until the child starts school) and education/childcare (both early years learning, and school). For many children, there is a gap in regular interactions with the health, social care, and education systems, dependent on the availability of and participation in programs and services. For families living with disadvantage, these system-interactions may also include the community/social care service sector, given that children experiencing disadvantage are significantly more likely to be exposed to ACEs, such as neglect, physical and emotional abuse, and caregiver mental illness (Walsh et al., 2019). These adverse exposures increase children's risk of deleterious outcomes, including social-emotional difficulties, poor learning and low academic achievement, and long-term health problems, including obesity and related cardiometabolic complications (Pizzirani et al., 2022; Schneiderman et al., 2011). There are therapeutic and other tertiary responses for children exposed to ACEs, but these are not necessarily available or accessible through those sectors that typically have contact with young families (i.e., health, early childhood and school education). The need for intensive therapies could be reduced by: (1) creating support structures early in life to reduce sources of familial stress that elevate a child's risk of not thriving; and (2) supporting the development of responsive relationships between parents and their children that build core life skills that strengthen resilience (Shonkoff et al., 2017; Trude et al., 2021).

4 | THE TIME TO ACT IS NOW

The COVID-19 pandemic has exposed structural drivers of health inequalities and exacerbated existing social vulnerabilities. As such, the need to do things differently is now urgent. To return to the "status quo" that existed prior to the pandemic would be a grave mistake (Marmot et al., 2020). The pandemic has highlighted existing limitations in health and social care (Jensen et al., 2021; Marmot et al., 2020), and has exposed the disparities in social determinants of health that lead to worse outcomes for those we have failed to protect, namely families and children impacted by colonisation, systemic racism and pervasive socioeconomic disadvantage (Mishra et al., 2021).

To build the capacity of societies in better meeting the needs of all members, policies need to promote collective action, and with shared vision, to change the way we advance health equity (Marmot et al., 2020). Reducing inequalities in health and ensuring that every child is supported in their development from birth requires action across the whole of society. In keeping with the concept of proportionate universalism (that the action to promote health should be proportionate to the level of need), greater and tailored intensity of action can help meet the needs of children and families experiencing forms of disadvantage (Marmot et al., 2010). With *the goal of breaking down silos* and offering a more coordinated approach, we, the Alliance, argue that a systems-wide approach to early childhood intervention that is universal in scope, but offered with an intensity and at a scale that is proportional to the level of need, is a great priority. In addition, there is strong consensus globally that interventions to promote child development through an equitable nurturing care approach must: promote nurturing care for parents and caregivers prenatally and from birth throughout childhood; target multiple risks to developmental potential; be implemented through multisectoral interventions that are integrated with existing preventive and early intervention strategies; and build on existing intervention delivery platforms to enhance feasibility, scalability, and sustainability (Black et al., 2021; Britto et al., 2017).

To promote nurturing care and target multiple risks that may impact children's growth and development in accordance with the recommendations above, there is a need to first understand how health, community, social care, and early childhood education services can advance and resource a holistic nurturing care approach for children's

health and development. Taking a person-centred approach, focused on empowering and meeting the needs of the individual, has the potential to facilitate integration across services and sectors for coordinated service delivery and improved experiences and outcomes for children and families (Savage et al., 2018). To meet our goal of nurturing children's development through healthy eating and active living in the context of safety, emotional support, and early learning, we need to bring together the many sources of knowledge with the "technical craft of implementation science" (Shonkoff et al., 2017).

5 | MOVING BEYOND THE "WHAT" TO THE "HOW": THE ROLE OF IMPLEMENTATION SCIENCE

Implementation science is an applied, interdisciplinary, and theoretically informed field that seeks to drive evidence-based interventions into practice by understanding not only the "what" but also the "how" to meaningfully implement multifaceted solutions at pace and scale. Here we focus on generating new knowledge on how to harness the power of theorising (Kislov et al., 2019) to support the implementation of nurturing care interventions that support breastfeeding, foster healthy eating, and promote active living in a context of safety, emotional support, and opportunities for early learning for children, especially for children and families at risk of not thriving. The unfulfilled applied potential to ensure research on the "how" is the major contribution of the implementation science community (Boaden, 2020).

Kislov et al. (2019) call for theoretically informative implementation research - that is, a shift of perspective from 'theories' as finished products to 'theorising' as an iterative process of advancing knowledge. Theorising, defined as processes that aim to use empirical data actively in developing, validating, modifying, and advancing conceptual knowledge, is critical to the advancement of implementation science and hence to any endeavour to implement a developmental nurturing care framework with success at scale (Skouteris, 2021). Theorising occurs by working with the stakeholders across a system who are or should be involved in co-creating implementation strategies. That is, to develop multisectoral interventions that are integrated within existing preventive and early intervention strategies, and that build on existing intervention delivery platforms to enhance feasibility, scalability, and sustainability. The implication is that we must work collectively and collaboratively with key stakeholders, including parents, families, and communities, to co-create and tailor service delivery methods to meet the needs of children who are at-risk of vulnerability. The co-design process necessarily involves understanding how health, community services and early childhood education organisations can advance and resource a holistic, person-centred approach to support and enable parents to nurture their children's development through healthy eating and active living in a collaborative, multi-sectoral way. Implementation science also includes coordination across interventions through measurement, accountability, and feedback to ensure that the interventions continue to be responsive to changing environmental and family conditions (Kislov et al., 2019). Through communication across interventions, metrics are fed back and used to alter interventions through a process of continuous quality improvement. By adopting a systems perspective that includes families, interventions are continuously interacting and changing as needed to be responsive to the changing needs of families with young children.

6 | MOVING BEYOND THE "WHAT" TO THE "HOW" GOVERNMENTAL AND COMMUNITY ACTION AND ENGAGEMENT CAN ADDRESS THE BARRIERS TO CHILD GROWTH AND DEVELOPMENT

The provision of nurturing care extends from families, communities, and child and family service providers to government policies and socio-political environments. By creating healthy and supportive environments for families and caregivers, with adequate resources, families and caregivers are better able to provide their children with healthy food and opportunities for physical activity living in an emotionally responsive and educative context (Black et al., 2021). For example, ensuring availability, accessibility, and affordability of nutritious foods creates the necessary environment for parents and caregivers to meet the nutrition needs of their children (Hawkes et al., 2020; World Health Organization, United Nations Children's Fund & World Bank Group, 2018). Professional and peer support can increase rates of breastfeeding (McFadden et al., 2017). Meanwhile, access to safe places to play and natural play spaces can enable fulfilment of children's physical activity needs and support their physical development and psychological wellbeing (Ferguson et al., 2013). Without fair employment and related conditions, pay parity by gender, safe and affordable housing, and social protection to ensure decent standards of living for all, many families may struggle to meet the health and development needs of their children. Social safety nets improve participation in prenatal care, enhance maternal diet during pregnancy, and result in healthier infant birthweight (Britto et al., 2017). Universal provision of early childhood education ensures that *all* children have access to quality education experiences. Such policies shape the conditions in which children grow and live (Commission on Social Determinants of Health, 2008), and are necessary to address the underlying drivers of structural inequality that create unequal health and development outcomes for children. Yet they are currently delivered in mostly siloed ways. To date, a holistic nurturing care approach to children's health and development has not been embedded, globally, with rigour into policies and practices. Reviews of governmental services can highlight gaps and recommended actions, as has been demonstrated recently in Kenya (Abboah-Offei et al., 2022). This type of proactive action sets the stage for systems changes to ensure that children and families receive the support that enable them to reach their potentials moving forward.

Children are families' greatest dreams; they carry forth both the genetic and cultural endowment of families, often emulating family practices and values. Children also extend the practices and values of their communities. Engaging communities in children's welfare can strengthen not only children and families, but also communities. In addition to governmental support through ensuring that policies and programs support children and families, communities can be engaged through informal actions that celebrate the strengths of families and children (Boothroyd et al., 2017). Further recommendations for how we can address barriers to child growth and development across systems, governments and communities are provided in Table 1. We argue the "how" to address barriers to child growth and development is by dismantling racism, adopting a coordinated life course and multisectoral approach, responding to families whose children are at risk of not thriving, co-designing solutions, investing in sustainability through governance and systems change through implementation science, having clear policies that support nurturing care, and strengthening public awareness.

7 | CONCLUSION

Worldwide, there is much scope for improvement in nurturing children's growth and development to ensure all children have the chance to achieve their developmental potential. Healthy eating and adequate physical activity in the context of safety, responsive

TABLE 1 Summary of the Alliance's recommendations for action

Priority area	Key actions and recommendations
Dismantling structural racism	In dismantling structural racism key action priorities must involve tackling issues of equity and justice worldwide. Adverse health outcomes disproportionately affect people from racial and ethnic minority groups. All projects involving children and families must include an equity focus and explicit consideration of social determinants of health. Health equity needs to be included in implementation science models. We need policies to ensure equitable access, availability, and affordability of healthy food and opportunities for safe places for children to play. To advance equity, we need social and economic programs and policies related to poverty reduction—such as financial payments to families, income assistance programs, housing assistance or housing security programs, and increased access to social services for children and families. For First Nations people and communities specifically, Indigenous self-determination and Indigenous ways of knowing, being and doing must be always at the forefront to address inequities. The impact and trauma of colonisation on First Nations peoples must be addressed, where significant financial investment is made by all governments to ameliorate poverty, income inequality, and food insecurity associated with racial inequality
Adopting a coordinated life course approach	A life-course approach to intervention delivery needs to be adopted with multiple interventions deployed and coordinated, as no single intervention can eliminate inequalities. Achieving equity requires long-term investment across the lifespan. Supporting the long-term benefits of nurturing care early in life must be considered. Initiatives to support nutrition in children requires the adoption of a proactive family-centred approach beginning with infant feeding
A multi-sectoral approach	Solutions to advance child development must aim to breakdown siloes through coordination and collaboration across multiple sectors (e.g., health, nutrition, income support, social protection, education, childcare, housing). Policies and programs informed by Nurturing Care are needed
Responding to families that are at-risk	Universal healthy lifestyle programs are needed across the continuum of pre-conception, throughout pregnancy, and into early childhood, as are tailored prevention programs that, by their definition, target families at risk of chronic health issues
Importance of co-design	Collective action is needed to co-design and deliver child, family and professional programs/interventions that are integrated, concurrent and consecutive. The development of initiatives in active consultation and engagement with the community will ensure that they are relevant to the needs of the target population. This includes involving families and other key stakeholders in the implementation and evaluation interventions, strategies, and policies to ensure that all processes are relevant to the needs and priorities of the community
Investing in sustainability through governance	Effective governance structures need to be developed, and resources mobilised to ensure that interventions are sustained in communities
Systems change informed by implementation science	Create an overarching structure to promote the growth, development, health, and wellbeing of children that utilizes implementation science principles to develop a communication system that involves existing systems of health, social welfare, education, governmental representatives, along with communities and families. Using a communication system, monitor progress and build metrics of accountability. Through transparent processes, feedback findings and establish mechanisms for change, that includes mechanisms to monitor program/intervention reach, effectiveness, satisfaction, and the ability to respond and adapt to changing environmental conditions and family needs
Policies to support nurturing care	Work with government agencies to promote policies that support children and families using principles of nurturing care. Policies provide the support and legal mandate for systems to respond
Creating public awareness	Develop public communication mechanisms that focus on the strengths of communities, families, and children. Report on and publish, for wide dissemination, the implementation strategies and commitments by public and private agencies

emotional support and early learning can provide a springboard for nurturing care in the first 2000 days. Firstly, families need to be supported to provide nurturing care through access to a platform of programs and services that are designed to be proportionate to the needs of their children. Secondly, children and families need access to evidence-based nurturing care interventions and policies that reach communities who are experiencing disadvantage (Black et al., 2017). This is particularly important to address the inequalities in children's development. Thirdly, sectors interacting with families across the early childhood period must embed, role model and actively share health promoting and nurturing care principles and consider multi-sectoral intervention packages that engage stakeholders (Britto et al., 2017). This includes creating a better understanding of the interconnected nature of factors that influence children's health and development. Sectors such as health, social care, education, urban planning, and agriculture can all impact families' and communities' capacity to provide nurturing care through food and physical activity in the context of safety, responsive emotional support, and early learning. Fourth, there is a need to involve parents/caregivers, families, and communities in all stages of intervention design and to embed nurturing care within existing systems to ensure the basic needs of families and communities are met. This includes addressing social determinants of health such as discrimination, housing, employment, social protection, and food security. The "how" to push our evidence into practice is now needed because we know the "what" in terms of nurturing children's development. Finally, by utilizing the principles of implementation science, including the processes of continuous quality improvement through ongoing measurement, accountability, and feedback across existing systems, we can involve and better serve families and communities.

To conclude, nurturing care is critical for children's optimal health and development. Responsive caring relationships reinforce healthy eating and active living by providing opportunities for children to learn, while activating and maintaining a sense of trust and security for children. Nurturing children's development through healthy eating and active living in the context of responsive emotional support and early learning, must occur through multisectoral collaborations that foster positive developmental trajectories by mitigating adversities when necessary. Such collective impact will facilitate an intergenerational progression that builds human capital in future generations (Black et al., 2021) where for the first time, many children will not outlive their parents. Indeed, we can no longer ignore the importance of nurturing children's growth and development through healthy eating and active living in the context of responsive emotional support and early learning. The time for policies and practices to earnestly support effective interventions in this area across the formative preschool years is now.

AUTHOR CONTRIBUTIONS

HS, RG, AC, HB all conceived of the idea to write this paper and to form the International HEALing Matters Alliance. HS led the writing of this paper with mentorship and guidance by senior authors MS and MB. RG, AC, HB also worked on the original draft and assisted with paper administration and editing. HS and RG are joint first authors. All authors were involved in reviewing and editing drafts of the paper and are members of the International HEALing Matters Alliance. MS and MB are joint senior authors.

ACKNOWLEDGEMENTS

The contributions of all members of the International HEALing Matters Alliance in producing this manuscript have been recognised. Open access publishing facilitated by Monash University, as part of the Wiley - Monash University agreement via the Council of Australian University Librarians.

FUNDING INFORMATION

No specific funding was sought for the development of this paper. Adrienne O'Neil is supported by an NHMRC Investigator Grant. Alexandra Chung is supported by a Medical Research Future Fund Preventive Health Research Initiative. Elizabeth Sturgiss is supported by an NHMRC Investigator Grant. Luke Wolfenden is supported by a NHMRC Fellowship. Michelle Gooey is supported by a NHMRC Postgraduate Scholarship.

CONFLICT OF INTEREST

The lead author, Professor Helen Skouteris, is Editor-in-Chief of Health and Social Care in the Community. The authors declare no other competing interests directly related to this manuscript.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no datasets were generated or analysed.

REFERENCES

Abboah-Offei, M., Amboka, P., Nampijja, M., Owino, G. E., Okelo, K., Kitsao-Wekulo, P., Chumo, I., Muendo, R., Oloo, L., Wanjau, M., Mwaniki, E., Mutisya, M., Haycraft, E., Hughes, R., Griffiths, P., & Elsey, H. (2022). Improving early childhood development in the context of the nurturing care framework in Kenya: A policy review and qualitative exploration of emerging issues with policy makers. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.1016156

Anderson, I., Robson, B., Connolly, M., Al-Yaman, F., Bjertness, E., King, A., Tynan, M., Madden, R., Bang, A., Coimbra, C. E. A., Pesantes, M. A., Amigo, H., Andronov, S., Armien, B., Obando, D. A., Axelsson, P., Bhatti, Z. S., Bhutta, Z. A., Bjerregaard, P., … Yap, L. (2016). Indigenous and tribal peoples' health (The Lancet/Lowitja Institute Global Collaboration): A population study. *Lancet*, *388*(10040), 131–157. https://doi.org/10.1016/S0140-6736(16)00345-7

Arabena, K. (2014). The First 1000 Days: Catalysing equity outcomes for Aboriginal and Torres Strait Islander children. *The Medical Journal of Australia*, *200*(8), 442. https://doi.org/10.5694/mja14.00343

Bergmeier, H., Paxton, S. J., Milgrom, J., Anderson, S. E., Baur, L., Hill, B., Lim, S., Green, R., & Skouteris, H. (2020). Early mother-child dyadic pathways to childhood obesity risk: A conceptual model. *Appetite*, *144*, 104459. https://doi.org/10.1016/j.appet.2019.104459

Bethell, C. D., Solloway, M. R., Guinosso, S., Hassink, S., Srivastav, A., Ford, D., & Simpson, L. A. (2017). Prioritizing possibilities for child and family health: An agenda to address adverse childhood

experiences and foster the social and emotional roots of well-being in pediatrics. *Academic Pediatrics*, *17*(7 Suppl), S36–S50. https://doi.org/10.1016/j.acap.2017.06.002

Black, M., Behrman, J. R., Daelmans, B., Prado, E. L., Richter, L., Tomlinson, M., Trude, A. C. B., Wertlieb, D., Wuermli, A. J., & Yoshikawa, H. (2021). The principles of Nurturing Care promote human capital and mitigate adversities from preconception through adolescence. *BMJ Global Health*, *6*(4), e004436. https://doi.org/10.1136/bmjgh-2020-004436

Black, M. M., Lutter, C. K., & Trude, A. C. B. (2020). All children surviving and thriving: Re-envisioning UNICEF's conceptual framework of malnutrition. *The Lancet Global Health*, *8*(6), e766–e767. https://doi.org/10.1016/s2214-109x(20)30122-4

Black, M. M., Walker, S. P., Fernald, L. C. H., Andersen, C. T., DiGirolamo, A. M., Lu, C., McCoy, D. C., Fink, G., Shawar, Y. R., Shiffman, J., Devercelli, A., Wodon, Q. T., Vargas-Baron, E., & Grantham-McGregor, S. (2017). Early childhood development coming of age: Science through the life course. *The Lancet*, *389*(10064), 77–90. https://doi.org/10.1016/s0140-6736(16)31389-7

Boaden, R. (2020). Push, pull or co-produce? *Journal of Health Services Research & Policy*, *25*(2), 67–69. https://doi.org/10.1177/1355819620907352

Boothroyd, R. I., Flint, A. Y., Lapiz, A. M., Lyons, S., Jarboe, K. L., & Aldridge, W. A. (2017). Active involved community partnerships: Co-creating implementation infrastructure for getting to and sustaining social impact. *Translational Behavioral Medicine*, *7*(3), 467–477. https://doi.org/10.1007/s13142-017-0503-3

Britto, P. R., Lye, S. J., Proulx, K., Yousafzai, A. K., Matthews, S. G., Vaivada, T., Perez-Escamilla, R., Rao, N., Ip, P., Fernald, L. C. H., MacMillan, H., Hanson, M., Wachs, T. D., Yao, H., Yoshikawa, H., Cerezo, A., Leckman, J. F., & Bhutta, Z. A. (2017). Nurturing care: Promoting early childhood development. *The Lancet*, *389*(10064), 91–102. https://doi.org/10.1016/s0140-6736(16)31390-3

Bullock, A., Sheff, K., Moore, K., & Manson, S. (2017). Obesity and Overweight in American Indian and Alaska Native Children, 2006-2015. *American Journal of Public Health*, *107*(9), 1502–1507. https://doi.org/10.2105/ajph.2017.303904

Cameron, A. J., Spence, A. C., Laws, R., Hesketh, K. D., Lioret, S., & Campbell, K. J. (2015). A review of the relationship between socioeconomic position and the early-life predictors of obesity. *Current Obesity Reports*, *4*(3), 350–362. https://doi.org/10.1007/s13679-015-0168-5

Chung, A., Peeters, A., Gearon, E., & Backholer, K. (2018). Contribution of discretionary food and drink consumption to socio-economic inequalities in children's weight: Prospective study of Australian children. *International Journal of Epidemiology*, *47*(3), 820–828. https://doi.org/10.1093/ije/dyy020

Commission on Social Determinants of Health. (2008). Closing the gap in a generation: Health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1

Cox, R., Skouteris, H., McCabe, M., Fuller-Tyszkiewicz, M., Jones, A. D., & Hardy, L. L. (2014). Rates of overweight and obesity in a sample of Australian young people and their carers in out-of-home residential care. *Australian and New Zealand Journal of Public Health*, *38*(6), 591–592. https://doi.org/10.1111/1753-6405.12288

Dyer, S. M., Gomersall, J. S., Smithers, L. G., Davy, C., Coleman, D. T., & Street, J. M. (2017). Prevalence and characteristics of overweight and obesity in indigenous Australian children: A systematic review. *Critical Reviews in Food Science and Nutrition*, *57*(7), 1365–1376. https://doi.org/10.1080/10408398.2014.991816

Featherstone, B., Morris, K., Daniel, B., Bywaters, P., Brady, G., Bunting, L., Mason, W., & Mirza, N. (2019). Poverty, inequality, child abuse and neglect: Changing the conversation across the UK in child protection? *Children and Youth Services Review*, *97*, 127–133. https://doi.org/10.1016/j.childyouth.2017.06.009

Ferguson, K. T., Cassells, R. C., MacAllister, J. W., & Evans, G. W. (2013). The physical environment and child development: An international review. *International Journal of Psychology*, *48*(4), 437–468. https://doi.org/10.1080/00207594.2013.804190

Green, R., Hatzikiriakidis, K., Tate, R., Bruce, L., Smales, M., Crawford-Parker, A., Carmody, S., & Skouteris, H. (2022). Implementing a healthy lifestyle program in residential out-of-home care: What matters, what works and what translates? *Health & Social Care in the Community*. https://doi.org/10.1111/hsc.13773

Hawkes, C., Ruel, M. T., Salm, L., Sinclair, B., & Branca, F. (2020). Double-duty actions: Seizing programme and policy opportunities to address malnutrition in all its forms. *The Lancet*, *395*(10218), 142–155. https://doi.org/10.1016/S0140-6736(19)32506-1

Hesketh, K. D., Salmon, J., McNaughton, S. A., Crawford, D., Abbott, G., Cameron, A. J., Lioret, S., Gold, L., Downing, K. L., & Campbell, K. J. (2020). Long-term outcomes (2 and 3.5 years post-intervention) of the INFANT early childhood intervention to improve health behaviors and reduce obesity: Cluster randomised controlled trial follow-up. *International Journal of Behavioral Nutrition and Physical Activity*, *17*(1), 95. https://doi.org/10.1186/s12966-020-00994-9

Jensen, N., Kelly, A. H., & Avendano, M. (2021). The COVID-19 pandemic underscores the need for an equity-focused global health agenda. *Humanities and Social Sciences Communications*, *8*(1), 15. https://doi.org/10.1057/s41599-020-00700-x

Katzmarzyk, P. T. (2008). Obesity and physical activity among Aboriginal Canadians. *Obesity (Silver Spring)*, *16*(1), 184–190.

Kislov, R., Pope, C., Martin, G. P., & Wilson, P. M. (2019). Harnessing the power of theorising in implementation science. *Implementation Science*, *14*(1), 103. https://doi.org/10.1186/s13012-019-0957-4

Kotlar, B., Gerson, E., Petrillo, S., Langer, A., & Tiemeier, H. (2021). The impact of the COVID-19 pandemic on maternal and perinatal health: A scoping review. *Reproductive Health*, *18*(1), 10. https://doi.org/10.1186/s12978-021-01070-6

Lioret, S., Campbell, K. J., McNaughton, S. A., Cameron, A. J., Salmon, J., Abbott, G., & Hesketh, K. D. (2020). Lifestyle patterns begin in early childhood, persist and are socioeconomically patterned, confirming the importance of early life interventions. *Nutrition*, *12*(3). https://doi.org/10.3390/nu12030724

Marmot, M., Allen, J., Goldblatt, P., Herd, E., & Morrison, J. (2020). *Build Back Fairer: The COVID-19 Marmot Review. The Pandemic, Socioeconomic and Health Inequalities in England*. https://www.health.org.uk/publications/build-back-fairer-the-covid-19-marmot-review

Marmot, M., Marmot, M., Allen, J., Goldblatt, P., Boyce, T., McNeish, D., et al. (2010). *Fair Society, Healthy Lives – The Marmot Review: Strategic review of health inequalities in England post-2010*.

McFadden, A., Gavine, A., Renfrew, M. J., Wade, A., Buchanan, P., Taylor, J. L., Veitch, E., Rennie, A. M., Crowther, S. A., Neiman, S., & MacGillivray, S. (2017). Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database of Systematic Reviews*, *2*(2), Cd001141. https://doi.org/10.1002/14651858.CD001141.pub5

Mikkilä, V., Räsänen, L., Raitakari, O. T., Pietinen, P., & Viikari, J. (2005). Consistent dietary patterns identified from childhood to adulthood: The cardiovascular risk in Young Finns Study. *The British Journal of Nutrition*, *93*(6), 923–931. https://doi.org/10.1079/bjn20051418

Mishra, V., Seyedzenouzi, G., Almohtadi, A., Chowdhury, T., Khashkhusha, A., Axiaq, A., Wong, W. Y. E., & Harky, A. (2021). Health inequalities during COVID-19 and their effects on morbidity and mortality. *Journal of Healthcare Leadership*, *13*, 19–26. https://doi.org/10.2147/JHL.S270175

Mithra, P., Unnikrishnan, B. T. R., Kumar, N., Holla, R., & Rathi, P. (2021). Paternal involvement in and sociodemographic correlates of infant and young child feeding in a district in Coastal South India: A cross-sectional study. *Frontiers in Public Health*, *9*, 661058. https://doi.org/10.3389/fpubh.2021.661058

Ogada, I., Ochola, S., Mchiza, Z., Onyango, R., & Okeyo, F. (2014). The influence of couple-counselling and maternal-counselling on early breastfeeding practices in Nyando District, Kenya. *South African Journal of Clinical Nutrition*, *27*(3), 87–182.

O'Neil, A., Quirk, S. E., Housden, S., Brennan, S. L., Williams, L. J., Pasco, J. A., Berk, M., & Jacka, F. N. (2014). Relationship between diet and mental health in children and adolescents: A systematic review. *American Journal of Public Health*, *104*(10), e31–e42. https://doi.org/10.2105/AJPH.2014.302110

Pizzirani, B., Green, R., O'Donnell, R., & Skouteris, H. (2022). Healthy lifestyle programs in out-of-home care: Implementing preventative trauma-informed approaches at scale. *Australian Social Work*, *75*(1), 5–18. https://doi.org/10.1080/0312407X.2020.1716260

Popkin, B. M., Corvalan, C., & Grummer-Strawn, L. M. (2020). Dynamics of the double burden of malnutrition and the changing nutrition reality. *The Lancet*, *395*(10217), 65–74. https://doi.org/10.1016/s0140-6736(19)32497-3

Prado, E. L., Larson, L. M., Cox, K., Bettencourt, K., Kubes, J. N., & Shankar, A. H. (2019). Do effects of early life interventions on linear growth correspond to effects on neurobehavioural development? A systematic review and meta-analysis. *The Lancet Global Health*, *7*(10), e1398–e1413. https://doi.org/10.1016/s2214-109x(19)30361-4

Rollins, N. C., Bhandari, N., Hajeebhoy, N., Horton, S., Lutter, C. K., Martines, J. C., Piwoz, E. G., Richter, L. M., & Victora, C. G. (2016). Why invest, and what it will take to improve breastfeeding practices? *The Lancet*, *387*(10017), 491–504. https://doi.org/10.1016/s0140-6736(15)01044-2

Sahoo, K., Sahoo, B., Choudhury, A. K., Sofi, N. Y., Kumar, R., & Bhadoria, A. S. (2015). Childhood obesity: Causes and consequences. *Journal of Family Medicine and Primary Care*, *4*(2), 187–192. https://doi.org/10.4103/2249-4863.154628

Salmon, L. (2015). Food security for infants and young children: An opportunity for breastfeeding policy? *International Breastfeeding Journal*, *10*, 7. https://doi.org/10.1186/s13006-015-0029-6

Savage, J. S., Kling, S. M. R., Cook, A., Hess, L., Lutcher, S., Marini, M., Mowery, J., Hayward, S., Hassink, S., Hosterman, J. F., Paul, I. M., Seiler, C., & Bailey-Davis, L. (2018). A patient-centered, coordinated care approach delivered by community and pediatric primary care providers to promote responsive parenting: Pragmatic randomized clinical trial rationale and protocol. *BMC Pediatrics*, *18*(1), 293. https://doi.org/10.1186/s12887-018-1263-z

Schneiderman, J. U., Leslie, L. K., Arnold-Clark, J. S., McDaniel, D., & Xie, B. (2011). Pediatric health assessments of young children in child welfare by placement type. *Child Abuse & Neglect*, *35*(1), 29–39. https://doi.org/10.1016/j.chiabu.2010.06.007

Shonkoff, J. P., Radner, J. M., & Foote, N. (2017). Expanding the evidence base to drive more productive early childhood investment. *The Lancet*, *389*(10064), 14–16. https://doi.org/10.1016/s0140-6736(16)31702-0

Shung-King, M., Lake, L., Sanders, D., & Hendricks, M. (2019). *South African Child Gauge*. Children's Institute, University of Cape Town.

Skouteris, H. (2021). Addressing health and social care during and beyond COVID-19: The importance of implementation science. *Public Health Research and Practice*, *31*(1), e3112103. https://doi.org/10.17061/phrp3112103

Skouteris, H., Bergmeier, H. J., Berns, S. D., Betancourt, J., Boynton-Jarrett, R., Davis, M. B., Gibbons, K., Perez-Escamilla, R., & Story, M. (2021). Reframing the early childhood obesity prevention narrative through an equitable nurturing approach. *Maternal & Child Nutrition*, *17*(1), e13094. https://doi.org/10.1111/mcn.13094

Smales, M., Morris, H., Savaglio, M., Skouteris, H., & Green, R. (2021). 'I'm dealing with all these health issues that could have been addressed when I was younger'. Delivery of health services to Australian young people in out-of-home care: Lived experiences. *Health & Social Care in the Community*, *30*, e1406–e1414. https://doi.org/10.1111/hsc.13548

SNAICC. (2011). *Growing up our way: Aboriginal and Torres Strait Islander child rearing practices matrix*. https://www.snaicc.org.au/growing-up-our-way-aboriginal-and-torres-strait-islander-child-rearing-practices-matrix-2011-snaicc/

Spence, A. C., Campbell, K. J., Lioret, S., & McNaughton, S. A. (2018). Early childhood vegetable, fruit, and discretionary food intakes do not meet dietary guidelines, but do show socioeconomic differences and tracking over time. *Journal of the Academy of Nutrition and Dietetics*, *118*(9), 1634–1643 e1631. https://doi.org/10.1016/j.jand.2017.12.009

Telama, R., Yang, X., Leskinen, E., Kankaanpää, A., Hirvensalo, M., Tammelin, T., Viikari, J. S. A., & Raitakari, O. T. (2014). Tracking of physical activity from early childhood through youth into adulthood. *Medicine and Science in Sports and Exercise*, *46*(5), 955–962. https://doi.org/10.1249/mss.0000000000000181

Trude, A. C. B., Richter, L. M., Behrman, J. R., Stein, A. D., Menezes, A. M. B., & Black, M. M. (2021). Effects of responsive caregiving and learning opportunities during pre-school ages on the association of early adversities and adolescent human capital: An analysis of birth cohorts in two middle-income countries. *The Lancet Child & Adolescent Health*, *5*(1), 37–46. https://doi.org/10.1016/S2352-4642(20)30309-6

Underwood, K., Ineese-Nash, N., & Haché, A. (2019). Colonialism in early education, care, and intervention: A knowledge synthesis. *Journal of Childhood Studies*, *44*(4), 21–35. https://doi.org/10.18357/jcs444201919209

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. https://sdgs.un.org/2030agenda

Victora, C. G., Bahl, R., Barros, A. J. D., França, G. V. A., Horton, S., Krasevec, J., Murch, S., Sankar, J., Walker, N., & Rollins, N. C. (2016). Breastfeeding in the 21st century: Epidemiology, mechanisms, and lifelong effect. *The Lancet*, *387*(10017), 475–490. https://doi.org/10.1016/S0140-6736(15)01024-7

Walsh, D., McCartney, G., Smith, M., & Armour, G. (2019). Relationship between childhood socioeconomic position and adverse childhood experiences (ACEs): A systematic review. *Journal of Epidemiology and Community Health*, *73*(12), 1087. https://doi.org/10.1136/jech-2019-212738

World Health Organization, United Nations Children's Fund, & World Bank Group. (2018). *Nurturing care for early childhood development: A framework for helping children survive and thrive to transform health and human potential*. https://apps.who.int/iris/handle/10665/272603

Yoshikawa, H., Wuermli, A. J., Britto, P. R., Dreyer, B., Leckman, J. F., Lye, S. J., Ponguta, L. A., Richter, L. M., & Stein, A. (2020). Effects of the global coronavirus disease-2019 pandemic on early childhood development: Short- and long-term risks and mitigating program and policy actions. *The Journal of Pediatrics*, *223*, 188–193. https://doi.org/10.1016/j.jpeds.2020.05.020

How to cite this article: Skouteris, H., Green, R., Chung, A., Bergmeier, H., Amir, L. H., Baidwan, S. K., Chater, A. M., Chamberlain, C., Emond, R., Gibbons, K., Gooey, M., Hatzikiriakidis, K., Haycraft, E., Hills, A. P., Higgins, D. J., Hooper, O., Hunter, S.-A., Kappelides, P., Kleve, S. … Black, M. M. (2022). Nurturing children's development through healthy eating and active living: Time for policies to support effective interventions in the context of responsive emotional support and early learning. *Health & Social Care in the Community*, *30*, e6719–e6729. https://doi.org/10.1111/hsc.14106