To the Honourable Julia Gillard,

I would like to make a submission to the Royal Commission into Early Childhood Education and Care (ECEC). As a researcher in children's health, wellbeing and development, I note the growing body of evidence that demonstrates the importance of intersectoral and interprofessional collaboration in the early years (first 1000 days). For children to learn and thrive, they need to be supported with comprehensive holistic supports that consider all aspects of their lives. Although this Royal Commission primarily relates to early childhood education and care, I would like to highlight that addressing the early childhood education/care workforce as a silo separate from other early years professions could perpetuate the growing problem of siloed services that allow children to 'fall through the gaps', with lifelong consequences. Furthermore, the many professionals who contribute to children's health, wellbeing and development are often missing from ECEC policies, which presents unnecessary barriers to effective collaboration that holistically meets children and families' needs. For example, health and allied health professionals provide support to children with additional needs, but their roles are absent, or mentioned in scant detail within Australian policy.

As such, I would like to highlight the following research publications that propose solutions to this growing issue of inadequate collaboration. Firstly, I attach a paper published by colleagues that demonstrates how early years professionals agree upon core principles for working with children, yet the absence of a shared language and framework across disciplines limits opportunities for interprofessional working (Grant et al). Next, I attach a paper that I authored (Lines et al) reviewing Australian policies for child safety, development, health and welfare. This paper highlights the absence of two key professionals who work with children in the early years (nurses and midwives); although other early years professions were beyond the scope of this manuscript. As demonstrated by these publications, the absence of shared ways for interprofessional working and early childhood professionals' invisibility in current policy are causes for concern when delivering effective, comprehensive and collaborative ECEC services.

I trust this submission will increase awareness of the need for holistic ECEC policy that explicitly includes and defines the roles and responsibilities of all professionals who will work with children in the early years. This will be the first step towards ensuring children are collaboratively supported to learn by a seamless network of services that promote their health, education, wellbeing and development.

Yours sincerely,

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Review

Invisibility of nurses and midwives in the public health response to child abuse and neglect: A policy review

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ABSTRACT

Background: Child abuse and neglect need to be addressed through a public health approach that prioritises prevention and early intervention. Nurses and midwives are core to this public health response, yet little is known about how their roles are described in Australian policy.
Aim: To explore how nurses' and midwives' roles in a public health response to child abuse and neglect are described in Australian policies about child protection, health, welfare, or development.
Methods: This policy review used Internet searching to identify Australian policy documents relating to child protection, health, welfare, or development published from 2009 to 2021. Data were analysed using deductive coding and content analysis.
Findings: Nurses' and midwives' contributions to a public health response to child abuse and neglect were either absent or described in scant detail within Australian policy. The information that was available represented only a portion of nursing and midwifery practices from a limited range of practice contexts.
Discussion: A lack of visibility and clarity of nurses' and midwives' roles in policy raises many challenges. This includes a lack of guidance for interdisciplinary collaboration, educational preparation of nurses and midwives, and appropriate resourcing for their interventions. Further research is urgently needed to guide future best-practice policy and practices for nurses' and midwives' contributions to a public health response to child abuse and neglect.
Conclusion: An enhanced representation of nurses' and midwives' roles in Australian policy is required to guide a public health approach that promotes better outcomes for all children.

1. Summary of relevance

1.1 Problem

Child abuse must be addressed through a preventative public health approach. Little is known about how nurses' and midwives' contributions to a public health approach are represented in Australian policy.

1.2 What is already known

Nurses and midwives are core to health care and have immense potential to improve outcomes by advancing the public health response to child abuse and neglect.

1.3 What this paper adds

Nurses and midwives are invisible or mentioned in scant detail within Australian policy. Further research is needed to comprehensively map nursing and midwifery contributions to a public health response to guide future policy and practice.

2. Introduction

Child abuse and neglect is recognised as a growing public health concern in Australia and worldwide. Current approaches of identifying single cases of child abuse are insufficient to address the core factors contributing to abuse and neglect such as racism, discrimination, marginalisation, and social/economic inequities (Featherstone et al., 2017; Higgins, Lonne, Herrenkohl, & Scott, 2019; Lonne, Higgins, Herrenkohl, & Scott, 2020). Addressing the broader factors that contribute to child abuse and neglect requires a public health approach that invests in prevention and

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early intervention services to support children develop optimally in their own families and communities (Moore, McDonald, Carlon, & O'Rourke, 2015). In Australia, a public health approach was first articulated by the *National Framework for Protecting Australia's Children* (hereon referred to as the 'National Framework') which cites child protection as 'everyone's business' (Council of Australian Governments, 2009). In doing so, the National Framework advocates for a public health approach which involves promoting the health and wellbeing of all children and families, with additional support and intervention for those with greater needs (Council of Australian Governments, 2009). A public health approach requires health, education, and social care professionals to work together in coordinated intersectoral and multidisciplinary responses that holistically meet children and families' needs (Higgins et al., 2019). In doing so, all sectors of society collectively address the broader social determinants of health (SDH) that impact upon children's health, development and safety (Council of Australian Governments, 2009). This is especially important for First Nations Australians who are disproportionately impacted by racism, marginalisation, and social inequities (Lonne et al., 2021). Although the National Framework highlights the need for coordinated society-wide responses to advance a public health response, the National Framework contains no specific guidance for how individual professions should work with children and families.

Two key professional groups that work with children and families in Australia are nurses and midwives. The nursing and midwifery professions are collectively the largest group of health professionals working with children and families, and have many opportunities to advance a public health approach to child abuse and neglect. In Australia, nurses and midwives are accountable to the Nursing and Midwifery Board of Australia (NMBA). Registered nurses are guided by the *Registered nurses standards for practice* (Nursing and Midwifery Board of Australia, 2016) and midwives by the *Midwife standards for practice* (Nursing and Midwifery Board of Australia, 2018b); both sets of standards provide shared expectations for nursing/midwifery practice in any context (Nursing and Midwifery Board of Australia, 2016, 2018b). Nursing practice is defined as 'person-centred and evidence-based with preventative, curative, formative, supportive restorative and palliative elements' for individuals, families, and communities (Nursing and Midwifery Board of Australia, 2016). Similarly, midwifery is described as 'woman-centred and evidence-based health care'… which is 'provided through professional relationships and respectful partnerships' (Nursing and Midwifery Board of Australia, 2018b). In both sets of standards, care extends to addressing broader influences on health and wellbeing, such as social inequities (Nursing and Midwifery Board of Australia, 2016, 2018b). Nurses and midwives are further guided by other regulatory documents such as codes of conduct and codes of ethics which emphasise their roles in social justice (International Confederation of Midwives, 2014; International Council of Nurses, 2012), which is highly relevant to the prevention of child abuse and neglect. As such, regulatory expectations for nurses and midwives are aligned with the National Framework's public health response to child abuse and locate these public health interventions within nurses' and midwives' professional obligations.

In addition to these policy and regulatory frameworks, existing evidence shows that nurses and midwives provide care across the public health spectrum of prevention, early intervention, targeted support, and response to abuse and neglect (Lines, Grant, & Hutton, 2018; Wightman, Hutton, & Grant, 2021). For example, nurses and midwives contribute prevention of child abuse through delivery of accessible universal health services that are free from stigma, racism, and bias (Flemington et al., 2021). Furthermore, nurses and midwives use relational practices to work in partnership with families who are experiencing adversity to provide support and facilitate access to services (Einboden, Rudge, & Varcoe, 2019; Lines, Grant, & Hutton, 2020). In situations where potential harm to children reaches the threshold dictated by local legislation, nurses and midwives must report child abuse and neglect to child protection services (Australian Institute of Family Studies, 2020). Despite nurses' and midwives' essential roles in a public health response, there is no single policy or set of standards to inform and evaluate their practice. In contrast, nurses' and midwives' roles in other specialised or priority areas are often further guided by specialist standards, such as specialist neonatal units or child and family health services (Australian College of Neonatal Nurses, 2019; Grant et al., 2017). A lack of clarity around nurses' and midwives' roles in a public health response to child abuse and neglect presents several barriers. Firstly, there is an inability to evaluate outcomes and develop best practices in nursing and midwifery care in a public health response to child abuse and neglect. Secondly, a lack of clarity on nurses' and midwives' roles presents barriers to multidisciplinary collaborations that are core to an effective public health response to child abuse and neglect (Grant, Gregoric, Jovanovic, Parry, & Walsh, 2018).

As such, this review aims to explore how nurses' and midwives' roles in a public health response to child abuse and neglect are described in Australian policies relating to child protection, health, welfare, or development. In doing so, the review specifically investigates (i) Which nursing and midwifery contexts and specialities are represented in policy? and (ii) How are nursing and midwifery roles defined and described in a public health response to child abuse and neglect? The findings will enhance our understanding of nurses' and midwives' roles in a public health response to child abuse and neglect to more effectively mobilise the professions to enact change for Australian children.

3. Methods

3.1. Search and screening

A policy review was undertaken on Australian policies relating to child protection, health, welfare, or development. The policies were identified through Google searching and the search functions of government websites. Search terms were various combinations of the following: child, children, youth, policy, action plan, framework, strategy, strategic, health, wellbeing, protection, development. The search was first conducted in March 2020 and updated in March 2021. Documents were screened in accordance with the inclusion and exclusion criteria summarised in Table 1 by the first author and discussed with the research team. The time frame of 2009 onwards was chosen to coincide with the publication of Australia's landmark *National Framework for Protecting Australia's Children 2009-2020* which marked the shift towards a public health response to child abuse and neglect.

In accordance with the aims of this review, the policies were further screened using the 'find' tool in Adobe Acrobat Pro with 'nurs' and 'midwi' to include all forms of these words. A further search term of 'CFH' was added during preliminary searching in recognition that some documents used acronyms of 'MCFH' or 'CFH' when specifically discussing maternal child and family health (MCFH) or child and family health (CFH) nurses, respectively. In Australia, specialist nurses who work in child and family health settings are referred to as either MCFH or CFH nurses, depending on the state or territory. No other acronyms for nurses and midwives were identified.

3.2. Analysis

Data were analysed using a content analysis approach which is commonly used for policy analyses (Gagliardi et al., 2020;

Table 1
Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
National or state/territory policy, framework, or strategic priority	Reports and operational/implementational documents
Dated from 2009 onwards	Dated prior to 2009
Policy for exclusively young children (birth to primary school), or both children and young people (birth to 18 years)	Policy exclusively for adults or young people (high school and above)
Policy related to child protection, health, welfare and/or development	Policy about single issue (e.g., migrant health, mental health, oral health)

Thow et al., 2017). A content analysis approach is adaptable for analysing text from a broad range of contexts and can integrate both quantitative and qualitative methods to report frequency and interpret content (Elo & Kyngas, 2008; Graneheim, Lindgren, & Lundman, 2017).

The first author (LL) copied and pasted content relating to nurses and midwives as identified by the 'find' function into a purpose made data extraction table (see supplementary online). This data extraction table displayed the data alongside contextual information including the name and jurisdiction of the policy, and the textual content surrounding the mention of 'nurse' or 'midwife'. This process was independently repeated by the second author (TK) and discrepancies in the level of detail were resolved by discussion.

Next, deductive coding was used to identify each mention of 'nurse' or midwife' with the highlighting tool in Microsoft Word to make this stand out from surrounding contextual details. The deductive coding was conducted by the first author (LL) and independently confirmed by the second author (TK). Although content analysis typically involves detailed coding, the limited information about nursing and midwifery roles meant coding beyond first-level descriptive coding was not required. The data was read and re-read several times by two authors (LL and TK) and then discussed with the authorship team who unanimously agreed that higher level coding was not possible or necessary. Finally, data was extracted into a summary table which was developed in accordance with the research aims (Table 2) and directly informed the findings.

4. Results

Thirty-nine government policies were identified, but only 44% (n=17) explicitly mentioned nurses and/or midwives (refer to Table 2). While all seventeen policies identified nurses, only 18% (n=6) mentioned midwives. From the policies that mentioned nurses or midwives, 59% were national (n=10), while the remainder (41%, n=7) were specific an Australian state or territory. Of the eight states/territories, three (Northern Territory, New South Wales, Victoria) had two policies mentioning nurses or midwives; another three (Tasmania, Australian Capital Territory, Queensland) had a single policy identifying nurses or midwives. The remaining states of South and Western Australia had no policies that mentioned nurses or midwives. The focus within the policies primarily related to child health, welfare, and development (71 %, n=12) while the remainder (29%, n=5) were for child protection. Notably, two national policies specifically addressed the needs of Aboriginal and Torres Strait Islander children and families. None were specifically about professionals' roles in a public health response to child abuse and neglect.

4.1. Finding 1: Nurses' and midwives' diverse contexts of practice are inadequately identified and described in policy

Although nurses and midwives were mentioned in seventeen policies, information around their specific contexts of practice was often unspecified (nurses n=6, midwives n=6). In instances where context of practice was indicated, the most common was child and family health (CFH) (n=15), which included universal service delivery (n=5) and sustained home visiting for disadvantaged families (n=9). Although CFH nurses in Australia may hold dual registration as a nurse and midwife, the qualifications of CFH nurses/midwives were not explained. Other practice contexts identified less frequently were schools (n=5), primary health (n=1), mental health (n=1), Aboriginal Controlled Community Health Organisations (ACCHOs) (n=1) and general practice (n=1). Similarly, the only two specified context for midwives was the 'Malabar Midwives' program (n=1), which is a model of care for at-risk Aboriginal and Torres Strait Islander families (Australian Government Department of Health, 2019) and ''midwifery led' models of care (Department of Health, 2016). Notably, despite the growing role of advanced practice nurses and midwives in Australia, advanced practice roles were largely unacknowledged by Australian policies, with just a single mention of nurse practitioners without accompanying details (Queensland Government, 2017).

All but one policy (94%, n=16) mentioned nurses' and midwives' roles in settings dedicated to the provision of specialist care to mothers, children and/or families. Midwifery practice generally involves specialist care for children and/or parents, inclusive of the preconception to postnatal period. In contrast, nurses provide care in various contexts including non-specialist settings where children may be direct recipients or dependents of adults who are seeking care. Despite nurses' ubiquitous roles in child-specific and nonspecialist health services, Australian policies did not acknowledge the broad range of contexts where nurses contribute to keeping children safe. For example, only two policies acknowledged nurses' roles in specific nonspecialist settings where they may encounter children, and these settings were primary care, Aboriginal Controlled Community Health Organisations (ACCHOs), general practice and mental health (Australian Health Ministers' Advisory Council, 2011; Department of Health, 2016). Furthermore, while nurses' roles in child-specific community settings like schools and CFH services were acknowledged, nurses' roles in specialist neonatal and paediatric units and hospitals were not identified. In summary, Australian policies relating to child protection, health, welfare or development do not comprehensively outline the range of contexts where nurses and midwives contribute to a public health response to child abuse and neglect.

4.2. Finding 2: Nurses' and midwives' roles are minimally described or absent from policy

The second key finding related to how nurses' and midwives' roles were defined and described by Australian policies about child protection, health, development, and welfare. It was intended that this information would demonstrate how or if nurses' and midwives' roles aligned with a public health response to child abuse and neglect. However, when nurses and midwives were mentioned in policy, it was very brief (a few words or short sentences) with scant detail about their roles and responsibilities. At times, nurses' and/or midwives' roles were not specified beyond mention of their profession (n=12 instances). Alternatively, policies highlighted nurses' and midwives' contributions to specific programs such as Right@Home (home visiting for dis-

Table 2
Summary of results.

Policy name, date and jurisdiction	What nursing & midwifery contexts and specialties are represented?	How are nursing & midwifery roles defined and described?
Protecting Children is Everyone's Business: National Framework for Protecting Australia's Children 2009-2020, National	Midwives (unspecified) Midwives (baby health clinic) Nurses (unspecified) CFHNs in home visiting.	Mandatory reporting of abuse. Role unspecified. Mandatory reporting of abuse. CFHNs work intensively in SHV programs with 'high needs families'
A Step-Up for Our Kids: One Step an make a Lifetime of Difference- Out of Home Care Strategy 2015-2020, Australian Capital Territory	CFHNs	Contribute to panels informing quality assurance, monitoring & coordination for placement prevention & reunification, & continuity of care in Out of Home Care.
Safe, thriving, and connected: generational change for children and families 2018-2023, Northern Territory	CFHNs in NHV Program	NHV Programs
Redesign of Child Protection Services Tasmania: Strong Families – Safe Kids 2016, Tasmania	Nurses (unspecified) CFHNs in NHV Services	Role unspecified. NHV Services.
Roadmap for reform: first steps 2016, Victoria	Nurses (unspecified) CFHNs	Right@home visiting program for vulnerable families to support parental care for children in supportive home environments. Identification and response to families at risk
Investing in the early years – a national early childhood development strategy 2009, National	CFHNs in NHV Services CFHNs (unspecified) Midwives (unspecified)	NHV for disadvantaged families for early assessment and extended support. CFHNs roles not further specified. Role unspecified.
National action plan for the health of children and young people 2020-2030, National	CFHNs in NHV Services and Universal Services Midwives (Malabar Midwives) Midwives (unspecified)	Antenatal SHV for marginalised women. In universal services, they provide parental education & guidance, and identify & address factors shaping health outcomes. Antenatal care for at-risk families, and facilitate continuity of care between midwifery, CFHNs and Aboriginal workers. Continuity of care for mothers and babies, with plan to expand practice to early years. Identify and address underlying factors shaping health outcomes.
National framework for universal child and family health services 2011, National	Midwives (unspecified) Practice nurse (in GP clinic) School nurses (unspecified) Mental health nurses (unspecified) CFHNs work in 'multiple settings & tiers' including primary (home visits, clinic/telephone consultations, helplines & parenting groups) and secondary (residential health & children's hospitals).	Midwives provide pregnancy, birth and postnatal care for up to 6 weeks. Practice nurses make referrals to CFHS. School nurse roles not specified. Mental health nurse roles not specified. 'Provide services' for families and children birth to school-age, and sometimes antenatal to 12 years. Work with ACCHOs to increase Aboriginal engagement with CFHS. CFHNs in the Australian Nurse-Family Partnership Program provide 'comprehensive' NHV for Indigenous families to support prenatal health and parental care of children. Provide immunisation, breastfeeding support, parenting groups and universal home visiting; facilitate access to specialised support.
National framework for health services for Aboriginal and Torres Strait Islander Children and Families 2016, National	Midwives (public & private) CFHNs (universal services) Nurses (ACCHOs) Nurses (primary care)	Antenatal care in hospital clinics or community settings. Support women and facilitate continuity of care through midwifery-led models and CFHN joint visits. Children's health checks/monitoring, immunisation & managing acute & chronic illnesses. Provide comprehensive CFHS as part of team. Care at first point of contact. All nurses & midwives have cultural competence for working with Aboriginal families.
Healthy, safe and thriving: national strategic framework for child and youth health 2015, National	CFHNs (universal services)	CFHNs (and other HCPs) have 'integral role in ensuring children and young people are healthy, safe & thriving'.
Keeping our kids safe: cultural safety and the national principles for child safe organisations 2021, National	Nurses (unspecified)	Maori nurses developed cultural safety definition in New Zealand context
Healthy safe well: a strategic health plan for children, young people and families 2014-2024, New South Wales	CFHNs (unspecified)	Implement trauma-informed approaches.
The first 2000 days framework 2019, New South Wales	Midwives (Aboriginal infant health service) CFHNs (in sustained home visiting) Nurses (unspecified)	Work in multidisciplinary team to provide child development support, education & referral for Aboriginal children. Work in SHV to prevent and mitigate adverse impacts during early childhood for vulnerable families. Provide 'extra care' for families within multidisciplinary teams.
The best opportunities in life: Northern Territory child and adolescent health and wellbeing strategic plan 2018-2028, Northern Territory	CFHNs in Australian Nurse Family Partnership Program. School Nurses in Health Promoting School Nurse Program (urban middle schools)	Increase access & uptake of antenatal care. Deliver holistic prevention focussed 'Health Promoting School Nurse Program' for all government schools.
Children's health and wellbeing services plan 2018-2028: a 10-year vision for the future of our clinical services for children and young people, Queensland	Nurses (unspecified) School nurses (primary and high) Nurse practitioners (unspecified) CFHNs (unspecified) Midwives (unspecified)	Nurses work in Nurse Navigator Programs to support children complex/chronic conditions. Nurse & midwifery roles not further specified.

(*continued on next page*)

Table 2 (*continued*)

Policy name, date and jurisdiction	What nursing & midwifery contexts and specialties are represented?	How are nursing & midwifery roles defined and described?
Victorian early years learning and development framework: for all children from birth to 8 years 2016, Victoria	School nurses (primary) CFHNs (maternal and child health services)	Child health assessments during first year of school, parental liaison, accept referrals from school staff & make external referrals. Support & advice for parenting, child health/development/behaviour/safety, maternal health/wellbeing, immunisation, breastfeeding/nutrition & family planning.
Western Australia youth health policy 2018-2023: strong body, strong minds – stronger youth, Western Australia	School nurses (unspecified) Nurses (unspecified)	Support, build resilience, & improve health literacy for young people. Maintain, improve, restore & manage health & wellbeing.

Key: ACCHO=Aboriginal Controlled Community Health Organisation; CFHN=child and family health nurse; CFHS=Child and Family Health Services, MCFHN=maternal, child and family health nurse, NHV=Nurse Home Visiting, SHV=sustained home visiting.

advantaged families) (Department of Health and Human Services Victoria Government, 2016), Health Promoting School Nurse Program (Department of Health Northern Territory Government, 2018) and Malabar Midwives (Department of Health Australian Government, 2019). Yet aside from programs' name and goals, there was minimal detail about nurses' and midwives' specific roles and responsibilities. As such, despite a nursing and midwifery presence within programs that are part of a public health response to keeping children safe, the unique contributions of nurses and midwives are not identified.

The nursing specialty most frequently identified and subsequently described in the greatest detail by Australian policy was CFH nurses (n=15). Nevertheless, like other nursing and midwifery roles, CFH nursing roles in a public health approach were still discussed with minimal detail. For example, CFH roles in universal services included specific health interventions such as immunisation (n=3), children's health checks (n=1) and education about health or parenting (n=3) (Australian Health Ministers' Advisory Council, 2011; Department of Education and Training Victoria Government, 2016; Department of Health, 2016; Department of Health Australian Government, 2019). In contrast, CFH nurses' roles in targeted home visiting appeared broader, where they provided 'support' to disadvantaged parents to promote optimal care for children (n=4) (Australian Health Ministers' Advisory Council, 2011; Commonwealth of Australia, 2009; Department of Health and Human Services Victoria Government, 2016; New South Wales Government, 2019). Details of how this would be achieved were not provided. Two policies acknowledged that the overall role of CFH nurses was to promote access and engagement with services (Australian Health Ministers' Advisory Council, 2011; Department of Health Northern Territory Government, 2018). Although not named as such, these examples of CFH nursing practices fit within a public health response as prevention and early intervention for child abuse and neglect. In contrast, two policies highlighted the small component of CFH nurses' roles that directly responds to abuse and neglect. These were CFH nurses' implementation of 'trauma informed approaches' (New South Wales Government, 2014) and provision of advice to panels that coordinate care for children in out-of-home-care (Australian Capital Territory Government, 2014).

Similar to CFH nursing, midwifery and school nurse roles were mentioned but lacked substantial detail about how they contributed to the public health space. For example, midwifery (n=6) roles were typically unspecified (n=2), or were described as providing antenatal care (Australian Health Ministers' Advisory Council, 2011) or working as part of a multidisciplinary team (New South Wales Government, 2019). However, two policies did state the importance of midwives in promoting continuity of care for mothers and infants (Department of Health, 2016; Department of Health Australian Government, 2019).

Like midwifery roles, some school nurse roles (n=5) were unspecified (n=2), while others required holistic prevention (Department of Health Northern Territory Government, 2018), health assessment and referrals (Department of Education and Training Victoria Government, 2016) or building resilience and health literacy (Department of Health Government of Western Australia, 2018). Although three specific roles (CFH, midwifery, and school nursing) were identified by multiple government policies, none of these specific roles was comprehensively defined nor consistent across policies.

Some policies identified some responsibilities aligned with a public health response to child abuse and neglect that could be applicable to all nurses and midwives, irrespective of context of practice or speciality. For example, such roles included initiating referrals (n=1) (Australian Health Ministers' Advisory Council, 2011), working in multi-disciplinary teams (n=1) (New South Wales Government, 2019), supporting children with complex medical conditions (n=1) (Queensland Government, 2017) and mandatory reporting (n=1) (Council of Australian Governments, 2009). Furthermore, the *National Framework for Health Services for Aboriginal and Torres Strait Islander Children and Families* (2016) identified that all nurses and midwives require specialised knowledge, skills, and 'cultural competence' to care for Aboriginal and Torres Strait Islander families. This acknowledgement of the expertise required to care for First Nations communities is especially relevant given the ongoing marginalisation and disadvantage experienced by Australian First Nations people. Similarly, the leadership role of Maori nurses was acknowledged by crediting them with first defining the concept of cultural safety in the New Zealand context (Commonwealth of Australia, 2021). However, despite the acknowledgement of these role components, no policy comprehensively explicitly named nor defined the nature and scope of nursing and/or midwifery practice in a public health response to child abuse and neglect.

5. Discussion

This review explored descriptions of nursing and midwifery roles in a public health response to child abuse and neglect within Australian policies for child protection, health, welfare, and development. It aimed to identify which nursing and midwifery contexts were represented in policy, and how they were defined and described in a public health response to child abuse and neglect. Since 2009, fewer than half of the Australian policies mentioned nurses and midwives, and those that did provided scant and inconsistent details. Furthermore, nursing and midwifery roles that were identified did not represent the full range of contexts where nurses and midwives have opportunities to implement a public health response to child abuse and neglect. Importantly, although the National Framework outlined the need for all professionals to contribute to a public health response to child abuse and neglect (Council of Australian Governments, 2009), no policy provided explicit or comprehensive detail about nurses' and midwives' roles in this public health approach.

In contrast to the absence of nurses' and midwives' public health roles and responsibilities within policy, there is very clear legislative guidance for the mandatory reporting of child abuse and neglect in every Australian jurisdiction (Australian Institute of Family Studies, 2020). However, reporting of cases of abuse is only a small part of a public health response to child abuse and neglect where the main focus is prevention and early intervention (Higgins et al., 2019). This means most of nurses' and midwives' work to address child abuse and neglect should be located within prevention and early intervention components of a public health approach. However, it is these same core prevention and early intervention components of nurses' and midwives' roles that are not clearly named and explained in Australian government policy (Council of Australian Governments, 2009). The invisibility of nurses' and midwives' public health interventions in contrast to their clearly legislated duty to report child abuse undermines the importance of prevention and early interventions which are the bulk of the public health approach.

The absence of a consistent and comprehensive source to guide mobilisation of the Australian nursing and midwifery workforce has several implications. Firstly, it inhibits effective intersectoral and multidisciplinary collaboration which is core to effective delivery of a public health response to child abuse and neglect (Grant et al., 2018). Child abuse and neglect are more prevalent in families experiencing multiple challenges which requires coordinated interventions across sectors and disciplines (Higgins et al., 2019). Many factors contribute to effective collaboration, but one key factor is whether professionals have clear understandings of their own and other disciplines' roles (Franzén, Nilsson, Norberg, & Peterson, 2020; Massi et al., 2021). Nurses and midwives are the largest group of health professionals with a ubiquitous role in health services for children and families. A lack of clarity around their roles is a lost opportunity to promote enhanced coordination of services. There is an urgent need to establish a clear and comprehensive explanation of nurses' and midwives' roles to assist interprofessional communication and coordination of services.

Although nurses and midwives are mentioned in Australian policies, the diversity of their contexts of practice relevant to a public health response to child abuse and neglect are not fully represented. Midwives, school nurses and CFH nurses were all identified in multiple policies, but other practice contexts such as mental health or general practice, were mentioned just once. Furthermore, some practice settings were missing altogether – despite clear evidence supporting nurses' and/or midwives' work in settings like paediatric acute care (Barrett, Denieffe, Bergin, & Gooney, 2017), neonatal care (Saltmarsh & Wilson, 2017) and emergency departments (Tiyyagura, Gawel, Koziel, Asnes, & Bechtel, 2015). More broadly, the World Health Organization highlighted that nurses and midwives are core to delivery of effective health care in a broad range of contexts inclusive of primary health care, acute care and population health and wellbeing (World Health Organization, 2020, 2021). Despite the critical importance of nurses and midwives in the delivery of health care in Australia, their contributions to a public health response to child abuse and neglect are largely invisible in policies about child protection, health, development, and welfare. A clearer understanding of nurses' and midwives' contexts of practice is needed to inform effective mobilisation of this highly skilled workforce to make a difference for children.

Even within contexts that were explicitly identified, such as school nursing and CFH, the full scope and complexity of nurses' and midwives' work in a public health response was not recognised. Nurses and midwives keep children safe in dynamic and ambiguous situations that require highly developed communication and relationship skills (Carlsson, Baccman, & Almqvist, 2021; Lines et al., 2018; Mawhinney, 2019). For example, Lines et al. (2020) highlighted that nurses working with children use relational practices to maintain rapport with families whilst facilitating change for children in partnership with the family. Similarly, midwives engaged with pregnant women through empathetic approaches to explore sensitive topics like substance use and family violence to assess risks to unborn babies (McElhinney, Sinclair, & Taylor, 2021). Furthermore, when caring for First Nations People, nurses and midwives must practice cultural safety which requires ongoing critical reflection on personal and organisational dominant, deficit-based assumptions that impact how First Nations children and families access and experience care (Lonne et al., 2021; Nursing and Midwifery Board of Australia, 2018a). These are just some examples of the complex skills that nurses and midwives enact to keep children safe and require both preservice education and ongoing professional development and support. However, the invisibility of these skills in policy means that nurses' and midwives' complex work remains unrecognised and inadequately resourced instead of being mobilised to facilitate change for children experiencing adversity.

Although recognition and support of nurses' and midwives' expertise in a public health response to keeping children safe is essential, nurses and midwives cannot effectively prevent and address child abuse and neglect in isolation. A public health approach requires that nurses and midwives are located within communities and systems that are adequately resourced address the broader social determinants of health (SDH) that contribute to child abuse and neglect (Engström, Hiltunen, Wallby, & Lucas, 2020; Hooker, Nicholson, Hegarty, Ridgway, & Taft, 2020; Matone et al., 2018). The influence of the SDH in contributing to child abuse and neglect is well-recognised in Australian policy (Council of Australian Governments, 2009), but Australia has not yet effectively addressed impacts of SDH in contributing to child abuse and neglect. For example, reports to child protection services are increasing (Australian Institute of Health and Welfare, 2019), one-fifth of children live in poverty (Davidson, Saunders, Bradbury, & Wong, 2020) and there is vast overrepresentation of Aboriginal children in child protection systems (Australian Institute of Health and Welfare, 2019). Thus, in addition to greater visibility, clarification, and support for nursing and midwifery roles, there must simultaneously be a greater commitment and access to community resources that effectively address the broader SDH and promote equity.

Historically, nurses and midwives have been instrumental in advancing public health interventions to influence the SDH for children and young people (Dicakaran, Lembeck, Kerr, Calmus, & Potter, 2016; Jones et al., 2021). In Australia, most nurses and midwives work in health care systems that operate with a biomedical lens that locates disease within individual people and discounts the interplay of social contexts (Baum, 2015). Yet within these health systems, nurses and midwives are simultaneously being called upon as leaders to advocate for the SDH of children and families (Dicakaran et al., 2016; McPherson, Ndumbe-Eyoh, Betker, Oickle, & Peroff-Johnston, 2016). However, addressing the SDH within health systems that are structured around biomedical approaches to care presents many challenges and tensions for nurses and midwives.

There are often barriers between social and health care, leading to a delivery of care that is structured according to organisational rather than client priorities (Grant, 2012). Similarly, additional social needs are often labelled as 'complex', and given lower priority than physical or medical needs (Shannon, Blythe, & Peters, 2021). For children, 'complex' social needs may not require a statutory child protection response. However, nurses and midwives are frequently responsible for monitoring and responding to children's complex social needs without recognition, support and resourcing (Einboden et al., 2019; Lines et al., 2018). If nurses and midwives are to effectively implement a public health response to prevent-

ing and responding to child abuse and neglect, they must be supported by organisational cultural and structural change to increase visibility of their work.

5.1. Limitations

This review explored national and state/territory policies; it did not assess local frameworks which may more comprehensively outline nurses' and midwives' roles. However, local frameworks are often poorly accessible, and are unlikely to be consistent across Australian jurisdictions and organisations. It is possible that within policies in this review, nurses and/or midwives were mentioned under other umbrella terms like 'health professionals' or as working within 'health services'. However, given nurses' and midwives' unique expertise and work with children, a clear and separate explanation of nurses' and midwives' roles is still required to clearly outline the expectations for each profession's unique but interconnected roles and responsibilities in a public health response to child abuse and neglect.

6. Conclusion

Nurses and midwives are core to the delivery of health care to children and families, and they are essential to a public health response to child abuse and neglect. However, nurses' and midwives' roles in a public health response to child abuse and neglect are poorly defined or absent from Australian policies for child protection, health, development, and wellbeing. This lack of visibility and clarity of nurses' and midwives' roles in policy raises challenges such as barriers to interdisciplinary collaboration and inadequate education and resourcing for nurses and midwives. Further research is needed to map the nature and scope of nursing and midwifery practices across the spectrum of a public health approach of prevention, early intervention and responding to abuse and neglect. This will provide a more comprehensive understanding of nurses' and midwives' existing roles to inform future education, professional development, and evaluation of best practice. In doing so, it can help future policy and frameworks for child protection, health, development, and wellbeing to clearly articulate the expectations for nurses' and midwives' contributions to a public health approach to preventing and addressing child abuse. Ultimately, by better understanding how nurses and midwives keep children safe, we can provide more effective, coordinated care to children and families experiencing adversity.

Credit author statement

LL conceptualisation, formal analysis, investigation, writing – original draft. TK investigation, formal analysis, data curation, writing – editing & review. JG supervision, writing – editing & review. AH supervision, writing – editing & review

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The authors have no conflicts of interest to declare.

Supplementary materials

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Educating professionals who will work with children in the early years: an evidence-informed interdisciplinary framework

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Educating professionals who will work with children in the early years: an evidence-informed interdisciplinary framework

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ABSTRACT

The first five years of a child's life are irrefutably important, establishing life-long health, social and economic outcomes. To optimize these outcomes, global policy is directing professionals from a range of disciplinary backgrounds to work more collaboratively than ever before with children in the early years. Such collaborations have proven problematic as individual disciplines and pre-service education requirements vary widely. Using Community-Based Participatory Research and Diffusion of Innovation approaches, this study aimed to develop an educational framework for professionals working with children in the early years and their families, to begin a cultural change for interdisciplinary collaboration and participation across the early years. Systematic reviews, modified Delphi rounds and focus groups identified the diverse demands of multiple professions, qualification levels and workforce agendas, as well as highlighting shared outcomes, knowledge and intentions across disciplines.

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Introduction

The early years are irrefutably important in determining a child's life course (Shonkoff, Boyce, and McEwen 2009). Despite being a wealthy nation, Australia is a middle-ranked country when it comes to the wellbeing of children and young people (Australian Research Alliance for Children and Youth [ARACY] 2013). A large gap exists between Australia's highest and lowest performing students compared to many other OECD (Organisation for Economic Co-operation and Development) countries (ibid). Additional to this, and significantly, 42.1% of Indigenous children surveyed in the 2015 Australian Early Development Census were developmentally vulnerable on one or more domains (AEDC 2015).

Australia has implemented a significant shift in policy foci to attend to the challenges of optimizing every child's health, care and educational outcomes (Commonwealth of Australia [CoA] 2015a, 2015b). A core aspect of this important work requires a highly

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educated early years multidisciplinary workforce to create what child development scholars call a 'fundamental cultural change required for responsive service delivery' (CoA 2009a, 20). This shift toward service integration is mirrored internationally with the OECD challenging governments globally to build unity across health, education and services for children and families in the early years (OECD 2012). While the direction is clear, calls for service optimization and integration will be strengthened if these policies are underpinned by a collaboratively developed framework that can be implemented in higher education programs for early years professionals who will form the interdisciplinary workforce charged with realizing these objectives.

This paper presents findings from a study that aimed to enact these service optimization and integration initiatives by developing a national interdisciplinary educational framework to bridge the critical gap between policy and interdisciplinary practice. The development of a collaborative, evidence-informed, interdisciplinary framework for learning and teaching in higher education will support the professional preparation of an interdisciplinary early years workforce, acting as a catalyst for a fundamental cultural change in this arena. The paper presents an overview of the entire study: a three-stage mixed method inquiry into developing an interdisciplinary framework to guide preservice professional preparation in higher education settings.

Background

Interdisciplinary collaboration and service integration are central to research and policy aimed at increasing access to, and equity in, health, education and social services for young children and their families (Australian Medical Association [AMA] Task Force on Indigenous Health 2013; Wong and Sumsion 2013). Collaboration and integration are argued to be essential for improving health, education and welfare outcomes for Australia's children (Fox et al. 2015); however, there is little evidence of services attaining this interdisciplinary intent (Wong and Sumsion 2013). Strategic pre-service education, with shared outcomes for children and collaborative interdisciplinary understandings, is a missing component in this policy landscape.

As part of service delivery integration, collaboration involves the development of highly committed, high-intensity relationships where individuals or groups unite within a single entity to plan jointly and share resources (Centre for Community Child Health 2008, 6–7). This requires explicit skills and knowledge and shared understandings of the needs of the children and of each others' practice.

Studies of integrated services in the UK suggest that alongside core professional expertise is a need for 'distributed expertise' there to enable practitioners to become adept at recognizing, drawing on and contributing to their joint work with children and families (Edwards 2009; Whalley 2006). With a greater focus on this relational work, new approaches to pre-service education that support both knowledge-building approaches and ways of working meaningfully and productively across professional boundaries are required (Toronto First Duty 2008).

In Australia, integrated service delivery is promulgated in some jurisdictions, with South Australia, Victoria and Tasmania instigating joint departments for health, education and welfare service provision for the early years. These joint departments require health, welfare and education professionals to work in seamless inter- or trans-disciplinary teams

without having the underpinning common understandings of their respective professional backgrounds and cultures. Professionals within this 'early years workforce' can be drawn from disciplines such as social work, child and family health nursing, physiotherapy, occupational therapy, speech therapy, psychology, medicine, and early childhood education. With their specific tertiary education, these professionals have no common early years education or training. The resulting barriers related to conflict, competition, communication and decision-making are identified as challenges in working collaboratively across disciplines (Pharo et al. 2014).

Compounding this problem are the philosophical differences regarding children and childhood that are held by professionals from various disciplines. These differences are manifest in the frameworks for care and education developed by the disciplines to guide their educational preparation for practice. The National Framework for Protecting Australia's Children 2009–2020 (CoA 2009b), for example, while advocating children as being everybody's business, remains a framework for social care. Similarly, the Early Years Learning Framework for Australia is focused predominantly on the work of early childhood educators and serves as a children's services curriculum document for teaching and learning purposes (Australian Government Department of Education, Employment and Workplace Relations 2009). While Fox and colleagues (2015) argue that a common approach to measuring early childhood outcomes and shared ways of working are essential to meeting the needs of Australia's most vulnerable children, this is not easily facilitated through current national professional policies and requirements. Similarly, the requirement for professionals to work within and across disciplines is no guarantee that divergent theories and practices will be explored and common ways of working collaboratively established (Whalley 2006).

A way forward is to address the 'unspoken' problems associated with working across disciplines and hierarchical structures (Wong, Sumsion, and Press 2012) in pre-service education. One strategy is for interdisciplinary workers to have pre-service professional learning opportunities to develop cohesive, collaborative practices across and within teams in the early years (Press, Sumsion, and Wong 2010). Some examples that have led to greater interdisciplinary collaborations include joint workplace learning in mental health (Green et al. 2006) and pre-service professional experience placements for early childhood teachers in health services (Trepanier-Street 2010). While helpful, these strategies do not address the underlying differences in theoretical and professional boundaries within the early years workforce.

Interdisciplinary curricula are intended to overcome such boundaries through the 'integration of knowledge from multiple disciplines in pursuit of an outcome that is not possible from a single disciplinary approach' (Holley 2017). Interdisciplinary curricula in Higher Education (HE) seek to synthesize and integrate insights, to see knowledge clusters and gaps, to better understand challenging problems, and source ways forward for cognitive advancement on problems and ideas that would be impossible from the perspective of a single discipline (Goldsmith et al. 2012; Spelt et al. 2009, 365). Systematic reviews of contemporary international research in this area suggest that interdisciplinary teaching and learning in HE either centres on individual examples of implementing such an approach, analysing the outcomes and pedagogical challenges of such education, or focuses on discourse pertaining to the socio-cultural context for interdisciplinarity (de la Harpe and Thomas 2009; Lyall et al. 2015; Spelt et al. 2009; Woods 2007). Research centred

on interdisciplinary HE curricula, as distinct from teaching and learning, remains limited and explorative relative to broad disciplines like social work, the arts, engineering or health care (see Collins 2017; Spelt 2015; for exceptions). To date there are very few examples of large-scale curricular change in HE, let alone in the arena of interdisciplinarity. de la Harpe and Thomas (2009) suggest that for integrated curricula to transpire in HE there needs to be a critical mass to lead and implement such change, cognizant of the driver/s behind the need for such curricula, supported with sufficient resources and professional learning to see them succeed for learners-in-practice.

The major challenge for interdisciplinary collaboration in pre-service early years education is the current differing requirements for professional qualifications and professional agendas that make the development of a clear vision and plan for such interdisciplinary curricula a significant pedagogical challenge. In Australia, this is compounded by differing requirements between state and territory jurisdictions for some disciplines. For example, a national survey of maternal, child and family health nursing programs found inconsistencies in the coverage, depth and breadth of the content and practical requirements within courses (Kruske and Grant 2012). The requirements of the Australian Qualifications Framework [AQF] (Australian Qualifications Framework Council [AQFC] 2013), which specifies learning objectives for qualification types and levels, add further complexity to collaborative curriculum development for working in the early years. Discipline-specific qualification levels required for work with children and families differ greatly. For example, childcare workers must have a minimum level 2 qualification,[1] education, and social work disciplines require level 7[2] qualifications, maternal, child and family health nurses require level 8 or 9,[3] and psychology practitioners require level 9. Adding further complexity, some disciplines have accountabilities to multiple professional bodies—for example, early childhood teachers need to comply with the *Australian Children's Education and Care Quality Authority* and the *Australian Institute of Teaching and School Leadership* requirements throughout their education and working lives. As such, an important and overlooked mechanism for fostering collaborative and integrated practice for professionals working with children from birth to five years is the development of interdisciplinary understandings during pre-service education. This requires an evidence-informed framework that represents shared understandings of what children need to thrive, of disciplinary practice boundaries and of the essential characteristics of practice for child health, wellbeing and education.

The study

An exploratory mixed-method study was designed with three aims and corresponding research stages: (i) to determine outcomes for children from birth to five years that could be shared among the disciplines (Stage 1), (ii) to map national disciplinary boundaries through exploring regulatory and educational requirements (Stage 2) and (iii) to determine the essential knowledge, skills and attributes for working with children from birth to five years that could be applied to all disciplines (stage 3). The ultimate goal was to immediately translate the findings into a national interdisciplinary educational framework for use in existing higher education curricula and to inform future curriculum development for early years professionals involved in interdisciplinary work. Following Gunawardena and colleagues (2010, 219), we aimed to produce materials that melded various disciplinary knowledges and worldviews, offering insights that were unachievable via a single integrated disciplinary lens.

Design

Two interrelated methodologies, Participatory Action Research (PAR) and Diffusion of Innovation (DoI), were employed to encourage collaboration and partnership within early years' education and practice. PAR is a research method that seeks to locate power with those who will be most affected by the research, in this case, the early years disciplines. Knowledge generation in PAR is inherently collaborative, based on reflection of action and designed to create change (Reason and Bradbury 2008). For epistemological and political reasons PAR begins from the standpoint that all people working on a project need to be involved in reflection on action for change (Brydon-Miller et al. 2013), especially when the subject of inquiry exists in an historically contested disciplinary space. Where traditional PAR works in cycles of action and reflection, this research adapted the cycles to respond to the circumstances and the particular needs of early years professionals, workers and academics (Brydon-Miller et al. 2013). 'Action' was conceptualized as current practice, and 'reflection' took the form of reviewing the best available research evidence and discussing these findings from disciplinary perspectives. Individual 'reflections' on practice were undertaken by participants in the study's Delphi surveys and focus groups. Throughout the life of the project, a research advisory group was engaged in successive rounds of critical reflection and feedback to the research team. The resultant interdisciplinary early years, higher education framework represents an explicit integration of theory and practice achieved through collaboration and respect for the diverse professional knowledge, experiences and skills of all participants (Brydon-Miller et al. 2013).

Diffusion of Innovation (DoI) theory (Rogers 2003), which explains how ideas are spread among groups of people, guided the strategy for disseminating the early years higher education framework that evolved over the duration of the project. It enabled staged innovation to be communicated 'over time' among the members of the early years social system (ibid, p. 5) thus maximizing opportunities for its adoption.

In three overlapping stages across two years, the study used both qualitative and quantitative methods to collect data. Following Puddy and Wilkins (2011, 4), evidence was conceptualized using three distinct and interrelating sources across all stages including: (i) the best available research evidence in the form of literature reviews, (ii) experiential evidence collated from Delphi studies and focus groups and (iii) contextual evidence from expert reference and advisory groups. A common thread of reflection was embedded across all stages of the research through the constitution of a research advisory group to maintain experiential and contextual validity (Grant et al. 2017). Research advisory group members were leaders in their respective disciplines and were recruited nationally from across various Australian states and territories to ensure depth and breadth of representation for the study.

Such a collection of evidence strengthened community participation in the research and congruent with DoI theory, engaged potential adopters in the emerging innovation for cultural change.

Data collection

In Stage 1, a scoping review of disciplinary literature and relevant frameworks for practice was undertaken to develop a set of evidence-informed outcomes for children that could be

shared across all disciplines. The search covered all relevant international literature on what children need to grow and thrive across health, education and wellbeing, regardless of study design (Levac, Colquhoun, and O'Brien 2010). This was essential to incorporate contextual and experiential evidence that may be derived from practice. From an original search identifying 3212 eligible papers, a total of 55 remained after screening abstracts and removal of duplicates (Figure 1). Following a bio-ecological model of supporting child wellbeing (Bronfenbrenner 2004) statements from these studies were extracted and synthesized, resulting in five outcome clusters that included community outcomes, family outcomes, individual outcomes, service provision outcomes and sociopolitical outcomes. Statements developed from the sources were coded into the relevant cluster. For example, 'Community Outcomes' comprised three statements 'Will have positive relationships with community members' (mentioned in two papers), 'will live in safe, caring and enriching communities' (mentioned in 16 papers) and 'will live in environments free from smoke and pollutants' (mentioned in seven papers).

The resulting five outcome clusters comprising 51 statements were critiqued by the research advisory group resulting in minor changes in expression to enhance readability.

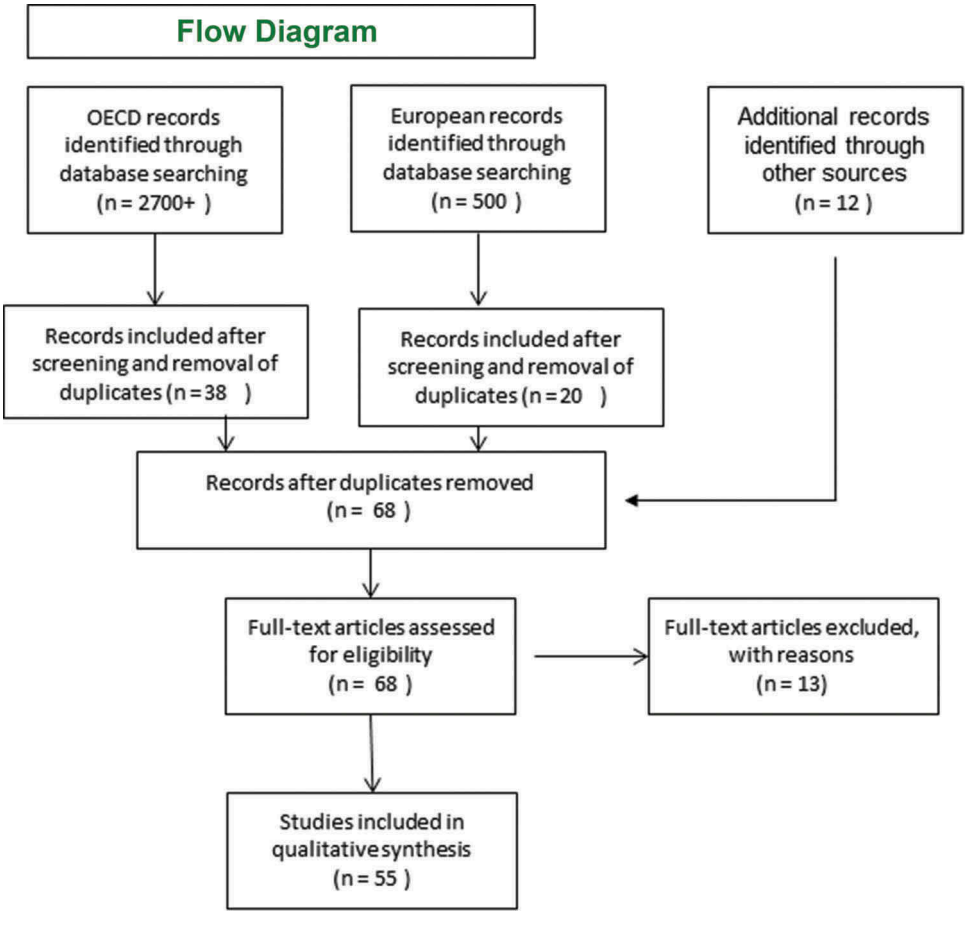

Figure 1. flow graph.

Using a modified Delphi survey method, the statements were then distributed to an expert panel of 61 self-nominating participants. They were asked to distribute the survey widely among their professional networks. This approach enabled checking the best available research evidence against contemporary experiential evidence provided by a range of professionals working in different contexts and in this way, the Delphi survey was used to achieve cross-disciplinary consensus on the set of outcome statements. The Delphi survey identifies group opinion as more 'valid' than individual opinion and operates on the assumption that consensus can be reached (Keeny, McKenna, and Hasson 2011). In the first round, participants were asked to 'agree', 'disagree' or 'agree [but] with changes' to each statement. The research team then modified statements accordingly. In the second round, participants were asked only to 'agree' or 'disagree' to the revised statements. As the responses reached 75% consensus (Mannix 2011), no further modifications or survey rounds were required.

In Stage 2, to explore disciplinary practice boundaries, a document analysis was undertaken of all publicly available national guides and regulations used to inform and register professional practice across a vast array of disciplines working with children and families. Following Ryan and Bernard (2000, 772–73), several iterations of mental maps were created to display descriptive elements related to qualification and professional requirements. An Excel database was then created for a correspondence analysis in which 15 disciplines were analyzed across 13 descriptive elements.

In Stage 3, three datasets were used to develop a set of essential universal elements for working with children and families in the early years: a document analysis, focus groups, and final Delphi survey. First, a document analysis was undertaken that comprised a scoping review of interdisciplinary literature and an analysis and synthesis of all existing national disciplinary standards (n = 10), codes of ethics or conduct (n = 22), obligations (n = 1) and principles (n = 1) for professionals identified as working with young children. Inductive coding and clustering of disciplinary competencies and standards identified 12 themes in the areas of professional knowledge and skills, and a further 12 themes related to professional attributes specifically related to working with children. These themes were then used in deductive matrix coding (Gale et al. 2013) to identify omissions and redundancies. Second, eight focus groups with early childhood health, education, and welfare professionals were held across Australia (Table 1). The purpose of the focus groups was to identify any gaps or redundancies in the published documents, ensuring that the 'people, place, time and conditions' (Taylor, Kermode, and Roberts 2006, 321) of most relevance to the study were considered in the final results.

For consistency across jurisdictions, the first South Australian focus group was video-recorded and used to train local focus group leaders from other jurisdictions. Focus group data were inductively coded and then clustered into themes using QSR NVivo (QSR International Pty Ltd 2012). Themes were then cross-referenced with the document analysis to validate existing themes and add those missing from the focus group analyses. These processes yielded a refined set of core knowledge and skills and a refined set of core attributes for working with children aged 0–5, as shown in Tables 2 and 3. For example, themes of leadership and legislation were added as they appeared in all standards for practice, but were not evidenced in literature or mentioned in focus groups. Child development, children's capabilities and children's characteristics were clustered into a core theme of 'Children', making it applicable to all disciplines.

Table 1. Stage 3 focus group participation.

	State	No. of participants
Cross-disciplinary professionals	SA	8
	WA	4
Interdisciplinary service providers	NSW	4
	QLD	9
Interdisciplinary tertiary educators	NSW	4
	QLD	3
Service users	SA	8
	WA	4
Total		44

Note: SA = South Australia, NSW = New South Wales, QLD = Queensland, WA = Western Australia

Table 2. Core knowledge and skills for working with children.

Following initial document analysis	Refined following deductive matrix coding and focus groups data
1. Aboriginal and Torres Strait Islander culture	1. Children
2. Child development	2. Family
3. Child protection	3. Community
4. Child safe practice	4. Aboriginal and Torres Strait Islander culture
5. Children's capacities	5. Child safe practice
6. Children's characteristics	6. Communication and collaboration
7. Collaboration	7. Leadership
8. Communication	8. legislation and other guidelines
9. Community	9. Work practice and service delivery
10. Family	10. Ethical practice
11. Research-informed practice	11. Research to inform practice
12. Therapeutic practice	

Table 3. Core attributes for working with children.

Following initial document analysis	Refined following deductive matrix coding and focus group data
1. Dignity	1. Dignity and trust
2. Discrimination	2. Diversity
3. Diversity	3. Equity
4. Equity	4. Justice and integrity
5. Ethical practice	5. Respect and privacy
6. Integrity	6. Rights
7. Justice	
8. Privacy	
9. Respect	
10. Rights	
11. Sustainability	
12. Trust	

Statements within each theme were then revised to reflect practice standards. A total of 99 elements (statements) under 17 domains (themes) identified through this process were then distributed via a Delphi survey to all Stage 1 participants. Agreement or disagreement with each element was sought, aiming to achieve 75% consensus (Mannix 2011). As this was achieved in the first round, no further rounds were conducted.

Recruitment and participants

The following groups of participants involved with children from birth to five years across a range of disciplines were recruited into the research; tertiary educators

responsible for training professionals, professionals currently working in the early years, and community members using early years services.

Methods of recruitment were deliberately varied to ensure that a balanced and wide-ranging group of participants were engaged in the study, in keeping with the principles of PAR. Aboriginal and Torres Strait Islander representation was made in the research advisory group and through recruitment into the Delphi surveys.

Core to participant recruitment and diffusion of innovation (DoI) was the establishment of a secure project website from the time of study initiation.[4] Through this online presence, open invitations were posted, links to the Delphi rounds for Stages 1 and 3 were provided, along with project updates. To facilitate DoI, ongoing engagement with the study was invited via blogs and social media.

Results

Stage 1: Common outcomes for children

The first round of the study's modified Delphi survey received 370 responses, of which 305 were fully completed. Respondents were from all Australian states and territories, with the majority from South Australia and an overwhelming majority being female (see Table 4).

Of the 51 statements, 46 reached the minimum requirement of 75% consensus and were included in the final resource. The remaining five statements without consensus were analyzed, discussed and rewritten by the research team for redistribution in the second Delphi round (see Table 5).

As an example, participants' open-ended responses to the statement 'Children will have capable mothers' included feedback that it: needed to be inclusive of fathers (n = 36); should see 'capable' as a social construct with multiple interpretations as the term suggested blame, (n = 20); needed to widen focus to primary carers and/or family unit (n = 20), needed to be more inclusive of diverse family structures (n = 9); should acknowledge that primary caregivers may need support to be the best they can be (n = 7). Taking these comments into account, the statement was revised to: 'Children will have capable parents and caregivers'. One of the 51 statements did not reach 75% consensus in the Delphi survey round 2; as shown in Table 2, this statement was discussed and revised by the research advisory group.

Robust discussions during the final consultation with the research advisory group sought to resolve the tension between maintaining the stewardship of the individual disciplines and achieving consensus across disciplines. While individual professions have their own profession-specific outcomes, they also share similar principles and foci. It was

Table 4. Stage 1 Delphi round 2 participation.

		In which state or territory do you live?								
		ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Total
Gender	Male	0	0	0	0	6	0	1	0	7
	Female	2	17	6	16	51	6	9	9	116
Missing		-	-	-	-	-	-	-	-	34
Total		2	17	6	16	57	6	10	9	157

Note. ACT = Australian Capital Territory, NSW = New South Wales, NT = Northern Territory, QLD = Queensland, SA = South Australia, TAS = Tasmania, VIC = Victoria, WA = Western Australia

Table 5. Statements reviewed for Stage 1 Delphi survey.

Round 1 Statements	% Agreement without changes	Round 2 Statements	% Agreement	Additional changes after advisory group review
Individual outcomes [Children will not require hospitalization for accident or injury]	65	Individual outcomes [Children will be safe from serious preventable accidents or injuries]	96	Individual outcomes [Children will have access to preventative care and early intervention]
Family outcomes [Children will be breast fed]	50	Family outcomes [Children will be breastfed where possible]	92	
Family outcomes [Children will have capable mothers]	63	Family outcomes [Children will have capable parents and caregivers]	94	
Family outcomes [Children will have mothers who have finished school]	44	Family outcomes [Children will have parents and caregivers who have finished school]	59	Family outcomes [Children will have parents who are economically stable]
Family outcomes [Children are cared for by mothers who are mentally and physically well]	65	Family outcomes [Children will be cared for by parents and caregivers who are mentally well]	81	

determined that these shared elements across professions were best reflected by renaming the resource from 'common outcomes' to 'shared outcomes'. Another focus of robust debate was whether outcomes from the antenatal period should be included or excluded. From this process, it was agreed that the original focus on birth to five years should be retained. The final resource, *Shared Outcomes for Working with Young Children* (Grant et al. 2016), is now publicly available for use by educators and services as part of the Interdisciplinary Education Framework.

Stage 2: An interdisciplinary map of early years professions

Document analysis of 43 professional codes, guidelines, standards and competency frameworks was undertaken to produce a visual map of the qualification and professional requirements of 15 key disciplines typically contributing to early years interdisciplinary teamwork. Qualification factors such as the discipline-specific AQF level of learning, study prerequisites, practice requirements, length of study and offering institutions were tabulated. Professional requirements were also collated in the matrix[5] and included authorizing bodies for programs of study and/or professional registration, registration standards, professional competencies and child-related screening conditions.

The qualifications for working in the early years ranged from level 3 vocational certificates to level 9 postgraduate awards. There were 12 different authorizing bodies for the 15 disciplines mapped, wide variation in placement locations for professional experience learning, and an array of professional registration/certification and competency requirements that rested either with the individual following course graduation, the employer during recruitment or orientation, and/or with an external administrative body to assess credentials.

The resulting interdisciplinary map is available as an interactive resource on the project website. It enables users to select and compare the above-mentioned professional requirements across disciplines.

Stage 3: Universal essential elements for working with young children and families

All 97 statements distributed via online Delphi survey for the development of universal essential elements in Stage 3 of the study achieved greater than 75% agreement in the first round. In total 17 received 100% consensus, with no less than 96% agreement on any statement. Of a total 349 responses, 234 were fully completed. Similar to the Delphi survey from Stage 1, the majority of participants were female with participants being drawn from all states and territories (Table 6).

Participants in the Delphi survey were invited to provide open-ended responses to maximize rigor, responsiveness and utility of the resource. While there was overall widespread agreement for the statements, participants provided a further 602 comments, all of which were reviewed independently by the research team. Minor revisions were made to 46 statements. For example, 'honour children's right to play' was revised to 'value every child's right to play' and 'practice with kindness, courtesy, care and compassion' was revised to 'practice with kindness, courtesy, flexibility, patience, care and compassion'. In total, a further two statements were added and three overlapping statements were removed. A penultimate draft of the universal essential elements was reviewed by the research advisory group, who then approved the document for inclusion in the *Interdisciplinary Education Framework for Professionals Working in the Early Years* (Grant et al. 2016).

Discussion

Developing shared outcomes for children and agreed ways of working to achieve these is essential for meeting the needs of Australia's most vulnerable children and families (Fox et al. 2015). Findings from Stages 1 and 3 of this study suggest that cross-disciplinary understandings of the purposes and professional dimensions of work in the early years are achievable and far less disparate than previously thought. These findings show that incorporating both specialist professional knowledges and collaboration into an interdisciplinary teaching and learning framework is possible.

For example, reaching 75% consensus on 90% of the draft shared outcomes for children in this current research suggests strong shared aspirations across professionals

Table 6. Stage 3 Delphi survey participation.

		In which state or territory do you live?								
		ACT	NSW	NT	QLD	SA	Tas	Vic	WA	Total
Gender	Male	1	2	0	4	7	1	0	2	17
	Female	5	48	16	78	84	21	43	20	315
Missing		-	-	-	-	-	-	-	-	17
Total		6	50	16	82	91	22	43	22	349

Note: ACT = Australian Capital Territory, NSW = New South Wales, NT = Northern Territory, QLD = Queensland, SA = South Australia, TAS = Tasmania, VIC = Victoria, WA = Western Australia

working with young children and their families. Similarly, to reach no less than 96% consensus on all statements in the first round of the Delphi survey for universal essential elements was unprecedented. This suggests that shared goals and ways of working with children and families may be possible, with a united sense of the knowledge, skills and values required for early years work across education, medicine, nursing, midwifery, allied health and social work disciplines.

Many factors were critical to the success of this study. First, in the spirit of PAR, the enthusiastic participation in the research by professionals, community members and industry, enabling the diffusion of innovation to progress, was paramount. Communication and dissemination began in Stage 1 with the establishment of a web presence punctuated by blog updates, invitations to participate, and the development of a LinkedIn community. The website received over 9700 views across the project duration. The research team and research advisory groups met regularly via teleconference and gave generously of their time, expertise and entry to professional networks. Second, the value that researchers and advisory groups members placed on using a combination of research, experiential and contextual evidence (following Puddy and Wilkins 2011) ensured that the final products were meaningful. Incorporating extensive scoping reviews, document analysis, focus groups, research advisory groups and Delphi surveys enabled progressive adoption and methodological rigor (Hinton et al. 2011). Congruent with PAR, iterative reflection on action, combining research and practice served as a model for tackling large-scale curriculum change in higher education.

Despite the well-documented challenges for professionals working collaboratively in interdisciplinary teams (Centre for Community Child Health 2008; Pharo et al. 2014), and the potential for philosophical differences among early years disciplines evidenced in various professional frameworks, this study's findings suggest that the challenges and differences may not be as onerous as previously conceived. Focusing on points of 'sameness' or agreement in professional education may be an important first step in going beyond the simple coalition and integration of early years services that is typical of current Western policy initiatives in the area (Fane et al. 2016). The extent of this 'sameness' is perhaps most clearly evident in the Stage 3 participant comments that called for two statements to be excluded owing to duplication elsewhere in the universal essential elements, and the inclusion of a statement representing shared professional advocacy for children's needs for high-quality practices.

The results of this study do not extend to the perception that interdisciplinary work with young children and families is simpler than first reported. Indeed, the interdisciplinary HE teaching and learning literature suggests this work involves more than seeing things from multiple angles; it is about synthesizing and integrating insights and practice for pragmatic, purposeful ends (Goldsmith et al. 2012; Holley 2017). A key finding of the study is that professionals who work with children are often challenged to conceptualize how their disciplinary constructs might be reframed for greater understanding in interdisciplinary environments. For example, the 601 comments made in Stage 3 identified many of the deeper complexities of this work. These included minor discipline-specific semantics for word choice, preferences for terminology and areas of focus. This supports the notion that there is a need to consider ways of seeking 'distributed expertise' to help each specific discipline to come to shared understandings about the purposes and approaches for all professionals working with young children

(Edwards 2009; Whalley 2006). The extensive range of qualifications and professional requirements for the 15 disciplines identified in Stage 2 suggests how easily misunderstandings and disconnections might occur in practice, even with individual willingness to successfully seek and share interdisciplinary understandings and practices.

This paper has provided an overview of our 3-stage inquiry into developing an interdisciplinary framework to guide preservice professional preparation in higher education settings. During the study, co-construction of evidentiary knowledge(s) through PAR also enabled the expression and discussion of socially-constructed professionally-relevant views about children, childhood, and child rearing. One of the benefits of using PAR was its strength in enabling practical solutions to practice problems (Brydon-Miller et al. 2013). For example, in Delphi survey responses to the statement 'Children will have capable mothers' (which received only 63% agreement in the first Delphi round), 92 participant comments were received relating to participant views about raising children, the role of primary carers (including mothers, fathers and family members) and the social construction of motherhood and blame. Although beyond the scope of this paper, these responses highlight the need to explore more deeply the role of socio-political forces in the co-construction of disciplinary and interdisciplinary education for the early years workforce.

Limitations

The intent of this research was to explore and develop shared meanings for education, and ultimately practice, for a range of professionals who work independently and collaboratively with young children and their families. Although the intent of developing shared meaning and initiating a fundamental cultural shift was achieved, this may have limited ongoing impact without assessment of the uptake and use of the resource, and evaluation of the effectiveness of the resources in higher education programs. Additionally, the research remains contextual and country specific. While there may be aspects of transferability to other countries, the economic, professional and social nuances of this research remain site specific. A further limitation was the absence of explicit Aboriginal and Torres Strait Islander workers, cultural consultants or liaison positions in the development of the interdisciplinary map. Despite representation on the research advisory group and participation of Aboriginal workers and groups in the Delphi surveys, this omission was not identified until near completion of the project. Finally, research will be needed to explore the ways in which service integration and professional collaboration using an interdisciplinary early years framework are experienced by children and families.

Conclusion

Together, the findings from this study have contributed toward a new, publicly available framework for early years higher education curricula that can be critically claimed as co-constructed and interdisciplinary. To optimize integrated service delivery for young children at risk, this evidence-informed, interdisciplinary framework offers a tangible starting point for collaboration and cultural change. This cultural change means that

children and their needs form the centre of all interdisciplinary work, and are the basis of a shared language for communicating within and between the disciplines.

Starting with a pre-service higher education framework that can be embedded into all disciplinary curricula for those learning to work with young children is unique and represents a significant opportunity to build interdisciplinarity. In doing so, it is possible not only to reduce the significant inconsistencies within courses in singular disciplines, but also to open dialog about inter- and cross-disciplinary purposes, theories and approaches in working with young children and their families.

Notes

1. 'Graduates at this level will have knowledge and skills for work in a defined context'.
2. 'Graduates at this level will have broad and coherent knowledge and skills for professional work'.
3. 'Graduates at this level will have specialised knowledge and skills for research, and/or professional practice' (AQFC 2013, 18).
4. http://www.flinders.edu.au/mnhs/early-years/early-years_home.cfm .
5. Available at http://www.flinders.edu.au/mnhs/early-years/disciplines.cfm.

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