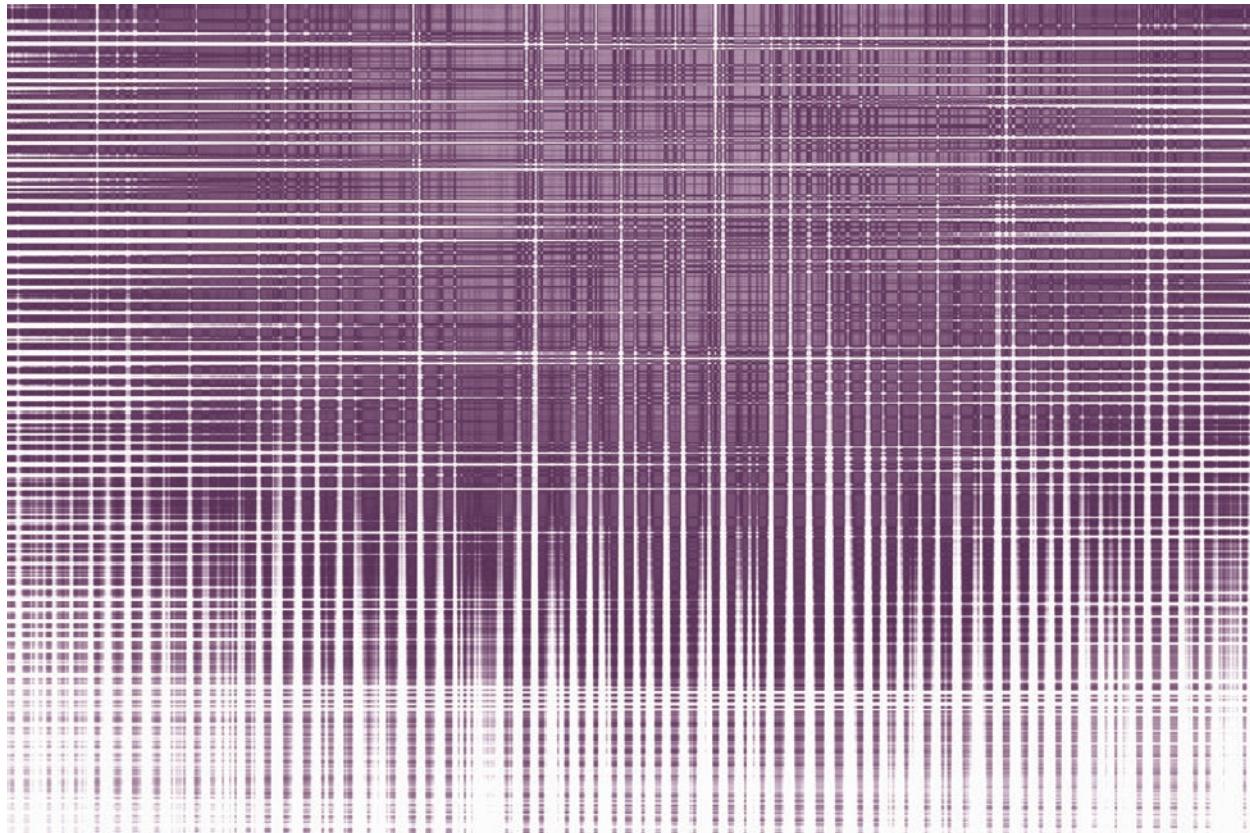




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Building Children's Resilience through Respectful and Gender Equitable Relationships Pilot Project

A literature review

T. King, A. Meehl and N. Priest

CSRM WORKING PAPER
NO. 4/2018

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Building Children's Resilience through Respectful and Gender Equitable Relationships Pilot Project

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Abstract

The need to pursue cultural change to promote appropriate attitudes and behaviours towards women is being increasingly recognised, both within Australia and globally. The delivery of respectful relationships education (RRE) as part of the Australian curriculum is one significant part of this, and is supported by state-led initiatives to introduce preventive education to address gender-based violence (Department of Education and Training 2015).

The City of Melbourne has taken a proactive approach to driving positive cultural change, in an effort to influence appropriate attitudes and behaviours towards women. The Building Children's Resilience through Respectful and Gender Equitable Relationships Pilot Project represents one facet of a broad suite of strategies to promote and normalise gender equity.

As identified in the recent evidence paper by Our Watch (Gleeson et al. 2015), one of the key elements that may predict violence against women is the promulgation and internalisation of 'structures, social norms and organisational practices supporting gender inequality' (Gleeson et al. 2015:7).

Recent initiatives such as RRE target school-aged children, but there are no known initiatives aimed at preschool children. Recognising this gap, the City of Melbourne commissioned this research project to scope the potential to intervene in the early childhood years.

The scoping project documented in this report presents the results of a rapid, comprehensive and systematic review of empirical evidence from the past 10 years, conducted with the following aims:

- to evaluate the effectiveness of interventions to promote gender equity and prevent gender bias among children aged 3–5 years
- to synthesise empirical studies regarding the development of gender roles, bias and stereotypes among children aged 3–5 years.

This project emphasises a primary prevention approach – that is, it focuses on population-level approaches rather than individual, treatment-focused action.

Acknowledgments

This literature review was undertaken on behalf of the City of Melbourne to support the development of the Building Resilience through Respectful and Gender Equitable Relationships Pilot Project. It was prepared by Dr Tania King, Ms Anneke Meehl and Dr Naomi Priest from the Australian National University.

Acronyms

ANU The Australian National University

GSF gender salience filter

RRE respectful relationships education

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1 Background

Violence against women is recognised as a key public health issue with known social, economic and health consequences for women, their families and communities. It is widely recognised that holding traditional views about gender roles and belief in male dominance is one of the most consistent predictors of violence against women (Foshee et al. 2008, Grubb & Turner 2012). Indeed, a recent VicHealth report found that attitudes to gender equality were the strongest influence on understandings of violence against women (VicHealth 2014).

Primary prevention has emerged as a key focus of efforts, at both community and government levels, to address violence against women. Children have been identified as a cornerstone of this approach, because exposure to norms and stereotypes, and relationship behaviours modelled (e.g. violence versus respect, loving communication versus antagonism) can influence and shape relationships in adulthood. Furthermore, in a recent submission to the Royal Commission into Family Violence, Early Childhood Australia noted a gap in violence prevention programs aimed at children in the early childhood years (Early Childhood Australia 2015).

Adopting a gender-transformative approach (Women's Health Victoria 2012), and redefining and challenging social and cultural norms and stereotypes in an early childhood setting offer a significant opportunity to set the foundations for healthy and respectful relationships in adolescence and adulthood.

This report adds to a growing body of policy, practice and research evidence focused on addressing violence against women and respectful relationships education (RRE). With the Royal Commission into Family Violence, the appointment of Rosie Batty as Australian of the Year, and increased public and media discussion about violence against women and gender equity, this is a rapidly evolving policy space. A detailed review of

this wider context is beyond the scope of this rapid evidence review; however, several key initiatives must be noted. VicHealth has led much recent work in Australia on prevention of violence against women as a key determinant of health, including the development of a framework that prioritises:

- promoting equal and respectful relationships between men and women
- promoting nonviolent norms and reducing the effects of prior exposure to domestic violence
- improving access to resources and support systems across multiple levels – societal, community, organisational, individual and relational.

The framework also includes a focus on documenting community attitudes to gender equity and violence against women across the population. Gender-equity norms are seen as foundational to preventing violence against women.

In 2015, Our Watch, together with VicHealth and the Australian National Research Organisation for Women's Safety, released *Change the story: a shared framework for the primary prevention of violence* (Our Watch et al. 2015). This framework further emphasises gendered drivers of violence against women, including rigid gender roles, and stereotyped constructions of masculinity and femininity. It identifies essential actions such as the need to foster positive personal identities, and challenge gender stereotypes and roles; strengthen positive, equal and respectful relations between and among women and men, and girls and boys; and promote and normalise gender equality in public and private life. Schools are identified as key settings in which children and young people learn about gender equity, and respectful relationships are identified as a priority in the *Change the story* framework. Building capacity within local government is also recognised as an important area of work.

In this wider policy context, RRE in schools is increasingly recognised as a key priority. Best-practice approaches to RRE emphasise the need for a whole-school approach that includes in-class education, and action to address wider school culture, policies and procedures, and to promote gender equity among staff to support the growth of students into adults who can have safe, respectful and equal relations. Teaching students the skills to build respectful relationships, as well as to recognise and challenge gender stereotyping and violence-supportive attitudes, is a key strategy identified in RRE approaches.

Although Our Watch has recently released a summary of the latest evidence on RRE and whole-of-school approaches in this area, there is a need to also synthesise the best available evidence on such initiatives in early childhood and preschool settings.

The City of Melbourne, as a provider of children's and family services, including children's centres, has a key role to play in implementing evidence-based best practice across its services and in contributing to building further evidence of best practice in this area.

1.1 What are bias, stereotypes and prejudice, and how are they related?

A range of terms and concepts are used when thinking about individuals or groups within a society – for example, women, ethnic minorities and people with disabilities – being treated differently based on their group membership. These terms include sexism, discrimination, bias, stereotyping and prejudice. They have different meanings and connotations, and different policy and practice responses. Perhaps the most general and wide spread term, however, is intergroup bias. Hewstone et al. (2002) define intergroup bias as the ‘systematic tendency to evaluate one’s own membership group (the in-group) or its members more favourably than a non-membership group (the out-group) or its members’.

Intergroup bias is a tripartite concept comprising stereotypes (categorical beliefs about the characteristics of a particular group), prejudice (evaluative–affective responses, emotions and feelings about a particular group) and discrimination (behaviour towards a group and its members). Although these terms are often used interchangeably with the term ‘bias’, they are each distinct components of bias that are related to each other. For example, stereotypes drive discriminatory behaviours, as do emotions and affective responses (Cuddy et al. 2006).

Importantly, intergroup bias includes both in-group favouritism, in which trust, cooperation, positive regard, empathy and so on are extended to others in the in-group (those categorised as similar to the self); and out-group hostility, in which hostility, derogation and antipathy are extended to perceived out-groups. In-group favouritism can occur without out-group hostility, and thus it is important to understand intergroup bias as more than negative evaluations, overt hostility, dislike or antipathy (Cohrs & Duckitt 2012, Dixon et al. 2012). In fact, such negativity is the exception rather than the rule. Evidence suggests that most men express warm, positive emotional attitudes to women, and often like them more than they like other men. Hostility and dislike of women are thus unlikely to drive behaviours of men that maintain gender inequality and discrimination against women (Dixon et al. 2012). Rather, the theoretical framework of ‘ambivalent sexism’ suggests that instead the driver is the pervasiveness of beliefs, stereotypes and attitudes that seem supportive of women, yet treat them as needing protection and lacking agency, independence and competence. These ideas in turn support keeping women ‘in their proper place’ as a subordinate group, by encouraging derogation of those who threaten male advantage and do not conform to traditional gender roles; these ideas are key drivers of gender relations and inequalities (Dixon et al. 2012).

1.2 Bias, stereotypes and social norms: when do they arise and what are the influences?

Although it is often thought that children are relatively free of the social biases and stereotypes that adults exhibit, evidence suggests that the foundations for these stereotypes are actually set very young (Bigler & Wright 2014). There is evidence that children gain insight into certain cultural gender stereotypes and develop preferences for same-gender peers between the ages of 2 and 3 (Ruble & Martin 1998). Research also suggests that stereotyping and prejudice along race and gender lines can be observed in children as young as 3–4 years of age (Aboud 1989).

It is sobering to observe the persistence of gender stereotypes, despite initiatives aimed at assuring gender equity – such as *Title IX*, an education amendment signed in 1972 in the United States, which aimed to eliminate discrimination in programs serving children (Freeman 2007). The sources of influence on the development and promulgation of gender stereotypes, norms and biases are varied and pervasive. They include parents and other family, teachers, peers, the media, and popular culture and toys (Aina & Cameron 2011).

1.3 Why do bias, prejudice and stereotypes matter?

Bias, prejudices and stereotypes are costly at an individual and population level; indeed, there are both equity and economic imperatives to address them (Hunt et al. 2014). They may limit educational, recreational and ultimately employment opportunities for girls and boys. Toy preference, for example, may be influenced by a child's set of beliefs and expectations about what types of toys are appropriate for girls and boys to play with.

Although, on the face of it, these effects may seem innocuous enough in a preschool-aged child, Liben (2016) argues that, compounded over time, they may influence the interests and skills that emerge, and ultimately the types of employment roles and opportunities afforded. If girls avoid playing with toys such as Lego, they may miss opportunities to

develop spatial and mechanical reasoning skills that are necessary for careers and courses in science, technology, engineering and mathematics (STEM); these fields are often well paid and prestigious – and male dominated. The toys that are marketed to girls may foster interest in occupations that are typically lower paid, such as teaching and nursing (Pope 2015). Further, it is speculated that gender-stereotyped toys may encourage and elicit undesirable behaviours in both boys and girls: violence and aggression in the case of some stereotypical boys' toys, and a focus on appearance in the case of girls' toys (Pope 2015).

It is also recognised that gender stereotypes are not all equal: gender-stereotyped activities for girls are of lower status than gender-stereotyped activities for boys (Mulvey & Killen 2015). This has equity implications for both boys and girls. Historically, stereotypes have acted as societal exclusions (locking girls out of participation in particularly activities), but there is evidence that nonconformist choice of activities among boys may present psychological barriers. Boys engaging in gender-nonconformist behaviour are judged more harshly than girls engaging in nonconformist behaviour.

Of pertinence to the current project, there is also evidence that exposure to gender stereotypes and beliefs can influence interpersonal relationships. As noted above, female stereotypes are typically of lower status than male stereotypes. This can have implications for household and societal roles, and the respect and status afforded them. This in turn sets up a foundation for the distribution of power and respect across genders. Equitable and healthy relationships depend on a shared distribution of power and respect; conversely, rigid stereotypical gender roles across power and status differences are recognised as key contributors to gender-based and domestic violence. Examining and challenging stereotypes and prejudices is therefore a priority in fostering and promoting healthy and equitable relationships within society.

1.4 Why the preschool period?

Because stereotypes and biases form in early childhood, targeting young children in early learning settings offers the potential to set the foundations for equitable and healthy relationships before behaviours and attitudes become entrenched.

As well, many children spend a large amount of time in early learning environments such as preschool and child care. The influence of this environment at such a formative stage in their lives cannot be overstated. The classroom environment can influence children's understanding of social issues and norms, such as those in relation to gender, and can also influence what and how children think about themselves and others (Aina & Cameron 2011). Children operate like detectives, always seeking to classify and decode. This is the way we have evolved to make sense of the world: we classify on the basis of the cues that abound in our environment. Social and cultural norms and stereotypes provide salient cues, and form the scaffolding upon which many future life outcomes are built, including educational and employment opportunities and outcomes, psychological and physical wellbeing, and – critically – interpersonal relationships. There is, therefore, a clear imperative to interrogate and potentially redefine the social and cultural norms and stereotypes that are acting as cues to young children in our society.

To inform action to promote healthy, respectful and equitable gender relationships in early childhood settings, the City of Melbourne commissioned a review of current evidence on effective interventions in this area.

2 Aims and methods

A rapid systematic review was conducted to identify and synthesise recent empirical evidence in a clear, transparent and rigorous way. Such approaches are considered gold-standard methods for literature reviews because of their reproducibility, and transparent search and synthesis strategies. These include a priori criteria for inclusion and exclusion of studies.

The aims of this present systematic review were:

- to evaluate the effectiveness of interventions to promote gender equity and prevent gender bias among children aged 3–5 years
- to synthesise empirical studies regarding the development of gender roles, bias and stereotypes among children aged 3–5 years.
(This second objective was included after an initial scoping search of the evidence on effective interventions among children aged 3–5 years revealed limited literature.)

2.1 Inclusion criteria

The inclusion criteria for studies were as follows.

2.1.1 Types of studies

- Reviewed published and unpublished empirical effectiveness studies (including ‘grey literature’ – material not published in a traditional academic format) that report evidence from evaluated interventions using the following types of study designs: randomised controlled trials, cluster randomised control trials, nonrandomised trials such as before-and-after studies, and qualitative studies.
- Published and unpublished empirical studies that report observational and experimental evidence using quantitative and qualitative designs.
- Only studies published in the past 10 years (2006–16), because of societal change in the

cultural context, as well as changes in attitudes and awareness of gender equity and relations.

2.1.2 Types of participants

Children aged 3–5 years, along with their parents, caregivers and service providers (such as educators and healthcare workers). Studies with primary and high-school students were excluded.

2.1.3 Types of interventions

- All mechanisms for promotion of positive attitudes, beliefs and behaviours regarding gender, gender equity and prevention of gender bias among children 3–5 years of age. Interventions included:
 - health promotion
 - social-behavioural
 - technology
 - educational (primary prevention).
- Clinical and treatment programs for children who have experienced sexual abuse or domestic violence were not included.
- Abuse prevention and protective behaviour programs were not included.
- Only studies conducted in high-income developed countries were included. Studies conducted in low-income developing contexts were not included because of vastly different sociocultural contexts related to gender.

2.1.4 Types of outcome measures

- Outcomes for children included intergroup attitudes, beliefs and behaviours related to gender (e.g. tolerance, in-group favouritism, attitudes towards discriminating behaviour).

- Outcomes for parents and educator staff included:
 - intergroup attitudes, beliefs and behaviours related to gender (e.g. prejudice, bias, stereotyping, tolerance, in-group favouritism, attitudes towards discriminating behaviour)
 - knowledge, confidence, skills and behaviour in promoting gender equity and addressing gender bias with children.

2.2 Search strategy and data extraction

The following databases and electronic journal collections were searched: Medline, CINAHL, PsycINFO and Sociological Abstracts. The research team members' personal libraries and networks were also searched. In addition, Google and other website searches were conducted.

The initial search generated 2652 results that were screened for inclusion. All titles and abstracts were screened using EndNote X7. Any queries about a study to be included were discussed between the authors. When required, full-text papers were obtained to assess inclusion. After screening, 28 studies were obtained that met the inclusion criteria.

The quality of included studies was assessed to determine whether there was:

- no evidence of effectiveness, or
- promising evidence of effectiveness, or
- evidence of effectiveness.

This was based on the quality of the intervention design, such as the theory of change and theoretical framework, sample size, quality of outcome measures, quality of analyses, dose, intervention integrity and fidelity.

Data from studies meeting the inclusion criteria were entered into a table by all authors.

3 Findings

3.1 Description of studies

We located 28 studies that met the inclusion criteria, of which 25 were reported in peer-reviewed academic journals, one was published in a book chapter and academic journal, and two were reported in PhD dissertations. We were unable to identify any well-evaluated intervention studies that addressed the first aim of the review (the effectiveness of interventions) within either academic or grey literature. All included studies addressed the second aim (the development of gender roles, bias and stereotypes).

3.1.1 Study design and methods

A wide range of study designs and methods were used in the included studies.

Cross-sectional

Most studies used cross-sectional designs in which data were collected at one time point (Rodriguez et al. 2006; Freeman 2007; Hastings et al. 2007; Ruble et al. 2007; Miller et al. 2009; Cherney & Dempsey 2010; Early et al. 2010; Markstrom & Simonsson 2011; Goble et al. 2012; Kelly 2012; Halim et al. 2013a, 2014; Hawkins 2014; Bosacki et al. 2015; Coyle & Liben 2016).

Experimental

Six studies used experimental designs in laboratory settings (Baron 2010, Cvencek et al. 2011, Pillow et al. 2015) or educational settings (Patterson & Bigler 2006, Hilliard & Liben 2010, Sherman & Zurbriggen 2014).

Longitudinal

Five studies used longitudinal designs ranging from 1 year to 3 years (Golombok et al. 2012; Halim et al. 2013b; Coyne et al. 2014, 2016; Bouchard et al. 2015).

Quantitative

Studies predominantly used quantitative methods, spanning teacher, parent and child report surveys; structured interviews with children; and structured observations of children's play, and interactions within educational and laboratory settings.

Qualitative

Four studies were solely qualitative in nature. They comprised an analysis of discursive discussions of preschool girls within transcripts of parent-teacher interviews (Markstrom & Simonsson 2011), a research project across two preschools that explored the use of story time as a means of supporting education about social justice (Hawkins 2014), and a further two studies that adopted ethnographic approaches in their examination of children's play (Wohlwend 2009, Anggard 2011).

3.1.2 Study setting

The most common study setting was education and care contexts, including schools, preschools and childcare centres (Patterson & Bigler 2006, Freeman 2007, Hastings et al. 2007, Ruble et al. 2007, Miller et al. 2009, Wohlwend 2009, Baron 2010, Cherney & Dempsey 2010, Early et al. 2010, Hilliard & Liben 2010, Anggard 2011, Markstrom & Simonsson 2011, Goble et al. 2012, Kelly 2012, Coyne et al. 2014, Halim et al. 2014, Hawkins 2014, Sherman & Zurbriggen 2014, Bouchard et al. 2015, Coyle & Liben 2016).

Four studies collected data within university settings, including computer-based tasks with children (Baron 2010, Cvencek et al. 2011, Pillow et al. 2015), and interviewing mothers and/or children (Ruble et al. 2007). One study collected data in children's homes or at a university (Halim et al. 2013b), another was conducted online via a web-based questionnaire with child behaviour vignettes administered to parents (Bosacki et al.

2015), and a third was completed by parents and children in their homes (Golombok et al. 2012).

3.1.3 Geographic location

The majority of studies (17) were conducted in the United States. Three were conducted in Canada (Hastings et al. 2007, Bosacki et al. 2015, Bouchard et al. 2015). One study was conducted in each of Australia (Hawkins 2014), the United Kingdom (Golombok et al. 2012) and Spain (Rodriguez et al. 2006). Two studies were conducted in Sweden (Anggard 2011, Markstrom & Simonsson 2011).

3.1.4 Study participants

Children only

Half of the studies identified (14 of 28) collected data from children exclusively (Patterson & Bigler 2006, Ruble et al. 2007, Miller et al. 2009, Wohlwend 2009, Baron 2010, Cherney & Dempsey 2010, Early et al. 2010, Hilliard & Liben 2010, Anggard 2011, Cvencek et al. 2011, Goble et al. 2012, Kelly 2012, Pillow et al. 2015, Coyle & Liben 2016).

Educators only

Two of the studies collected data solely from educators (Rodriguez et al. 2006, Bosacki et al. 2015).

Parents only

One study collected data from parents only (Coyne et al. 2014), with the parents reporting about their children's behaviours.

Two participant groups

Nine of the studies collected data from two participant groups. Of these, seven included children and their parents (Freeman 2007; Golombok et al. 2012; Halim et al. 2013a,b, 2014; Sherman & Zurbriggen 2014; Coyne et al. 2016), and two included children and their educators (Hawkins 2014, Bouchard et al. 2015).

Three participant groups

Only two studies included children, parents and educators (Hastings et al. 2007, Markstrom & Simonsson 2011).

3.1.5 Sample size

Overall, the included studies had relatively small sample sizes, with more than half the studies having a sample size of 100 participants or fewer (Patterson & Bigler 2006, Rodriguez et al. 2006, Freeman 2007, Ruble et al. 2007, Miller et al. 2009, Wohlwend 2009, Baron 2010, Cherney & Dempsey 2010, Hilliard & Liben 2010, Anggard 2011, Cvencek et al. 2011, Markstrom & Simonsson 2011, Sherman & Zurbriggen 2014, Bosacki et al. 2015, Pillow et al. 2015, Coyle & Liben 2016). Five studies had sample sizes of 101–200 (Hastings et al. 2007; Kelly 2012; Coyne et al. 2014, 2016; Bouchard et al. 2015), and six had more than 200 participants (Early et al. 2010; Goble et al. 2012; Golombok et al. 2012; Halim et al. 2013a,b, 2014). One study did not indicate a sample size of participants, only that it was conducted across two preschool centres (Hawkins 2014).

3.1.6 Length of study

Seventeen of the papers did not indicate the length of the study (Rodriguez et al. 2006; Ruble et al. 2007; Miller et al. 2009; Baron 2010; Cherney & Dempsey 2010; Early et al. 2010; Cvencek et al. 2011; Markstrom & Simonsson 2011; Goble et al. 2012; Kelly 2012; Halim et al. 2013a,b, 2014; Sherman & Zurbriggen 2014; Bosacki et al. 2015; Bouchard et al. 2015; Pillow et al. 2015). Most of the data for these studies were likely to have been collected at a single time point.

Less than 6 months

Five studies spanned less than 6 months. In the Coyle and Liben (2016) study, students participated in two sessions across 1–2 weeks. In the Freeman study (2007), children were interviewed twice within 1 month. Hilliard and Liben (2010) acknowledged that their 2-week intervention was not long enough to affect children's own interests, and that children would likely internalise gender stereotypes and show more gender-linked interests over a longer period. The Patterson and Bigler (2006) study spanned 3 weeks. The Hawkins (2014) study spanned a single school term.

Six to 12 months

Four studies spanned 6–12 months. In the Hastings et al. (2007) study, parents were interviewed and

then their children were observed 6 months later, although it was not clear that this time lag was intentional, as the longitudinal design was not exploited. In the recent paper by Coyne et al. (2016), children were tested at two time points, approximately 1 year apart. Both ethnographic studies involved the collection of data over the course of a year: that of Wohlwend (2009) involved the collection of data during 24 visits over the course of one school year, while the data of Angaard (2011) were collected during weekly class visits.

More than 12 months

Three studies spanned more than 12 months. In the Coyne et al. (2014) study, data were recorded at two points of time 1 year apart. In one of the Halim studies (Halim et al. 2013b), data were collected in three waves: when the children were 3, 4 and 5 years of age. One study was conducted over a period of 10 years – at the first time point, children were 3.5 years old; at the second time point, they were 13 years old (Golombok et al. 2012).

3.1.7 Theoretical framework

Six studies did not report a theoretical framework (Freeman 2007, Hastings et al. 2007, Early et al. 2010, Cvencek et al. 2011, Bosacki et al. 2015, Bouchard et al. 2015).

Gender schema theory

Two studies (Miller et al. 2009, Goble et al. 2012) used gender schema theory. Gender schema theory argues that children use gender as a tool to process new information in a way that often conforms to societal expectations. Gender thereby plays an influential role in shaping children's behaviour (Martin et al. 2002). One study (Coyle & Liben 2016) used constructivist gender schema theory, which argues that children will engage with objects and activities they judge to be self-relevant (Martin & Halverson 1981).

Intergroup theory

According to intergroup theory, individuals tend to demonstrate biases favouring their in-group, even when this behaviour has no impact on personal outcomes. More recent work surrounding intergroup theory has found that individuals' preferential

behaviour is motivated by the creation and maintenance of positive self-esteem (Tajfel et al. 1979, Hogg & Hains 1996).

Two studies (Cherney & Dempsey 2010, Hilliard & Liben 2010) used developmental intergroup theory. This theory analyses the emergence of social stereotypes through constructivist lenses. Similar to other constructivist views of gender development, it sees children as actively processing social stimuli as individual agents. Within this theory, constructivist processes are analysed to gain an understanding of their role in forming and maintaining social-group categories that provide the basis for developing stereotypes and prejudices.

Patterson and Bigler (2006) drew on intergroup and cognitive-developmental theories.

Cognitive theory of gender development

Cognitive-developmental theory holds that children's ability to categorise others consistently along a particular dimension is relevant to their tendency to develop in-group biases. This theory predicts that, as children learn about gender categories, they will become highly motivated to strictly adhere to gender stereotypes. This adherence may increase in rigidity as children construct and consolidate information about gender categories (Ruble 1994, Martin et al. 2002).

Several studies used this framework (Halim et al. 2013a,b, 2014; Coyne et al. 2014, 2016).

Constructivist theories

Two studies used constructivist theoretical frameworks. Markstrom and Simonsson (2011) used a social constructivist perspective, which suggests that the construction of gender is social, relational, and located in discourses and language (Burr 2003, Gergen & Gergen 2004).

Rodriguez et al. (2006) used a theoretical framework that agrees with theories that view gender identity as a socially constructed phenomenon. This theory posits that gender identity is constantly evolving, and influenced by various social frameworks in which people interact in their daily life (Davies & Banks 1992; Davies 1993, 1997; Connell 1995;

Hallden 1997; Jones 1997; Volman & Ten Dam 1998; Nilan 2000, Swain 2000).

Reflected appraisal

One study (Halim et al. 2013a) used theories of reflected appraisal, which argue that the way in which an individual is viewed by the rest of society shapes the way in which they view themselves (Mead 1934).

System justification theory

One study (Baron 2010) used system justification theory. Advocates of this theory argue that there is a general ideological motive to justify the existing social order (Jost et al. 2004).

Cognitive-developmental approach

One study (Ruble et al. 2007) used the cognitive-developmental approach, which proposes that children are propelled to learn about gender by their own internal motivations rather than by external rewards or reprisals. As children begin to understand that their gender is permanent, they begin to seek information about their gender and to conform to gender norms (Kohlberg 1996).

Three studies used multiple theoretical frameworks. Hawkins (2014) drew upon participatory world view and critical theory. Participatory world view holds that individuals and their ecology co-create their world by being situated and reflexive (Reason & Bradbury 2006). This theory is underpinned by critical theory, which Hawkins (2014) also drew upon. Critical theory is a social theory that is authentically self-reflexive (Peters et al. 2003).

Kelly (2012) drew upon the social cognitive domain model, gender stereotype theory and false belief theory of mind. The social cognitive domain model is a paradigm of social reasoning that argues that people of all ages use moral, social, conventional and psychological domains of social reasoning (Turiel 1983, 1998; Smetana 2006). An individual is considered to have theory of mind if they possess the ability to attribute mental states to themselves and to others (Premack & Woodruff 1978).

Pillow et al. (2015) drew upon developmental intergroup theory (Liben 2015) – explored above) – and essentialist theories. According to gender

essentialism, gender differences are natural, persistent and universal (Liben 2015). In contrast, gender constructivists regard differences as being the product of different social, cognitive and environmental forces and influences (Liben 2015).

Post-structuralist

The post-structural perspective draws on the work of Foucault and Bourdieu, and disavows the ‘dualism’ or binary categorisation of gender: they argue that there is no single category of ‘boy’ or ‘girl’. Post-structuralists regard gender as being socially constructed; indeed, they claim that children are actively involved in the formation of their gender identity in their everyday lives. One critical element of post-structuralism is the identification of the ways that different aspects of identity intersect, including sex, race, ethnicity, class and sexuality. Two of the studies reviewed here drew on post-structural perspectives (Wohlwend 2009, Anggard 2011).

Objectification theory

According to objectification theory, girls and women are acculturated to internalise the viewpoint of others and adopt this viewpoint as the primary means of viewing their physical selves. One study examined here adopted objectification theory (Sherman & Zurbriggen 2014).

3.1.8 Process indicators

Process indicators were explicitly reported in two of the studies. In the Hilliard and Liben (2010) study, researchers observed the classrooms every few days over the 2-week study period to observe whether teachers were continuing to use gender (or not) as requested; the educators were observed to be following these instructions. Two observers independently recorded the number of own- and other-sex peers that the child subject interacted with during the observational periods. There was high reliability between coders, but data from the primary observer were used if disagreement arose. In the Ruble et al. (2007) study, preliminary analyses indicated no significant differences in the data collected by the various interviewers.

3.1.9 Outcome measures

A wide range of measures were used in the included studies; very few measures were used across multiple studies. Most measures were developed for the studies, with few validated measures reported.

The following child measures (child completed or observations of children) were used.

Interviewer-administered questionnaires and tasks:

- preschool occupations, activities and traits – personal measure (Hilliard & Liben 2010, Coyle & Liben 2016)
- gender schema theory measure (tracking gendered affiliation, gender memory and gender typicality) (Coyle & Liben 2016)
- preschool interpersonal problem-solving task (Bouchard et al. 2015)
- gender constancy, stability and consistency (Ruble et al. 2007)
- gender beliefs – measuring knowledge and feelings about gender, and importance that they and others adhere to gender norms (Ruble et al. 2007)
- peer and parent rigidity regarding gender norms – measuring fear of being sanctioned by others for norm violations (Ruble et al. 2007)
- lifetime appearance rigidity – categorising ways that children express appearance rigidity (i.e. insisting on gender-typed clothing) (Halim et al. 2014)
- parent preferences for child's clothing (Halim et al. 2014)
- current gender-typed appearance – assessing typical outfits for child (Halim et al. 2014)
- centrality and evaluation – measuring how important being a boy or girl is to child (Halim et al. 2014)
- stability constancy – assessing understanding of gender as a stable concept (Halim et al. 2014)
- gender accessibility measure: soliciting open-ended descriptions of girls and boys (Miller et al. 2009)
- public regard – measuring what children think other people think: 'who do most people think are better, boys or girls?' (Halim et al. 2013a)
- private regard – measuring what children think: 'do you think your own gender is great or not so great? Do you think the other gender is nice/smart/etc.'? (Halim et al. 2013a)
- toy choice task based on Raag and Rackliff (1998) – children being asked to choose a toy from a pile of toys as a gift for a boy and for a girl, then asked to sort toys and make a pile of toys for a girl and a pile of toys for a boy (Freeman 2007)
- classification ability – nonsocial and social sorting tasks (Patterson & Bigler 2006)
- pictorial scale of perceived competence and social acceptance for young children (Harter & Pike 1984) to assess self-esteem (Patterson & Bigler 2006)
- perception of trait variability between groups adapted by Bigler from the Preschool Racial Attitude Measure II (Williams et al. 1975, Patterson & Bigler 2006)
- evaluation of in-group versus out-group task (Patterson & Bigler 2006)
- peer preference picture sorting task (Asher et al. 1979) – determining how much each child likes to play with others in the classroom by placing a photograph of each child in one of three boxes, each displaying schematic drawings of faces (large smile, small smile, small frown) or pointing to pictures of one of three faces (Patterson & Bigler 2006, Hilliard & Liben 2010)
- toy preference forced choice task (Campenni 1999, Patterson & Bigler 2006)
- person preference using photographs of unfamiliar people (Patterson & Bigler 2006, Hilliard & Liben 2010)
- child prosocial behaviour via child dyads in laboratory setting (Hastings et al. 2007)
- Intergroup Attitudes Attribution of Intention Task – structured interviews using vignettes to explore gender stereotypes and moral reasoning (Kelly 2012).

Computer tasks:

- game describing jobs and tools needed to perform them, with children rating interest in those jobs (Coyle & Liben 2016)

- Preschool Implicit Association Test (Cvencek et al. 2011)
- explicit attitudes – ratings of insects as good or bad, ratings of girls and boys as good or bad (Cvencek et al. 2011)
- ratings of preferences across generalised stereotypes, neutral behaviours and novel biological traits (Pillow et al. 2015)
- noun labels and visual cues for social categorisation (Baron 2010).

Ratings of naturalistic observations of children:

- prosociality rating scale (Bouchard et al. 2015)
- exposure to gendered and gender-neutral toys in 10-minute videotaped play sessions (Cherney & Dempsey 2010)
- gender-typed appearance (Halim et al. 2013b)
- emerging academic snapshots (Ritchie et al. 2001) in which children are observed for a day, and setting, activity type and teaching interactions are coded (Early et al. 2010)
- peer preferences following Martin and Fabes's (2001) procedure for ratings (Patterson & Bigler 2006)
- observation of social contexts, play and teaching roles across a checklist of 29 available activities (Goble et al. 2012)
- observations of outdoor play (Anggard 2011)
- peer play observations and ratings of own- and other-sex peers played with over three observational periods on each of 4 days (Hilliard & Liben 2010)
- observed toy preference (Coyne et al. 2016)
- career cognitions measure (Sherman & Zurbriggen 2014).

Parent report:

- child superhero exposure in media, weapon play and male stereotype play (Coyne et al. 2014)
- mediation of child's media use – for example, how often parents try to help their children understand what they see in the media (Coyne et al. 2014, 2016)
- television violence – child's three favourite television shows subsequently rated by

researchers for level of violence (Coyne et al. 2014)

- preschool activities inventory (Golombok et al. 2012; Coyne et al. 2014, 2016)
- gender-typed dress-up play (Halim et al. 2013b)
- gender-typed play (Halim et al. 2013b)
- sex-segregation play (Halim et al. 2013b)
- hours of television watched by child (Halim et al. 2013a, Coyne et al. 2016)
- parents' division of housework (Halim et al. 2013a)
- child rearing practices report – authoritative parenting style (Hastings et al. 2007)
- child behaviour vignettes – parental responsiveness to prosocial behaviour (Hastings et al. 2007)
- Disney princess engagement (Coyne et al. 2016)
- gender-stereotypical toy preference (Coyne et al. 2016)
- child's prosocial behaviour using parent adaptation of the preschool social behaviour survey (Coyne et al. 2016)
- parent report of child's body esteem (Coyne et al. 2016)
- parent's body esteem (Coyne et al. 2016)
- parent report of child's Barbie play – number of dolls and frequency of play (Sherman & Zurbriggen 2014).

Educator report:

- California child Q-Sort measure of perceived prosociality (Bouchard et al. 2015)
- child behaviour vignettes (Bosacki et al. 2015)
- child's prosocial behaviour from the Social Competence and Behaviour Evaluation: Preschool Edition (SCBE parent report) (Hastings et al. 2007)
- gender-stereotypical toy preference (Coyne et al. 2016)
- preschool activities inventory (Coyne et al. 2016)
- child's prosocial behaviour using the social skills questionnaire (Coyne et al. 2016).

4 Results

4.1 Presence and establishment of gender bias

Three studies reported on the presence of gender bias. Cvencek et al. (2011) found that girls were significantly more positive towards their own gender than boys, in both implicit and explicit measures. The ‘preschool activities inventory’ used in this study revealed that girls engage in more feminine behaviour during their play activities than boys.

Halim et al. (2013a) found that boys and girls were more likely to think that their own gender was better. Increased television exposure predicted a greater likelihood of children believing that others think boys are better. A child who watched 3–4 hours of television per day was twice as likely to say that others think boys are better than a child who watched no television. A more unequal division of housework among parents predicted a greater likelihood of girls believing that others think boys are better. This unequal division did not predict that boys believe others think girls are better.

The use of colour groups (red and blue) to label and organise the classroom in the Patterson and Bigler (2006) study produced measurable in-group bias in the relatively short period of 3 weeks. These results demonstrate the ease with which children are cued by environmental stimuli to in-group biases.

4.2 Presence of gender stereotypes

Several studies reported on the presence of gender stereotypes. Data from the Baron (2010) study demonstrated that a noun label alone is sufficient to establish a social category and to elicit a robust pattern of generalisation, even in the complete absence of visual cues to category membership.

Coyne et al. (2014) found that boys were exposed to significantly more superhero programs and violence in the media than girls. Boys also showed significantly higher levels of male-stereotyped play and weapon play than girls. The study found that boys who viewed superhero programs were more gender stereotyped in terms of their play and activities a year later, even after controlling for initial levels of gender-stereotyped play. Girls who frequently viewed superhero programs exhibited similar levels of male-stereotyped play to those who viewed these programs less frequently.

Freeman (2007) found that 92% of 3-year-olds tended to reflect gender-typical stereotypes. Three year-old girls identified toys along slightly more stereotypical lines than boys, and were also unanimous in their opinion that parents would approve if they were to play with ‘girl toys’. Both boys and girls predicted that their opposite-sex parent would be more supportive of cross-gender choices. Five-year-olds applied gender stereotypes more rigidly than their 3-year-old schoolmates, with both boys and girls sorting the toys more stereotypically. Boys’ responses indicated that they felt the effects of more narrowly defined gender stereotypes as they grew older. Five-year-old boys thought that their father would approve of cross-gender choices just 9% of the time, while 3-year-old boys predicted approval for cross-gender toy selections 20% of the time. Five-year-old boys predicted their mothers’ approval of cross-gender play (36%) would be lower than did the 3-year-olds (20%). Like the 3-year-old girls, these 5-year-olds also thought that adults would approve of ‘girl toys’ 100% of the time. Five-year-old girls and boys thought their opposite-sex parent would be more accepting of cross-gender choices. The parents reported much higher levels of support for girls’ cross-gender plans than the girls perceived.

Hilliard and Liben (2010) demonstrated the effect of gender-salient cues on the establishment of gender-stereotyped behaviour. They found that there was no significant change in gender-stereotyped attitudes from pre- to post-test in the low-salience classroom. However, there was an increase in gender stereotypes in the high-salience classroom, where the teachers used gendered language, physically separated the girls and boys, and made gender salient in terms of the classroom organisation.

Results from the Miller et al. (2009) study revealed that the most frequent response domain for the girl target was appearance (31%), followed by traits (19%) and activities (14%). In contrast, the most frequent responses for the boy target concerned traits (27%), followed by activities (19%) and appearance (13%). Overall, these percentages suggested domain differences in the most accessible stereotypes that children provided for girls versus boys, with a very notable difference for use of the appearance domain when describing girls versus boys.

Results from the Ruble et al. (2007) study indicated that, between the ages of 3 and 5, there was a general pattern of an increase in stereotype knowledge, the importance and positive evaluation of one's own gender category, and the rigidity of beliefs. After age 5, rigidity generally decreased with age.

The Pillow et al. (2015) study found that the generalisations children made about biological properties or behaviours did not vary by gender. Children generalised on the basis of appearance more than classmate status. In the stereotype condition, children generalised both behaviours and biological properties on the basis of gender more than appearance. In the neutral condition, children's performance did not differ from chance.

Although not examining the presence of gender stereotypes, Golombok et al. (2012) examined the persistence and continuity of sex-typed behaviour over a 10-year period. Using a sample of children rated at the age of 3 as being either extremely masculine, extremely feminine or randomly selected from a wider sample, they found that sex-typed

behaviour at the age of 3 predicted sex-typed behaviour at the age of 13 (Golombok et al. 2012).

4.3 Playtime and activities

In a study evaluating play behaviour, Cherney and Dempsey (2010) observed play complexity by looking at children's engagement with toys. They studied children's engagement with gendered and nongendered toys, and looked at the way children incorporated toys from different schemas into a play sequence. For example, if a child picked up a figurine from one play set and placed it in the aeroplane of another play set, that play would be considered a multischemed play sequence. (If the child then flew the aeroplane around the room, that action would be considered to be another play sequence.) On average, girls displayed significantly higher levels of play sequencing than boys. It is not only the gender of the toy that may elicit complexity of play, but also the toy's possibilities for complex play and, to some extent, the child's familiarity with the toy (e.g. girls' toys elicit more complex play among boys and girls). Boys showed strongly stereotyped reasoning and play. They were more likely to categorise ambiguous and neutral toys as being masculine than feminine, and they tended to play longer and more often with toys they considered to be masculine. Girls were less likely than boys to label ambiguous and neutral toys as belonging to their own gender, even though they displayed gendered play as well. Five-year-olds tended to display the most stereotyped play, confirming that stereotyped play increases during the preschool years.

In the Coyle and Liben (2016) study, girls were categorised as having either a relatively low tendency to use gender-salient filters (abbreviated to L-GSF, indicating a low tendency to attend to gender) or a relatively high tendency to attend to gender (H-GSF). Overall, girls in the study preferred feminine to masculine activities. Compared with L-GSF girls, H-GSF girls showed a more dramatic difference in relative preference for feminine occupational activities versus masculine activities. For H-GSF girls in the hyperfeminised ('Barbie') condition, activity interest increased from pre-test to post-test. This effect appears to have been driven

largely by responses to feminine occupational activities. In contrast, for the L-GSF girls in the 'Barbie' condition, the level of interest in activities decreased from pre-test to post-test. The difference in direction of the effect for H-GSF versus L-GSF girls playing with Barbie suggests the differential impact of a highly feminised character on each group. In the less feminised ('Jane') condition, there was little change in interest rating between pre-test and post-test for either group.

Another study used Barbie dolls and Mrs Potato Head toys to examine girls' perceptions of careers available to them (Sherman & Zurbriggen 2014). One group of girls was assigned to the Barbie condition, and the other group was randomly assigned to the Mrs Potato Head condition. After a period of free play (with either Barbie or Mrs Potato Head), girls were presented with a series of images representing different careers and asked whether they could do that job, and whether a boy could do that job. Of particular note, girls in the Barbie condition reported fewer future career options than boys, whereas those in the Mrs Potato Head condition perceived no difference between boys and girls in terms of potential careers.

Engagement with Disney princess toys, media and products was examined by Coyne et al. (2016). Results indicated that engagement with Disney princess media and products was associated with more female stereotypical behaviour for both boys and girls; however, there were no associations with body esteem or prosocial behaviour (Coyne et al. 2016).

In the Early et al. (2010) study, when children selected their own activities, there was a small but consistent pattern of children choosing gender-stereotyped activities. Girls chose to spend more time in language, literacy, art and fine motor activities. Boys chose to spend more time in science, social studies and gross motor play. For the most part, this gender pattern was not seen when teachers selected activities for the children. Boys did, however, experience more didactic teacher interactions during meals and routines, but not during free choice or teacher-assigned times.

In the Goble et al. (2012) study, girls and boys tended to prefer gender-typed activities when playing alone. Relative to solitary play, play with male peers increased children's play with masculine activities, play with mixed-gender peer groups increased play with neutral activities, and interactions with teachers increased play with feminine activities.

The Kelly (2012) study found that, as age increased, children were more tolerant of gender counter-stereotypic play. For gender stereotype flexibility, no significant effects or interaction effect were found for age, false belief theory of mind or participant sex. As age increased, so did knowledge about gender stereotypes. Female participants had more knowledge of gender stereotypes than male participants.

The study among educators in Rodriguez et al. (2006) demonstrated some of the biases that teachers bring to their interactions with children. Teachers involved in the study perceived that girls have internalised a social role that is representative of hegemonic femininity. Female teachers assumed that girls enjoy behaving in a caring and helping manner. Furthermore, teachers often indicated that they positively praise those girls who behave helpfully, but are surprised (and have a sense that such behaviour deviates from the norm) when such behaviour is demonstrated in a boy. Boys and girls were almost never encouraged to behave against social stereotypes.

Two ethnographic studies examined play in preschool settings (Wohlwend 2009, Anggard 2011). Having identified three key groups in terms of preferred activities, Wohlwend decided to focus on the Disney princess group (Wohlwend 2009). She found that, although boys and girls both engaged in Disney princess play, boys had more difficulty gaining access to the princess dolls. Some of the social limitations of the princess identities were noted by the players (Wohlwend 2009).

Observing the dearth of studies examining gender construction in the natural environment, Anggard conducted weekly observations of children engaged in outdoor play over the course of a year (Anggard 2011). Four key play themes were observed in the

natural environment: war and superhero, family play, animal play and physical play. The superhero play involved some exclusively masculine positions, while the family theme featured traditional gender roles and positions, but also offered flexibility and opportunity for transgressions beyond these traditional roles (Anggard 2011). The other two play themes were nongendered. On the whole, the author concluded that natural environments are not gender coded, and offer opportunities for play with boys and girls together (Anggard 2011).

4.4 Appearance

A study examining gender-stereotypical appearance, dress-up play, toy play and sex segregation found that, overall, children, especially girls, were very gender typed in their appearance (Halim et al. 2013b). It also found that sex segregation increased over time in a curvilinear fashion, with no evident variation by gender. At 3 years of age, 48% of children's friends were of the same gender; at 4 years of age, 70% were of the same gender; and, at 5 years of age, 74% were of the same gender.

Another Halim study examined appearance rigidity according to cognitive theories of gender development. The study found that the importance and positivity with which children considered their gender, along with their understanding of the stability of gender categories, were associated with greater likelihood of wearing gender-typed outfits (Halim et al. 2014).

4.5 Social justice

The Hawkins (2014) study found that children's responses towards the conclusion of the action research displayed a heightened awareness of, and sensitivity to, social justice issues. At the conclusion of the study, preschool children recognised characters acting unjustly, which they had not noticed at the beginning of the study. As the action research progressed, discussions following story time became longer, more reflective, more articulate and more in-depth (on the part of both teachers and children). Teachers used higher-order and open-ended questions that encouraged

insightful responses by the children. However, most importantly, the teachers found that carefully and purposefully listening to children's responses during story time and clarifying, without judgement, what was being said drove the post-story time discussion. Children 'bounced off one another' during discussions to examine their world and the social justice issues that the stories highlighted. Reflective planning of story time produced a superior learning experience for both teachers and children.

4.6 Educators and parents

The Bosacki et al. (2015) study found that there were differences in the way male and female educators perceived physical, rough-and-tumble play of young children. Male teachers were more likely to believe that physical aggression may have a positive influence on students' academic development, whereas female teachers were less likely to perceive any benefits of rough-and-tumble play. The authors argued that this highlighted the importance of teacher beliefs and attitudes in potentially influencing children's gendered socio-communicative abilities.

The Bouchard et al. (2015) study found that early childhood educators' assessments of children's prosociality may be affected by gender stereotypes. Girls were assessed by their educators as being more prosocial than boys, even though no significant gender differences in either expressed prosociality or observed prosociality were found. These results suggest that a gender bias (in favour of girls) in early childhood educators' perceptions may influence their assessment of children's prosociality.

The Hastings et al. (2007) study found that mothers' and fathers' authoritative parenting style, internal attributions and positive behaviours predicted more feminine forms of prosocial behaviours towards peers in their young daughters, and more masculine kinds of peer prosocial behaviours in their sons. Prosocial behaviour was more strongly predicted by maternal socialisation than by paternal socialisation, and appeared to be particularly influenced by mothers' internal attributions for children's prosocial

behaviour and their preparedness to discuss engaging in prosocial behaviour with children.

The Markstrom and Simonsson (2011) study found that girls were positioned in a very limited manner in parent–teacher conferences. Girls were evaluated as either being good or bad through teachers' and parents' discussions of the girls' competences. By discussing the girls' competences in positive terms, the teachers were contributing to the strengthening of the image of a preferable or normal preschool girl. It should be noted that the parents agreed with, or did not question, the depiction of the girls by the teachers. Some of the girls and their behaviours were positioned as nonconfirmative. Girls' activities were also gender coded. The teachers appreciated that girls are able to challenge gender norms, but it was also intimated that they could go too far and challenge the gender order that is rooted in the institutional order.

5 Summary and discussion

This systematic review has highlighted the paucity of evidence regarding effective interventions or conditions that promote gender equity and prevent gender bias in an early childhood learning setting. Indeed, we found no interventions that had been rigorously evaluated in such a setting within the past 10 years. Further, there were few empirical studies that examined the function of gender roles, biases and stereotypes among preschool children, with only 28 studies fitting our review criteria.

5.1 Reported bias and stereotypes

Several studies reported evidence of gender bias in samples of preschool children (Cvencek et al. 2011, Halim et al. 2013a), as well as evidence of the correct application of stereotypical definitions (e.g. the identification of ‘girls’ toys’ and ‘boys’ toys’ in Freeman’s 2007 study). There was also evidence that, when reasoning about gender, preschool children draw on awareness and knowledge of stereotypes, as well as category membership (gender or classmate) (Pillow et al. 2015).

Although the Patterson and Bigler (2006) study did not explicitly measure gender bias or stereotypes, it cleverly investigated the formation of in-group biases. In this case, the social groups were two different colour groups that were made highly salient (red and blue). The results demonstrated the ease and readiness with which young children form in-group biases, and the attentiveness with which they respond to environmental cues about the importance of different social groups.

5.2 Importance of preschool years in defining gender norms and stereotypes

The importance of the preschool years in defining gender norms and stereotypes was apparent in the

studies examined in this review. There was evidence that the greatest gender rigidity arises between the ages of 3 and 5 (Cherney & Dempsey 2010) but that, after the age of 5, rigidity decreases with age (Ruble et al. 2007). Interestingly, and fitting with the above point, there seems to be some evidence that tolerance for counter-stereotypic play increases with age, and that more knowledge of stereotypes (which also increases with age) is not associated with stronger endorsement of stereotypes (Kelly 2012). Other researchers claim that, although very young children show evidence of stereotyping, awareness of the intergroup biases of themselves (and others) does not emerge until later in childhood. However, the egocentrism of early childhood leads young children to believe that their own stereotypes and prejudices are accurate, inviolate and widely shared (Bigler & Wright 2014). During the period of middle childhood, some children begin to develop greater understanding that others believe and support social prejudices and stereotypes (Quintana & Vera 1999).

5.3 Importance of navigating gender rigidity, identity and appearance

Other work included in this review found high rigidity with regard to gender appearance among preschool children, particularly girls (Halim et al. 2014). Gender appearance and the way that children, particularly girls, display their emerging gender identity were rigorously examined by Halim et al. (2014). They observed that girls seem to find a large number of ways to dress in stereotypical ways compared with boys, and that girls may be more likely to express their gender rigidity in their clothes and accoutrement, rather than in their activities or the games they play, or who they play with (Halim et al. 2013b). Halim and colleagues have postulated that the ‘pink frilly dress’ phenomenon is a largely unexplored obsession among many girls that may reveal the relationship between gender-stereotyped

behaviours and children's emerging gender identities (Halim et al. 2014). It is possible that physical appearance is a trait that young children adeptly notice and make sense of early in development. Gender display in terms of physical appearance may peak in rigidity early, and then shift towards flexibility (Halim et al. 2013b). Other researchers included in this review have noted that children's stereotypes about girls seem to be appearance oriented, while children's stereotypes about boys are defined in terms of behaviour and activities (Miller et al. 2009). Researchers caution that more research is needed to examine the consequences of young girls' adherence to maintaining appearances (the 'pink frilly dress' or 'princess' phenomenon), because the implications of pinning identity to physical appearance in the early years are as yet unknown (Halim et al. 2013b). Although the consequences of adherence to 'princess' ideals are not yet clear, one of the few longitudinal studies examined in this review found that sex-typed behaviour at the age of 3 predicted sex-typed behaviour at the age of 13 among both boys and girls (Golombok et al. 2012).

5.4 Multiple influences on children's gender norm and stereotype development

There was evidence of multiple forms of influence on children's establishment of gender norms and stereotypes.

5.4.1 Media

Cultural norms and exposures are important influences. For example, greater exposure to television was associated with children of both sexes believing that boys were better (Halim et al. 2013b). There was evidence that boys are exposed to more superhero programs and violence in the media than girls. Furthermore, exposure to superhero programs showed an association with more gender stereotyping in play and activities among boys, and greater levels of weapon play among both boys and girls (Coyne et al. 2014).

Arguing that the media may serve as an important socialising agent in gender development, Coyne et al. (2016) recently examined the relationship

between engagement with Disney princess media and products, and gender stereotypical behaviour. They found that girls were more likely to engage with Disney princess-related matter, whether through playing with toys, viewing media or identifying with princesses (Coyne et al. 2016). Engagement with Disney princess media and products was associated with higher levels of female gender-stereotypical behaviour among both boys and girls (Coyne et al. 2016).

5.4.2 Toys

Two studies examined in this review produced evidence that playing with Barbie dolls affects perceived career options among preschool children (Sherman & Zurbriggen 2014, Coyle & Liben 2016). In the first study, girls were assigned to one of two play conditions: Barbie or Mrs Potato Head. Girls in the Barbie condition reported fewer career options for girls than boys, while those in the Mrs Potato Head condition reported no difference in career options for boys and girls (Sherman & Zurbriggen 2014). Citing work by Maddy Coy (Coy 2009), the researchers argued that sexualised toys (such as Barbie dolls) reduce or narrow girls' 'space for action' (Coy 2009), and focus attention and efforts on appearance (Sherman & Zurbriggen 2014).

The use of hyperfeminised models was shown to lead to heightened gender interests in some girls, notably those who exhibited high gender-salience filters. (Coyle and Liben, in their 2016 study, define gender-salience filters – or GSF – as the extent to which 'children have, readily activate, and use gender schemata in their intercourse with the world'.) In this study, girls' internal GSF mediated their response to hyperfeminised characters. Girls with high GSF showed increased interest in feminine activities after playing with a hyperfeminised character (a Barbie doll; a Playmobil 'Jane' was used in the other condition). This study is important because it neatly demonstrates the way that career choices and aspirations may begin to be delimited early in childhood. Furthermore, the study is particularly relevant given the emergence of hyperfeminine role models ('science cheerleaders') aimed at increasing young girls' pursuit of careers in typically male-dominated STEM (science,

technology, engineering and mathematics) domains (Seckel 2015).

5.4.3 Language

Using similar measures, an earlier seminal study by Lynn Liben's team examined the effect of a gender-salient environment on children's application of gender stereotypes (Hilliard & Liben 2010). By creating an environment (in a preschool setting) in which gender was salient (gender-specific language, physical separation), researchers found increased use of gender stereotypes, reduced play with peers of the opposite sex and reduced positive regard for members of the opposite sex among children exposed to this condition, compared with children assigned to the low-salience condition (Hilliard & Liben 2010).

The importance of language was highlighted by the dissertation by Baron (2010), which demonstrated the way that a noun label will sufficiently establish a social category among preschool children. This is concordant with cognitive theories of gender development that consider children to be active agents in their search for meaning, and who construct meaning from gender categories (Tobin et al. 2010). Understanding the gender category that they belong to is a formative step in the construction of gender, after which children seek out information that constructs and reinforces these gender differences (Martin et al. 2004). This incipient understanding of gender constructs encourages further mastery of gender distinctions, and leads children to act in ways that they perceive to be gender appropriate or concordant (Halim et al. 2014). The emerging recognition of gender as an important category is associated first with belief rigidity (the idea that categories are fixed), then shifts to a more flexible understanding of gender categories (Halim et al. 2014).

5.4.4 Educators

There was evidence that preschool educators are important influences on the establishment of stereotypes and gender norms. In one study, teachers were found to perceive girls to be more caring and helpful, and indeed teachers expected this behaviour of girls. Boys exhibiting such

prosocial behaviour were surprising to teachers, and sometimes perceived to be strange and abnormal (Rodriguez et al. 2006). Further evidence of the biases that early childhood educators can bring to their interactions with children emerged from research by Canadian researchers (Bouchard et al. 2015). In this study, early childhood educators assessed girls in their care as being more prosocial than boys. However, when researchers objectively rated the behaviour of the children, they found no difference in scores of prosociality between girls and boys. Another Canadian study compared the perceptions of male and female early childhood educators and found that female teachers were more likely to problematise the physical play ('rough-and-tumble') that they observed among young boys, whereas male teachers were more likely to regard such play as normal and a formative part of young children's development (Bosacki et al. 2015).

Also of note is a Swedish study of parent–educator interviews that revealed the limited and relatively one-dimensional schemas by which preschool teachers view preschool girls' behaviours, and contribute to ongoing conventional and traditional gender roles in an early childhood setting (Markstrom & Simonsson 2011).

5.4.5 Peers

Although children seem to prefer gender-typed activities (Early et al. 2010, Goble et al. 2012), there was evidence that playing with peers of the opposite sex is associated with more play with masculine activities among girls, and more play with feminine activities among boys (Goble et al. 2012).

5.4.6 Family

In one study, division of housework was also predictive of beliefs about gender. A more traditional division of housework was associated with girls believing that others perceived boys to be better (Halim et al. 2013a).

5.4.7 Play

The ways that gender is enacted in and influenced by play were examined in two ethnographic studies (Wohlwend 2009, Anggard 2011). 'Disney princess

'play' emerged as a key play theme of interest among both girls and boys in a small United States study, leading the author to focus research attention on this style of play (Wohlwend 2009). Although some improvisation and flexibility was observed, the author noted that girls enacting Disney princess stories encountered some of the social limitations of their princess identities (Wohlwend 2009).

Several different types of play were observed in natural, outdoor spaces (one of which involved gender-stereotyped masculine play positions). However, it was generally observed that natural, outdoor spaces are not gender coded and invite play between preschool boys and girls (Anggard 2011). The author argued that the natural physical environment may operate to encourage divergence from traditional gendered behaviour (Anggard 2011). Natural physical environments encourage sensory motor exploration and manipulation. Further, and perhaps more importantly, natural physical environments are not gender coded in ways that human-created environments can be. The following quote succinctly summarises the author's point: 'Play in nature thus has an opportunity to avoid being shaped by the gender discourses often embedded in manufactured artifacts' (Anggard 2011:27). As a further point, it is interesting to consider this research in light of our increasingly urbanised environment, where the presence of trees and nature is diminishing.

5.5 Evidence gaps

5.5.1 Lack of empirically evaluated interventions

The clearest gap identified by this systematic review is the absence of well-evaluated interventions to instil principles of gender equity, and reduce gender stereotypes and biases, in an early childhood learning setting. This is the case within both academic and grey literature from the past 10 years. There are clearly challenges in conceiving and delivering such a program, most notably because there is a long latency period between delivering such a program and observing the desired outcomes in adulthood.

5.5.2 United States-focused literature

To scope culturally relevant contexts, one of the inclusion criterion guiding our literature review was that studies must be conducted within a developed country. Nevertheless, it was somewhat surprising to note that most of the studies included were conducted in the United States. Although the United States is undoubtedly a culturally similar country, there is a need for research in an Australian context.

5.5.3 Few high-quality studies examining gender development, stereotyping and intergroup attitudes in early childhood

There is a clear need for well-designed studies with good measures and reasonable sample sizes. Examples of high standards in this regard were the studies by Lynn Liben (Hilliard & Liben 2010, Coyle & Liben 2016), as well as those conducted by Ruble, Halim, and Patterson and Bigler – studies that, on the whole, were innovative and well designed.

5.5.4 Few studies examining gendered toys, clothing and literature in relation to gender stereotype development in early childhood

There was a dearth of studies examining the presence of gender-specific toys across preschool settings, and the ways that engagement with such toys is associated with gender stereotypes. There is a clear need to examine these issues, the ways that toys can cue gender or make gender salient (e.g. a pink kitchen set, as opposed to a neutral wooden set), and the role that this may have on play and perceptions. Given the observed increase in the rigid classification of toys along gender lines, this is a very important question: in the past 40 years, toys have become increasingly and rigidly demarcated along gender lines (Sweet 2014, Pope 2015). In the 1970s, in the wake of feminism's second wave, less than 2% of toys in the Sears catalogue were marketed specifically to girls or boys (Sweet 2014). In contrast, today it is estimated that there are few toys that are not explicitly marketed to either girls or boys (Pope 2015). The cultural significance of this cannot be overstated, especially when we consider that children's toys are 'cultural products'

which embody and transmit ideological messages about gender' (Sweet 2014). Gender-defined toys (such as Barbie dolls and action figures) may convey messages about how different genders behave and look, but may also offer different opportunities to develop skills. In a tangential but related phenomena, the fact that toys such as Lego, which may set the foundations for spatial skills, are explicitly or implicitly marketed to boys, could offer differential exposures to, and experiences with, spatial rotation tasks.

As an extension of gender-differentiated toys, also absent from the literature is an examination of other environmental influences and cues, such as clothing and literature. Like toys, clothing has historically been highly gendered, but the influence of the feminist movement of the 1970s reduced the level of gendered clothing. However, also like toys, clothing has become increasingly gendered in the past 30–40 years. This remains an area of likely influence, and holds great research potential.

Following on from this point, while there was little evaluation of the content of literature as a vehicle for promoting or redefining stereotypes, literature has been identified as a potential means of delivering education about issues of social justice, such as gender equity (Hawkins 2014).

5.5.5 Few studies of educator perceptions and biases in early childhood

Only a minority of studies examined teacher perceptions and biases in the early childhood setting. This is somewhat surprising, given the widely accepted influence of teachers in an early childhood setting, and also given the formative work of Glenda MacNaughton, whose detailed, insightful and rigorous examination of gender in the early childhood setting from a post-structuralist perspective involved lengthy and deep research among early childhood educators (MacNaughton 2000).

5.6 Recommendations for program strategies

Despite the relatively nascent evidence base available, a key finding of this systematic review is that, although classifying the world around us according to different categories is a natural part of the human experience, the more salient these categories are, the greater the likelihood that children will follow the cues and classify on the basis of gender. However, although bias and stereotyping are of widespread relevance and practice to most children, stereotypes are not immutable (Arthur et al. 2008), and many steps can be taken to reduce their efficacy, power and relevance.

Informed by the systematic review findings, the following program strategies to promote healthy, respectful and equitable gender relationships in early childhood are recommended.

5.6.1 Avoid distinction on the basis of gender

Children in the early childhood years are 'gender detectives', searching to decode, distil and interpret information and cues from their environment in relation to their own gender identity (Halim & Ruble 2010). The process of categorisation is an essential element of the need of humans to make sense of their world (Arthur et al. 2008). Gender is a particularly salient category, and classification according to gender is something that children spontaneously do. While acknowledging that gender is a salient category that will be used by children to categorise others, it is important to minimise the importance of gender as a category (Arthur et al. 2008) and reduce its salience. To this end, adults should:

- avoid classifying according to gender – that is, avoid separating girls from boys, and avoid having girls-only activities and boys-only activities
- avoid the use of 'girls' and 'boys' – minimise the extent to which gender is labelled
- avoid comments that define what girls or females do or should do, and what boys or males should do.

5.6.2 Minimise television exposure

Although we recognise that television exposure is minimal in an early childhood learning setting, this point is worth noting because there is evidence that television exposure is associated with more stereotyped play.

5.6.3 Avoid hyperfeminised toys such as Barbie and Bratz dolls

As well as avoiding hyperfeminised toys, we would suggest removing hypermasculinised toys that emphasise strength and violence, although we acknowledge that we encountered no studies that examined such toys.

5.6.4 Prioritise educator education in relation to examining their internal stereotypes and norms, and awareness of the ease with which their own prejudices can be transmitted to young children

Studies included in this review noted some of the biases observed in early childhood educators, not only in terms of their perceptions of prosociability differences between genders, but also in terms of different styles of play across genders. Elsewhere, it has been reported that preschool girls are regarded by early learning educators as passive learners and therefore more teachable (Hyun 2001). It has also been observed that classroom management techniques may reward obedience, and punish assertiveness and activity, putting more physical children (commonly perceived by educators to be boys) at a disadvantage (Hyun 2001, Aina & Cameron 2011). We regard such biases, however, as manifesting and perpetuating a disadvantage for children of both genders. It is clearly disadvantageous to boys to be problematised and regarded as deviant for exhibiting physical behaviour (and it is easy to see how such views could be transmitted from carer to child), and we argue that it is also disadvantageous to girls to reward their obedience and complaisance. Although caring behaviour in children of either sex should be

encouraged, the privileging of girls' behaviour that is concordant with stereotypes of the caring, self-sacrificing, obedient and unquestioning female may be detrimental.

5.6.5 Use story time to introduce themes of gender equity

Story time may offer the ideal opportunity to introduce themes of gender equity, followed by discussion about the issues raised. Education about stereotypes and biases is known to be associated with both risks and benefits. Risks are particularly pertinent when educating children in an explicit way, such as might be done in middle to late childhood, in that teaching children about stereotypes and biases can lead to the evocation of stereotype threat among victims of stereotypes, or guilt among those who are the beneficiaries of such in-group biases (Bigler & Wright 2014). The use of literature may offer a gentle means of introducing concepts of gender equity that subverts the risks associated with more explicit forms of stereotype education. Work in Australia has identified the use of children's literature to support and promote education about social justice (Hawkins 2014).

5.6.6 Consider the natural environment as a means of encouraging nongendered play

Obviously, this is challenging in the constrained environment of a childcare centre where space is limited. However, we believe that Eva Anggard's observations of play in the natural environment (Anggard 2011) are worthy of further consideration. As a first step, this may simply involve encouraging children to play outside. As a second step, it could involve removing toys that are gender coded from the outdoor environment. Further steps could involve creating a sensory-rich outdoor environment (with features such as trickle streams, stepping stones, trees or bushes) that further encourages outdoor play.

5.6.7 Other recommendations

Adding to these points, we also suggest consideration of the following:

- **Masculine and feminine dress.** Although no studies included here examined the relationship between sex-typed dress and stereotypes and biases, some researchers have exhorted caution in relation to young girls adhering to highly sex-typed dress (Halim et al. 2013b). Although it is clearly difficult to control the clothes that young children wear to preschool settings, we recommend providing a range of interesting and desirable alternatives to princess costumes, and encouraging young children to experiment with a range of dress-up clothes.
- **Gender-typed toys.** As with dress, although no studies evaluated in this work examined associations between play with sex-typed toys and stereotypes and biases, there is evidence that toys are becoming increasingly defined in terms of gender (Sweet 2014). At the very least, we would recommend that toys be examined to ensure that they are not cueing gender associations in either subtle or overt ways, in their colour, shape or decoration.
- **Be cautious with the use of counter-stereotypic information.** It is often tempting to believe that the path to shifting or countering stereotypes is simply to bombard young children with multiple examples of counter-stereotypic images and examples: the female mechanic, the male who knits, the female firefighter and the stay-at-home dad. There is no evidence that such efforts are successful. In fact, it is speculated that such efforts may increase gender stereotypes (Arthur et al. 2008). Children do not retain information about counter-stereotypes – they forget information presented that is discordant with their internal stereotypes (Arthur et al. 2008). Further, when people present counter-stereotypic information, they tend to overemphasise gender. This emphasis on gender, combined with the fact that children forget the counter-stereotypic information, is thought to increase stereotypes among some children of preschool age (Liben & Bigler 1987).

6 Final considerations

In keeping with best-practice models of health promotion and primary prevention within early learning and educational settings, we recommend that any of the above strategies are implemented within a multilevel, multistrategy approach that works across organisational, interpersonal and intrapersonal levels, including a review of policies and practices, appropriate staff training and support, parent engagement and child-centred activities. Monitoring and evaluation of the effectiveness of program strategies is also essential to identify when and how change occurs, and to ensure that ‘do no harm’ is foundational across all action. Despite best intentions, evidence suggests that poorly designed interventions to teach children about intergroup bias can reinforce, rather than reduce, stereotypes and prejudice (Bigler & Wright 2014).

Although not raised in any of the studies identified in the systematic review, a further consideration for program design and implementation is recognition of the intersections between gender and other social categories and statuses, such as ethnic and cultural background, religion, socioeconomic status, disability status and sexual orientation. Often, these social groups or statuses are represented within research, policy and practice as discrete categories – such as in programs that focus on gender alone, or on ethnicity alone – whereas, in reality, they are all intersecting identities, and each of us holds multiple statuses and identifies with multiple categories. The demographics of the City of Melbourne and of the early learning centres to be involved in the program will need to be considered in final program design and in all data collection processes to ensure that methods are appropriate to the context.

All program strategies will also need to be connected to the National Quality Framework and the Early Years Learning Framework, to contextualise the final program within best-practice and quality frameworks in early childhood settings.

Also of note is that, although this review focused on evidence from the past 10 years, work conducted in early childhood settings during the 1990s by Professor Glenda MacNaughton may also prove informative to program strategy development, despite the changed social landscape over the past 15 or so years. If findings from MacNaughton and colleagues are to be considered, we suggest that they are appraised in the context of the more recent evidence documented in this review. Although no well-evaluated interventions were identified by the search, a recent initiative by YMCA Victoria in early childhood settings may provide a useful framework for consideration, also in the context of evidence recommendations outlined in this report.

Glossary

Ambivalent sexism – a theoretical framework that considers sexism to have two components: hostile sexism and benevolent sexism. Hostile sexism refers to overtly negative views according to which women are inferior to men; benevolent sexism reflects apparently positive views that are underpinned by a belief that women are weaker than men (and therefore need to be protected).

Determinant – an attribute or exposure that increases the probability of the occurrence of a disease or other specified outcome (in this report, violence against women or attitudes that are supportive of violence against women). The term risk factor is sometimes used interchangeably with this term in the literature.

Discrimination – behaviour towards a group and its members that can be either positive or negative.

Gender – a term that refers to the economic, social and cultural attributes and opportunities associated with being male or female at a particular point in time.

Gender-based violence – a term commonly used in the international arena to describe violence involving men and women, in which the female is usually the victim; it is derived from the unequal power relationships between men and women. Violence that is directed against a woman because she is a woman, or that affects women disproportionately (WHO 2010).

Gender salience filter (GSF) – a child's tendency to attend to gender (Coyle & Liben 2016). It can also be considered to define the degree to which children have, readily activate and deploy their gender schemata to navigate their interaction with the world (Coyle & Liben 2016). Those with a strong GSF are likely to modify their own gender schemata in light of external gender schemata. On this basis, we would expect young girls with a high GSF to be particularly vulnerable to gender stereotypes. A GSF can be

conceived as a switch or transformer that receives information and either amplifies it (in the case of a child with a high GSF) or does nothing with it (in the case of a child with a low GSF).

Hyperfeminised – a character or person with exaggerated female characteristics. Barbie is an example of a hyperfeminised character.

Intergroup bias – the systematic tendency to evaluate one's own membership group (the in-group) or its members more favourably than a nonmembership group (the out-group) or its members (Hewstone et al. 2002). Intergroup bias includes both in-group favouritism, in which trust, cooperation, positive regard, empathy and so on are extended to others in the in-group (those categorised as similar to self), and out-group hostility, in which hostility, derogation and antipathy are extended to perceived out-groups. In-group favouritism can occur without out-group hostility, and so it is important to understand intergroup bias as more than negative evaluations or overt hostility, dislike and antipathy (Cohrs & Duckitt 2012). Intergroup bias is a tripartite concept comprising stereotypes, prejudice and discrimination.

Intimate partner violence/partner violence

– any behaviour by a man or a woman within an intimate relationship that causes physical, sexual or psychological harm to those in the relationship. This is the most common form of violence against women (WHO 2010).

Prejudice – evaluative affective responses, emotions and feelings about a particular group.

Primary prevention – seeking to prevent violence before it occurs. Interventions can be delivered to the whole population (universal), or to particular groups that are at higher risk of using or experiencing violence in the future (targeted or selective). Some primary prevention strategies focus on changing behaviour and/or building the

knowledge and skills of individuals. However, the structural, cultural and societal contexts in which violence occurs are also very important targets for primary prevention. Strategies that do not have a particular focus on violence against women but address its underlying causes (such as gender inequality and poverty) are also primary prevention strategies (VicHealth 2007). Early intervention, sometimes referred to as secondary prevention, is targeted at individuals and groups who exhibit early signs of perpetrating violent behaviour or of being subject to violence (VicHealth 2007). Tertiary prevention involves providing support and treatment for women and children who are affected by violence or to men who use violence. Intervention strategies are implemented after violence occurs. They aim to deal with the violence, prevent its consequences (such as mental health problems) and ensure that it does not occur again or escalate (VicHealth 2007).

Respectful relationships education – both in Australia and elsewhere, respectful relationships education uses a primary prevention approach, and seeks to prevent different forms of gender-based violence through strategies and approaches targeted at children and young people.

Sex – the biological characteristics that typically define humans as male or female (the exception being people who are intersex). The gender identity of transgender or bigender people may be different from the sex assigned to them at birth.

Social norms – the rules of conduct and models of behaviour expected by a society or social group. They are rooted in the customs, traditions and value systems that gradually develop in a society or social group.

Stereotype – categorical beliefs about the characteristics of a particular group, such as males or females.

Violence against women – any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life (UN 1993). Aboriginal and Torres Strait Islander communities

understand violence against women perpetrated by people known to them as part of the broader issue of family violence, defined as ‘a wide range of physical, emotional, sexual, social, spiritual, cultural, psychological and economic abuses that occur within families, intimate relationships, extended families, kinship networks and communities’ (Victorian Indigenous Family Violence Task Force 2003). This reflects the significance of extended family and kinship relationships in Aboriginal and Torres Strait Islander communities, resulting in both a broader conceptualisation of the notion of family and a view that the consequences of violence affect all those involved. The broader definition also reflects the interrelationships between violence occurring within Aboriginal and Torres Strait Islander communities and that perpetrated against them (Atkinson 1994).

Violence-supportive attitudes – for the purposes of this report, these are defined as attitudes that justify, excuse, minimise or trivialise violence against women, or blame women or hold them at least partly responsible for violence perpetrated against them. Individuals who hold such attitudes are not necessarily ‘violence-prone’ nor would they openly condone violence against women. However, when such attitudes are expressed by influential individuals or held by a substantial number of people, this can create a culture in which violence is at best not clearly condemned and at worst condoned or encouraged.

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