

National Advisory Council on Women and Girls: Monthly Spotlight

EARLY YEARS

Summary

This paper presents evidence about the early years of children in Scotland. We are defining 'early years' as pre-birth to 8 years old, in line with the Scottish Government's Early Years Framework.¹

Girls are less likely than boys to show difficulties with their social, emotional, and behavioural **development** in the early years and parents of girls are less likely to express concerns about their child's development. At ages 5-7, girls are slightly more likely than boys to meet daily **physical activity** guidelines – a trend which is reversed among older age groups.

The vast majority of those working in Early Learning and Childcare settings in Scotland are women.

Data suggests that more girls than boys in P1 are achieving the expected Curriculum for Excellence level across all the 'organisers' of the curriculum, and parents are less likely to say that their daughters have negative attitudes to **school** or find school work hard, in comparison to those with sons.

Significant proportions of adults hold **stereotypical views** about gender roles in young children. Women appear to be less likely than men to adhere to these stereotypes, however. Children themselves learn to distinguish between men and women by 9-12 months, and **gender stereotypes** and **gendered behaviours** are evident by the age of 3.

The gender stereotyping that children encounter in their early years appears to have **significant knock-on effects** both during childhood and later in life. It affects children's beliefs and behaviour from a young age, and later in life it can contribute to gendered differences in key areas of life including **education** and **careers** as well as the perpetration and experience of **violence**.

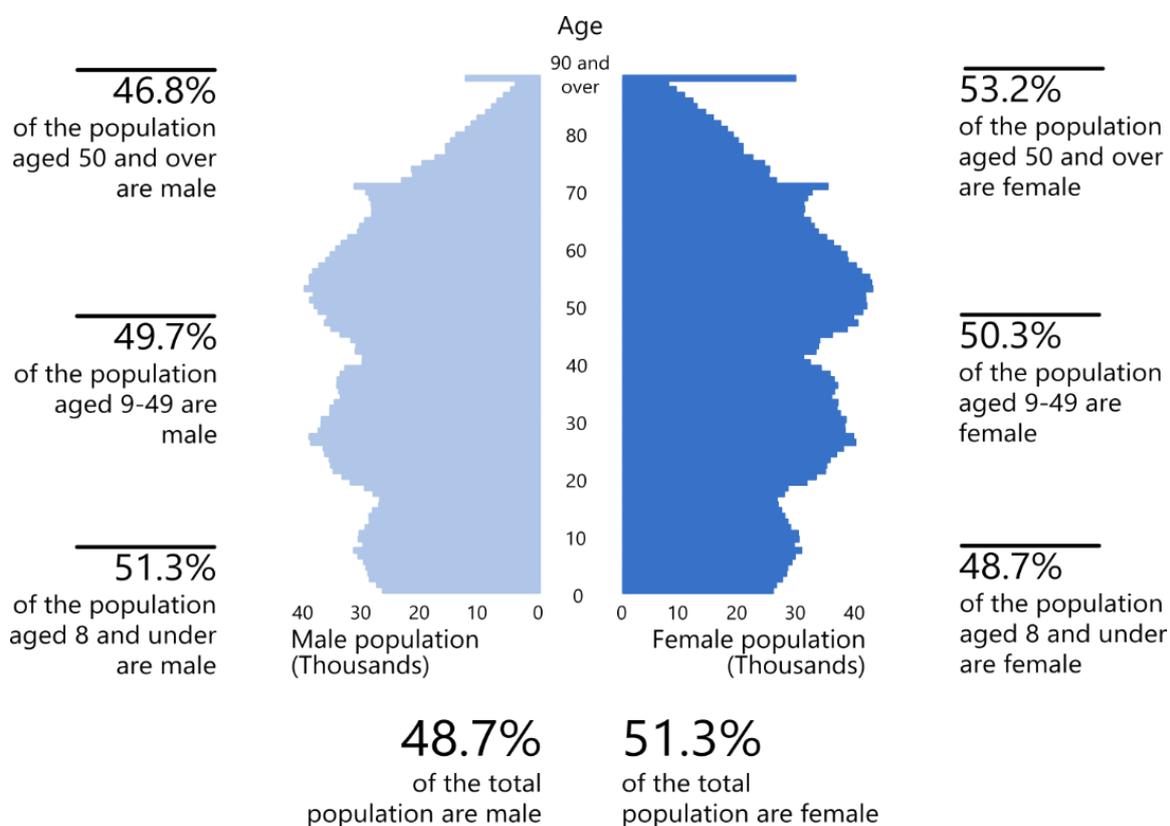
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1. Early Years in the Population

Scotland's population has most recently been estimated at 5,438,100 (as of 30 June 2018).² Overall, 9.5% of the population are estimated to be aged 8 and under. 51.3% of the total population is estimated to be female, but this falls to 48.7% among those aged 8 and under. This is because more boys than girls are born in Scotland, but women tend to live longer.

Graph 1: Mid-2018 Population Estimates, Scotland (National Records of Scotland)

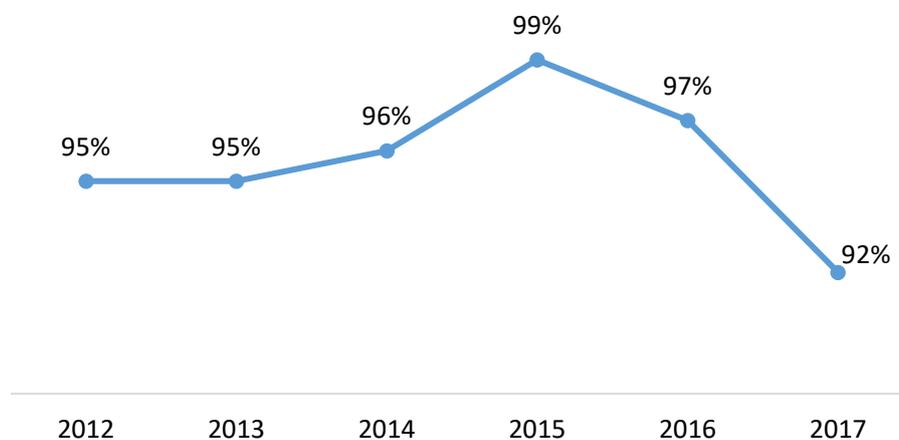


2. Gender Differences in the Early Years: Outcomes

2.1 Health

A slightly lower proportion of girls aged 0-7 reported 'good' or 'very good' **general health** than boys of the same age, in 2017.³ Ninety-two per cent of girls reported 'good' or 'very good' health, compared to 95% of boys. For girls, this was a significant decrease from the previous year, when 97% of girls aged 0-7 reported 'good' or 'very good' health, and lower than that reported in any of the previous 5 years (as the graph below shows).

Graph 2: Self-assessed general health of girls aged 0-7, 2012-2017 (Scottish Health Survey)



Overall, the Scottish Health Survey found that similar proportions of girls and boys aged 2-6 were a **healthy weight** between 2015 and 2017. Proportions varied between 73% and 76% for girls, and between 71% and 79% for boys.⁴

The Growing Up in Scotland study found that in 2006-2007, children aged 3-5 living in lone parent families were more likely to be overweight or obese than children in couple families: 26% of children in lone parent households were overweight or obese compared with 23% in couple households.⁵ When looking specifically at obesity a particularly stark difference appears for girls: almost double the proportion of girls aged 3-5 in lone parents households were obese compared to those in couple-parent households. Evidence from younger children, aged around 1-2, suggested that children in lone parent families are more likely to be eating unhealthy foods and drinks on a daily basis. This suggests that the higher proportion of overweight children amongst lone parent families may be, in part, due to the higher consumption of these foodstuffs by this group of children.

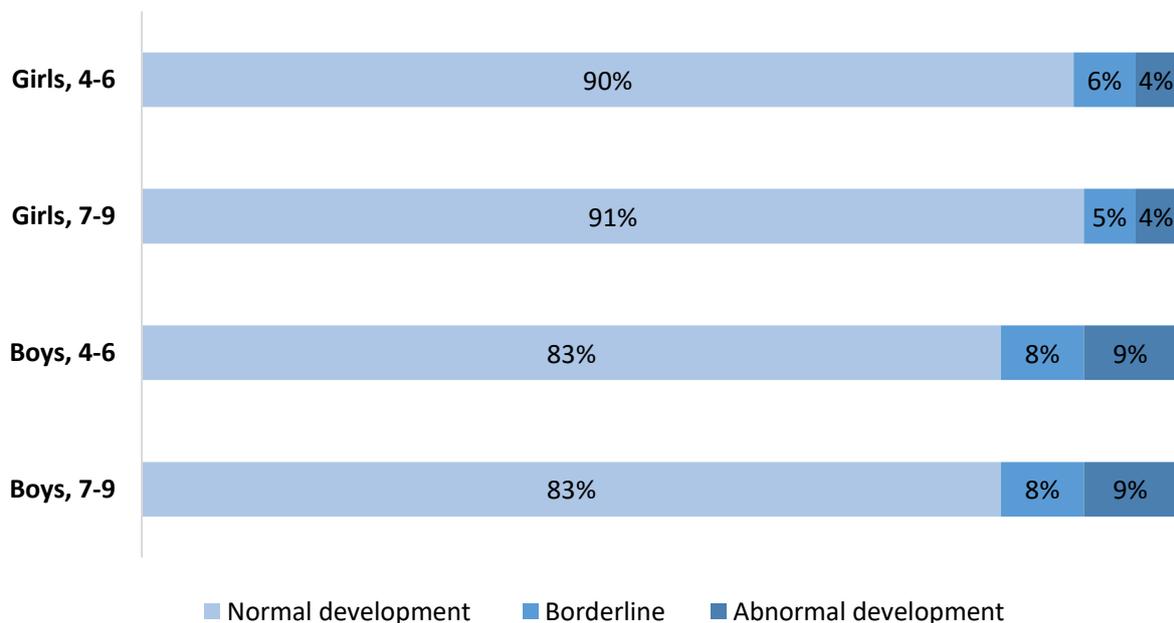
Interestingly, there were no significant differences overall in the prevalence of obese or overweight children by socio-economic group, income or household employment status. Children who were classified as white were more likely to be overweight or obese than their non-white peers; 24% of white children were overweight or obese in contrast to just 14% of non-white children.

The Growing Up in Scotland study also found that girls were slightly less likely than boys to have experienced an **accident or injury** necessitating NHS help.⁶ Similarly, girls were slightly less likely than boys among the toddler sample to have ever been admitted to hospital as an inpatient as a result of an accident or illness.

2.2 Social, emotional and behavioural development

Data from 2014-2017 shows that girls aged 4-9 are significantly less likely than boys to demonstrate difficulties with their **social, emotional and behavioural development**, as shown in the graph below.⁷

Graph 3: Proportion of children assessed as having normal, borderline or abnormal social, emotional and behavioural development, by age and gender, 2014-2017 combined (Scottish Health Survey, 2017)



The Growing Up in Scotland study has found some evidence of less advanced communication development by boys than girls. Girls were found to have somewhat more advanced communication skills overall than boys at 10 months, in 2010-2011.⁸

For half of the individual communication and symbolic gestures recorded, girls' communication skills were more advanced than boys, which the authors note is a common finding in most communication research with children, while for the remaining items there were no differences between boys and girls.

In terms of developmental milestones among babies, there were few differences between boys and girls in relation to gross motor skills in 2004-2005, but girls tended to be more advanced in relation to fine motor skills and communicative gestures.⁹ Among toddlers, girls were also more likely to have reached developmental milestones, especially those related to getting dressed or undressed. Higher percentages of girls than boys also had the capacity to carry out more complicated fine motor tasks such as copying squares and circles (circles = 90% vs 80%).

Fewer parents of girls than boys than girls (15% vs 23%) expressed concerns about their toddler's development, learning and behaviour in 2004-2005 (children aged around 2-3 years).¹⁰ In terms of language development, parents were also less likely to express concerns in relation to female than male toddlers (10% compared with 19%). 73% of girls compared with 63% of boys were reported as having the ability to make themselves understood by strangers. These trends for fewer girls than boys to cause their parents concern around developmental and behavioural development were also seen in later stages of the study.¹¹

Fewer girls than boys had their **entry to school deferred**, in the first cohorts of the Growing Up in Scotland study.¹² 9% of girls had their entry to school deferred, compared with 15% of boys. Parental concerns about the child's development were associated with deferred entry. Parents were less likely to believe that girls would be reluctant to go to school – 13% of girls' parents agreed with this statement compared with 19% of boys' parents.

2.3 Parent-child relationships

The Growing Up in Scotland study found that among slightly children slightly older than the early years, girls reported slightly higher supportiveness from fathers than boys in 2014-15 (average age was 10 years and 2 months – younger children were not surveyed on this).¹³ This gender difference is reflected in other aspects of children's wellbeing: girls also perceive higher supportiveness from mothers, have lower levels of behavioural and emotional problems, and are less likely to experience difficulties adjusting to life at school.

Among girls, 27% reported an excellent relationship with their father, and 14% a poor relationship. The corresponding figures for boys are 24% (excellent) and 18% (poor). However, this gender difference is not confined to father-child relationships – a

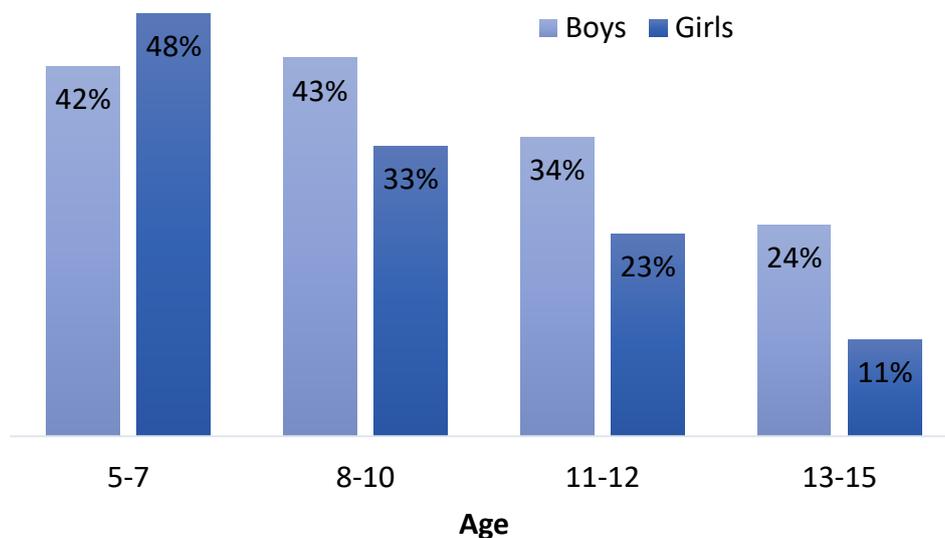
similar gender difference was found for mother-child relationships. Among girls, 7% have a poor relationship with their mother, compared to 14% with their father. Among boys, 10% have a poor relationship with their mother, compared to 18% with their father.

Father-child relationship quality was independently associated with various different aspects of wellbeing. This was the case even after allowing for mother-child relationship quality and family circumstances such as socio-economic status and adverse family events. Associations between parental supportiveness and child wellbeing are similar in strength for father- and mother-child relationships, and are equally important for boys and girls.

2.4 Physical activity

Among 5-7 year olds, girls were slightly more likely than boys to meet **daily physical activity guidelines** of at least 60 minutes of activity per day over the course of a week, in 2017.¹⁴ Forty-eight per cent of girls aged 5-7 met the guidelines when activity at school was included, compared to 42% of boys. This is in contrast to the trend seen among children of other age groups, where girls are increasingly less likely than boys to meet the guidelines, as the graph below shows.

Graph 4: Proportion of children meeting daily physical activity guideline over course of week (including activity at school), by age and gender (Scottish Health Survey, 2017)



When asked about whether they had participated in any **sport** during the last week, girls and boys aged 5-7 were similarly likely to say that they had (73% of girls and 74% of boys).¹⁵ However, among those aged 2-4, girls were more likely to have participated in sport – 58% of girls, compared to 48% of boys of the same age.

2.5 Early Learning

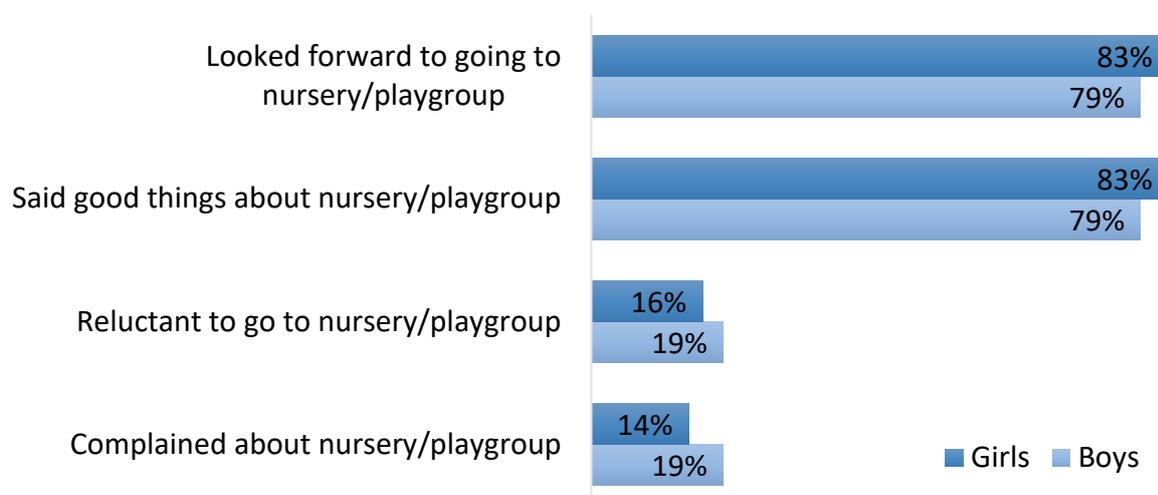
As of 2017, 2% of those working in settings providing funded Early Learning and Childcare in Scotland were male.¹⁶ Data on the gender breakdown of children enrolled in Early Learning and Childcare (ELC) is not currently available, but an individual level child census is being developed which will collect information on the sex of the children accessing funded ELC. This data collection should be fully established by 2022.

Various reasons have been given for the dominance of women among those working in ELC. These include:

- Childcare being seen as women's work (and as a replacement for the mother's role)
- Childcare's historic connection with the women's movement (it has been seen as important both to allow women the option of working outside the home and to provide employment for women)
- Professions seen as 'women's professions' are less attractive for men (and tend to offer lower salaries and status)
- Gender segregation also reproduces itself through policy, the image of the profession, the training, selection, and the type of professionalism that develops
- Men have to be more careful than women, and are more afraid than women, of being accused of sexual abuse (and for the same reason employers are also more reluctant to hire men).¹⁷

The Growing Up in Scotland study examined the frequency of **adjustment problems** for children in first the 2 months of pre-school, in 2006-2007.¹⁸ There were some clear patterns, with parents of boys more likely to say that they complained about nursery/playgroup and were reluctant to go. Conversely, parents of girls were more likely to say good things about nursery/playgroup and that they looked forward to going. This data is shown in the graph below.

Graph 5: Proportion of children reported as exhibiting various positive and negative attitudes to nursery or playgroup every day in 2006-2007, by gender (Growing Up in Scotland, 2008)



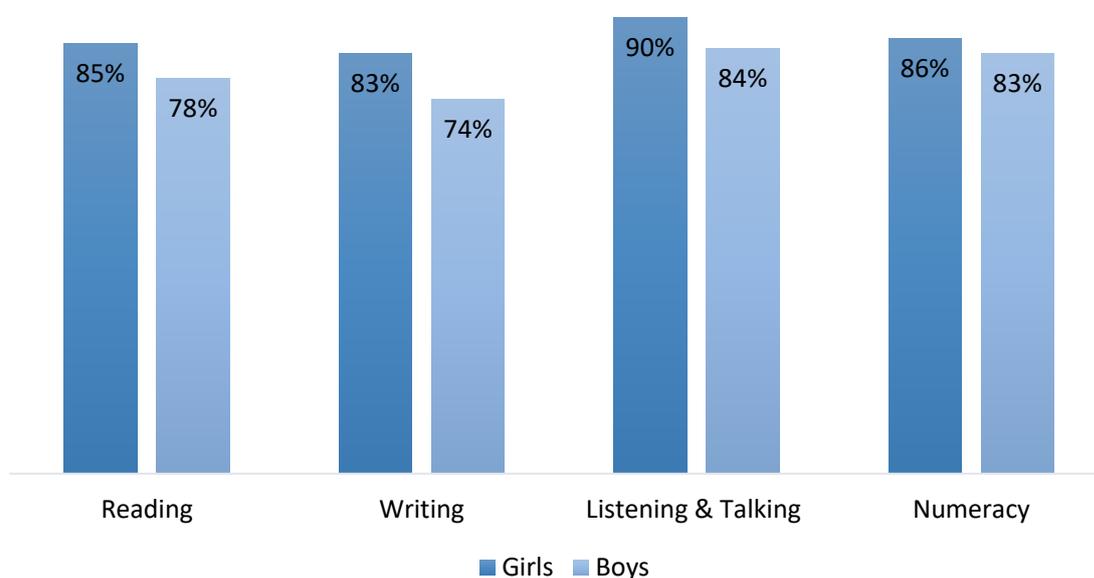
This survey also found that activities for children were, for the most part, not gender-specific. However, one exception to this was **drawing and painting**. 35% of girls aged around 22 months were drawing or painting everyday compared with 20% of boys. At around 46 months (3.8 years) these figures increased to 46% for girls and 26% for boys.¹⁹

Analysis from Growing Up in Scotland revealed certain benefits to non-parental childcare for girls, as well as a potential disadvantage for those experiencing more than 40 hours a week.²⁰ Non-parental childcare (including informal as well as formal) of between 17 and 40 hours per week at age three was found to have a significant positive impact on vocabulary among girls, even after controlling for socio-economic characteristics. On the other hand, 40 hours or more of non-parental childcare per week at age three was found to be detrimental to children’s behavioural outcomes at age five, especially for girls.

2.6 Education

Experimental data²¹ shows that a higher percentage of girls than boys in P1 are achieving the expected Curriculum for Excellence level across all the ‘organisers’ of the curriculum: reading, writing, listening and talking and numeracy.²² The smallest differences are seen with numeracy, and the greatest with writing, as shown in the graph below.

Graph 6: Percentage of pupils in P1 (early level) achieving expected CfE¹ levels by gender, 2017-18



These trends are consistent across all the levels of the curriculum, as the table below shows.

Table 1: Percentage of pupils achieving expected CfE¹ levels by gender, 2017-18

		Reading	Writing	Listening & Talking	Literacy ²	Numeracy
P1 (early level)	Girls	85	83	90	80	86
	Boys	78	74	84	71	83
P4 (1st level)	Girls	81	78	88	75	77
	Boys	74	66	81	63	75
P7 (2nd level)	Girls	83	80	88	77	76
	Boys	74	66	80	63	73
S3 (3rd level or better)	Girls	93	93	94	92	91
	Boys	87	85	89	83	88
S3 (4th level)	Girls	61	59	62	54	59
	Boys	46	43	48	39	53

Notes:

1 – This data is classified as experimental statistics and continues to be data under development

2 – A pupil has achieved the expected level in Literacy if they have achieved the expected level in all three organisers: reading, writing and listening and talking

Research has shown that girls tend to outperform boys in reading internationally.²³

Growing Up in Scotland found that girls were more likely to be reported as never **finding school work hard** than were boys (52% compared with 46%).²⁴ They were also less likely to be reported as **finding school work boring** (30%, compared with 42% of boys).

8% of children at Primary 1 in the study were reported as having **Additional Support Needs** (ASN) by their main carer. The figure was higher for boys (10%) than for girls (4%). There was a notably higher prevalence of ASN amongst children living in the two most deprived quintiles, with average rates of 10% and 11% respectively. This was apparent for both boys and girls.

Interestingly, gender of the child was found to influence how confident parents were **helping with homework**. One interpretation of this relationship may be that as girls tend to report better overall ability, they require less assistance from parents, and parents believe the child is doing it correctly.

3. Gender Differences in the Early Years: Attitudes and Stereotypes

3.1 Adults' gender stereotypes and attitudes towards children

In 2014, the Scottish Social Attitudes Survey found that a significant proportion of adults in Scotland hold stereotypical views about gender roles in young children. The survey measured this by examining how people would respond to boys and girls wanting to buy a toy which has not traditionally been viewed as suitable for their gender.²⁵

The first question asked respondents what they would do if they took a 3 year old boy to a shop to buy a toy and he picked up a princess doll. The second posed the same question if a 3 year old girl chose a toy truck. In both cases, the answer options were to buy it for him/her without saying anything; to buy it but first try to get him/her to pick a toy that's more common for girls/boys, or to make him/her put the doll/truck back and pick a toy that's more common for boys/girls.

The table below shows that while just over half (52%) said that they would buy the girl a toy truck without saying anything, only two in five (40%) said the same about buying the doll for the boy. Conversely, more people would make the boy put the princess doll back (24%) than would make the girl put the toy truck back (14%).

Table 2: Attitudes to Toys Suitable for Girls and Boys (Scottish Social Attitudes Survey, 2014)

	Boy wanting a princess doll	Girl wanting a toy truck
Buy it for him/her without saying anything	40%	52%
Buy it, but first try to get him/her to pick a toy that's more common for boys/girls	35%	33%
Make him/her put it back and pick a toy more common for boys/girls	24%	14%
Don't know / refused	1%	1%

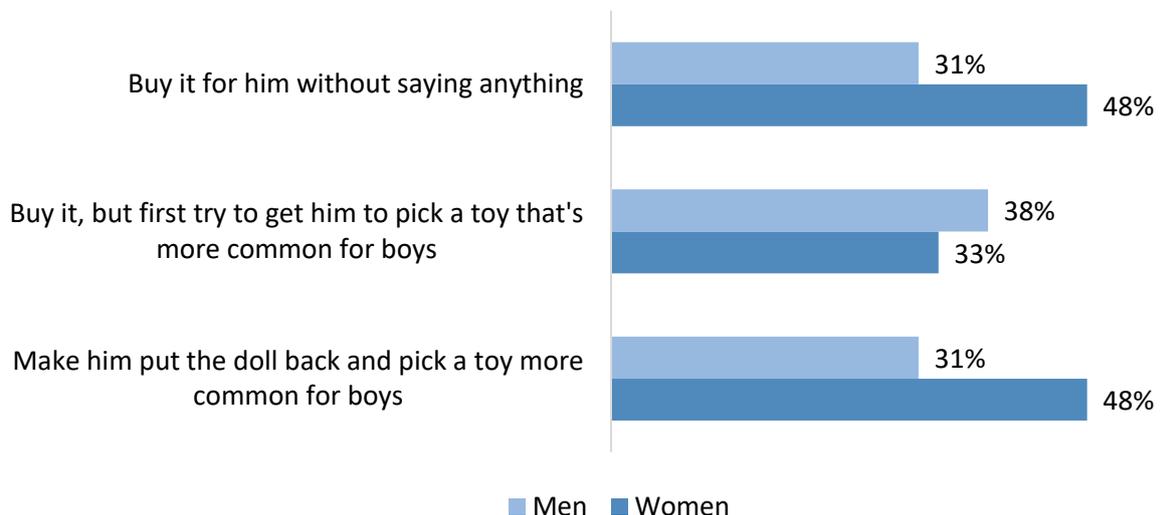
A survey conducted in Australia similarly found that only 69% of parents of sons aged 0-3 were comfortable with the idea of their child playing with dolls (compared to 89% of parents of a daughter).²⁶ Similar proportions were comfortable with the idea of a daughter (88%) compared to a son (91%) playing with trucks. The survey was carried out by Ipsos Australia for Our Watch, an Australian organisation working to

challenge drivers of violence against women and their children. The sample (858 adults) was not random and findings should therefore be treated with some caution, but respondents were drawn from across Australia, closely reflected the population in terms of the proportion living in major cities,²⁷ and included a range of age groups and family sizes. Almost twice as many women as men responded, however (65% of respondents were women).

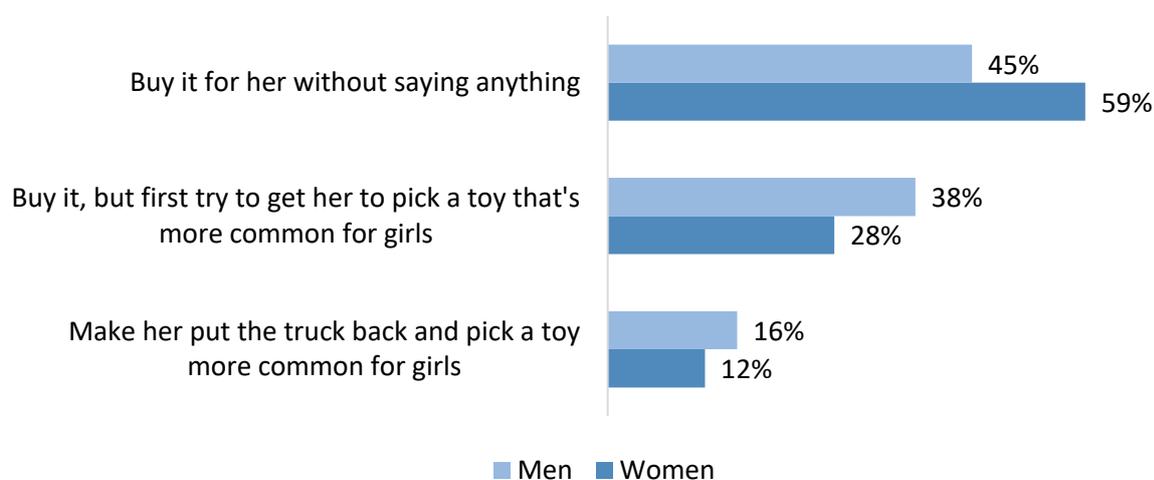
Overall, the Scottish Social Attitudes Survey found that **younger people** were much less likely to adhere to these gender stereotypes.²⁸ 55% of respondents aged 18-29 said that they would buy the doll for a boy without saying anything, compared to 32% of those aged 65+. 64% of those aged 18-29 would buy the girl a truck without saying anything, compared to 46% of those aged 65+.

Women were also overall **much less likely than men** to adhere to these stereotypes. As the graphs below show, women were far more likely than men to say that they would buy the boy a doll and the girl a truck without saying anything. Women were also much less likely than men to say that they would make a boy put the princess doll back (the gender difference in terms of those saying that they would make a girl put the truck back was not statistically significant).

Graph 7: How people said they would respond to a boy wanting a princess doll, by gender of respondent (Scottish Social Attitudes Survey, 2014)



Graph 8: How people said they would respond to a girl wanting a you truck, by gender of respondent (Scottish Social Attitudes Survey, 2014)



The Australian survey outlined above echoed this finding, reporting that 60% of fathers of a son (aged 0-3) who responded to the survey would be comfortable with the idea of their son playing with dolls, compared to 78% of mothers of a son.²⁹ More mothers (87%) than fathers (75%) of a son also reported feeling comfortable with their son crying when he felt sad. Fathers of daughters were more likely to feel comfortable with their child crying (84%), while for mothers there was no difference between responses for mothers of daughters compared to mothers of sons – they were equally likely to say they were comfortable with their child crying when they felt sad.

There is also some evidence in the academic literature which supports this finding that fathers are more likely than mothers to treat their sons and daughters differently, promoting gender socialisation to a greater extent.³⁰

Income and **education level** also appeared to affect how likely people were to adhere to gender stereotypes in the Scottish Social Attitudes Survey.³¹ Those who had completed Highers, A-Levels, a Degree or other Higher Education were more likely than those with Standards, GCSEs or no qualifications to say that they would buy children the toy without saying anything, and much less likely to say they'd make the child put the toy back and pick one more common for their gender. People earning over £26,000 per year were also more likely to say that they would buy children the toy without saying anything, while the likelihood of the respondent saying they would make the child put the toy back and pick another decreased with higher earnings.

Whether or not people currently had children in their household appeared to have little correlation with how much they adhered to gender stereotypes.

The literature has found that parents' treatment of their children can vary by the child's gender in areas including the decoration of children's bedrooms, the chores children are asked to do and the activities they are encouraged to participate in, as well as toy selection.³²

The Growing Up in Scotland study found that **parents' aspirations** were slightly higher for girls than they were for boys.³³ Parents of girls were slightly more likely to want their child to attend college or university than parents of boys (91% vs 86%), while parents of boys were more likely to want their child to have a full-time job compared to parent of girls (85% versus 80%). The report suggests that these differences in aspirations may be due to differences in perceptions of ability between parents of girls and parents of boys. These perceptions might reflect observed differences in ability between boys and girls in the early years, such as that girls on average have higher cognitive ability than boys, and are less likely than boys to have difficulties with social, emotional and behavioural difficulties in their younger years.

The study also explored **parent's attitudes towards education** and whether it should have a prominence for girls and boys. Parents were asked whether they agreed or disagreed that 'sons in families should be given more encouragement to do well at school than daughters'. Almost all respondents disagreed with this statement (98%). Despite the overwhelming disagreement, a small difference was evident according to the respondent's level of education; 7% of parents with no educational qualifications agreed with the statement compared with 2% of those with a degree.

The Australian survey also found, interestingly, that while nine-tenths (90%) of the parents who responded agreed that it is important to treat boys and girls the same in the early years, and four-fifths (79%) said that they would like to challenge the restrictive gender stereotypes that surround their young children, three-fifths (58%) did not believe that their own children were influenced by gender stereotypes.³⁴

3.2 Children's gender stereotypes and attitudes

Studies have shown that children themselves can distinguish between men and women by 9-12 months, and that **gender stereotypes and gendered behaviours are evident by the age of 3.**³⁵ A study conducted with children from low-income backgrounds in a large north-eastern city in the US found that children of all the ethnic groups assessed (Mexican-, Chinese-, Dominican- and African-American) gave preference to children of their own gender at the age of 5.³⁶ This study found that the girls had greater overall negativity toward boys than vice versa, a finding which the authors suggest is consistent with a number of other studies.

One study found that girls develop a significant preference for pink over other colours by the age of 2.5, while boys at the same age show a strong avoidance of pink.³⁷ However, there was no significant difference in children's colour choice before the age of 2, indicating that this gendered attitude to pink does not have a biological basis. The children who participated (192) were from one community in the US and were mainly Caucasian and middle class, so it cannot be inferred that findings are representative of the wider population.

3.3 Gender stereotyping in products

Many different kinds of **products** targeted at children are gendered. Research conducted in the US, for example, has found that Halloween costumes, dolls and action figures, and Valentine's cards were all more likely to depict female characters with stereotypical feminine characteristics (such as decorative clothing and friendly expressions) and to depict male characters with stereotypical male characteristics (such as being active and wearing functional clothing). Male characters were found to be more frequently associated with characteristics indicating high status and dominance, whereas female characters were more frequently associated with 'cues of sexual submissiveness'.³⁸

4. Why Does it Matter?

The gender stereotyping that children encounter in their early years matters because it appears to have significant knock-on effects both during childhood and later in life. It affects children's beliefs and behaviour from a young age, and later in life it can contribute to gendered differences in key areas of life including education and careers as well as the perpetration and experience of violence.

4.1 Young children's beliefs and behaviour

Research has found that **media** has a significant effect on children's beliefs about gender norms from a young age. Increased television viewing (3-4 hours a day) has been linked to 4-year-olds being more likely to believe that others think boys are better than girls.³⁹ Research conducted in the US found that engaging with Disney Princess media and products was 'related to higher levels of female gender-stereotypical behaviour for both boys and girls'.⁴⁰ Girls' viewing preferences have been found to be wider than boys, indicating that male conformity to gender norms is stronger even at a young age.⁴¹ Media for boys has been shown to reinforce ideals of boys as active as well as interests in fighting, weaponry, heroics and machoism, while toys, which are often explicitly marketed for one gender, tend to encourage action and motor skills in boys but nurturing in girls.⁴²

Links have also been made between the types of **games** that young children (under 4) are encouraged to play and the fact that girls at this age tend to have better social development while boys have better motor development.⁴³ Girls are often encouraged into indoor, imaginary play with toys more than boys, while boys are more likely than girls to play physical games outside.

4.2 Later education and careers

It has been shown that gender stereotypes affect children and young people's **subject choices** and **career aspirations**. For example, UK research from the early 2000s found that young people's views of what traits and characteristics are 'masculine' and 'feminine' could be mapped across to subject choices – broadly, that girls are perceived to be better at communicating, understanding and helping people, and are therefore seen as better at arts, humanities and caring subjects and jobs, while boys are considered better at technical and practical roles, and scientific subjects and jobs.⁴⁴

A survey of school children in England found that even though more girls than boys say that science is their favourite subject at school, they are still less likely to aspire to a career in science.⁴⁵ Just 12% of 12-13 year-old girls wanted to become scientists, compared to 18% of boys. This research also found that girls who aspire to science and STEM-related careers are more likely to be highly academic and to describe themselves as 'not girly'. Similarly, US research shows that stereotypes about masculine and feminine gender roles mean that from a young age STEM subjects are often considered to be more suitable for boys than girls, and that the stereotype of the scientist as a man negatively impacts female students' career aspirations.⁴⁶

The literature suggests that both how competent people think they are at certain things and also how much they value certain tasks or activities is positively linked to academic outcomes in related areas.⁴⁷ Research has shown that in areas which are often seen as masculine or feminine, parents' gender stereotypes about how girls' and boys' abilities in that area affect their children's beliefs about how competent they are. For example, the stereotype that boys are better than girls at maths has been found to affect their children's perceptions of their own abilities.

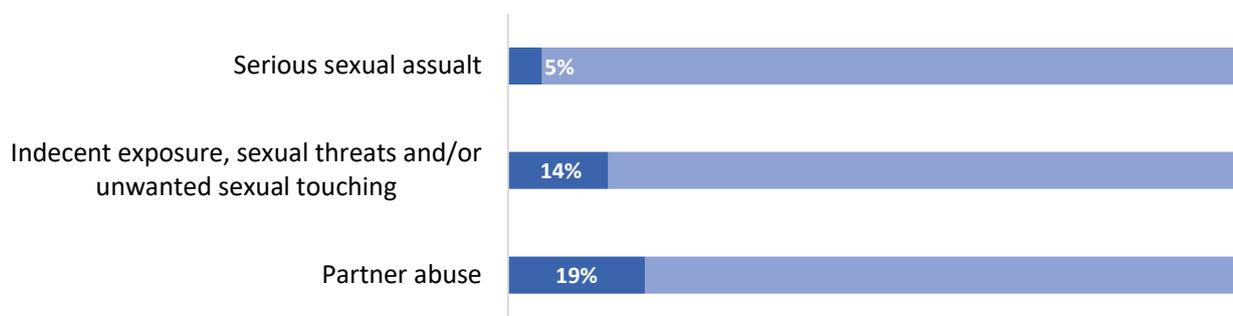
Research conducted with slightly older children (ages 10-12) found that the sons of parents who held strong reading-related gender stereotypes favouring girls were less likely to believe that they were good at reading and were less motivated to read.⁴⁸ (Interestingly however, the inverse effect was not found for girls in this study).

4.3 Violence against women

Women and girls suffer significantly higher levels of many forms of violence and abuse than men. They are **twice** as likely to have experienced partner abuse, **seven times** as likely to have experienced serious sexual assault, and **five times** as likely to have experienced indecent exposure, sexual threats and/or unwanted sexual touching.⁴⁹

The graph below shows that a significant proportion of women in Scotland have experienced violence against women during their lives (note: these figures are those who have experienced violence against women since the age of 16, so lifetime figures are likely to be higher).

Graph 9: Proportion of women in Scotland who report having experienced certain types of violence against women since the age of 16 (Scottish Crime and Justice Survey, 2014/15)



Another survey conducted in 2010-12 found that 1 in 10 women in Scotland (and 2% of men) said that they had experienced rape, and 1 in 5 women (19%) reported experiencing someone trying to make them have sex against their will.⁵⁰ In 2014, 32% of *all* respondents to the Scottish Social Attitudes Survey said that they had experienced some form of gender-based violence.⁵¹

Where gender information was recorded, 81% of all incidents of domestic abuse recorded by the police had a female victim and a male accused in 2017-18.⁵² As of 2014-15, 94% of those who had experienced serious sexual assault said that the offender was male (98% for female victims).⁵³

While the drivers of violence against women are complex and there are different frameworks for understanding it within the literature, there is a significant body of literature that focuses on the role played by masculinity and gender-relations social norms.⁵⁴ This literature proposes that while there are multiple forms of masculinity in any society, dominance over women is frequently a part of the recognised set of male behaviours.

In the last two decades, there has been an increasing focus on **primary prevention** of violence against women as an important complement to secondary and tertiary prevention work, which intervene once violence has already happened to prevent it from continuing (secondary) and deal with the consequences or minimise the harm caused (tertiary).⁵⁵ Many of these programmes focus on gender norms and how men see themselves as men, seeking 'to transform the relations, norms, and systems that sustain gender inequality and violence'.⁵⁶

The first evaluation of a programme for primary prevention of intimate partner violence against women emerged in 1986 and since that time, the evidence base for effective strategies has remained small, although steadily growing.⁵⁷ It is only the last decade or so that studies have begun to evaluate different types of programmes for the same settings and audience, rather than a stand-alone evaluation of one programme design, and the evidence base is therefore still developing.⁵⁸

5. What Can We Do about It?

5.1 Challenging gender stereotypes

Children are thought to be most susceptible to media influence around the age that they begin to understand gender as a social category, and research has shown that **active mediation**, which involves adults talking to children about the biased representations they see in media and presenting counter-stereotypes, can minimise young children's endorsement of gender stereotypes.⁵⁹

Efforts to minimise the importance given to gender norms in young children outside of education/childcare settings have focused on **challenging the gendered marketing** of toys (for example, with the Let Toys Be Toys campaign, Let Toys Be Toys 2017), but little evaluation has yet been done on long-term effects of these efforts.

Much research has found that parent-child relationships have a key influence in child development and that parents are a (or the) primary influence on their child's development of gender roles in early life. However, findings are not conclusive and other research has concluded that parents have little impact on their child's gender role development.⁶⁰

Based on evidence that **teachers' gender stereotypes** around subjects such as mathematics can influence their students' beliefs and even achievements, it has been proposed that scales measuring teachers' gender stereotype beliefs around mathematics could be an important part of spotlighting and preventing the reproduction of gender stereotypes in students' maths education.⁶¹

5.2 Gender-equal ELC

Gender-equal pedagogy aims to address social problems including 'social exclusion, gender stereotyping, and unequal treatment'.⁶² For example, gender-neutral language is used and teachers actively work to combat gender stereotypes.

In 2017, a study was conducted with children aged 3-6 in gender-equal preschool in Sweden to examine whether this form of ELC affected children's 'reliance on gender information'.⁶³ It found that children attending a gender-equal preschool were more likely to be interested in playing with children that they had not met before who are of a different gender to themselves. They were also less likely overall to show beliefs conforming to gendered cultural stereotypes about what children like to do (although there was no discernible difference for the younger half of boys, who were the only group who did not show conformity to gendered cultural stereotypes). Children

attending a gender-equal preschool were found to be marginally more likely to take automatic note of another child's gender. Whether or not the preschool was gender-equal did not appear to have an effect on whether or not children preferred same-gender playmates; they were equally likely to choose same-gender playmates.

This study used short individual sessions outside the classroom – no other assessment such as observation or qualitative interviewing was used, and therefore further research into the effects of gender-equal preschools will be important.

5.3 Greater male involvement in childcare

In summarising the academic literature on the role of men in education, Rohrmann says that there are two opposing views: some argue that men and women are equally capable of educating and caring for children, while others propose that men and women are fundamentally different (and can therefore make different contributions).⁶⁴ He suggests that 'there is little evidence for the assumption that more male teachers lead to better results of children in school' and that strategies and policy aimed at promoting male involvement in ELC are usually presented in the context of gender equality.

There is also some evidence that greater male involvement in ELC can enrich the involvement of fathers (it should be noted that this term comprises 'social fathers', not only biological fathers of children but also 'stepfathers and new partners of single mothers, grandfathers, godfathers or other men who take responsibility for children in new types of families').

Drawing on previous research conducted on gender and male involvement in ELC, Peeters proposes that the model of professionalism that has developed in ELC should be made more diverse.⁶⁵ He suggests that encouraging more men to consider and develop a career in ELC would help promote and develop this 'gender-neutral professionalism'.

A small-scale US study found that children whose parents shared the parenting more equally (and whose fathers held more liberal attitudes on average) tended to adopt gender labels later than children with more traditional parenting where fathers had lower involvement.⁶⁶ Gender-typed preferences and behaviours were not affected as much, however. A study conducted with 5-6 year old children and their fathers in Turkey found a significant positive relationship between children's gender stereotypes and their father's engagement with them.⁶⁷ It also, perhaps unsurprisingly and in line with the above US study, found that the fathers were more likely to have greater parental participation if they hold more fluid ideas about gender roles.

NOTE

Data sources drawn on in this report collect self-reported data on whether respondents are male or female. The term gender is therefore used throughout this report, although though some data sources use the term sex in their research.

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