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Primary–secondary school transition experiences and factors associated with differences in these experiences: Analysis of the longitudinal Growing Up in Scotland dataset

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Abstract

Previous research suggests that primary–secondary school transitions can be problematic, with some children experiencing a negative impact on academic outcomes and a decline in wellbeing. The negative impact of primary–secondary transition experiences can be long term and lead to young people not completing high school with implications for their subsequent education and employment. However, there are several gaps in existing studies as a result of weak research designs, small samples and the timing of data collection. To better understand children's primary–secondary school transition experiences and the factors which may impact on them, we undertook secondary analysis of data from the Growing Up in Scotland (GUS) study. The analysis focused on data collected when children were in the penultimate year of primary school (Primary 6/P6) and then when they were in the first year of secondary school (Secondary 1/S1). This led to a final sample size of 2559 children and their parents. Results contradict many previous studies which tend to find primary–secondary transitions as overwhelmingly negative. In contrast, we found that 36% of children experienced a positive transition and 42% a moderately positive transition,

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with only 22% children experiencing a negative transition. This is the first large-scale, longitudinal and contemporaneous study able to provide a clear proportion of children with positive, moderate and negative transition experiences. Several factors seemed to play a part in children's transition experiences, namely gender, religion, household composition, socioeconomic status, child expectations, schoolwork, and relationships. Implications and recommendations for research, policy and practice have been outlined.

KEYWORDS

longitudinal dataset, primary school, secondary school, secondary analysis, transitions

Context and implications

Rationale for this study:

Primary–secondary school transitions are considered to have a detrimental impact on educational and wellbeing outcomes. However, previous studies have several limitations and a more robust analysis of a longitudinal dataset with a large sample was required.

Why the new findings matter:

This study has highlighted that the majority of children had a positive or moderately positive transition experience. It clarified which factors might influence whether children will have positive or negative transitions.

Implications for practitioners, policy makers and researchers:

Findings suggest the importance of practitioners and policy makers acknowledging the myriad factors occurring alongside and potentially influencing a child's transition experiences. Similarly, it is important to be mindful of strategies to promote children's positive relationships in both primary and secondary school, especially with their teachers. Further, children's participation in sports, clubs and youth groups should be encouraged. Children's anxieties and misconceptions about transitions should be addressed in a timely manner, including enhanced transition for those with higher levels of concern or anxiety. Fostering and maintaining good school–parent relationships, through timely and relevant communication can facilitate positive transitions.

The findings suggest the importance of undertaking research to understand how children from less advantaged socioeconomic backgrounds can be better supported. Similarly, research should be undertaken to understand why some children have negative expectations and are less positive about secondary school. Further, future research should focus on analysing GUS data, including that from S3 and S6, and linking it with administrative data related to attainment and wellbeing.

INTRODUCTION

Every year millions of children around the world start secondary school or equivalent. In EU countries alone, there are more than 20.5 million children in lower secondary schools and in 2021 in Scotland, 56,850 children started secondary school. Therefore, the significance of getting transitions right internationally cannot be overstated. Moving up to secondary school implies progression, more choices and opportunities, larger groups of peers and teachers to choose from, more independence, different subjects, greater variety of sports, and better resources and facilities (Jindal-Snape & Cantali, 2019; Jindal-Snape & Foggie, 2008). Further, some see the transition to secondary school as a rite of passage (van Gennep, 1960) and cause for celebration. This is marked in different ways by families, schools and communities across the world, such as through primary school graduation ceremonies in the UK and end of primary school dances or proms in the USA. Although important, this suggests that primary–secondary transitions are a one-off event. We conceptualise transitions as an ongoing process of *adaptation* to any change (e.g., starting or leaving school, losing/making friends) in *multiple domains* (e.g., educational, professional, psychological) and *contexts* (e.g., school, home) *over time* (Jindal-Snape, 2016). Further, these transitions can be both *exciting and worrying* at the same time, including in the same domain and context (Jindal-Snape, 2016).

However, according to our systematic literature review (Jindal-Snape et al., 2020) over 80% of the 96 primary–secondary school transitions research articles published between 2008 and 2018 argued that primary–secondary transitions are problematic, with a negative impact on academic outcomes (Hopwood et al., 2016; Mudaly & Sukhdeo, 2015; Serbin et al., 2013), a decline in positive attitudes towards certain subjects (García et al., 2016) and subject-specific self-efficacy scores (Lofgran et al., 2015) leading to high dropout rates (McIntosh et al., 2008). Further, researchers have argued that transitions challenge children's psychological wellbeing (Jackson & Schulenberg, 2013), cause stress and anxiety (Peters & Brooks, 2016) and an increase in problem behaviours (Palmu et al., 2018). It has been suggested that children with additional support needs, such as autism, are more likely to have difficult transitions due to heightened anxiety levels and problems with dealing with change (Peters & Brooks, 2016). These findings are concerning as research also suggests that the negative impact of primary–secondary transition experiences can be long term and can lead to young people not completing high school (West et al., 2010) which, in turn, has workforce implications.

It is important to note, however, that most of these articles did not actually report on the proportion of children who experienced positive or negative transitions. In one of the few studies that did, Waters et al. (2014a) found that of their sample of 2078 children, 70% reported that their transition was easy or very easy. Similarly, Jindal-Snape and Cantali (2019), who had a much smaller sample ($n=61$), found that a few months after moving to secondary school, 40 (66%) children reported that they had no problems with the move. More importantly, the children's views of their transition experiences changed at the end of the first and second years of secondary school, with problems being resolved for some and emerging for others over time. With most studies not presenting the proportion of children experiencing positive or negative transitions, it is difficult to quantify the scale of the problem, thus leaving a major gap in the literature.

There are other methodological gaps in previous studies. For example, although authors have undertaken 'longitudinal' research, data in most of those studies were collected just before and after starting secondary school—that is, covering a period of a few months—at a time when children are experiencing a lot of change and relationships are in a state of flux. As we conceptualise transitions as an ongoing process of educational, psychological, social, cultural and spatial adaptation due to change over time (Jindal-Snape, 2016), we

argue that those studies did not actually explore transitions. Although West et al. (2010) conducted a longitudinal study over a longer, eight-year period with data collection at four time points, they did not collect data when children were in primary school and instead retrospectively asked them about their experiences when they were in the second year of secondary school. Similarly, although Jindal-Snape and Cantali (2019) collected data over three school years and four time points, their sample size was very small and from only one secondary school, making it difficult to generalise the findings. Only one study (two articles) analysed a robust, secondary longitudinal dataset (Langenkamp, 2009, 2010), from the US National Longitudinal Study of Adolescent Health (Add Health) and its education component, the Adolescent Health and Academic Achievement (AHAA). Despite its large sample size, because the data were collected from 1994 to 1996, this study does not offer a contemporaneous view, with educational policies and practices, as well as other environmental factors, likely to have changed since that time.

Our systematic literature review summarised the factors considered to have an impact on transition experiences from the international literature published between 2008 and 2018 (Jindal-Snape et al., 2020). These included: (a) characteristics such as gender (Benner & Graham, 2009), ethnicity, socioeconomic status and disabilities (Scanlon et al., 2016); (b) children's expectations of the transition (Waters et al., 2014a); (c) children's relationships with parents (Benner & Graham, 2009; Waters et al., 2014b), peers (Jindal-Snape & Cantali, 2019; Symonds & Hargreaves, 2016) and teachers (Frey et al., 2009; Ganeson & Ehrich, 2009); (d) involvement in extra-curricular activities (Jindal-Snape & Foggie, 2008); (e) engagement and motivation (Benner & Graham, 2009; Deieso & Fraser, 2018), (f) experience and/or fear of bullying (West et al., 2010); and (g) characteristics of schools (Wolters et al., 2012). However, these studies mainly explored the impact of one rather than multiple factors, leading to difficulty in understanding the combined impact of multiple factors on the same child. As well as the methodological limitations, most authors did not explicitly state their conceptualisation or theorisation of transitions (Jindal-Snape et al., 2020).

To address these gaps and limitations, we undertook secondary analysis of a large, longitudinal dataset collected for the Growing Up in Scotland (GUS) study. The data reported in this paper was collected at two time points: during the penultimate year of primary school when, it can be argued, there was relative stability compared to the final year of primary school, and after five months of starting secondary school.

The research objectives were:

1. To understand children's positive and negative primary-secondary transition experiences.
2. To identify factors associated with positive and negative transition experiences.

UNDERPINNING THEORETICAL FRAMEWORK

This study is underpinned by Jindal-Snape's (2016, 2018, 2023) Multiple and Multi-dimensional Transitions (MMT) theory. According to MMT theory, a child/young person will experience multiple transitions during the move from primary to secondary school due to, for example: changes in relationships with peers, teachers and families; their developmental stage leading to aspiration for independence; change in organisations and their implicit cultures; and change in pedagogical approaches. The child's multiple transitions can trigger transitions for significant others (e.g., families, peers) requiring adaptation on their part (such as due to change in relationship between parents and their child, difference in organisational culture of primary and secondary schools and how parents are involved). This highlights the multidimensional nature of transitions. Conversely, significant others will be experiencing their own (unrelated) transitions (e.g., professional, social) and these will trigger and/or have

an impact on the child/young person's transitions (Jindal-Snape, 2016, 2018, 2023). Further, the transitions are dynamic and are not taking place in a vacuum; they are in an environment that is constantly changing. To understand MMT theory better, we can use the analogy of a Rubik's cube. If each individual and their significant others' ecosystems are seen as one colour, we can visualise six interconnected ecosystems (see Bronfenbrenner, 1979, 1992, for Ecological Systems Theory). If anything changes for anyone in a single colour, that change is likely to trigger changes across other colours on the Rubik's cube, that is, leading to transitions for all those in the connected ecosystems (Jindal-Snape, 2023). As noted below, there are some limits to how far this theory (or our conceptualisation) can be fully applied when analysing a secondary dataset that did not set out to explore transitions. Nevertheless, it is notable that the factors associated with transitions between primary and secondary school highlighted in the existing literature—for example, change in relationships between child and significant others, the context of schools and homes—map well onto the multiple and multi-dimensional transitions in line with MMT theory.

METHODOLOGY

Growing Up in Scotland (GUS) longitudinal dataset

We used data collected for GUS, a prospective, longitudinal research study which tracks the lives of thousands of children and their families in Scotland from the early years, through childhood and beyond. This article focuses on data collected when children in the first GUS Birth Cohort (BC1) were in Primary 6 (or 'P6', the penultimate year of primary school in Scotland, academic years 2014/15 and 2015/16 for this cohort) and when they were in Secondary 1 (or 'S1', the first year of secondary school, 2016/17 and 2017/18 for this cohort). The cohort is comprised of a nationally representative sample and families in BC1 were first recruited to the study in 2005 when cohort children were aged 10 months ($n=5217$). Data has been collected regularly since that time with a total of 10 sequential face-to-face interviews conducted with each family to age 14–15. Full details of the sampling and design of the GUS study can be found in the Data Documentation (Bradshaw et al., 2007).

The analysis focused on data from 2761 children who responded at both time points. However, the final sample comprised 2559 children and their parents/carers who provided data on all items used to assess transition experiences.

Measuring transition experiences

Few existing studies (e.g., Jindal-Snape & Cantali, 2019) ask children a direct question about their transition experiences. Similarly, no direct question was asked about transition experiences in the GUS study. Positive and negative transition experiences were examined using those variables from the GUS data that aligned with indicators used in previous literature (see Jindal-Snape et al., 2020). Simple frequencies of all variables listed in Table 1 were run to provide an initial understanding of the extent of positive and negative experiences of transitions. Some of these variables were then used in combination to construct a derived measure of 'positive/moderate/negative transition'. Not all items had comparable data from both time points. However, as the seven variables listed under 'engagement and motivation' were asked at both stages, these were used to derive a coherent, longitudinal transition measure. For example, negative transitions would be indicated by an increase in school absences (truancy), a decline in positive attitudes towards studying and an increase in school-related issues.

TABLE 1 Variables used to understand transition experience—univariate descriptive statistics.

Theme/variable	%	95% CI	N
Relationship with peers			3177
How many friends from primary school are attending the same secondary school as you? ^a —S1			
None	5.9	5.1–6.9	3177
A few	10.2	9.1–11.4	
Most	39.8	38–41.7	
All	44	42.1–45.9	
How many of your friends from primary school are you still friendly with? ^a —S1			
None	4.8	4–5.6	3177
A few	31.5	29.7–33.3	
Most	42.3	40.4–44.2	
All	21.5	20–23.1	
How easy or hard to make new friends at secondary school? ^a —S1			
Very easy	36.8	34.9–38.6	3171
Quite easy	47.8	45.9–49.7	
Quite hard	12	10.8–13.3	
Very hard	3.4	2.8–4.3	
Picked on by being called names or made fun of ^a —P6			
Most days	12.3	11–13.8	3083
About once a week	9.7	8.6–10.9	
About once a month	6.9	6–8	
Every few months	18.7	17.3–20.3	
Never	52.3	50.3–54.3	
Picked on by being left out of games ^a —P6			
Most days	10.8	9.6–12.1	3083
About once a week	8.7	7.6–9.9	
About once a month	7	6.1–8	
Every few months	16.2	14.9–17.7	
Never	57.3	55.3–59.2	
Picked on by being hit, pushed or shoved ^a —P6			
Most days	7.3	6.2–8.5	3083
About once a week	6	5.1–7	
About once a month	5.5	4.6–6.4	
Every few months	13.5	12.2–14.9	
Never	67.8	65.9–69.7	
Picked on by being called names or made fun of ^a —S1			
Most days	10.2	9–11.4	3281
About once a week	10	9–11.2	
About once a month	6.5	5.7–7.5	
Every few months	16	14.6–17.5	
Never	57.3	55.4–59.2	

TABLE 1 (Continued)

Theme/variable	%	95% CI	N
Picked on by being left out of games ^a —S1			
Most days	5.5	4.6–6.4	3281
About once a week	5.1	4.3–6	
About once a month	4.4	3.7–5.3	
Every few months	11.8	10.6–13	
Never	73.3	71.5–74.9	
Picked on by being hit, pushed or shoved ^a —S1			
Most days	3.8	3.1–4.6	3281
About once a week	4	3.3–4.8	
About once a month	3.8	3.1–4.6	
Every few months	8.9	7.8–10	
Never	79.6	78–81.1	
Child misses old friends from primary school ^b			
Strongly agree	3.1	2.5–4	3291
Agree	12.6	11.4–13.9	
Neither agree nor disagree	12.7	11.4–14.1	
Disagree	47	45.1–48.9	
Strongly disagree	24.6	23–26.2	
Child has made new friends ^b			
Strongly agree	46.3	44.4–48.2	3293
Agree	48.3	46.4–50.2	
Neither agree nor disagree	3.2	2.6–4	
Disagree	1.8	1.3–2.4	
Strongly disagree	0.4	0.2–0.7	
Child is anxious about making new friends ^b			
Strongly agree	4.4	3.7–5.3	3294
Agree	15.2	13.8–16.6	
Neither agree nor disagree	12.4	11.2–13.8	
Disagree	42.1	40.3–44	
Strongly disagree	25.9	24.2–27.5	
Relationship with teachers			
My teacher treats me fairly—P6 ^a			
Never	1.9	1.4–2.6	3088
Sometimes	8.4	7.3–9.7	
Often	13.7	12.5–15.1	
Always	75.9	74.2–77.6	
My teacher treats me fairly—S1 ^a			
Never	1.8	1.3–2.4	3282
Sometimes	17.6	16.2–19.1	
Often	36.3	34.5–38.1	
Always	44.3	42.5–46.2	

(Continues)

TABLE 1 (Continued)

Theme/variable	%	95% CI	N
Learning			
How would you describe the work in your maths class? ^a —S1			
The work is too easy for me	11.9	10.7–13.2	3176
The work is too hard for me	10.4	9.3–11.7	
The work is just right—not too hard or too easy	77.7	76–79.3	
How would you describe the work in your English class? ^a —S1			
The work is too easy for me	13.9	12.6–15.3	3178
The work is too hard for me	7.6	6.6–8.7	
The work is just right—not too hard or too easy	78.5	76.9–80.1	
How pressured do you feel by the schoolwork you have to do? ^a —S1			
Not at all	30.5	28.7–32.2	3176
A little	54.6	52.7–56.5	
Quite a lot	11.3	10.2–12.6	
A lot	3.6	2.9–4.4	
Child is coping well with schoolwork ^b —S1			
Strongly agree	41.5	39.7–43.4	3294
Agree	48.2	46.3–50.1	
Neither agree nor disagree	5.9	5–6.9	
Disagree	3.5	2.8–4.3	
Strongly disagree	0.9	0.6–1.4	
Child gets too much homework ^b —S1			
Strongly agree	1.2	0.8–1.7	3289
Agree	5.7	4.9–6.7	
Neither agree nor disagree	20.6	19.1–22.2	
Disagree	57.4	55.5–59.3	
Strongly disagree	15	13.7–16.4	
Engagement and motivation (Components of composite transition measure)			
How often tries best at school ^a —P6			
All of the time	61.2	59.2–63.3	3088
Most of the time	31.5	29.6–33.5	
Some of the time	4.1	3.3–5.1	
Never	3.1	2.4–4	
How often tries best at school—S1			
All of the time	56.3	54.2–58.4	3282
Most of the time	35.8	33.8–37.9	
Some of the time	7.4	6.3–8.6	
Never	0.5	0.2–1	
I look forward to going to school ^a —P6			
Never	6.5	5.6–7.7	3088
Sometimes	36.3	34.3–38.3	
Often	31.9	30–33.8	
Always	25.3	23.5–27.1	

TABLE 1 (Continued)

Theme/variable	%	95% CI	N
I look forward to going to school ^a —S1			
Never	11.7	10.3–13.2	3283
Sometimes	33.9	32–35.9	
Often	38.3	36.4–40.3	
Always	16.1	14.6–17.7	
I hate school ^a —P6			
Never	51.1	49–53.2	3087
Sometimes	39.1	37–41.1	
Often	6.1	5.1–7.2	
Always	3.8	3–4.7	
I hate school ^a —S1			
Never	32.5	30.6–34.5	3283
Sometimes	51.8	49.6–53.9	
Often	11.1	9.8–12.6	
Always	4.6	3.7–5.7	
Ever skipped school ^a —P6			
Yes	5	4.1–6	3088
No	95	94–95.9	
Skipped school since starting S1 ^a			
Yes	5.3	4.3–6.5	3177
No	94.7	93.5–95.7	
Parent contacted by child's school because of behaviour, attendance or attitude towards school ^b —P6			
Contacted	13.6	12.2–15.2	3142
Not contact	86.4	84.8–87.8	
Parent contacted by child's school because of behaviour, attendance or attitude towards school ^b —S1			
Contacted	20.7	19–22.6	3295
Not contact	79.3	77.4–81	
How much do you like reading? ^a —P6			
A lot	49.7	47.6–51.8	3088
A bit	41.6	39.5–43.7	
Not at all	8.7	7.6–10	
How much do you like English? ^a —S1			
A lot	38.7	36.7–40.8	3283
A little	48.3	46.2–50.4	
Not at all	13	11.5–14.5	
How much do you like doing number work? ^a —P6			
A lot	47.5	45.4–49.6	3088
A bit	42	40–44.1	
Not at all	10.4	9.2–11.8	

(Continues)

TABLE 1 (Continued)

Theme/variable	%	95% CI	N
How much do you like maths? ^a —S1			
A lot	34.9	32.9–36.9	3283
A little	43.4	41.4–45.5	
Not at all	21.7	19.9–23.5	

^aReported by child.

^bReported by parent/carer.

For each of these seven variables, a binary measure was constructed by grouping the response options to reflect either positive or negative transitions between primary and secondary school. Consistently positive (e.g., child 'always' or 'often' looked forward to going to school at both sweeps) as well as changes from negative responses in primary school to positive responses at secondary school (e.g., child 'sometimes' or 'never' looked forward to going to school in primary but 'always' or 'often' looked forward to school in secondary) were classified as a positive transition. Conversely, consistently negative responses across both waves or a change from a positive to a negative response across waves were classified as a negative transition. A negative transition for each variable was given a score of 0, and a positive transition was given a score of 1. These binary measures were then summed to produce a combined measure with a low of 0 (indicating no positive change on any of the 7 items) and a high of 7 (indicating a positive change on all of the seven items) (see Gilbert et al., 2021 for details).

To create broad categories of transition experiences, we split the sample of children into three groups according to their overall transition score. Those with scores between 0 and 3 were considered to be experiencing broadly *negative transition* overall. Scores of 4 or 5 were classified as experiencing a *moderately positive transition* and 6 and 7 were defined as indicative of a *positive transition*. The resulting proportions who experienced positive or negative transitions via these cut-offs are broadly in line with observations from previous studies (Jindal-Snape & Cantali, 2019; Waters et al., 2014a).

Factors associated with difference in transition experiences

Analysis for this aspect utilised the measure of positive/moderate/negative transition outlined above. A series of bivariate analyses were conducted of the transition measure by selected child characteristics, socioeconomic and demographic factors, and measures related to school, family and peers.

Socioeconomic, demographic and other child characteristics

Variables considered under this domain included:

- Child's gender, ethnicity and religion.
- Socioeconomic background (household equivalised income, highest parent level of education).
- Household composition (single vs. couple parent household and whether there was an older sibling in household).
- Area characteristics (level of deprivation and urban/rural classification of child's home address).

Area deprivation was assessed using quintiles of the Scottish Index of Multiple Deprivation (SIMD) Urban/rural classification used the Scottish Government's two-fold measure. All variables here were measured when the child was in S1.

School, family and peer-related measures

Differences in the experience of transition were described according to:

- Support from schools (parent reported communication from secondary school, parent satisfaction with support from primary and secondary schools; measured in S1).
- Teacher relationships (whether child thinks teacher treats them fairly; measured in P6 and S1).
- Child expectations of transition (whether child was looking forward to going to secondary school and whether going to secondary school of choice; measured in S1).
- Perceptions of pace of school work (whether child is coping with schoolwork in S1; measured in S1).
- Family relationships (quality of parent–child relationship quality; measured in P6 and S1).
- Peer relationships (friendship quality and whether bullied; measured in P6 and S1).
- Whether the child has been identified as having additional support needs (parent reported, measured in P6 and S1).
- Social networks and activities (whether any regular involvement in sports, youth groups or other activities; measured in S1).
- School characteristics (urban/rural and school size; measured in P6 and S1).

To derive the measures for quality of parent–child relationships a series of child report questions were used, with responses 'always true', 'often true', 'sometimes true' or 'never true'. Responses were given a numeric value. The average score for each child was then calculated and grouped into 'excellent', 'good' or 'poor'. Friendship quality was similarly assessed using six child response items.

The measures of school characteristics were derived from administrative records, which were linked with the survey data. School size was derived separately for P6 and S1, based on school roll data, and was divided into quartiles.

Analytical approach and presentation of findings

This article presents findings from univariate and bivariate analyses. All analyses were undertaken with weighted data, using Stata v16, and took into account the complex clustered and stratified sample structure. The survey weights aimed to ensure that any bias in the data which occurred from non-response or attrition was addressed and that findings are representative of the population. Statistical significance was tested using an adjusted Wald chi-square test; 95% confidence intervals are reported in [Tables 1](#) and [2](#).

Limitations of the analysis

GUS was not designed to measure the primary to secondary school transitions and certain compromises were made. A composite measure of transition experiences was constructed using the best data available. Although this involved creating a seven-point scale measuring more positive or negative transition experiences, these were grouped to categorise transition

TABLE 2 Transition experience by selected sociodemographic, parental and school-related characteristics—bivariate descriptive analysis.

Covariate	Transition experience			N
	Positive % 95% CI	Moderate % 95% CI	Negative % 95% CI	
All	36.1 34.0–38.4	42.3 40.0–44.6	21.6 19.6–23.7	2357
Gender				
Male	31.6 29.3–34.8	43.5 40.8–46.9	24.9 21.6–27.0	1183
Female	40.7 37.9–43.8	41.0 38.2–44.1	18.3 15.6–20.7	1175
Ethnicity				
White	35.9 34.2–38.3	42.5 40.6–44.9	21.6 19.2–23.0	2272
Other ethnic background	42.1 32.1–54.0	35.9 26.2–46.8	22.0 13.1–33.1	84
Religion				
No Religion	34.5 32.1–37.5	42.1 39.5–45.1	23.4 20.6–25.6	1355
Christian—Protestant or other non-Catholic	40.9 37.2–45.5	42.4 39.0–47.3	16.7 12.6–19.3	584
Roman Catholic	34.6 29.7–39.9	44.8 39.3–50.4	20.7 16.0–26.1	347
Other non-Christian	42.2 31.5–55.3	33.5 22.8–44.9	24.3 14.8–36.7	71
Single parent status				
Single Parent	31.1 26–36.7	40.9 35.5–46.5	28.0 22.8–33.8	412
Couple Family	37.6 35.5–46.5	42.7 40.2–45.2	19.7 17.6–21.9	1946
Presence of older sibling in household				
No older siblings	39.0 35.9–42.2	42.2 39–45.5	18.8 16.2–21.7	1208
Has older siblings	33.7 30.6–37.0	42.2 38.9–45.6	24.0 21–27.3	1057
Household equivalised income				
Bottom Quintile	25.9 21.0–31.6	43.9 38.0–50.0	30.2 24.6–36.3	335
Quintile 2	36.0 30.7–41.8	42.6 37.1–48.3	21.3 17.1–26.3	382
Quintile 3	35.5 31.1–40.3	43.9 39.1–48.9	20.5 16.3–25.5	510

TABLE 2 (Continued)

Covariate	Transition experience			N
	Positive	Moderate	Negative	
	% 95% CI	% 95% CI	% 95% CI	
Quintile 4	41.9	42.2	15.9	478
	37.3–46.5	37.7–46.9	12.6–19.9	
Top Quintile	44.4	40.9	14.7	497
	40.0–48.9	36.5–45.5	11.7–18.3	
Parent highest education level				
No qualification	29.9	25.9	44.2	66
	18.8–44.0	16.8–37.7	31.5–57.7	
Other*	–	–	–	–
Lower level standard grades and vocational qualifications	34.9	35.0	30.0	57
	22.8–49.4	21.8–51.1	16.8–47.8	
Upper level standard grades and intermediate vocational qualifications	26.2	48.9	25.0	323
	21.0–32.1	42.7–55.1	19.9–30.8	
Higher grades and upper level vocational qualifications	34.6	42.6	22.8	728
	30.9–38.5	38.6–46.6	19.3–26.7	
Degree level academic and vocational qualifications	42.4	42.2	15.5	1174
	39.3–45.5	39.2–45.3	13.3–17.9	
Area deprivation				
Quintile 5—most deprived	28.8	43.4	27.8	278
	23.0–35.4	36.9–50.1	21.9–34.7	
Quintile 4	31.8	42.6	25.6	379
	26.8–37.1	37.2–48.2	20.7–31.2	
Quintile 3	37.0	42.1	21.0	463
	32.2–41.9	37.2–47.1	17–25.7	
Quintile 2	37.9	43.0	19.2	623
	33.9–41.9	38.8–47.2	16–22.9	
Quintile 1—least deprived	44.7	40.4	14.9	615
	40.6–48.9	36.3–44.5	12.1–18.3	
Home address locality				
Not rural	35.9	42.1	22.0	1711
	33.4–38.6	39.4–44.8	19.6–24.6	
Rural	36.8	42.9	20.3	647
	32.9–40.9	38.7–47.1	17–24.1	
Child has any ASN at P6 and/or S1 (new and pre-existing)				
No	38.5	42.2	19.2	1958
	36.1–41.0	39.8–44.8	17.1–21.5	
Yes	25.9	42.4	31.7	400
	21.5–30.7	37.0–48.1	26.3–37.6	

(Continues)

TABLE 2 (Continued)

Covariate	Transition experience			N
	Positive	Moderate	Negative	
	% 95% CI	% 95% CI	% 95% CI	
Secondary school provided general school information				
Never	27.2	37.3	35.5	288
	21.9–33.2	31.3–43.7	29.1–42.4	
Occasionally	37.9	43.3	18.8	892
	34.2–41.7	39.6–47.1	15.9–22.1	
Often	35.3	45.7	19.1	826
	31.8–38.9	41.9–49.5	16.0–22.6	
Very often	42.9	36.5	20.7	351
	37.0–48.9	31–42.3	15.5–27.1	
Secondary school asked for parent views on school				
Never	32.2	42.6	25.2	1106
	29.2–35.4	39.3–45.9	22.2–28.5	
Occasionally	39.8	42.5	17.7	1010
	36.4–43.3	39.1–46	15.0–20.6	
Often	38.5	41.6	19.8	205
	31.0–46.6	34–49.7	12.8–29.3	
Very often	55.8	30.3	13.9	35
	37.4–72.8	16.1–49.5	5.7–30.3	
Satisfaction with support from primary school				
Very satisfied	38.7	42.1	19.2	1590
	36.0–41.5	39.3–44.9	16.9–21.8	
Fairly satisfied	32.1	43.6	24.4	613
	28.1–36.2	39.2–48.1	20.5–28.7	
Fairly unsatisfied	25.1	46.1	28.8	105
	17.0–35.4	34.9–57.7	18.2–42.3	
Very unsatisfied	31.9	26.8	41.3	48
	20.1–46.6	15–43.1	26.9–57.4	
Satisfaction with support from secondary school				
Very satisfied	39.8	43.1	17.1	1610
	37.1–42.5	40.4–45.9	15–19.5	
Fairly satisfied	29.4	42.4	28.2	641
	25.6–33.6	38.1–46.8	23.9–32.9	
Fairly/very unsatisfied	27.2	31.3	41.5	97
	18.1–38.6	22.4–41.9	31.0–52.8	
Primary to secondary school size transition				
Small—small	28.2	50.9	20.9	201
	22.1–35.3	43.2–58.5	14.9–28.5	
Small—average	39.5	40.5	20.0	259
	32.9–46.5	34–47.3	15.1–26	

TABLE 2 (Continued)

Covariate	Transition experience			N
	Positive	Moderate	Negative	
	% 95% CI	% 95% CI	% 95% CI	
Small—large	37.4	31.0	31.6	74
	24.8–52.0	21.1–43.1	20.7–44.8	
Average—small	39.0	38.0	23.0	249
	31.7–46.8	31.3–45.2	16.7–30.8	
Average—average	34.1	42.4	23.5	514
	29.8–38.7	37.6–47.4	19.1–28.4	
Average—large	34.9	44.6	20.4	279
	28.9–41.5	38.1–51.3	15.2–26.8	
Large—small	31.3	47.1	21.5	67
	20.7–44.4	33.8–60.9	11.7–36.3	
Large—average	39.3	41.2	19.5	273
	33.0–46.0	34.6–48.2	14–26.4	
Large—large	40.0	38.9	21.1	200
	33.1–47.3	32.0–46.4	15.1–28.6	
Primary school locality				
Rural	35.4	43.7	21.0	752
	31.8–39.2	39.8–47.6	17.7–24.6	
Urban	36.6	41.3	22.1	1404
	33.7–39.6	38.4–44.3	19.5–25	
Secondary school locality				
Rural	36.5	44.5	19.0	640
	32.6–40.7	40.3–48.8	15.7–22.8	
Urban	36.0	41.0	23.0	1476
	33.2–38.8	38.2–44	20.4–25.8	
My teacher treats me fairly (P6)				
Never/Sometimes	29.7	36.7	33.6	237
	34.6–46.8	29.9–44.2	26.2–41.9	
Often	40.5	39.5	20.0	342
	34.6–46.8	33.6–45.7	15.1–26.1	
Always	36.2	43.6	20.3	1856
	33.7–38.7	41–46.2	18.1–22.7	
My teacher treats me fairly (S1)				
Never/Sometimes	15.8	38.4	45.8	397
	29.0–35.8	33.2–43.9	40.2–51.5	
Often	32.3	47.3	20.4	901
	29–35.8	43.6–51	17.5–23.7	
Always	47.8	39.8	12.4	1059
	44.3–51.4	36.4–43.3	9.8–15.4	

(Continues)

TABLE 2 (Continued)

Covariate	Transition experience			N
	Positive	Moderate	Negative	
	% 95% CI	% 95% CI	% 95% CI	
Whether the child had been looking forward to secondary school (S1)				
A lot	44.4	40.9	14.7	841
	40.6–48.3	37.1–44.8	12.1–17.8	
Quite a lot	36.5	42.5	21.1	1055
	33.2–39.8	39.1–45.9	18.1–24.3	
Not very much	23.6	44.1	32.3	374
	19.0–28.9	38.4–50.0	26.6–38.6	
Not at all	13.8	44.3	41.9	87
	8.2–22.2	33.3–55.9	30.7–53.9	
Whether going to secondary school of choice				
Yes	37.2	42.1	20.7	2253
	35.0–39.5	39.8–44.5	18.6–22.8	
No	14.9	44.5	40.7	102
	8.9–23.7	34.0–55.4	30.0–52.2	
Child coping well with school work (parent report)				
Strongly agree	44.6	41.9	13.5	1035
	41.2–48	38.5–45.3	11.2–16.3	
Agree	33.4	43.9	22.7	1126
	30.3–36.6	40.6–47.3	19.8–25.9	
Neither agree nor disagree	20.5	41.0	38.5	113
	13.1–30.7	31.5–51.3	28.6–49.4	
Disagree/Strongly disagree	9.5	31.2	59.3	83
	4.5–18.8	21.3–43.2	47–70.5	
How pressured child feels by secondary school work				
Not at all	49.0	37.0	14.0	732
	44.8–53.1	33.1–41.1	11.1–17.5	
A little	33.6	45.2	21.2	1287
	30.7–36.6	42.1–48.4	18.5–24.1	
Quite a lot	20.6	47.2	32.2	269
	15.8–26.4	40.4–54	25.7–39.5	
A lot	16.6	25.0	58.3	69
	9.3–28.0	14.2–40.1	44.3–71.1	
Quality of parent–child relationship at P6				
Poor	29.1	37.5	33.4	206
	22.7–36.4	30.3–45.3	25.8–42	
Good	37.6	41.8	20.7	1308
	34.5–40.7	38.7–44.9	18–23.6	
Excellent	35.5	44.7	19.9	842
	32–39.1	40.9–48.5	16.8–23.3	

TABLE 2 (Continued)

Covariate	Transition experience			N
	Positive	Moderate	Negative	
	% 95% CI	% 95% CI	% 95% CI	
Quality of parent–child relationship at S1				
Poor	18.3	42.3	39.4	296
	13.5–24.3	35.9–48.9	33.0–46.2	
Good	33.6	44.9	21.4	1019
	30.3–37.1	41.4–48.5	18.5–24.7	
Excellent	44.4	39.5	16.0	1041
	41.1–47.9	36.2–43.0	13.3–19.2	
Quality of child friendships (S1)				
Poor	25.6	37.5	36.9	201
	18.9–33.6	30.4–45.3	29.1–45.4	
Good	32.7	44.9	22.3	1389
	30–35.5	42–47.9	19.8–25.1	
Excellent	44.9	39.1	15.9	767
	40.9–49.1	35.2–43.3	12.8–19.6	
How easy to make new friends (S1)				
Very easy	39.3	38.7	22.0	879
	35.7–43.0	35.1–42.4	18.7–25.7	
Quite easy	37.1	44.7	18.1	1144
	34.0–40.4	41.5–48	15.5–21.0	
Quite hard	26.9	40.8	32.3	263
	21.1–33.6	33.9–48	25.5–39.9	
Very hard	21.6	50.3	28.1	68
	12.7–34.3	37.2–63.4	18.2–40.8	
Number of primary school friends attending same secondary				
None	35.4	39.5	25.0	135
	26.4–45.6	30.6–49.3	16.8–35.5	
A few	34.0	39.8	26.1	227
	27.4–41.3	32.7–47.5	18.9–35	
Most	32.4	45.1	22.5	913
	29.1–35.9	41.4–48.8	19.3–26.1	
All	40.1	40.7	19.3	1082
	36.8–43.4	37.4–44	16.6–22.2	
Child participates in groups/clubs (S1)				
No	30.2	36.7	33.1	207
	23.5–37.9	29.7–44.2	26.0–41.1	
Yes	36.9	43.0	20.0	2151
	34.7–39.3	40.7–45.4	18.0–22.2	

Note: Asterisk indicates figure not reported due to very small sample bases (unweighted base is less than 30).
 Abbreviation: ASN, additional support needs.

experiences as negative, moderately positive and positive. Grouping the data in this way was necessary because there was insufficient statistical power to individually consider each of the categories on the full scale variable. The thresholds were determined with the aim of demonstrating levels of difference between experiences that are meaningfully associated with a range of explanatory factors as one might expect. The thresholds are not intended to be reliable and absolute prevalence estimates of the experience of transition; they are effectively a relative measure of experience and how they are associated with the factors considered.

RESULTS AND DISCUSSION

Primary–secondary school transition experiences

The distribution of scores on the transition measure was unbalanced with a small number of cases having low scores and nearly 80% of the sample having scores of 4 or more, indicating that for the large majority of the children there was an improvement between P6 and S1 on at least 4 of the 7 items included in the composite measure (see [Figure 1](#)).

The composite measure indicated that a minority of children (22%) experienced a negative transition, compared with 36% of children who experienced a positive transition to S1. The largest proportion (42%) of children had what was defined as a moderately positive transition experience. Given the negative discourse in primary–secondary school transitions literature (Jindal-Snape et al., 2020), this is a very important finding and in line with that of Waters et al. (2014a) who found that of 2078 children in their Australia sample, 70% reported that transition was easy/very easy.

Individual estimates from each of the variables used in the measure are discussed below.

Engagement and motivation

Engagement and motivation were measured using seven items from the questionnaire (see [Table 1](#)). Other than the last question that was asked of parents (whether school has been in contact with the parent regarding their child's behaviour, attendance etc.), all items were reported by the study child.

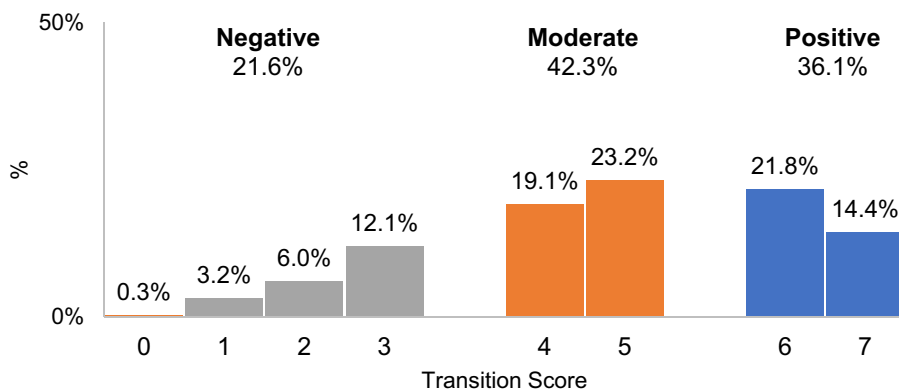


FIGURE 1 Proportions experiencing positive, moderate and negative transitions to secondary school. *Note:* Data drawn from GUS sweeps 8 and 9. Unweighted base: $n = 2559$. Numbers indicate weighted percentages.

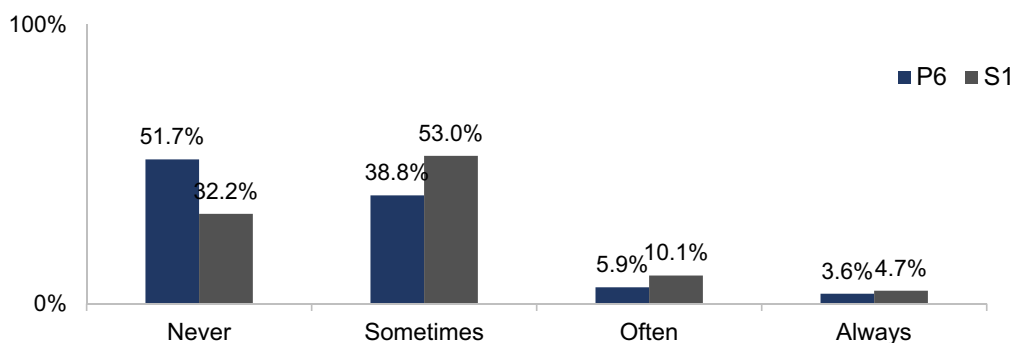


FIGURE 2 How often child hates school in primary (P6) and secondary school (S1). *Note:* P6 data drawn from GUS sweep 8, unweighted base: $n=3087$. S1 data drawn from sweep 9, unweighted base: $n=3283$. Numbers indicate weighted percentages.

Despite overall motivation to do their best at school remaining high, in line with previous research (e.g., Benner & Graham, 2009; Deieso & Fraser, 2018), children generally reported lower levels of enjoyment and engagement at secondary school compared with primary school. Children at secondary school were more likely to report hating (term used in the GUS study) school (15% ‘often’ or ‘always’, Figure 2) and were less likely to look forward to going to school (46% ‘never’ or ‘sometimes’) compared to primary school (10% and 43% respectively). Similarly, children reported liking both English and maths less in secondary than they did in primary, indicating that their decreased engagement and motivation related both to school generally as well as to subject-specific aspects (e.g., less positive attitude to mathematical inquiry, less enjoyment of mathematics and greater mathematics anxiety, see Deieso & Fraser, 2018). However, although children were slightly less likely to ‘always’ try their best after starting secondary school (61% reported this in P6, 57% in S1), they were just as likely to try their best ‘most of the time’ or ‘always’ (93% in P6, 92% in S1).

Relationship with peers

Data from several questions that children and parents responded to when the child was in S1 were used to explore peer relationships (see Table 1). In contrast to previous research (Booth & Sheehan, 2008; Evangelou et al., 2008), children generally reported positive feelings regarding their relationship with peers in their first year of secondary school. This might be due to the vast majority of children (83%) attending secondary school with most or all of their friends from primary; numerous studies have reported that children worry about losing friends (Ashton, 2008; Jindal-Snape & Cantali, 2019; Jindal-Snape & Foggie, 2008) and making new friends (Hammond, 2016; Keay et al., 2015) during primary–secondary transitions. This is confirmed by the finding that 64% said that they were still friends with most or all their primary school friends and just 5% were no longer friends with anyone from primary school. For the 5% who were no longer friends with anyone from primary school, this might be due to a wish to change their identities in the new educational setting and create new friendship groups (Farmer et al., 2011).

Further, again unlike what has been found elsewhere (e.g., Hammond, 2016; Keay et al., 2015), when it comes to making new friends only 15% of children felt it was hard for them to do so. This finding aligns with parent reports of children’s experiences, with 68% reporting that their child was not anxious and only 20% reporting that their child was anxious about making new friends in S1. Additionally, 95% responded that their child had made new

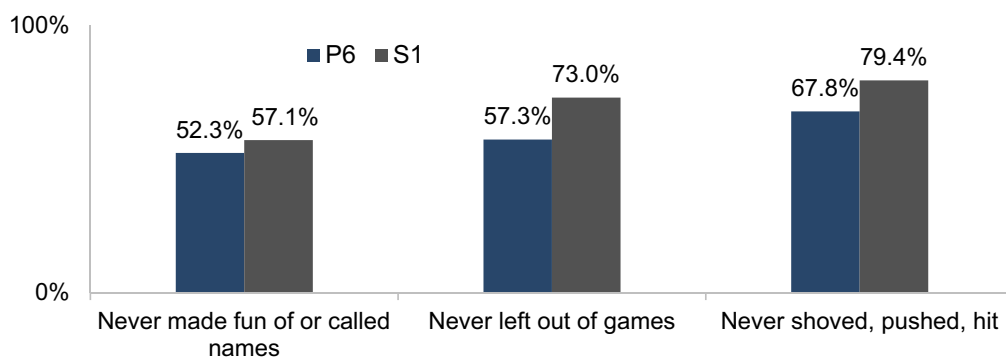


FIGURE 3 Proportion of children who report 'never' being bullied in primary school (P6) and secondary school (S1). *Note:* P6 data drawn from GUS sweep 8, unweighted base: $n=3085$. S1 data from sweep 9, unweighted base: $n=3021$.

friends in secondary school and a large majority (72%) did not feel that their child missed their primary school friends. For most children, therefore, the transition to secondary school did not seem to be associated with significant concerns regarding peer groups, although this does appear to be a concerning aspect for a minority.

Additionally, and also in contrast to previous research (Booth & Sheehan, 2008; Jindal-Snape & Foggie, 2008; Keay et al., 2015; West et al., 2010), there was an overall reduction in reports of all forms of bullying after children had started secondary school (Figure 3). Children were more likely to report never being bullied by being 'made fun of or called names', 'left out of games', or 'shoved, pushed or hit'. This is similar to Farmer et al.'s (2011) study, which also found less bullying and better peer relationships, albeit in transitions to the middle school in the USA.

Relationship with teachers

Only one measure of teacher relationship is available in GUS—child reports of being treated fairly by teachers (see Table 1). This variable was included at both P6 and S1, allowing for comparison over time. As shown in Figure 4, the transition to secondary school was associated with a considerable decline in children perceiving they are 'always' being treated fairly by teachers. A perception of lack of fairness from teachers may have a detrimental impact on child–teacher relationships. This is of concern given that having good relationships with teachers has been found to be highly predictive of positive student wellbeing (Wolters et al., 2012), can enhance students' academic motivation (Frey et al., 2009) and facilitate integration into their new secondary school (Ganeson & Ehrich, 2009).

Learning

Aspects of learning in secondary school were measured using five questions. As noted in Table 1, children were asked three and parents were asked two.

Children predominantly felt that the level of difficulty in secondary school was appropriate, neither too hard nor too easy, for both maths (78% of children) and English (79%). This contrasts with findings from Rice et al. (2011) who reported increased academic difficulty which required a longer time to adapt to. Additionally, there were relatively few

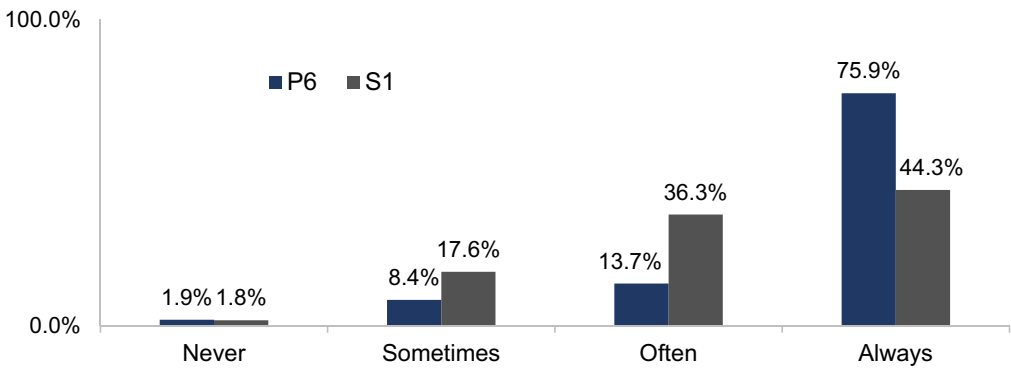


FIGURE 4 How often children feel their teachers treat them fairly in primary school (P6) and secondary school (S1). *Note:* P6 data drawn from GUS sweep 8, unweighted base: $n=3088$. S1 data from sweep 9 unweighted based: $n=3282$. Numbers indicate weighted percentages.

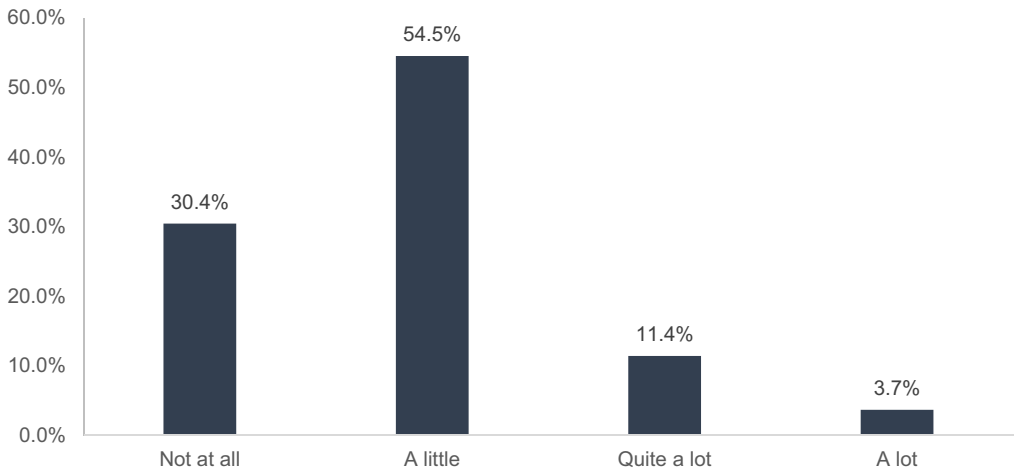


FIGURE 5 Whether child feels pressured by schoolwork in secondary school (S1). *Note:* Data drawn from GUS sweep 9, unweighted base: $n=3176$. Numbers indicate weighted percentages.

reports of children feeling overly pressured by their schoolwork, with only 15% of children feeling pressured ‘quite a lot’ or ‘a lot’ (see Figure 5). Child reports were supported by parent reports regarding levels of schoolwork. Overall, 7% of parents felt that their child received too much homework, and 90% felt that their child was coping well with their schoolwork. This finding contrasts with other studies which have noted that, in secondary school, volume of homework was more problematic than difficulty level (West et al., 2010, also in a Scottish context).

Overall, this study presents a unique and complex picture of children's transition experiences. For instance, the academic work in English and maths appeared to be at an appropriate level at secondary school, however children appeared to be enjoying these subjects less. Similarly, and contradicting previous research, despite a reduction in bullying in secondary school and that most children found it easy to make friends, children were nevertheless more likely to hate secondary school and less likely to want to go to school than they were at primary school. As data were collected during the second term of the children's first year of secondary school—at least five months after the move—these increases in

negative experiences (or decreases in positive experiences) cannot wholly be attributed to the stresses of adapting to a new context.

The complexity of transitions was demonstrated through further contrasted findings. For example, despite increases in negative experiences—a worsening of teacher–child relationships, increased dislike of English and maths, and an increase in hating school and not looking forward to going to school—the overwhelming majority of children at both time points reported positive engagement and motivation towards school. Drawing on existing international research, it may be that good peer relationships, a decline in bullying and the maintenance of high levels of overall motivation for schoolwork acted as a buffer against the decline in relationships with teachers, the more negative attitudes towards English and maths and school in general, and the decline in engagement and enjoyment (see Jindal-Snape & Ingram, 2013, Educational and Life Theory). It is also possible that there are other complex factors at play which were not considered here, such as changes in pedagogical approaches between primary and secondary, including the ‘fit’ of such approaches with children’s developmental stage (see Stage-Environment Fit Theory, Eccles & Midgley, 1990; Eccles et al., 1991; Symonds & Hargreaves, 2016; Wigfield et al., 1991).

FACTORS RELATED TO DIFFERENCES IN TRANSITION EXPERIENCES

In the following section we outline our findings comparing the overall transition experiences according to differences between children in a range of domains including: demographics, household composition, socioeconomic status, area characteristics, child expectations; school factors; and relationships (see [Table 2](#)).

Gender, religion and ethnicity

Boys were less likely than girls to experience a positive transition to S1 (32% compared with 41%), and more likely to experience a negative transition (25% compared with 18%). Serbin et al. (2013) have argued that this might be due to girls bringing greater academic, social and/or behavioural competencies from primary school than boys, as well as differences in parenting of girls relative to boys (for example, the expectation of higher academic performance may be greater for a girl compared to a boy who may be more encouraged to participate in sports). Although Serbin et al.’s study is robust, it is worth noting that the research was conducted in Canada, which has a different educational and cultural context to Scotland and there might, therefore, be other explanations for these findings in Scotland.

Similarly, other studies that looked at educational outcomes also found that girls tended to have good academic transitions despite being more anxious during this period (Benner & Graham, 2009). However, worryingly, Benner and colleagues found that boys could develop depressive symptoms during the transition to secondary school (Benner et al., 2017).

Exploring differences in transition by other demographic variables reveals some association with religion. Protestant and other non-Catholic Christian children were more likely to have a positive transition (41%) compared with non-religious children (35%) and were less likely to have a negative transition (non-Catholic Christians 17%, non-religious 23%). To the best of our knowledge, no other study has reported any links between religion and primary–secondary transitions.

Although a large number of studies from the USA look at the ethnicity of participants (e.g., Benner et al., 2017; Serbin et al., 2013), West et al. (2010) have highlighted the lack of focus

on ethnicity in the UK. One of the few that have considered it, was conducted in Scotland by Graham and Hill, who found that children of South Asian (Pakistani Muslim) origin had more concerns and adjustment problems than white children. Despite being in the same national context, our survey recorded a smaller proportion of white children experiencing a positive transition (36%) compared to children from other ethnic backgrounds (42%). However, it is difficult to draw a definitive conclusion as this difference was not statistically significant.

Household composition

Previous research suggests that family relationships might have more impact on transition experiences than relationships in school (Benner & Graham, 2009; Waters et al., 2014b). Exploring the relationship between household composition and experience of transition revealed that children from single parent households were more likely to have a negative transition (28%) than children from couple family households (20%).

Contrary to previous research, which found the presence of an older sibling to be a positive factor and a source of support during transitions (Mackenzie et al., 2012), in this study we found that children with older siblings were more likely to have a negative transition (24%) than children with no older siblings (19%). This may be due to an older sibling heightening their anxiety levels through ‘horror stories’ (Reay & Lucey, 2000) or the younger sibling being aware of their brother’s or sister’s negative primary–secondary transition experiences (Jindal-Snape & Foggie, 2008).

Socioeconomic status and area characteristics

A clear pattern emerged with regard to socioeconomic status and disadvantage. Equivalised annual household income, area deprivation and highest parental education level were all strongly associated with a child’s experience of transitions. The proportion of children reporting negative transitions increased across all three measures as the level of disadvantage increased, while the prevalence of positive transitions decreased.

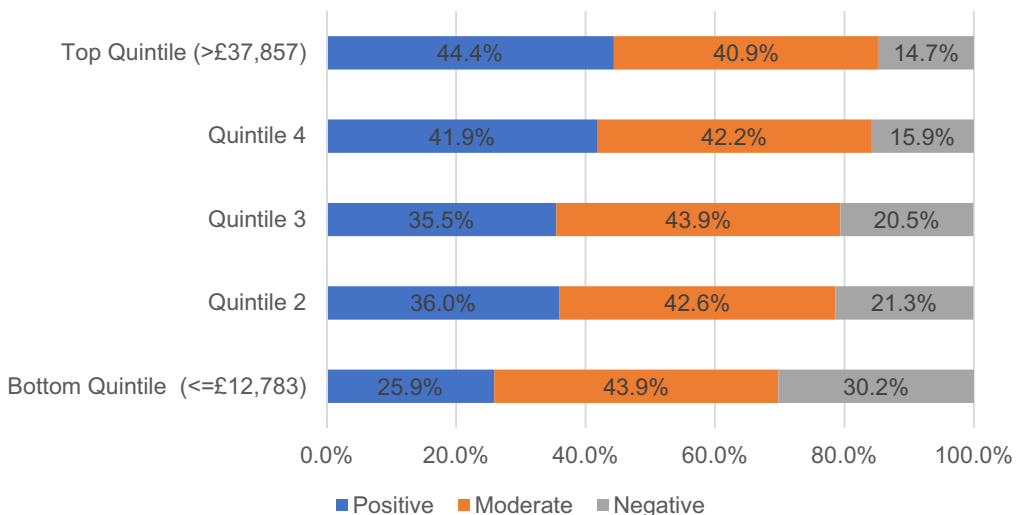


FIGURE 6 Transition experience by equivalised household income. *Note:* Data drawn from GUS sweeps 8 and 9. Unweighted base: $n=2385$. Percentages are weighted.

Comparing the most and least disadvantaged, the greatest difference in the proportion of children reporting a positive transition was seen in relation to equivalised household income (Figure 6). Amongst those in the top income quintile, 44% had a positive transition to secondary school, compared with just 26% amongst those in the bottom income quintile. This confirms the findings of previous research in different national contexts which highlighted that the socioeconomic status had a negative impact on transition experiences (USA, Benner & Graham, 2009; Benner et al., 2017; Burchinal et al., 2008; Canada, Serbin et al., 2013).

Parental education was a more salient predictor of negative transition experience than a positive one. Amongst children whose parents had no qualifications, 44% had a negative transition experience and 30% had a positive transition experience compared with 16% and 42% respectively of those whose parents were degree educated. Previous research found that parents' academic support to their child acted as a buffer against any disruptions caused due to primary–secondary transitions (Benner et al., 2017). However, this academic support might be difficult for parents with no or lower qualifications to provide once the child is in secondary school.

No relationship was found between whether schools were in urban or rural areas and children's transition experiences.

Additional support needs

Overall, children with additional support needs were less likely to have a positive transition and more likely to have a negative transition than their peers who did not have any additional support needs. Of those who had additional support needs at either of the time points considered, 26% experienced a positive and 32% a negative transition. This compares with 39% and 19% respectively, of children with no additional support needs. This finding corresponds with that of several other studies with small samples (Hannah & Topping, 2012; Makin et al., 2017; Mandy et al., 2016; Peters & Brooks, 2016).

Child expectations of transitions

Similar to findings from existing research in Scotland and Australia (Jindal-Snape & Cantali, 2019; Waters et al., 2014a), children's anticipated experience of secondary school was largely in line with their transition outcome. For those who reported looking forward to starting secondary school 'a lot', 44% had a positive transition compared with 14% of those who were not looking forward to secondary school 'at all'. For negative transitions, a similar pattern was seen in reverse—42% of children who were not looking forward to going to secondary school 'at all' had a negative transition compared with 15% for those who were looking forward to this 'a lot'. It is worth noting that this question was asked retrospectively, after children had started S1. Their experiences of S1 may therefore have biased their recollection of how they felt before starting secondary school.

Where children did not go to the secondary school of their choice, the likelihood of a negative transition was considerably higher. Overall, 41% of these children had a negative experience, compared with 21% who did attend the school of their choice. However, only a minority of children (5%) reported not attending their preferred school.

Child experience of schoolwork

The extent to which children felt pressured by the amount of schoolwork they were required to do in secondary school was strongly associated with transition experience. Only 14% of

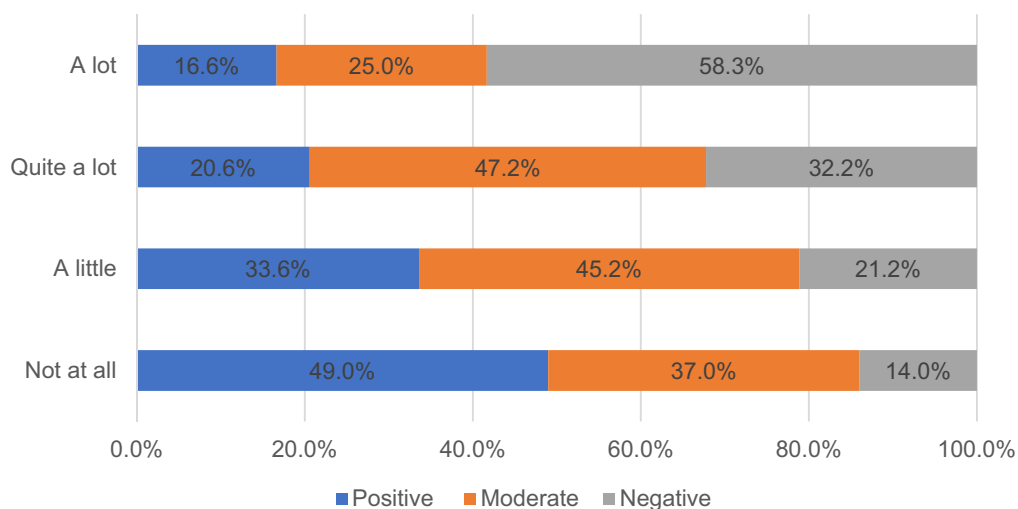


FIGURE 7 Transition experience by how pressured child feels by schoolwork in secondary school (S1). *Note:* Data drawn from GUS sweeps 8 and 9. Unweighted base: *n* = 2357. Percentages are weighted.

children who reported not feeling at all pressured by their schoolwork had a negative transition, compared with 58% of those who felt pressured ‘a lot’ (Figure 7).

This finding was supported by parents' views; the extent to which parents felt that their child was struggling is strongly correlated with children's own views of whether or not they were struggling, and with child-reported transition experience. For example, 45% of children whose parents strongly agreed that their child was coping with their schoolwork had a positive transition, while 14% of these children had a negative transition.

Involvement in sports, clubs, youth groups and other activities

In line with Jindal-Snape & Foggie's (2008) assertion, children who regularly took part in sports, clubs, youth groups and other activities after starting secondary school were shown to be less likely to have a negative transition and more likely to have a positive transition than those who did not take part in such activities. Overall, 20% of children who regularly took part in any form of such activities had a negative transition experience compared with 33% of those who did not, and 37% of those who took part in activities had a positive experience, compared with 30% of those who did not.

School communication and engagement

Regular parent-school communication and engagement were strongly associated with transition experience. This was shown to be the case with both primary school and secondary school communication. As the frequency at which secondary schools had contacted parents to provide general school information or to ask them for the views on the school increased, the proportion of children having a positive transition also increased (see Figure 8). This aligns with Davis et al. (2015) who found that schools that had a parent-led/partnership approach were more likely to find that parents were able to enhance their child's transition as well as facilitating the inclusion of children with additional support needs. However, in another study, teachers reported lack of parental participation to be a barrier to facilitating good transition practice (Lubbers et al., 2008).

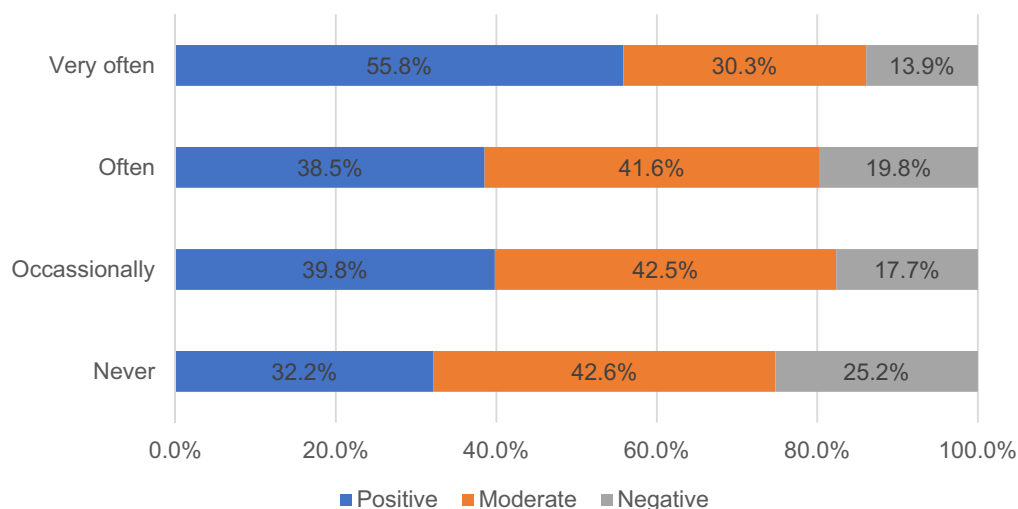


FIGURE 8 Transition experience by frequency of secondary school asking for parent views on school. Note: Data drawn from GUS sweeps 8 and 9. Unweighted base: $n=2356$. Percentages are weighted.

As parent-reported satisfaction with the support received from primary and secondary schools increased, the proportion of children having a negative transition decreased. For example, of children whose parents were very satisfied with support from their child's primary school, 19% had a negative transition, compared with 41% of those whose parents were not at all satisfied with the support they received.

Family relationships

The quality of the parent–child relationship after children had started secondary school was associated with transition experience—18% of children reporting a poor relationship with their parent had a positive transition, compared with 44% of children who had an excellent parent–child relationship. This is similar to what has been found elsewhere (e.g. Benner & Graham, 2009; Waters et al., 2014b).

Peer relationships

Also similar to previous research (Hammond, 2016; Tso & Strnadova, 2017), in this study peer relationships at secondary school displayed an association with transition. The ease with which children reported being able to make friends at secondary school was associated with positive transition—39% of children who experienced a positive transition found it very easy to make new friends compared with 22% of children who experienced a negative transition. Finding it more difficult to make friends was less strongly associated with transition experience—22% of those with a positive transition found it very difficult to make friends compared with 28% of those with a negative transition. Friendship quality (as assessed through a series of child-reported measures such as 'my friends pay attention to me') was also associated with transition experience—37% of children who experienced a negative transition reported poor friendship quality compared with 26% who experienced a positive transition.

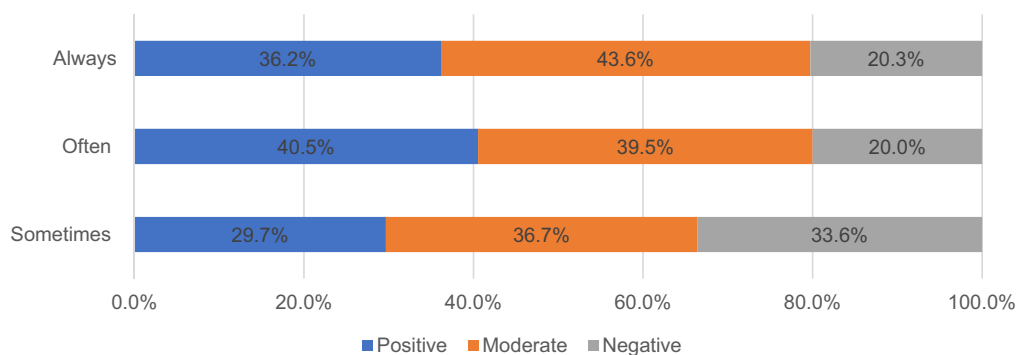


FIGURE 9 Relationship between how often children feel their teachers treat them fairly in primary school (P6) and transition experience. *Note:* P6 data drawn from GUS sweep 8, unweighted base: $n = 2558$. Numbers indicate weighted percentages.

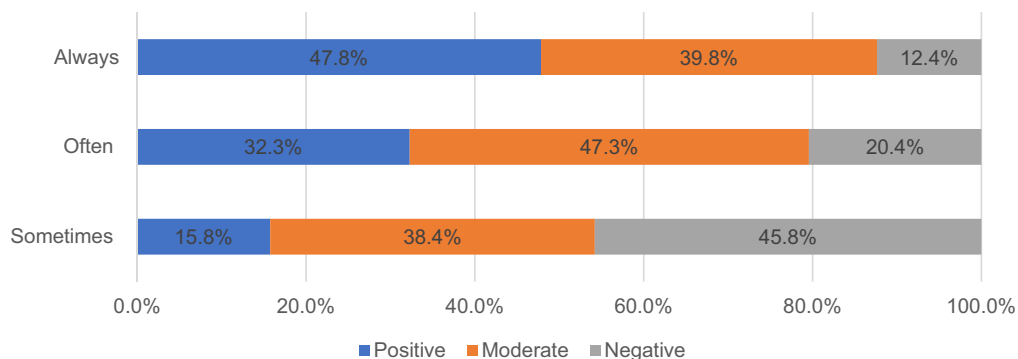


FIGURE 10 Relationship between how often children feel their teachers treat them fairly in secondary school (S1) and transition experience. *Note:* Data drawn from GUS sweep 9, unweighted base: $n = 2519$. Numbers indicate weighted percentages.

Teacher relationships

Previous studies have found that a child's perception of support from, and relationships with, their teacher(s), enhanced academic motivation (Frey et al., 2009) and facilitated positive transitions (Ganeson & Ehrich, 2009). In this study, although the measure of teacher–child relationship was limited, there was nevertheless an association with transition experience at both time points. Children who 'always' or 'often' felt that their teacher treated them fairly were more likely than those who 'never/sometimes' felt they were treated fairly to have a positive or moderate transition. In contrast, children who never/sometimes felt their teacher treated them fairly were more likely to have a negative transition. This relationship is more pronounced in relation to P6 teacher relationship than S1 (see Figures 9 and 10).

School characteristics

No relationship was found between a school's urban or rural classification and transition experience. However, associations were observed in relation to transitions between schools of different or similar sizes. According to Vaz et al. (2014), children from mid-range sized schools (375–975 pupils) were found to have better outcomes than those in larger schools.

However, in this study, children who moved from a large primary (>364 pupils) to a large secondary school (>1159 pupils) were the most likely to have a positive transition (40%). This might be explained to some extent by other studies that found a larger secondary school gave children more opportunities to make friends as they had a larger pool of potential peers to choose from (Nielsen et al., 2017).

Children who moved from a small primary (<189 pupils) to a small secondary school (<741 pupils), were the group with the lowest likelihood of a positive transition (28%). The likelihood of experiencing a negative transition did not vary according to any combination of moves between large or small primary/secondary schools. Although a move from a small primary to a large secondary appeared to confer the greatest risk of a negative transition, this was not statistically significant, possibly due to the very low sample size for this group.

Overall, this study was able to confirm some findings from previous small-scale and/or limited longitudinal studies. For instance, good parent–school communication and parents feeling supported by the primary and secondary school were both linked to positive transitions. A good parent–child relationship—especially when the child had started secondary school—was also found to be positively associated with a positive transition experience. Similarly, drawing on a large dataset of children with and without any additional support needs, we found that children with additional support needs were less likely to have a positive transition and more likely to have a negative transition than their peers. It also confirms that girls tend to have more positive transitions than boys. Further, we found notable differences in transition outcomes by levels of socioeconomic disadvantage and deprivation, with those experiencing most deprivation having poorer transition experiences. Children whose parents had lower levels of educational qualifications were more likely to have a negative transition experience than those whose parents had higher levels of qualifications. A higher proportion of children from single parent households had a negative transition compared with children from couple family households and, contrasting previous research, we found that children with an older sibling were, in fact, more likely to have a negative transition experience. Teacher relationships were also significant; more so at primary school than secondary school. This may be due to the Scottish education system set-up where children tend to have a single teacher for each year of primary and multiple teachers across different subjects in each secondary year.

Although previously presented tentatively, this study clearly showed that the children's anticipated experience of secondary school to a large extent matched their transition experiences: those who reported looking forward to starting secondary school 'a lot' had a more positive transition than those who were not looking forward to it 'at all'. However, it is not clear whether expectations led to reality or whether those who expected to have negative experiences were already experiencing problems before starting secondary school. In addition, as the question was asked retrospectively, children may not have accurately recalled how they felt ahead of their move to secondary school.

An under-researched area, participation in sports, youth groups and other activities at secondary school, was found to lead to a positive transition experience. This might be explained by Newman and Blackburn's (2002) assertion that such participation enhances self-esteem, which in turn improves resilience. On the other hand, it could suggest that these provided children with stable peer networks when those at school were in a state of flux and enhanced their ability to make friends. The latter is likely to be the case given that ease of making friends, good peer relationships and quality of friendship predicted a positive transition experience.

Only a minority of children did not go to a school of their choice, however, almost half of those who did not had a negative transition experience. Although the reasons for this were not explored in this research, it is possible that those children who did not go to their preferred school experienced uncertainty about secondary school for a sustained period. If the

secondary school was not part of their 'cluster', it is also possible that these children did not have access to the transition preparation for that school.

CONCLUSIONS

This is the first large-scale, contemporaneous, longitudinal study that was able to provide a clear indication of how many children had positive, moderate and negative transition experiences when moving between primary and secondary school. However, it is important to acknowledge that this measure of their experience is based on questions about children's motivation and engagement before and after moving to secondary school rather than a direct question about their transitions. Nevertheless, based on previous research these are important measures and demonstrate that most children had either a positive or moderate transition experience, at least up until the point measured here (the second term of their first year of secondary school). Despite this positive outcome, it is important to remember that a significant minority, over one in five children, experienced a negative transition. This study is also significant because it provides an understanding of factors associated with positive and negative transition experiences. These findings therefore provide some tentative indication of how transition practice and policy may be changed to facilitate positive transition experiences and minimise negative ones.

Using the lens of MMT theory, it is clear that children experience multiple transitions in different domains (e.g., academic and social) as well as in different contexts (e.g., school and home). In this study it was difficult to establish the impact of children's transitions on significant others' transitions and vice versa. However, we could establish the association between significant other's relationships with the child and that of the environmental factors (e.g., school structure, household composition) on the child's transition experiences. As such, this suggests that policy and practice responses to improve transitions will also need to operate across these various domains and that transition support delivered in 'isolation'—that is, via the primary or secondary school alone—will not always be sufficient to guarantee a positive experience.

Recommendations for policy and practice

The findings suggest that transitions policy and practice need to acknowledge the myriad factors occurring alongside and potentially influencing a child's transition experience. It is important to ensure steps are taken to promote positive relationships in children's primary school and first year at secondary school, especially with teachers, as some children perceive that they are not always fair towards them. Further, schools and community groups should foster children's participation in sports, clubs and youth groups with cognisance taken of limited opportunities for children experiencing socioeconomic disadvantage and/or additional support needs.

As children's anticipated experience of secondary school was predictive of their transition experience, it is important to address any anxieties and misconceptions about secondary school in primary school. This may include the use of enhanced transition to support more familiarisation with the secondary school environment for children with identified higher levels of concern or anxiety.

It is also important to foster and maintain good school–parent relationships, through timely and relevant communication. Further, parents should be fully informed and supported to help their child with the transition as well as making them aware of the impact of their relationships with their child.

Recommendations for research

This research provides new, unique and important evidence to help understand primary to secondary school transitions. It also raised several questions for future research. For instance, it is important to better understand how children from less advantaged socio-economic backgrounds can be better supported. Further, research should be conducted to understand why some children have negative expectations about secondary school and are generally less positive about secondary school. As this study contradicted previous findings about the impact of having siblings on transition experiences, it is important to undertake an exploration of the role the age and gender of siblings might play and whether there is a relationship between sibling(s) attending the same school and the outcome of their own transition experiences. Although some research has been undertaken to understand the transition experiences of children with additional support needs, further in-depth exploration is required of how support can be improved and tailored to enhance their transition experiences. In line with the MMT theory, it would also appear to be important to investigate the various aspects of child–teacher and child–parent relationships alongside exploration of what transitions teachers and parents might be experiencing themselves alongside the children's transitions and the interaction of these various transition experiences.

With so many factors associated with transition experience, multivariable analysis would be useful in understanding which factors appear more important than others. GUS data should also be used to explore interrelationships between characteristics and experiences and how they relate to the transition experience, as well as differences in experiences and to understand the relationship between transitions and mental health and wellbeing of children and their parents. Future research should also analyse the next set of data collected when children were in S3 and S6, to allow consideration of the longer-term impacts as well as the linked administrative data related to attainment and wellbeing.

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CONFLICT OF INTEREST STATEMENT

Authors have no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in the UK Data Service at <https://beta.ukdataservice.ac.uk/datacatalogue/series/series?id=200020#!/access-data>, reference number <https://doi.org/10.5255/UKDA-Series-200020>.

ETHICS STATEMENT

The initial sweep of GUS data collection was subject to ethical review by the Scotland “A” MREC committee (application reference: 04/MRE10/59). Subsequent sweeps were reviewed via substantial amendments submitted to the same committee. Data management and presentation for this study meets the requirements of the original data providers.

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