

Brain Development Questionnaire Report

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This report gives results of an online survey to assess parents' understanding of infant brain development in the UK and Singapore.

Participants

Data is reported for 142 parents living in the UK, and 228 parents living in Singapore (SG). All participants were parents of young children or babies under the age of 7, with the mean age of the youngest child being 2.7 years in both cohorts. Similar proportions of each cohort reported having a child with a diagnosed or suspected developmental condition or delay: UK group, 13%; SG group, 14%. Respondents were primarily mothers, with 3 fathers in the UK cohort, and 22 fathers in the SG cohort. Participants in both locations came from a range of ethnic backgrounds, with the most common ethnicities being "White British" in the UK cohort (66%) and "Asian – Chinese" in the SG cohort (78%). Of the UK cohort, 77% had a university or postgraduate degree, and for the SG group the figure was 62%. The median income bracket within the UK group was £3,600 – £4,600 after tax, and within the Singapore group it was \$8,000 - \$11,999 (before tax).

More detailed demographic data are provided in the Supplementary Materials at the end of this document.

Procedure

Participants were recruited in both locations through lab social media channels, via personal contacts and through contacts at nurseries and charities. In the UK, the survey was promoted by the BabyZone charity at their parent and toddler groups around London.

Participants accessed the online survey (hosted on the Qualtrics platform) via a link or QR code. Participants provided informed consent on the first page and then proceeded to work through first some demographic questions about themselves, and then the main body of the survey. The survey took around 15 minutes to complete and was largely identical in both locations, with only small changes to make educational levels and income brackets country-specific. As an incentive, participants in both locations had the option to enter a prize draw to win one of two sets of shopping vouchers, and at the end of the questionnaire parents were provided with links to further information about infant brain development and suggested activities for parents to do with their children. The survey was intentionally kept short to maximise number of participants who completed it.

UK data was collected 7th June - 31st July 2024 and SG data from 15th July - 26th Aug 2024.

A full list of questions included in the questionnaire, and summaries of participant responses, can be found in the Supplementary Materials at the end of this document.

Summary of Main Findings

Section 1: Parental understanding of the importance of social interaction for brain development and parental confidence

All participants generally agree that brain development in first two years of life will have a lifelong impact on a child's health and wellbeing, and that how much the parents talk to the child is an influential factor. However 33% of SG parents also believe that a child's brain development is little influenced by the child's environment, and 10% agree with the statement that "The most important time for a parent to speak to their child is when the child is old enough to answer" (compared to 17% and 3% respectively for the UK cohort).

Generally speaking, parents in the UK cohort feel more confident in their parenting abilities than those in the SG cohort. While 90% of UK parents report that they feel confident that they know what to do to be a good parent, only 68% of SG parents feel the same. Similarly, 80% of UK parents report feeling confident that they know what kind of games and activities they can do with their children to foster optimal development, while only 66% of SG parents feel that way. Across cohorts the percentage reporting that they feel confident that they know where to look for reliable information on how to bring up their child is similar (77% for SG, 80% for UK).

Section 2: Importance of certain activities

In the second section, participants were asked to rate how important it is for parents to do certain activities with their baby. Participants selected a number from 1 (Not important) to 10 (Very important)

In general, parents from both cohorts agreed on the importance of spending time outside with the child, talking to the child face to face, looking at books with the child, introducing the child to new people, taking the child to new places and having new experiences, and singing songs and rhymes to the child. However, the most valuable activities for infant development (talking face-to-face, looking at books, and singing songs and rhymes) were valued as more important by the UK cohort, suggesting that the value of such activities is not fully appreciated by parents in Singapore.

When asked about their views on the importance of "Ensuring the child watches lots of educational content on TV/media", responses were very varied, with Singapore parents showing a wider spectrum of responses.

Section 3: Perceptions of brain development and parental influences

The majority of parents in each country correctly believe that a child's brain and mind develops fastest from the start of pregnancy to 2 years, however among the SG cohort over 35% believe that the fastest development occurs between 3-5 years (compare 18% UK) and 9% believe that a child's mind and brain develop evenly throughout childhood until adulthood (compare 4% UK).¹

When asked how parents feel a child's later life could be affected by parents playing with the baby a lot during their early years (Q16), the top three most often selected responses were the same for both countries:

1. Better able to form healthy relationships with other people
2. Greater self-confidence
3. Leading a more active lifestyle

¹ This question was used in Ipsos Mori Royal commission research: State of the Nation: Understanding Public Attitudes to the Early Years, November 2020. See Supplementary Materials for comparison of responses.

In both countries, the least selected response was 'Better grades in school', showing that parents do not routinely associate early social experiences with later academic achievement.

However, when asked directly about the outcomes of improved brain development (Q17), Singapore parents' most often selected response was 'higher intelligence' (followed by 'greater self-confidence' and 'leading a more active lifestyle'). This suggests that parents consider social play, and brain development as relatively unrelated, with each leading to different outcomes. The top three selected responses by the UK group were: 'leading a more active lifestyle', 'being better able to form healthy relationships with other people', and 'having greater self-confidence'. In both cohorts the least selected response was 'improved mental health' showing that parents do not generally associate this with brain development.

When asked about their hopes and fears around how they feel their parenting style might affect their child's future life (Q18), 53% of UK respondents and 56% of SG respondents responded with (often moving) fears around how their actions or personality traits might be negatively impacting their child. Responses made it clear that participants understand the impact of their actions as parents, but feel unsure of what they need to do, with many expressing fears that their actions as parents could harm their child's development, or that their perceived personality flaws or mental health difficulties will be passed on to their children. Many parents commented that they feel unsure how to pitch their parenting. For example, some simultaneously expressed worries that they are too authoritative/disciplinarian/affectionate and also not authoritarian/disciplinarian/affectionate enough.

When asked to select the 3 developmental outcomes that are most important for them from a list (Q19), Singapore parents prioritised 'Learning to understand and control their emotions', 'Developing good social skills and forming relationships' and 'Developing self-confidence'. UK parents also rated social skills and relationships and self-confidence in their top 3, and also the development of good language and communication skills. In both groups, the least selected option was 'Developing strong physical health' showing that parents prioritise cognitive, social and emotional health over physical health.

Only 45% of UK participants and 35% of SG participants said that they are happy with the amount of time they spend playing with their child (Q20). Among factors that stop parents from spending lots of time with their child, the most often selected was tiredness, followed by the need to spend time working for financial reasons (rather than career development) in both cohorts. Additional free text responses overwhelmingly cited time restraints caused by long working hours and the burden of household tasks as reasons that they felt they did not spend enough time playing with their child.

Supplementary Materials

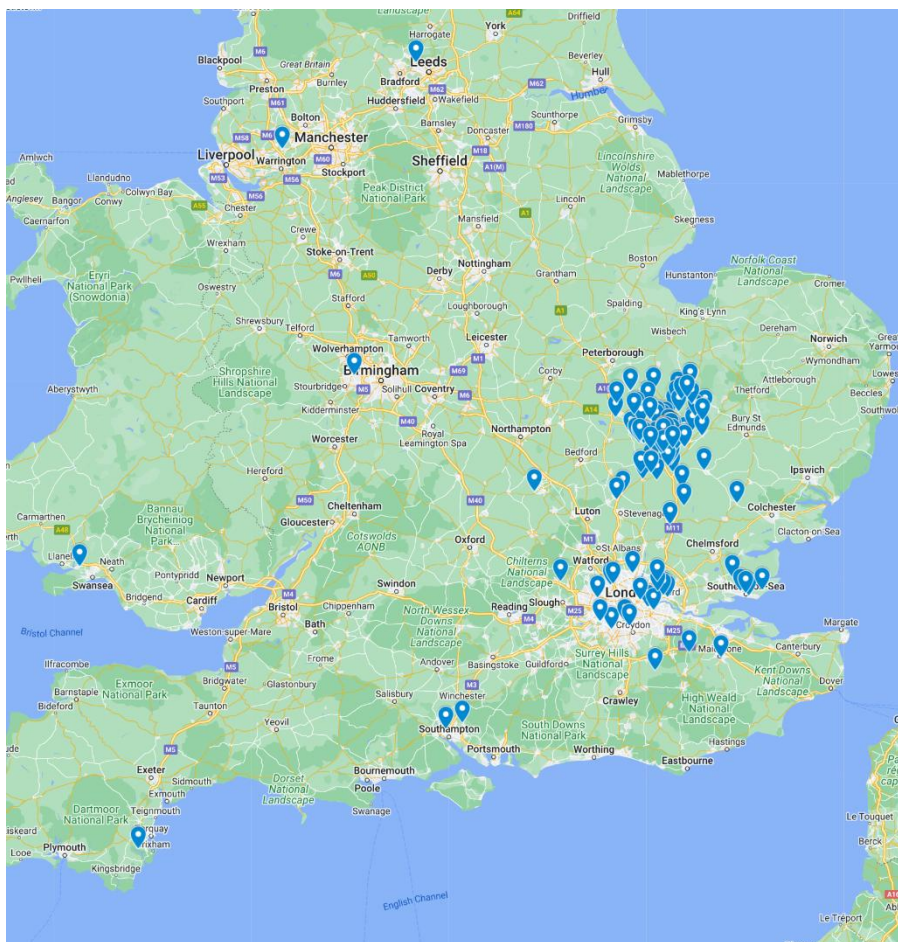
Participant Demographics

Some participants started, but did not complete the questionnaire. Only participants who provided answers to some questions in the main body of the questionnaire (i.e. not only demographic data) were included in the analysis.

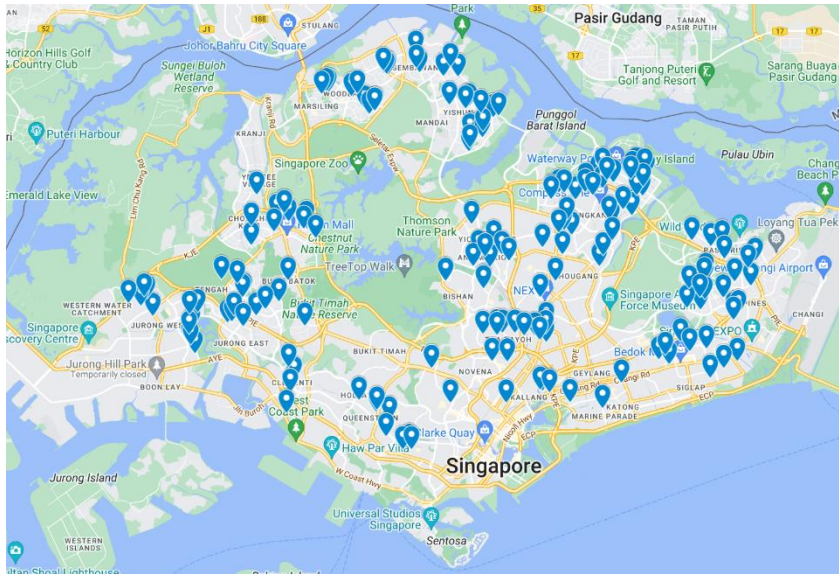
	UK	SG
Total number of respondents	164	277
Total number contributing data for analysis	142	228
Number of fathers	3 (2%)	22 (10%)
Number of respondents reporting that they have a child with have a diagnosed or suspected developmental condition or delay	18 (13%)	33 (14%)
Mean number of children	1.6 (range 1-4)	1.7 (range 1-6)
Mean age of youngest child	2 years 9 months	2 years 8 months

Participant Locations

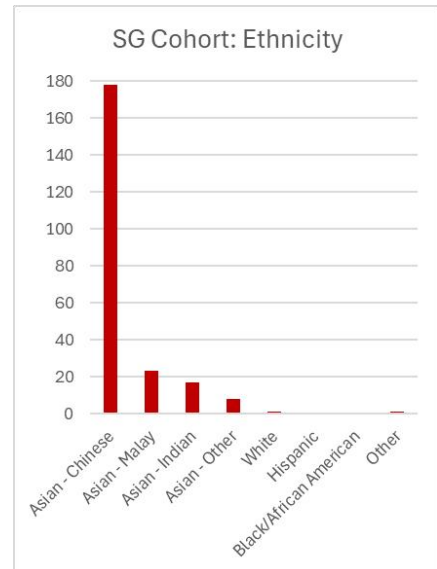
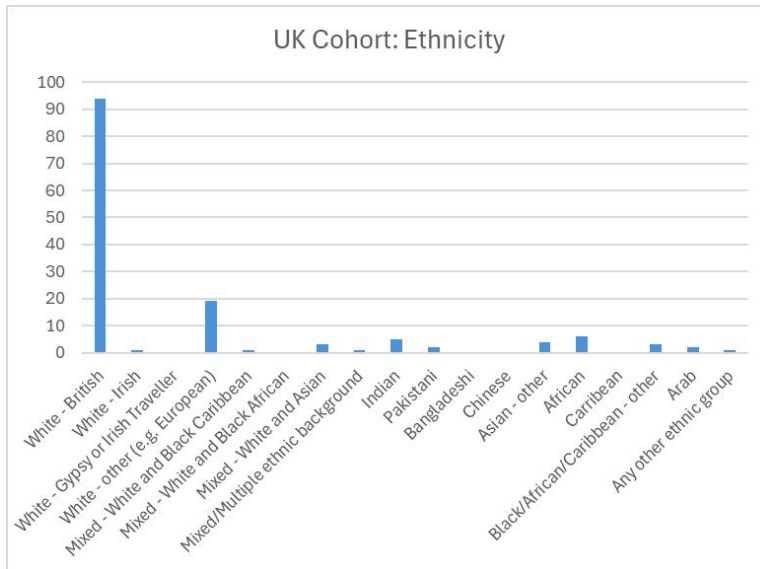
UK participants came from across England, with one respondent in Wales. There were clusters around Cambridge and London due to these being places where recruitment pathways were already set up.



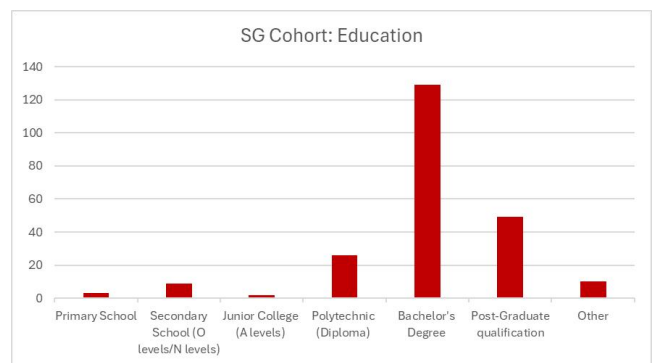
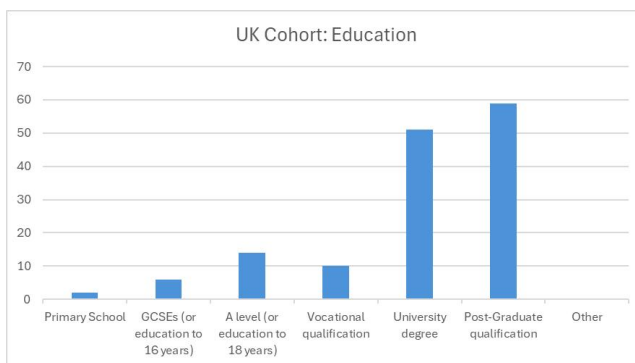
Singapore participants were spread across Singapore.



Ethnicity

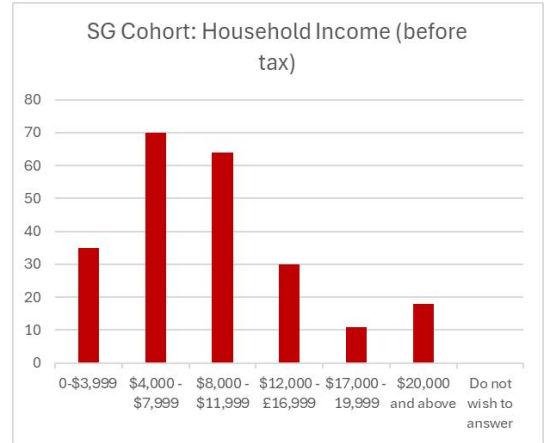
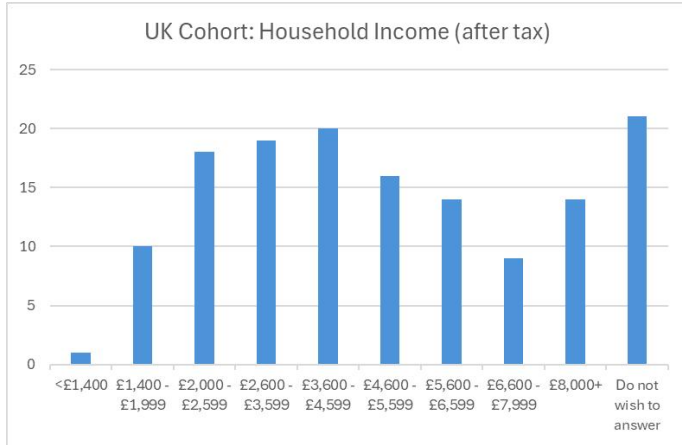


Education



'Other' responses given by Singapore participants mostly included NITEC or Higher NITEC qualifications.

Household Income



Survey Responses

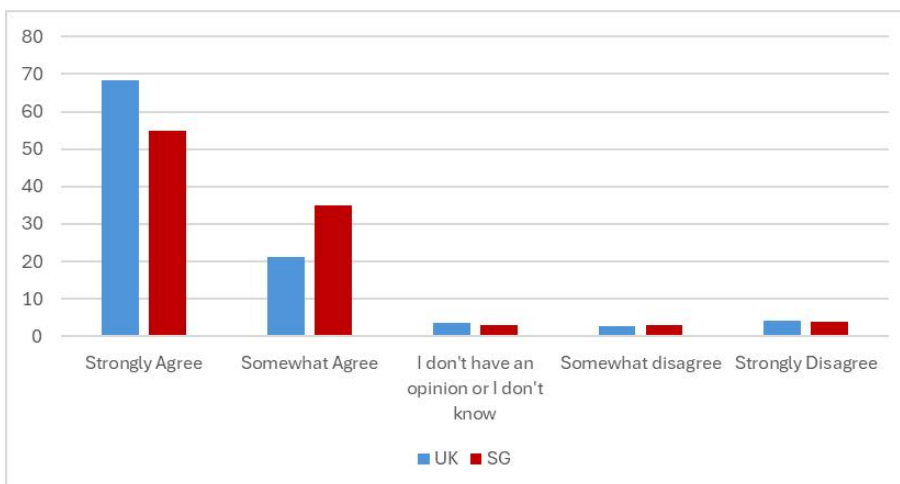
Section 1: Parental understanding of the importance of social interaction for brain development and parental confidence

In the first section, participants were asked to select the response that most closely matches with how much they agree with the statement.

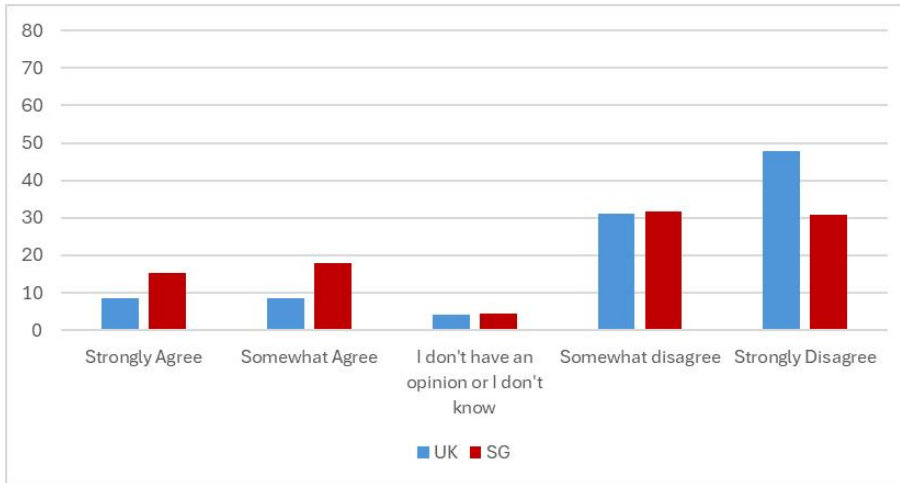
- Strongly agree
- Somewhat agree
- I don't have an opinion or I don't know
- Somewhat disagree
- Strongly disagree

Graphs in this section show the % of each group who selected each response. E.g. nearly 70% of the UK group selected 'Strongly Agree' to the first statement.

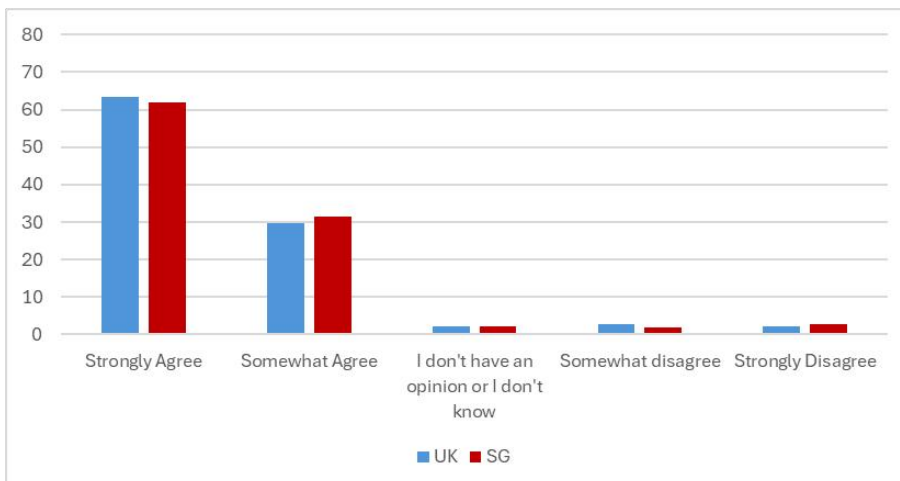
1. The way a child's brain develops during the first two years of life will have a lifelong impact on their health and wellbeing



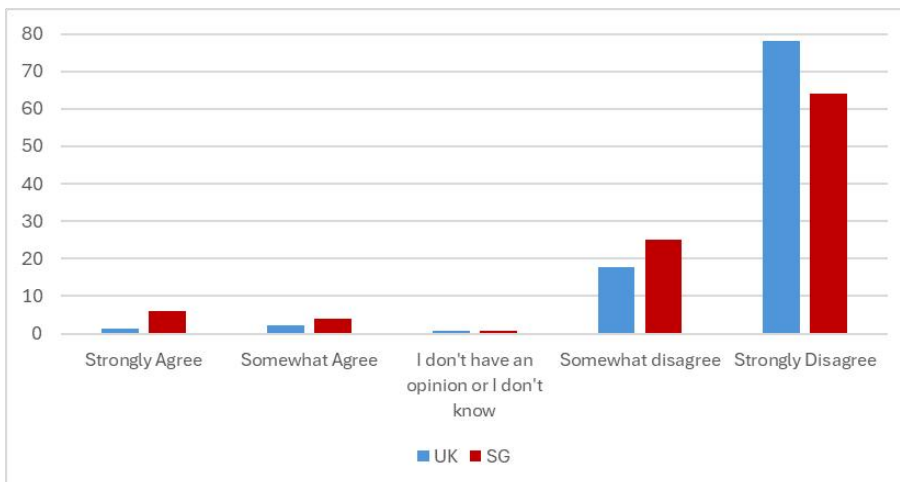
2. A child's brain develops naturally and automatically, like the way fingernails grow longer, and is little influenced by the child's environment



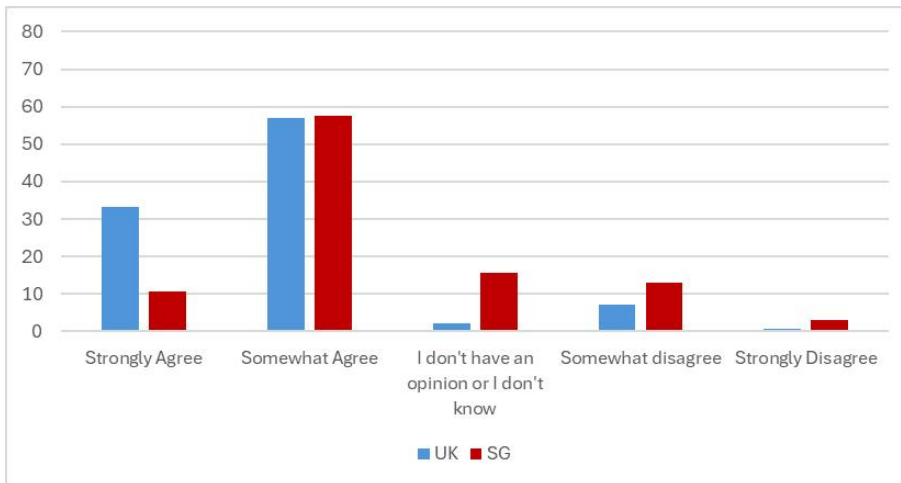
3. In the first two years of life, a child's brain development is influenced by how much the parents talk to the child



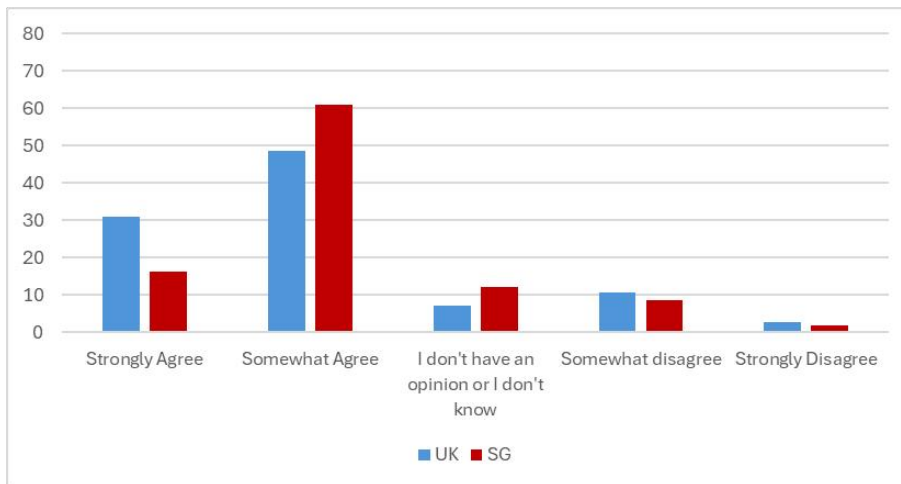
4. The most important time for a parent to speak to their child is when the child is old enough to answer



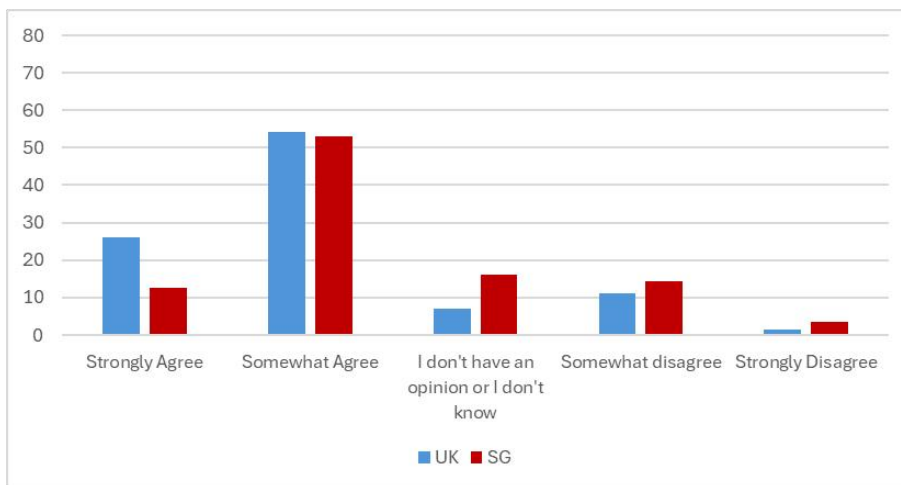
5. I feel confident that I know what to do to be a good parent



6. I feel confident that I know where to look for reliable advice on how to bring up my child



7. I feel confident that I know what kind of games and activities I can do with my child to give them the best chance for lifelong wellbeing and success.

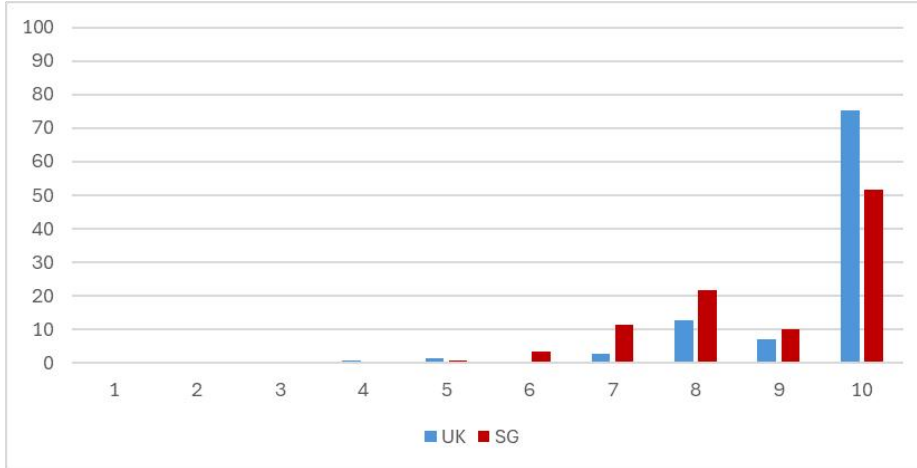


Section 2: Importance of certain activities

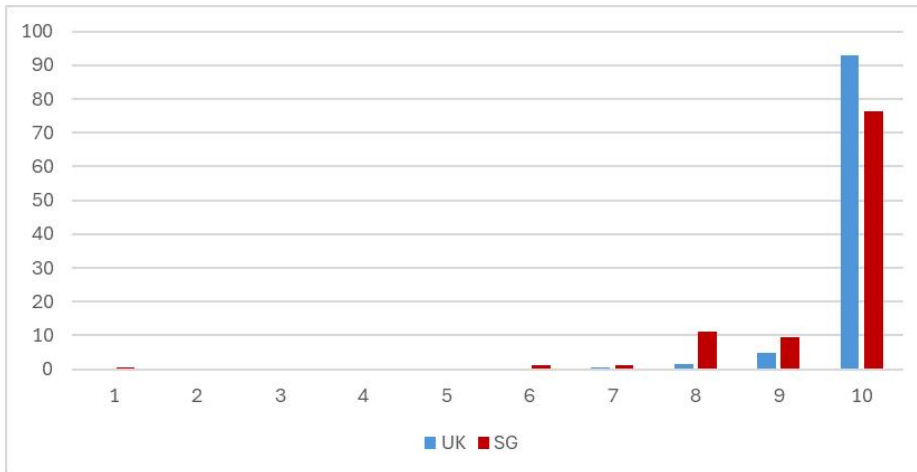
In the second section, participants were asked to rate how important it is for parents to do certain activities with their baby. Participants selected a number from 1 (Not important) to 10 (Very important) for each activity.

Again, graphs show the % of participants in each group who selected each response.

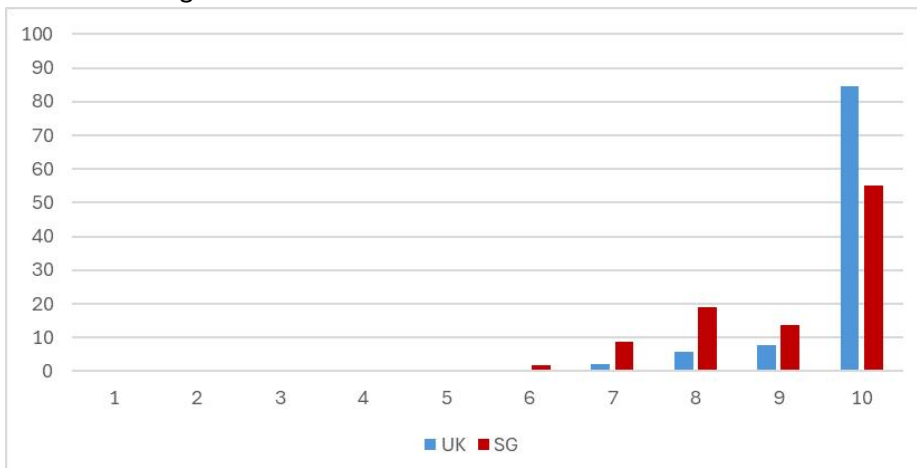
8. Spending time outside with the child



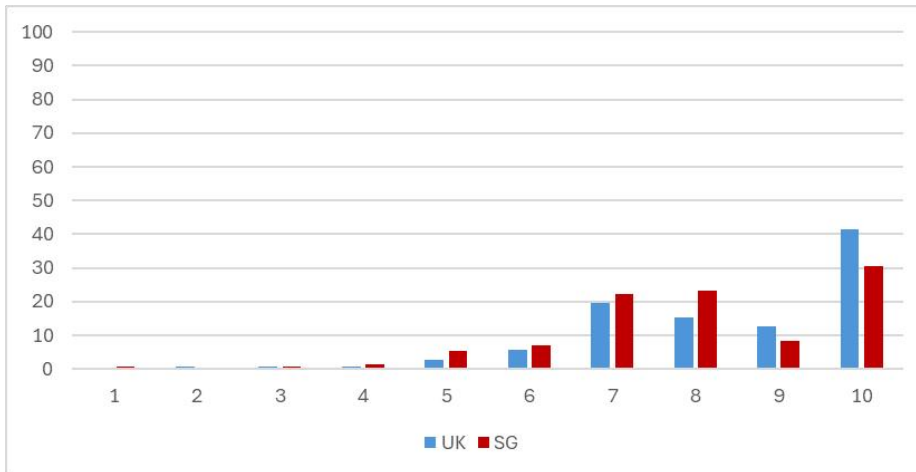
9. Talking to the child face-to-face



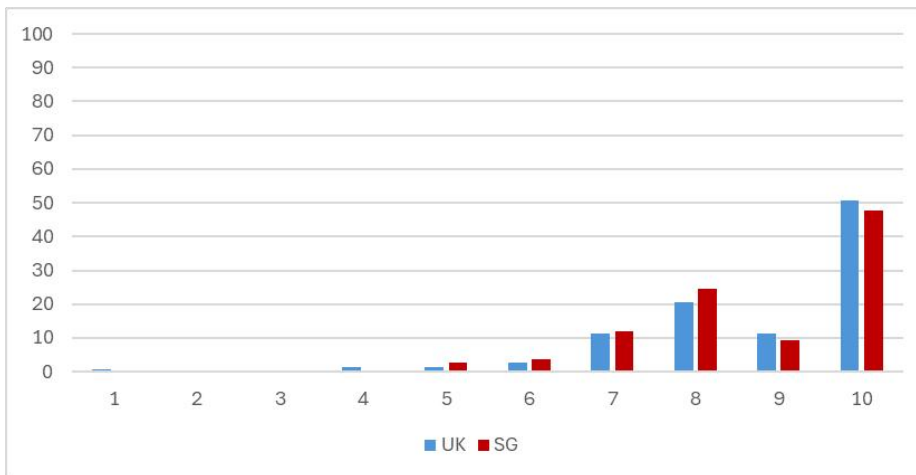
10. Looking at books with the child



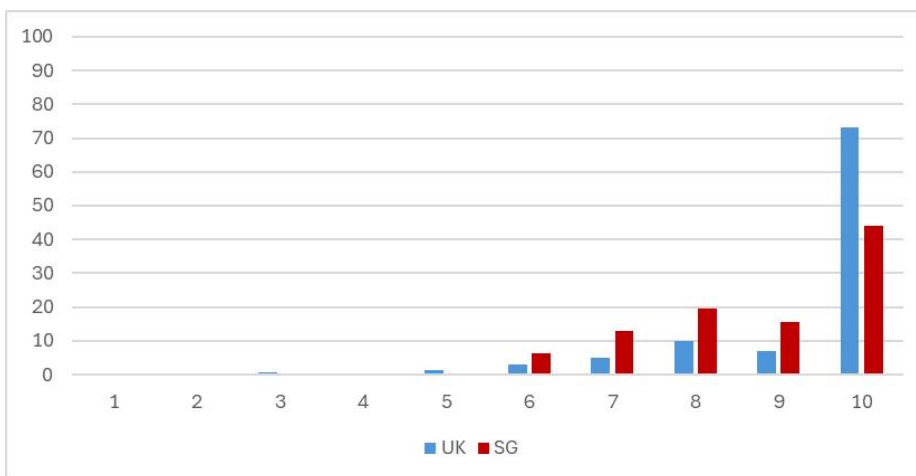
11. Introducing the child to new people



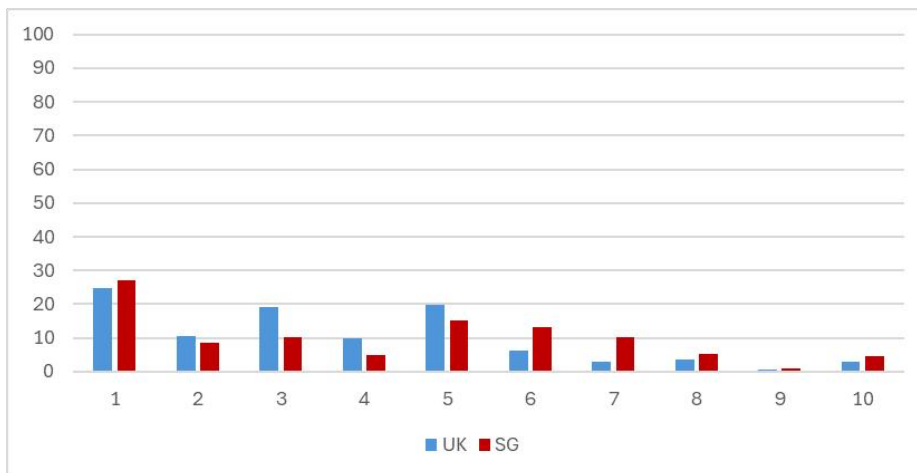
12. Taking the child to new places and having new experiences



13. Singing songs and rhymes to the child



14. Ensuring the child watches lots of educational content on TV/media

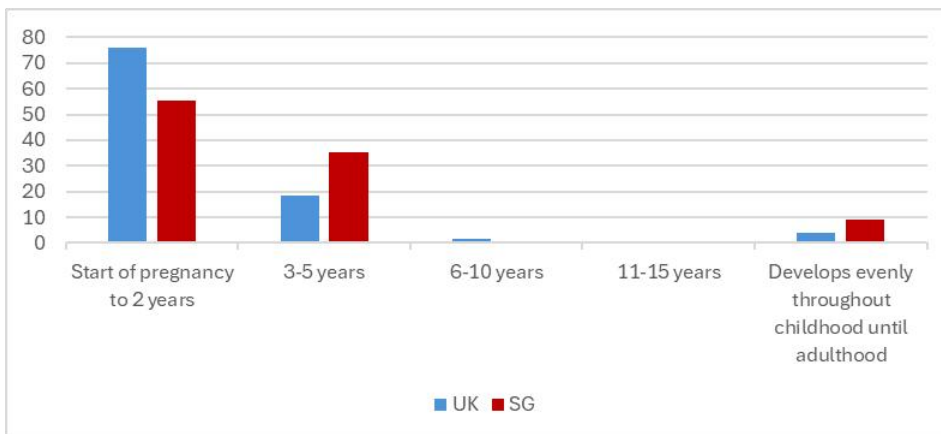


Section 3: Perceptions of brain development and parental influences

In the third section, participants were asked to choose from a range of options to answer the questions.

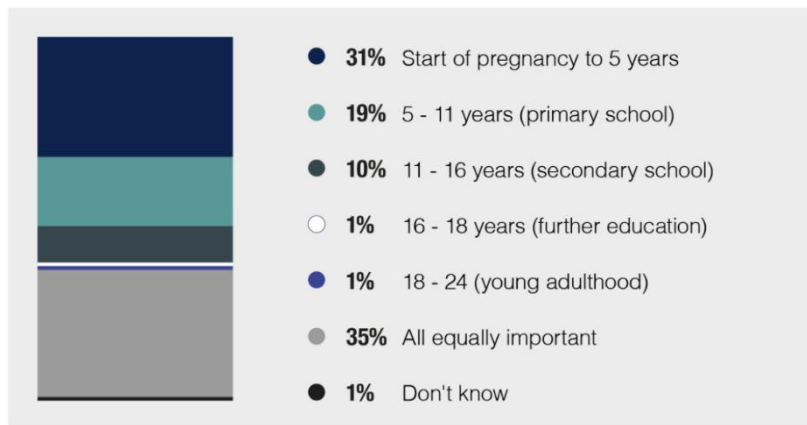
15. At what age do you think a child's brain and mind is developing fastest? (Choose one)

This graph shows the % of respondents from each group who selected each answer.



For comparison, the figures from the very similar question asked in the Ipsos MORI State of the Nation: Understanding Public Attitudes to the Early Years survey are shown below.

Figure 2.2: Which period of a child and young person's life is the most important for health and happiness in adulthood?

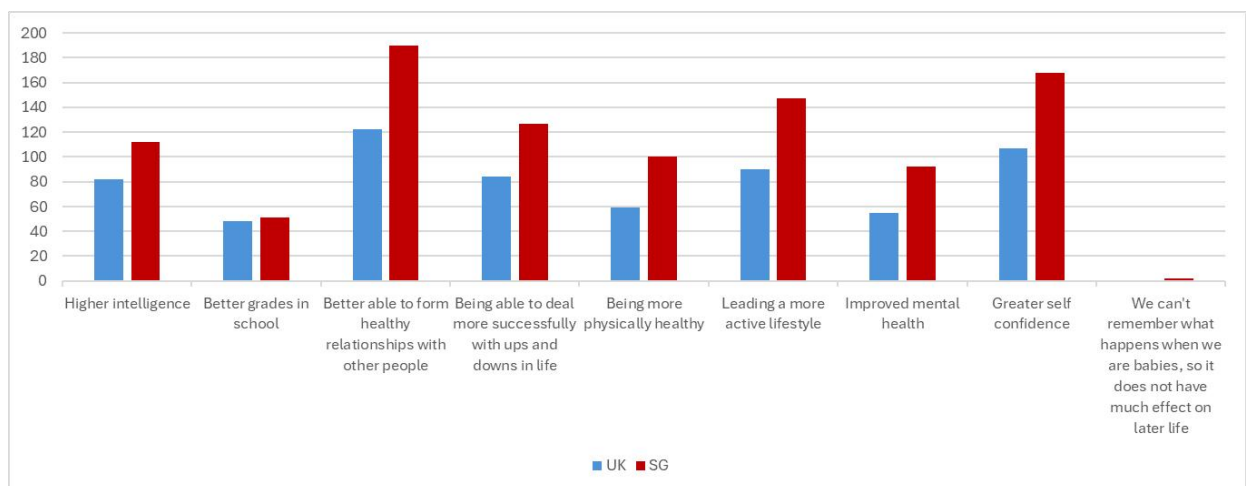


Source: Online survey (October 2020)
Base: 1,000 parents of a 0- to 5-year-old

For questions 16, 17 and 18, participants were allowed to select more than one answer. Graphs are plotted to show how many times each response was selected by each group, so due to the unequal numbers across the two groups, it is more informative to compare the pattern of responses within each group, rather than comparing the two groups directly.

For some questions participants were also given the opportunity to select 'other' and give their own responses. Such free text responses have been grouped into themes, with a number representing how many times that theme was referenced in responses.

16. If parents play with their baby a lot during babyhood, how do you think this could affect the child in their later life? (select all that apply)



Participants were also given the option to select 'other' as an option and to suggest other ways that a parent playing with their child a lot during babyhood could be beneficial to the child later in life:

UK (11 responses)

Increased independence (2)

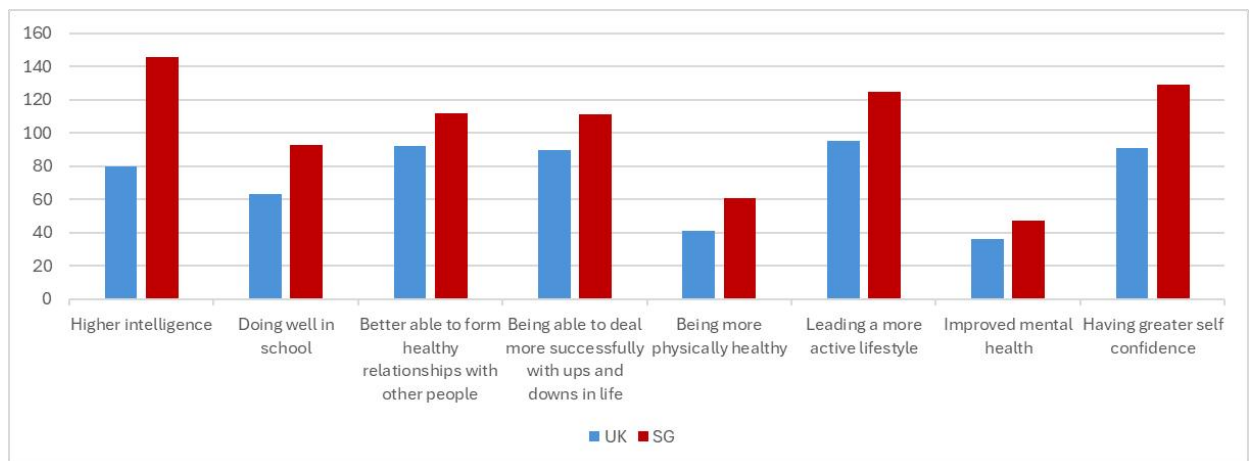
Improved judgement and self-regulation (2)

Improved self-esteem/attachment/feeling secure (2)
 Better cognitive and emotional development
 Improved sense of responsibility
 More creative
 More curiosity
 More resilient
 Better language skills

SG (24 responses)

Improved self-esteem/attachment/feeling secure (7)
 Better relationships and social skills (5)
 Better cognitive and emotional development (5)
 Better language skills (3)
 Happier childhood (2)
 More resilient
 More creative
 More understanding of cultural diversity

17. When you hear that something is "good for babies' brain development", what kind of results do you imagine in the child's later life? (select all that apply)



Participants were again given the option to select 'other' as an option, and to suggest other later-life outcomes of good brain development during infancy:

UK (4 responses)

Improved critical thinking and problem solving skills (3)
 Interest in learning

SG (2 responses)

More resilient
 Happier childhood

18. Do you have particular hopes or fears around how your parenting style might affect your child's future life?

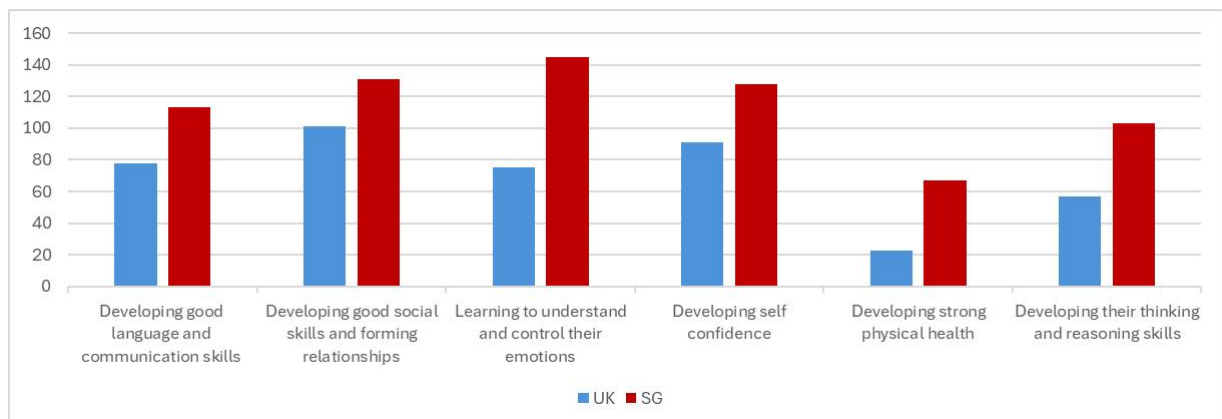
For this question, participants were asked to provide a free text response. As might be expected, many parents expressed hopes that their child would grow up happy, well balanced and resilient to the difficulties of the world. However many parents also expressed fears around how their parenting might negatively effect their child's development and later life. Many of these responses were quite moving, and fell broadly into two categories: what parents do, and who parents are. Parents expressed worries about how their child will turn out based on what the parents do (e.g. too authoritarian/relaxed parenting style, spoiling the child with attention), and also about how the child will turn out due to the nature, temperament or history of the parent (e.g. passing on anxiety traits or perceived personality flaws, passing on traumatic elements of how they themselves were parented, or parental mental health issues impacting on parenting abilities).

Overall, responses showed that parents feel a great deal of uncertainty around whether they are parenting 'the right way'.

	UK	SG
Number of free text responses	78	149
Expressed a fear about how their parenting or behaviour might negatively affect their child	41 (53%)	84 (56%)
Expressed a worry that they will pass on trauma or negative parenting style from their own childhood, or personality traits such as anxiety to their child	17 (22%)	15 (10%)
Expressed fears about the effects of screen time or their difficulties in regulating their child's exposure to tech/screens	7 (9%)	7 (5%)

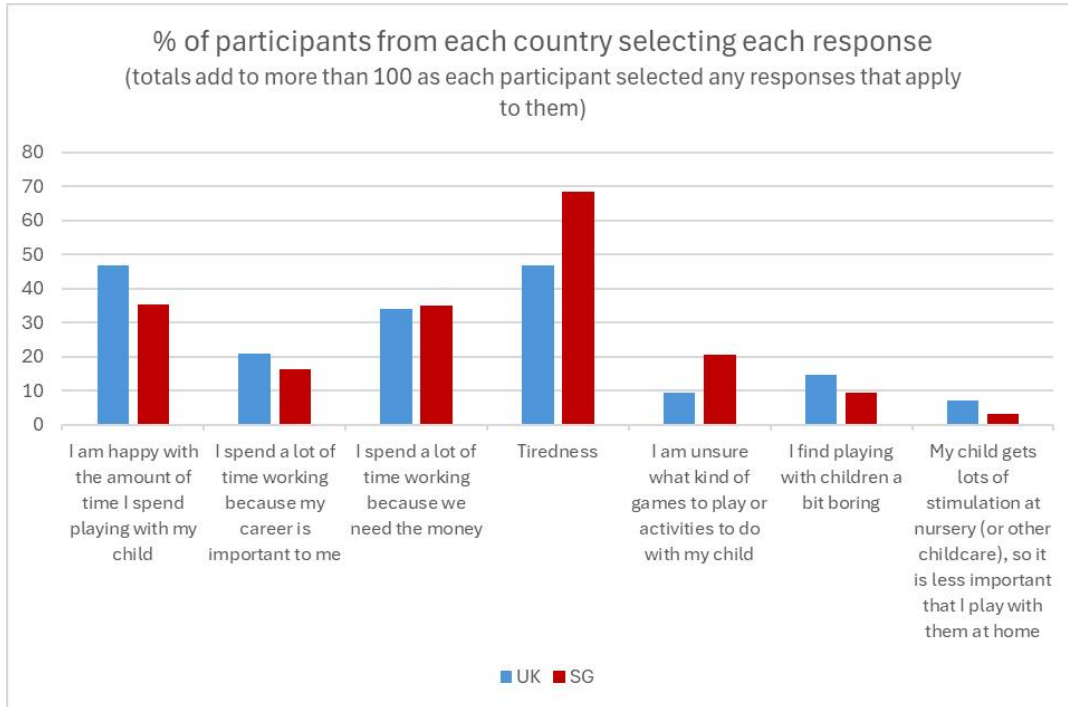
Additionally, 3 Singapore parents also expressed concerns about the effects of disagreement between parents around parenting style.

19. As a parent, which of these do you think are most important for your child? (choose up to 3)



20. What stops you from spending lots of time playing with your child? (select any that are true for you)

To enable more direct comparison between groups, this graph shows the percentage of each group who selected each response.



Participants were also given the option to select 'other' and provide a free text response. These responses largely fell into 5 groups, but with differing distributions across the two cohorts, as shown in this table:

	UK	SG
Hours parent is working/ child is in childcare	1	13
Pressures of housework/running a family/cooking/cleaning/dividing time between children	10	10
Find playing with child frustrating	1	4
Need for parent to make time for herself/himself	1	3
Parental illness/physical and mental health needs (incl. pregnancy tiredness)	6	1

Interestingly, both working parents and stay at home parents repeatedly reported lack of time (either due to work or household chores or both) as major factors, suggesting that it is not only long working hours, but a more general lack of support or shared responsibility that eats up parents' time.