Mitigating Impacts of COVID-19 in the Early Years - Rapid Evidence Review

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Key Findings

- Our research suggests that socioemotional development is of greatest concern to families and practitioners.

- Language development, physical development and educational outcomes are also areas of concern.

- Much of the harm is attributed to the lack of social interaction.

- Financial constraints have contributed to concerns about physical development with families living in poverty experiencing cramped living conditions, poor nutrition, and lack of access to outdoor space.

- Mitigation efforts should be twofold; firstly focused on ways to support children during a crisis situation, and secondly to support children to recover in the wake of the crisis.

- Evidence is weakest in the areas of IT solutions and programmes focused on physical development.

- Programmes within early years settings, and those that support parents to support the language and communication and socioemotional development of their children, can be effective in terms of mitigating actions.

- In the event of a future crisis this existing expertise will be invaluable whether it be through parenting programmes or through support to implement on-line programmes.

Introduction

A child's experiences before starting school can have a significant impact on their educational, socioemotional and employment outcomes well into early adulthood. Results from the Effective Pre-School, Primary and Secondary Education Project (EPPSE) showed that high quality early years education had a positive influence on outcomes - that is, children who attended preschool had better educational and social outcomes at the end of KS1 (Sylva et al., 2004) end of primary school (Sylva et al., 2008) and end of secondary school (Sylva et al., 2014). This is particularly true if children attended preschool early, and settings had highly qualified staff (Sylva et al., 2004). Attending preschool predicted significantly more progress from KS2 to KS4, and higher GCSE scores (Sammons et al., 2014). This research also suggested that children who attended preschool would experience longer-term financial benefits in terms of higher estimated earnings (Goodman & Sianesi, 2005; Taggert et al., 2015).

Similarly, Melhuish, Gardner and Morris (2017) report on the Study of Early Education and Development (SEED). Their findings showed that children's outcomes at age three were influenced by attendance at early years settings. Use of formal early childcare settings was linked to more prosocial behaviour, better verbal ability, and better behavioural self-regulation, as well as fewer peer problems and fewer emotional symptoms. There was some evidence to suggest that attendance at formal group settings was linked to more conduct problems and problems with emotional self-regulation. However, this was only in a small percentage of children who attended for over 35 hours per week. A study using the Millennium Cohort data (Green, Pearce, Parkes, Robertson & Katikireddi, 2021) found that children aged 3 years in "centre based childcare" had higher school readiness scores, although vocabulary scores were higher for children in "non-centre based childcare" e.g. family friends, neighbours etc. However, there were clear inequalities related to parental education and family structure which models showed could be ameliorated by universal childcare. Finally, a recent study (Davis, Hendry, Gliga & McGillion, 2021) found that children who attended nursery during the pandemic showed greater growth in receptive vocabulary and executive function. As such, the evidence to date suggests that attendance at early years settings is vital for children's development.

There is also a plethora of research showing that the Home Learning Environment (HLE) is fundamental to children's language development from the early stages of their life (e.g., Roulstone et al., 2011). In addition, the HLE has been shown to be related to school readiness (e.g., Hughes et al., 2015), as well as educational outcomes in the early stages of education (e.g., Sylva et al.,2008) right through to adolescence (e.g., Sammons et al., 2015). In short, the HLE forms the foundation for children to develop across a range of domains including cognitive development (e.g. Melhuish et al., 2001) and socioemotional development (e.g., Kelly et al., 2011). Importantly, it is the first years of life when the HLE has the most importance, and as such what happens in these early stages can have far reaching effects on all aspects of their adult life.

Socioeconomic status does not necessarily predict parental involvement in home learning activities (e.g., Hartas, 2011). For example, examination of the data underlying the DfE Childcare and Early Years Survey of Parents (2019) show that, with the exception of reading, the

frequency with which families engage in home learning activities are broadly similar across the most and least deprived areas of the UK. This data reflects findings from previous research that suggests it is not necessarily access to resources that is the important factor in providing a good HLE, it is what you do with those resources that matters (e.g., Sylva et al., 2008). Nonetheless, It is important to note that COVID has highlighted some differences in home learning activities associated with SES, primarily around access to digital resources and space, and opportunities to work from home, both of which are higher in families from more advantaged backgrounds.

As a result of the COVID-19 pandemic, attendance at early years settings has decreased. During the first national lockdown, early years settings closed to all but the children of key workers and those considered vulnerable. During the third lockdown in Jan 2021, early years settings remained open. However, attendance has not returned to pre-COVID levels; a report from Coram (2021) shows that over 65% of local authorities surveyed reported a decrease in the demand for childcare. What happens at home may therefore have even more of an impact on children's outcomes. However, families have been juggling childcare and homeschooling with working from home, often with multiple children and with differential access to resources. Children's worlds became much smaller over lockdown periods with fewer opportunities to meet family and friends, visit libraries and take part in other activities i.e. sports clubs and music groups (Play Wales, 2020). We also know that the number of children living with adverse child experiences (ACES) has increased; with a report from the Children's Commissioner (2020) showing increased reports of domestic violence, alcohol abuse and children living in poverty during the pandemic. Children who experience adverse child experiences are at high risk of poor adult outcomes.   Early years settings play a crucial role in identifying and supporting children at risk of ACES.

The primary research question of this review therefore is:

- whether the measures taken to control the spread of the virus have had an impact on outcomes for children in the early years

Secondary research questions are:

- which, if any, steps can be taken to mitigate any adverse effects as a result of COVID-19 for children in the early years defined as children 0-5years; and
- which steps would be most useful in the event of a possible future large-scale crisis?

Methodology

Two authors (LF & AL) searched across a range of databases to identify research from relevant fields including education, health and social science. Included databases were PsycNET (PsycINFO), Education Resources Information Centre (ERIC), British Education Index, Web of Science, Scopus.

In an effort to include as much relevant literature as possible, a hand search of grey literature was carried out on the websites of funding bodies including Nuffield, Education Endowment Foundation and Economic and Social Research Council. To identify the literature addressing the impact of COVID-19 on children in the early years, a comprehensive search criteria was designed, covering language and communication, socioemotional wellbeing, physical health,

school readiness and educational outcomes. The design of the search criteria and inclusion and exclusion criteria is discussed in Appendix A.

Search results were screened at a title and abstract level according to the selection criteria. The inclusion criteria was then applied to full text versions of the first two papers independently by both researchers. Disagreements were resolved through clarification and refining of the criteria to ensure there was a shared understanding and consistency in interpreting the results. References of included studies were screened for further relevant studies.

Data extraction and quality assessment

Relevant data were extracted into an extraction template. The extraction template and results can be found in Appendix B. Studies were critically appraised using an adaptation of the Critical Appraisal Skills Programme (CASP) appraisal tools, with a rating on a scale of 1-10 awarded (Weak (1-4); Moderate (5-6); Strong (7-10)). The reviewers assessed the quality of the first two studies and any disagreements were resolved through discussion.

Mitigating Circumstances

Separate searches for mitigating actions addressing the harms identified in search one, relating to language and communication, socioemotional wellbeing, physical health, school readiness and educational outcomes, were carried out on the following websites and organisations:

- The Allen Report (2011) (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment _data/file/284086/early-intervention-next-steps2.pdf)
- Best Evidence Encyclopedia (BEE) (https://bestevidence.org/)
- A Better Start (https://www.tnlcommunityfund.org.uk/funding/strategic-investments/a-better-start)
- The Campbell Collaboration (https://www.campbellcollaboration.org/)
- The Children's Commissioner (https://www.childrenscommissioner.gov.uk/)
- Cochrane (https://www.cochrane.org/)
- Education Endowment Foundation (EEF) (https://educationendowmentfoundation.org.uk/)
- Early Intervention Foundation (EIF) (https://www.eif.org.uk/)
- Nuffield Foundation (https://www.nuffieldfoundation.org/)
- What Works Clearinghouse (WWC) (https://ies.ed.gov/ncee/wwc/)

Programmes that the authors, as early education and language and communication specialists, were aware of through professional practice and networks were also included in a hand search.

Data on mitigating actions were extracted. Due to lack of clarity, some programmes have missing data, or data was deemed insufficient to report on given priorities.

We have rated programmes as having low, moderate or high levels of evidence although in some cases we have also included programmes we see as 'promising'.

Criteria were based on the level of current evidence, which includes:

- it they had been subject to an RCT or quasi-experimental study;

- whether this was at the efficacy-level (i.e., if it was implemented small-scale but at high-quality implementation) or an effectiveness trial (i.e., at a larger-scale roll-out of implementation); or
- whether they had been evaluated in the UK or elsewhere (given that the UK early years education system is focused on strong provision of early years education, and evidenced based (see Introduction, above) these are studies we have focused on).

In addition, we made judgements, based on prior knowledge on whether or not it was felt programmes would be valuable in a post-COVID environment or would be useful to consider if another, similar event occurred. In the latter case, this meant that we prioritised programmes that we understand would be useful in a further lockdown, so we have included programmes that: had a parenting support-process in place (given the important of the home learning environment, particularly in the early years); have evidence of effectiveness in a face-to-face context but have been adapted to a lockdown context (although not currently evaluated); or provided some form of remote support to parents and children (including IT-based solutions although with some caveats given the target population (i.e. children 5 years and under). Importantly for us, we have highlighted programmes we know will be reporting shortly following lockdown but have not yet been able to produce evidence of effectiveness at this point. We feel they have the potential for future rollout, replicability and impact. We found no research currently published relating to mitigating actions during the current COVID-19 pandemic.

Finally, where cost data was available, we have included this as we appreciate this is an important consideration.

The results of our searches can be found in Appendix C. Programmes highlighted in red are those we do not feel confident to recommend given the low level of current evidence or the context in which they have been implemented. The programmes highlighted in green are those we feel are worth further exploration in terms of mitigation effects and rollout in the event of a future crisis.

Findings

Harms

We found 21 studies with emerging evidence of harms as a result of the pandemic. The majority of these studies involved surveys (15) and/or interviews (4) or focus groups (1) with either parents/caregivers (10), early years professionals in nursery settings and schools (5), both parents/carers and EY professionals (2), or health care professionals (2). One study involved analysis of Summer Papers[1] results from 2020, compared with results from the 2019 cohort.

Seventeen studies scored highly on quality ratings (7 and above). Four studies were rated as 'moderate' with scores of 6. Table 1 indicates the different age ranges the studies focused on.

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[1] RS Assessment from Hodder Education assessment. These tests include Progress in Understanding Mathematics Assessment (PUMA), Progress in Reading Assessment (PiRA) and Progress in Grammar, Punctuation and Spelling Assessment (GAPS).

Table 1: Age ranges of identified studies

Age Range	Number of studies
0-2 years old	1
8 months - 36 months	1
0-4 years old	1
0-5 years old	2
2-4 years old	4
2-5 years old	3
2-7 years old	2
4-5 years old / Reception Year	2
Unspecified 'early years' or 'young children'	4
Aggregated findings for young children, including 4-5	1

The primary concern was social emotional development, identified in 20 studies. This was particularly prominent amongst parents of children who could not access EY settings. Language and communication was identified in 13 studies by both parents and practitioners. This was largely based around concerns that children had fewer opportunities for social interaction to support their language and communication development. Physical development was identified in 12 studies. Both parents and practitioners reported less physical activity, and restricted access to green spaces for outdoor play. There was also concern about financial constraints leading to poor nutrition, and families in poverty were likely to be living in cramped conditions. Educational outcomes (largely characterised as EYFS Early Learning Goals) were identified in 11 studies. Parents were concerned that children would fall behind while teachers reported that children were struggling with basic skills and EYFS curriculum areas. Only four studies revealed concerns around school readiness. Although a separate search string was used to identify studies investigating the impact on COVID-19 on children with Special Educational Needs and Disabilities, only one study focused on the impact of lockdown on families of children with developmental delays, revealing that parents were concerned with the impact disrupted or paused health and social care may have on their child's health, how future access to these services may be impacted by COVID-19, and the negative long-term impact that school closures may have on their children. Parents also highlighted the lack of information provided to them which was specific to children with developmental delays.

Limitations

Due to restrictions caused by the pandemic, the majority of the studies used online surveys of parents or EY professionals as a method. The self-selecting nature of the recruitment meant that many samples were not representative of the population, although 8 studies were nationally representative. Several studies indeed acknowledged that their samples were also not sufficiently stratified, in particular in relation to socio-demographic factors. Several papers lacked detailed demographic descriptions and in some reports the data was aggregated, so it was difficult to distinguish between early years and primary school children. The majority of reports presented descriptive data, did not provide sufficient information on analysis, and did not discuss findings in relation to existing research. In addition, as a rapid evidence review there were limitations on the time and scope of the study although given our knowledge in this field we feel the key aspects have been met within this brief.

Mitigating actions

During the secondary search, we found 34 possible programmes we felt would be useful in terms of mitigating actions for the impact of COVID-19 on children in the early years or potentially useful in terms of a future event. We focused on the expected treatment effects, rather than unintended consequences. No programmes were found to have evidence available for use during COVID-19, though some programmes, such as Triple P and ParentChild+, have been adapted to online models as a result of the pandemic and are awaiting evaluation.

Table 2 indicates the number of programmes relating to the identified harms and the number we feel would be useful in terms of mitigating current harms and possible future harms for early years children. Please note that some programmes cover more than one area of interest.

Table 2: Mitigating harms

Domain	Number of programmes	Mitigating effects of pandemic	Mitigating for future event
Language & communication	13	12 (1 possible)	4 (5 possible)
Socioemotional wellbeing	7	6 (1 possible)	2 (5 possible)
Physical development	0	0	0
School readiness	3	2 (1 possible)	1 (2 possible)
Educational outcomes/Early Learning Goals (ELGs)	11	9 (2 possible)	5 (4 possible)

Appendix C provides further details of those programmes identified, including costs. Programmes highlighted in green are those seen as possible for either mitigating the effects of the pandemic or mitigating the effects of a future pandemic. Cost information, where available, is also provided, although these costs may have changed since their evaluation. For the Early Intervention Foundation cost ratings can be found here.

For the Education Endowment Foundation cost ratings can be found [here](#).

A high number of the programmes identified highlight language and communications skills, which can target this area already indicated as being of concern and which we know is of key importance for this age group. Most programmes (13 out of the 19 identified) involve supporting parents to support their children, especially those within the important language and communication and socioemotional domains. Given the young age of the children, parenting is of key importance and these programmes support parents, predominantly through an early years setting (PVI or school Reception class). Whilst some programmes are only classed as 'promising' they have been included because they are currently subject to an RCT, the results of which should be produced within the next year (i.e. during 2022).

A second feature of programmes is providing resources, such as book-gifting (eg. ParentChild+[2], Book Start etc.). Few programmes involve direct IT-support to the children but rather programmes appear to be more effective where the IT connection is with the parent or the early years setting (e.g. Tips By Text[3]). However, we have included some IT-based programmes that have been used in early years settings that could possibly be adapted in the future for use directly with children. For example 'Curiosity Corner' which has been found to have a moderate to high evidence rating, uses online tools and the integration of videos to enhance instruction, could be adapted in order for children to access these resources directly (see Discussion section below).

All programmes have been, or are currently being used within the UK, meaning that a wider-roll out would be possible, with no adaptations, except to perhaps a more home-based environment. Some programmes have been included because they have already been adapted to pandemic, social-distancing measures, although they have not yet been evaluated under these circumstances. Unfortunately, there are no programmes we can find strong evidence for in terms of children's physical health and this is an area that may need further exploration although programmes such as PiPs (Parental Intervention Programmes) do show promise.

Limitations

The limitations of mitigating effects relate to the low level of evidence under the current circumstances. There are numerous promising programmes, and ones that have adapted to pandemic situations. However, at the same time, these have been the most difficult times for evaluation research, therefore we do not know the actual impact of such strategies and adaptations. Some programmes show potential for being useful during closures, but more research is required to confirm this. As a result, we are basing our findings on the evidence of what currently works and what would be possible moving forwards.

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[2]ParentChild+ is an evidence-based programme using education to break the cycle of poverty for low-income families developed in the US. In the UK, it is delivered by a charity called Family Lives. The programme includes twice-weekly home visits, for up to two years, by trained home visitors (both staff and volunteer) and addresses a range of outcomes for parents, including a child's cognitive gains, social and emotional gains, and home environment outcomes. As part of the programme, the charity aims to alleviate the material poverty of home learning, providing children with developmentally appropriate books and toys on a weekly basis (see Appendix C).

[3] Tips by Text is a EEF programme, delivering a 9-month text curriculum to the parents of Reception children, sending 3 texts per week to improve literacy, maths, and social and emotional outcomes (see Appendix C).

Discussion

Although the long term impacts of the pandemic are not yet known, the findings of this review suggest that the pandemic has thus far had a significant impact on a number of key areas of development for many early years children. Socioemotional development, language and communication, physical development and educational outcomes are areas of key concern (see Appendix B for full details on these findings). It is important to note that *not all children* will have been only negatively affected by the pandemic; *some children* may have benefited from additional time with their parents for example. Equally, children will not necessarily be affected across *all domains*; some may experience difficulties with language and communication, others with physical development. What is clear is that the pandemic has had a negative impact on a substantial proportion of children, particularly those from disadvantaged backgrounds, and we found no evidence to suggest that the positive aspects offset the negative aspects. As the current crisis is an unprecedented event in modern history, no previous research (before Spring 2020) addressed similar issues, allowing us to learn from the past. It is vital therefore that we now develop a coherent plan for mitigation should we experience another crisis at this scale to ensure that we protect early years children from circumstances that may cause long-term harm.

Our review has identified two routes to mitigate against the effects of a similar large-scale crisis; firstly, actions to take in the midst of the crisis, and secondly, actions to take to support recovery. We have highlighted programmes that have the best evidence and/or suggest promise. Some programmes have robust evidence and are more conducive to working with parents, meaning they could work during another lockdown/event. Other programmes could be helpful in terms of mitigating effects post-pandemic. Finally, we have included some programmes that were not designed for remote implementation e.g. during a lockdown, but we know have been adapted so that delivery could continue throughout the pandemic. They have not yet been evaluated in these circumstances but we are aware of ongoing studies that should report in the next year.

Mitigation during the pandemic

We know that high quality early years education is vital for children's early development. As such, access to early years places should be a priority for all children. Attendance at early years settings did not appear to have a significant effect on transmission rates, with rates continuing to fall across the country despite settings remaining open during the most recent lockdown. In future crises, the evidence suggests that keeping settings open to early years children is crucial. In order to do that, settings need to be provided with appropriate support and guidance to ensure the safety of all staff as far as possible. Moreover, the early years sector needs substantial investment to ensure settings can remain open, and that they can attract and retain high quality staff.

However, despite settings remaining open, attendance has not returned to full capacity, with some children remaining at home. The decision to keep children at home is likely to be complex and involve health and financial considerations amongst other things. This means substantial resources need to be invested in ensuring high quality home learning environments. We have identified a number of programmes that can be used to support parents with early learning, social and emotional development, and language and communication, although these vary in

terms of level of evidence. Some of these programmes are universal e.g., Book Gifting, Tips by Text, whilst others are targeted e.g., ParentChild+. Many of the programmes identified do show evidence of promise but parental engagement can be difficult. So supporting parents to make the most of these opportunities is key to them being effective should they have to be carried out in home settings as opposed to educational ones. However, we recognise that parents have also been under pressure during the pandemic. A summary of the programmes, their effectiveness and cost can be found in Appendix C. There have been some excellent examples of settings helping families to develop a rich home learning environment during lockdown. A recent blog post Julian Grenier outlines the success of a home play programme implemented at Sheringham Nursery in Newham. During the lockdown, they engaged with parents through WhatsApp messages with links to video clips, individual video calls and online group sessions for example. This approach was received very positively by families. Similar work was carried out in Leeds with positive results. Indeed, Julian Grenier calls for home support to be incorporated into Early Education.

Mitigation post-pandemic

What is clear from our review is that many children in early years have been negatively impacted by the pandemic in a number of domains. While these impacts may be mitigated against in future crises by the measures outlined above, some children will need additional support to recover in the aftermath. We have identified a number of universal and targeted intervention programmes that would be beneficial to children in addressing some of the issues raised by the pandemic. The government is currently rolling out the Nuffield Early Language Intervention for example; a programme designed to support children's language and communication needs. However, this programme is only delivered to children in Reception, and focuses primarily on developing children's language skills. We have identified in our review that children need support in a range of areas including socioemotional development and physical development as we move through the pandemic. We also know that children need support before they reach the reception year. For this reason we would recommend investment in targeted support at all early years age groups for children across a range of domains.

One aspect this rapid evidence review has highlighted is a paucity of IT-based solutions in terms of supporting children in the early years despite evidence showing that using technology with EY children can be successful and is associated with moderate learning gains (e.g. Curiosity Corner, see above). What we do know, however, is that parents are often unsure about parenting and providing education, especially for this age group (Pascal et al., 2020). Parenting programmes are generally designed to support parents and provide confidence in parental decision-making which is why we have included a number of parenting programmes in this review. In situations where face to face support is not possible e.g. in lockdown, IT based support may be a viable solution. It is important, therefore, that opportunities for such support are explored, particularly where a hybrid approach is needed (i.e., children self-isolating and others attending settings). However, IT solutions will not be appropriate for all families. We know that a digital divide exists between families from disadvantaged backgrounds and those from more advantageous circumstances. It is vital that the type of support offered must be suitable for the target audience.

In addition, for young children technology is not always the answer, although it can support parents. Whilst IT-solutions for children themselves do have a place, the evidence does suggest that this is best when scaffolded by an adult (Higgins, Katsipataki & Coleman, 2014; Chambers et al., 2008) and so there are programmes that can assist but this will need support and adaptations. And this support could come from early years settings who are familiar with using such programmes with young children and are experienced in supporting children in their use. Ideally such programmes would be adapted to a home learning environment. We would encourage further research in this area.

A second area where there is little robust research is physical development. This has been raised as a significant concern as a result of lockdown, both in terms of children's levels of activity and access to green space, and in terms of families being able to provide adequate food for their children. Unfortunately, there were few programmes identified that focused on physical development in this age group, and those that did were not robustly evaluated. We suggest this is an important area of further research.

References

Andrew, A., Cattan, S., Costa-Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A. and Sevilla, A. (2020). Family time use and home learning during the Covid-19 lockdown. London/IFS.

Chambers, B., Slavin, R.E., Madden, N.A., Abrami, P.C., Tucker, B.J., Cheung, A. & Gifford, R. (2008). Technology infusion in Success for All: Reading outcomes for first graders. *The Elementary School Journal*, 109(1), pp.1-15.

Children's Commissioner Office. (2020), 'Childhood in the time of Covid'. London: Children's Commissioner Office.

Department of Education. (2021). Evidence summary: COVID-19 - children, young people and education settings. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/963639/DfE_Evidence_summary_COVID-19_-_children__young_people_and_education_settings.pdf

Department of Education. (2019). Childcare and Early Years Survey of Parents in 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/853358/CEYSP_2019_Report.pdf

Department of Education. (2019). Attendance in education and early years settings during the coronavirus (COVID-19) outbreak. https://explore-education-statistics.service.gov.uk/find-statistics/attendance-in-education-and-early-years-settings-during-the-coronavirus-covid-19-outbreak/2021-week-19

Davies, C., Tracey, L., & Grenier, J. (October 27th, 2020). *Working with families - close to home.* Nursery World. https://www.nurseryworld.co.uk/features/article/working-with-families-close-to-home

Garritty, C., Gartlehner, G., Nussbaumer-Streit, B., King, V. J., Hamel, C., Kamel, C., Affengruber, L., & Stevens, A. (2020), Cochrane Rapid Reviews Methods Group offers evidence-

informed guidance to conduct rapid reviews. *Journal of Clinical Epidemiology 130,* 13-22*.*

Grenier, J. (November 21st, 2020) *Working with parents to support children's learning in the early years: what we learnt, and what this means for the future?* East London Research School https://researchschool.org.uk/eastlondon/news/working-with-parents-to-support-childrens-learning-in-the-early-years-what-we-learnt-and-what-this-means-for-the-future

Grenier, J., Foster, L., & James, F. (May 21st , 2021). How did the spring term lockdown affect children's development in the early years? East London Research School https://researchschool.org.uk/eastlondon/news/how-did-the-spring-term-lockdown-affect-childrens-development-in-the-early-years

Green, M. J., Pearce, A., Parkes, A., Robertson, E., & Katikireddi, S. V. (2021). Pre-school childcare and inequalities in child development. *SSM-population health*, *14*, 100776.

Goodman, A., & Sianesi, B. (2005). Early education and children's outcomes: how long do the impacts last?. Fiscal Studies, 26(4), 513-548.

Hartas, D. (2011). Families' social backgrounds matter: Socio-economic factors, home learning and young children's language, literacy and social outcomes. *British Educational Research Journal*, *37*(6), 893-914.

Higgins, S., Katsipataki, M. & Coleman, R. (2014). Reading at the Transition. Interim Evidence Brief. London: Education Endowment Foundation. https://educationendowmentfoundation.org.uk/public/files/Publications/EEF_Interim_Evidence_Brief_ReadingAtTheTransition.pdf

Hughes, C., Daly, I., Foley, S., White, N., & Devine, R. T. (2015). Measuring the foundations of school readiness: Introducing a new questionnaire for teachers–The Brief Early Skills and Support Index (BESSI). *British Journal of Educational Psychology*, *85*(3), 332-356.

Jarvie, M., Shorto, S., & Parlett, H. (2021). Childcare Survey 2021. London: Coram Family and Childcare. https://www.familyandchildcaretrust.org/sites/default/files/Resource%20Library/Childcare%20Survey%202021_Coram%20Family%20and%20Childcare.pdf

Kelly, Y., Sacker, A., Del Bono, E., Francesconi, M., & Marmot, M. (2011). What role for the home learning environment and parenting in reducing the socioeconomic gradient in child development? Findings from the Millennium Cohort Study. *Archives of disease in childhood*, *96*(9), 832-837.

Melhuish, E., Sylva, K., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2001). *Technical Paper 7-The Effective Provision of Pre-School Education (EPPE) Project: Social/behavioural and Cognitive Development at 3-4 years in Relation to Family Background*. Institute of Education, University of London.

Morris, S. P., Melhuish, E., & Gardiner, J. (2017). Study of early education and development (SEED): Impact study on early education use and child outcomes up to age three. Department for Education.

ONS. (2020). Parenting in lockdown: Coronavirus and the effects on work-life balance. https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/parentinginlockdowncoronavirusandtheeffectsonworklifebalance/2020-07-22

Pascal, C., Betram, T., Cullinane, C., & Holt-White, E. (2020). COVID-19 and Social Mobility. Impact Brief #4: Early Years. The Sutton Trust, July 2020. https://dera.ioe.ac.uk/35885/1/Early-Years-Impact-Brief.pdf

Play Wales (2020). Playing actively in and around the home.

https://issuu.com/playwales/docs/playing_actively_in_and_around_the_home?fr=sNjIwOTI3MTYwNw

Roulstone, S., Law, J., Rush, R., Clegg, J., & Peters, T. (2011). *Investigating the role of language in children's early educational outcomes: An analysis of data from the Avon Longitudinal Study of Parents and Children (ALSPAC).* Nottingham: Department for Education.

Sammons, P., Sylva, K., Melhuish, E.C., Siraj, I., Taggart, B., Toth, K. & Smees R. (2014) *Effective Pre-school, Primary and Secondary Education 3-16 Project (EPPSE 3-16) Influences on students' GCSE attainment and progress at age 16.* Department for Education Research Report RR352

Sammons, P., Toth, K., Sylva, K., Melhuish, E., Siraj, I., & Taggart, B. (2015). The long-term role of the home learning environment in shaping students' academic attainment in secondary school. *Journal of Children's Services*.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. & Taggart, B. (2004). *The Effective Provision of Pre-School Education (EPPE) Project: Technical Paper 12 - The Final Report: Effective Pre-School Education*. London: DfES/Institute of Education, University of London.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. & Taggart, B. (2008). *Final report from the primary phase: Pre-school, school and family influences on children's development during Key Stage 2 (7-11)*. Nottingham, United Kingdom: Department for Children, Schools and Families.

Sylva, K., Melhuish, E.C., Sammons, P., Siraj, I. and Taggart, B. with Smees, R., Toth, K. & Welcomme W. (2014) *Effective Pre-school, Primary and Secondary Education 3-16 Project (EPPSE 3-16) Students' educational and developmental outcomes at age 16*. Department for Education Research Report RR354

Taggart, B., Sylva, K., Melhuish, E., Sammons, P., & Siraj. I. (2015) Effective pre-school, primary and secondary education project (EPPSE 3-16+): *How pre-school influences children and young people's attainment and developmental outcomes over time.* Department for Education Research Report RB455

Wallace-Stephens, F., & Grimand, W. (April 19th 2021). Low pay, lack of homeworking: why workers are suffering during lockdown. https://www.thersa.org/blog/2020/04/low-pay-lack-homeworking

Appendix A: Literature search strategy for harms

Relevant literature was identified through three routes:

1) <u>Academic literature search:</u> PsycNET (PsycINFO), Education Resources Information Centre (ERIC), British Education Index, Web of Science, and Scopus searches for publications from 2020 onwards. To identify the literature addressing the impact of COVID-19 on language and communication, socioemotional wellbeing, physical health, school readiness and educational outcomes of children in the early years. A search string for Special Educational Needs and Disabilities was also used to investigate if there were any impacts on access to support. We completed a series of trial searches using the string of search terms detailed in the table below:

"covid*" OR "cv19" OR "cv-19" OR "pandemic" OR "lockdown" OR "SARS-CoV-2" OR "Novel coronavirus"	AND	"Child*" OR "preschool*" OR "pre-school*" OR "Early Year Foundation Stage" OR "EYFS" OR "early education" OR "Reception" OR "Nursery" OR "Pre-school child*" OR "Preschool child*" OR "Private nurser*" OR "Voluntary nurser*" OR "Independent Nurser*"	AND	1. ("vocabulary development" OR "communication" OR "language development"oral language") 2. ("socio-emotional" OR "socio emotional" OR "socioemotional" OR "withdraw*" OR "conflict" OR "well-being" OR "wellbeing" OR "mental health" OR "SEMH" OR "social health" OR "emotional adjustment" OR "emotional health" OR "resilience" OR "psychological health") OR ("physical health" or "physical development" OR "physical growth") 3. ("school readiness" or "ready for school" OR "prepared for school") 4. ("Early Learning Goal*" OR "ELG*" OR "educational outcome*") 5. ("Special educational needs" OR "Special Need*" OR "SEN" OR "SEND" OR "Special Educational Needs Disabilities" OR "Autism")

Where filters on sites correspond to inclusion criteria they were applied – for example, only searching studies published since 2020.

Initial searches before screening found the following:

Database	Searchstring	Number of Papers
PsychInfo	Language	18

	Socio Emotional	151
	Physical Health	14
	School readiness	0
	ELGs	0
ERIC	Language	4
	Socio Emotional	16
	Physical Health	2
	School readiness	0
	ELGs	1
British Education Index	Language	7
	Socio Emotional	49
	Physical Health	1
	School readiness	0
	ELGs	0
Web of Science	Language	12
	Socio Emotional	93
	Physical Health	10
	School readiness	0
	ELGs	1
SCOPUS	Language	14
	Socio Emotional	67
	Physical Health	8
	School readiness	1
	ELGs	1

2) Grey literature search: Hand searches on the website of funding bodies (e.g. Nuffield, Education Endowment Foundation, Economic and Social Research Council) were used to identify relevant grey literature to the impact of COVID-19.

3) Snowballing: References will be gathered in a continued, recursive process from the bibliographies of shortlisted literature. We will perform snowballing from the list of articles identified following screening.

The following *inclusion/exclusion criteria* were applied.

Papers were included if:

- It was published after March 2020 (that is after the current crisis was declared a global pandemic by the WHO)
- The research is focused on the UK
- The research focuses in whole or in part on at least one of the topics of interest to this review as they are defined here (i.e. early learning goals (ELGs) specifically, communication and language, physical development, personal, social and emotional development or, literacy; school readiness)

Papers were excluded if:

- It is an opinion/position paper
- It is from a discipline outside of education, social science and/or psychology

In reviewing, extracting and synthesising the evidence from shortlisted papers, priority will be given to those that look at the efficacy of these interventions on short, intermediate and long-term outcomes.

Screening Strategy:

1. Interrogating search databases with search strings as listed above.
2. First pass screening by title.
3. Second pass screening by abstract (these articles proceed to full review).
4. Results of databases will be downloaded into EndNote online.
5. Removing duplicates.
6. Additional articles identified through snowballing.

Appendix B: Studies on harms

Item No	Author	Title	Participants	Evidence on	Key Findings			Quality Rating
1	Paulauskaite, L; Farris, O; Spencer, H; Absoud, A (2021)	My Son Can't Socially Distance or Wear a Mask: How Families of Preschool Children with Severe Developmental Delays and Challenging Behavior Experienced the COVID-19 Pandemic	2.5 and 5 years - parents/carers (n=88)	Language and communication Socioemotional wellbeing School readiness Educational outcomes	Parents reported having to manage additional MH difficulties in their child as a result of CV-19	85% of parents reported that children were unmotivated or unable to engage in remote appointments with specialist service and many were concerned that skills children had learnt prior to CV-19 had dissipated during lockdown including social skills and that children were unable to access friendships groups remotely	Parents were concerned that children would not be able to successfully make the transition back into school or daycare after so many months at home	9
2	RS Assessment (2020)	The impact of lockdown on children's education: a nationwide analysis	Reception year (n=250,000)	Educational Outcomes, Language and Communication	Substantial drop in attainment across all subjects between the 2019 and 2020 cohorts with younger year groups generally showed bigger reductions in attainment than older year groups	Children eligible for the Pupil Premium showed larger average declines than those who are not, those attending schools with higher levels of deprivation, situated in urban areas or located in the north or midlands, tended to show greater declines		7
3	Kindred2 (2020)	School Readiness	not specified (but early years and primary school teaching professionals) (n=528)	School Readiness; Social and emotional development; Language and Communication	46% of children arriving at school to start reception were not school ready and teaching staff noted that the proportion of student school readiness in 2020 had decreased compared to previous years when it was reported to be at an average of 35%. Teachers reported (62%) that they believed less time spent at nurseries due to lockdown restrictions was one of the reasons for the higher levels of children not being school ready as they were not introduced to the basic skills and language and communication needed to help children learn the relevant skills to prepare for a school setting	Teachers reported that key skills were lower than previous year with 54% reporting that less than half of children had basic number skills and 35% reporting less than have had basic language skills. Four in ten teachers reported that more than half of reception children did not know how to listen properly and were unable to hold a pencil	Lack of interaction with peers/not being able to attend a nursery setting has affected social skills for many children and pupils face increased separation anxiety from parents and show lower levels of independence	9
4	Sutton Trust (2020)	COVID-19 and Social Mobility Impact Brief #4:	2-4 years (YouGov Survey	Physical development; Social and	48 % of parents reported CV-19 had a negative impact on the social and emotional development of their child, and	Childcare providers expressed that there was some impact on physical development for children from deprived homes who may have	Practitioners voiced concerns for vulnerable children stating that without a lot of additional support there may be	7

		Early Years	(n=604); Early Years Alliance Surveys (Wave 1, n=3,167 and Wave 2, n=6,300); and a case study of providers in Birmingham (n=64))	emotional development, Educational outcomes	negative impacts were most common for those who could not access EY settings compared to those (key workers and vulnerable children) who were able to continue accessing childcare who may have even had an educational boost as a result of attending EY settings.	limited access to green spaces.	long term damage to their attainment, development and wellbeing. Vulnerable children, children with particular needs and those with parents who found accessing home learning difficult were more likely to lose contact with educational settings	
5	Ofsted (2020)	COVID-19 series: briefing on early years, November 2020	not specified (but early years providers) (n=739)	Social and emotional development; Language development; Educational outcomes; Physical development	Some children are struggling to adapt to having a structure and daily routine as a result of the restrictions on their personal, social and emotional development. This is particularly the case for those children that had difficult experiences during CV-19 who have required much more reassurance from childcare providers to readjust to the setting. 44% of providers said that children's personal, social and emotional development has been negatively impacted by CV-19 and that they have taken to putting more emphasis on children's emotional needs on the return to EY settings. The behaviour of some children has worsened and those that have become used to extended periods of time on screens were finding it difficult to engage in play and activities. Those children with siblings at home had improved social skills that those without due to opportunities to interact at play with siblings. Providers stated that there had been an increase in children feeling angry since the return to EY settings and some children struggled with shorter attention spans and required more direction.	Children did not have access to the full curriculum during the CV-19 pandemic and the range of experiences they would usually have access to was reduced. Some children had not been able to engage in imaginative play and had had limited access to sensory and exploratory play, resulting in some children being reluctant to explore.	Differing home experiences has impacted on physical development. Those with fewer opportunities to practise skills such as pen holding were having to relearn these skills upon returning to EY settings. Those that had not had the opportunity to access outdoor space had lost physical confidence.	6
6	Ofsted (2020)	COVID-19 series: briefing on early years, October 2020	not specified (but early years providers)	Social and emotional development ; Physical development	Most providers (53%) were concerned about the personal, social and emotional development of children. Many children were more anxious and had struggled when they first returned to the setting,	19% of providers said that children have fallen behind in the area of physical developments. Settings were providing more opportunities for children who had limited access to outdoor play during the first national lockdown to	Some providers reported focusing on language and communication because children were less likely to start a conversation or comment on things during play following the period of	6

		(n=208)		finding it difficult to separate from their parents. Some children were less confident with others and needed more support to make friends and mix with others outside of their home. Thus, some settings focused on these areas initially until children felt safe, settled and happy in their environment before returning to their usual curriculum.	develop their physical skills and gross-motor movements outside. Other providers focused on independent skills such as using cutlery, dressing and using the toilet as they felt these skills have suffered. 16% of providers noted improvements in physical development amongst some children.	lockdown. A few providers said they were doing extra language work with children who speak English as an additional language as their use of English had fallen behind as they had limited opportunities to speak and hear English during the lockdown. However, about 21% of the providers noted improvements in language development amongst some children whose parents were able to spend more time talking to and reading with them.	
7	Co-SPYCE Study (2020)	Report One: Findings from 1728 parents/carers of 2-4 year olds on stress, child activities, child worries and need for support	2-4 year olds - parents/carers (n=1,728)	Social and emotional development ; Physical development	Parents/carers of 83% of children reported that they were getting at least 30 minutes of exercise a day but only 22% of children were reported to be getting the recommended 3 hours. Children were playing mostly indoors (79% spending 3+ hours playing inside daily). 41% were spending 3+ hours daily outdoors, with 34% playing for most of that time. Children were engaging in variety of activities (30 minutes+ a day in contact with nature (78%), doing arts and crafts (64%) and reading with a parent (59%)). However, 26% of children were spending 3+ hours watching a screen but not interacting with it and a total of 61% of children were reported to spend up to 2 hours playing screen-based games.	The most common worry reported by participating parents/carers was the children's inability to see their friends and attend social and sporting activities (56%), although children also worry about CV-19 being very serious, themselves and/or family members catching it amongst other issues.	27% of children were reported to be playing with another child in their household for 3+ hours a day, however, 47% of pre-school children were reported to be spending no time at all with another child in their household. Majority of playtime was reported to be with parents/carers, with 55% spending 3+ hours a day with their pre-school children. 51% of children were reported to be not communicating (via phone, video calls or messages) with peers outside of their home, although most children were reported to be communicating (most commonly less than once a day) with family members outside of their home.	8
8	Co-SPYCE Study (2020)	Report 04: Changes in pre-school children's emotional and behavioural difficulties through lockdown in North West England	2-5 year olds - parents/carers (n=221)	Social and emotional development	Parents/carers reports of children's **emotional difficulties**, did not change (to a statistically significant extent) over a one-month period as lockdown progressed. However, the patterns of change between baseline and follow up appeared to be consistent across gender and across both income groups. Although the difference was small, parents/carers who were unemployed reported higher levels of emotional difficulties in their children, compared to those who were employed. Finally, patterns appeared to be consistent across parents/carers of children of white British or other ethnicities (although only 4% of the sample reported child's ethnicity	Parents/carers reports of children's **restless/attentional difficulties** did not change (to a statistically significant extent) over a one-month period as lockdown progressed, although significantly higher levels of attentional difficulties were reported for boys compared to girls, and for children in lower income households . However, the patterns of change between baseline and follow up appeared to be consistent across gender, across both income groups, and across parents/carers of children of white British or other ethnicities (although only 4% of the sample reported child's ethnicity as other than white British).	Parents/carers reports of **behavioural difficulties** did not change (to a statistically significant extent) over a one-month period as lockdown progressed, although significantly higher levels of behavioural difficulties were reported for boys compared to girls, and for children in lower income households. However, the patterns of change between baseline and follow up appeared to be consistent across gender, across both income groups and across parents/carers of children of white British or other ethnicities (although only 4% of the sample reported child's ethnicity as other than	9

					as other than white British).	white British).	
9	Co-SPYCE Study (2020)	Report 03: Changes in pre-school children's emotional and behavioural difficulties through lockdown	2-5 year olds parents/carers (n=972)	Social and emotional development	Parents/carers reports of children's emotional difficulties did not change (to a statistically significant extent) over a one-month period as lockdown progressed. Patterns appeared to be consistent across gender, across households with a regular household income above and below the national average of £30,000, households were parents were employed and unemployed, and across ethnicity (although only 9% of respondents reported their children to be of ethnicity other than white British).	Parent/carer reported that their children's **restless/attentional difficulties** showed a small but statistically significant reduction over a one-month period as lockdown progressed. Patterns appeared to be consistent across gender, across households with a regular household income above and below the national average of £30,000 and across ethnicity (although only 9% of respondents reported their children to be of ethnicity other than white British). Employed parents/carers reported a statistically significant reduction in their child's restless/attentional difficulties over a one-month period of lockdown, but unemployed parents/carers reported no statistically significant change.	Parents/carers reports of children's **behavioural difficulties** did not change (to a statistically significant extent) over a one-month period as lockdown progressed. *Parents/carers of boys reported a significant reduction in their child's behavioural difficulties over a one-month period in lockdown. Parents/*carers of girls reported no statistically significant change in their child's behavioural difficulties across a one-month period in lockdown. Patters appeared to be consistent across households with a regular household income above and below the national average of £30,000 and across ethnicity (although only 9% of respondents reported their children to be of ethnicity other than white British). *Employed parents/carers reported a statistically significant reduction in their child's behavioural difficulties over a one-month period of lockdown*, but unemployed parents/carers reported no statistically significant change.	9
10	Co-SPYCE Study (2020)	Report 02: Findings from parents/carers of 2-4 year olds living in North West England - Stress, child activities, child worries and need for support.	2-4 year olds parents/carers (n=536)	Social and emotional development ; Physical development	Findings from the whole sample were largely replicated in the regional sample, although were slightly more positive: Parents/carers of 85% of children reported that they were getting at least 30 minutes of exercise a day but only 18% of children were reported to be getting the recommended 3 hours. Children were playing mostly indoors (74% spending 3+ hours playing inside daily). 51% were spending 3+ hours daily outdoors, with 43% playing for most of that time. Children were engaging in variety of activities (30 minutes+ a day in contact with nature (79%), doing arts and crafts (66%) and reading with a parent (56%)). However, 24% of children were spending 3+ hours watching a screen but not interacting with it and a total of 60% of children were reported to spend up to 2 hours playing screen-based games.	The most common worry reported by participating parents/carers was the children's inability to to see their friends and attend social and sporting activities (around 50%), although children also worry about CV-19 being very serious, themselves and/or family members catching it amongst other issues.	Findings again were similar to the whole sample, although slightly more negative: 27% of children were reported to be playing with another child in their household for 3+ hours a day, however, 45% of pre-school children were reported to be spending no time at all with another child in their household. Majority of playtime was reported to be with parents/carers, with 57% spending 3+ hours a day with their pre-school children. 56% of children were reported to be not communicating (via phone, videocalls or messages) with peers outside of their home, although most children were reported to be communicating (most commonly less than once a day) with family members outside of their home.	8

11	Public Health Scotland (2020)	COVID-19 Early Years Resilience and Impact Survey (CEYRIS) Report 1 – Key behaviours in children in Scotland aged 2–7 years during COVID-19	2-7 year olds - parents/carers (n=11,228)	Social and emotional development ; Physical development; Educational Outcomes	Parents reported that behaviour had worsened for 5 in 10 children and the same number reported that children had a worse mood than prior to the lockdown.	5 in 10 children did less physical activity and CV-19 had had a negative impact on the eating habits of 3 in 10 children.	Parents reported that Covid-19 had had a negative impact on their child's ability to concentrate (31%) and 45% of children ages 2-3 years were having some difficulties with hyperactivity.	7
12	Public Health Scotland (2020)	COVID-19 Early Years Resilience and Impact Survey (CEYRIS) Report 2 – Play and learning, outdoors and social interactions in children in Scotland aged 2–7 during COVID-19	2-7 year olds - parents/carers (n=11,228)	Social and emotional development ; Language development; Physical development; Educational Outcomes	Parents reported that 4 in 10 children had worse concentration since lockdown and 4 in 10 children had spent no time learning about letters, words, number or shapes in the week prior to the survey.	1 in 10 children did not have any access to a good quality, safe green space and 3 in 10 children had not been to a park or greenspace at all in the week prior to the survey. 3 in 10 children spent less time outside than prior to Covid-19	4 in 10 children had not spoken to their friends and 1 in 10 had not spoken to extended family members	7
13	Cardiff University (van Goozen) (TBC)	Psychosocial effects of the COVID-19 pandemic: identifying mental health problems and supporting wellbeing in vulnerable children and families	4-5 years (n=142)	Social and emotional developmental ; Physical Development	Significant negative impact on child mental health as a result of CV-19. Increase in internalising problems ($t(139) = -4.02$, $p < 0.001$, $d = -0.34$) but no significant increase in externalising problems. Separation and social anxiety, however, were reduced. Increase in child mental health difficulties was still significant even when controlling for parental mental health (SDQ total: $F(1, 122) = 15.36$, $p < 0.001$, $\eta p2 = 0.112$). SIgnificant correlation between parental mental health and child mental health	9% of families reported struggling to afford food which may have negative impacts on nutrition		9
14	Bowyer-Crane, C., Bonetti, S., Compton, S., Nielsen, D., D'Apice, K., & Tracey, L.	The impact of Covid-19 on School Starters: Interim briefing 1 Parent and school concerns about children starting school	4-5 years - parents and school staff (n=58 schools/673 parents)	ELGs	44/58 schools reported that children in this cohort needed more support in reception than previous cohorts. 55 schools were concerned about communication and language; 53 about socioemotional wellbeing; 51 about literacy	56% of parents were concerned about their children started school in Sept. But 96% of parents thought there children settled well once school started	33% of parents concerned about their child's transition to school were concerned about social and emotional development but 85% of parents did not report any concerns about how their child was coping with school	9

15	Anna Freud Centre	The pandemic's effect on the mental health and wellbeing of the under 5s as reported by nursery staff	0-5 years - nursery workers (n=905)	socioemotional wellbeing, behaviour	42% stated that they thought a child in their care had had their mental health and wellbeing affected by CV-19 or by lockdowns. Higher levels or separation anxiety were reported and nursery staff stated that more time had to be spent settling children with higher reliance on comforters. Children have more difficulty managing their emotions and are exhibiting more challenging behaviour. Those that had been emotionally stable pre-pandemic were now experiencing difficulties with managing more challenging behaviours and some had become moody and withdrawn. Increased angry and aggressive behaviour was mentioned. Children were less willing to listen to adults and more demanding that pre-pandemic. Some child care workers reported that children were having difficulties with sharing and taking turns and the ability to play had been affected.	Respondents believed the long amount of time spent out of nursery had negatively impacted on development with some children not progressing as expected and others regressing socially/emotionally and educationally after have no extra stimulation at home. Regression in toilet training was mentioned by a number of nursery workers, and some children who had been toilet trained prior to the pandemic had returned to wearing nappies. Speech and language difficulties and delayed speech were being experienced by some children and some were displaying an increased dependency on technology and there were concerns for those children who had not had access to outdoor space.	Some children developed obsessive behaviour with regards to cleaning hands and there was general anxiety over touching things and fear of germs. It was reported that some children displayed a fear of being touched or being close to adults or playing with other children. There were also reports of fear around pandemic-related news and the restrictions around seeing family and friends.	7
16	Bowyer-Crane, C., Bonetti, S; Davies, C; Dixon, M; Dysart, E; Newton, R; Tracey, L; Wadsworth, V	Early Years Settings and the Covid-19 pandemic		ELGs	88% of respondents raised concerns about children's development over lockdown. 91% were concerned about PSED and 85% were concerned about language and communication	60% of respondents were concerned about school readiness.		8
17	Best Beginnings, Home-Start UK and the Parent-Infant Foundation (2020)	Babies in Lockdown	0-4 years - EY professionals (n=33)	Social and emotional development; Language and Communication	Respondents from low SES households were significantly more likely to report adverse effects on babies' behaviour during lockdown with 43% of these individuals stating that children were crying more and 64% saying their child had become more clingy as a result of lockdown	25% of parents reported that they were concerned about their relationship with their baby with respondents saying that they were more snappy with children as a result of lockdowns and they were concerned this would impact on their child's emotional development	68% reported that the changes brought on by covid-19 were impacting on their unborn baby, baby or young child. Parents reported negative impact on behaviour and sleep patterns including children becoming more violent, upset and young children not responding to their name.	8
18	Davies, C., Hendry, A., Gibson, S. P., Gliga,	Early Childhood Education and Care (ECEC) during COVID-19	babies and young children, no explicit age	Social and emotional development; Language and	More exposure to ECEC during the CV-19 pandemic was associated with greater increases in receptive language during the 2020 pandemic. Those accessing one day	Increased child EF was associated with ECEC exposure, those accessing 5 days of ECEC per week could be expected to have an increased score of .68 compared to .35. No		10

	T., McGillion, M., & Gonzalez-Gomez, N. (2021, March 10).	boosts growth in language and executive function	range given - parents and pregnant women (n=5474)	Communication	of ECEC per week could be expected to have around 24 more new words over the period compared with peers. When age and higher SES was taken into consideration, ECEC exposure was not significantly associated with increase in receptive vocabulary, but those from lower-ses backgrounds who continued to attend educational settings showed increased receptive language skills compared to those from lower-ses that had lost access.	significant interaction for age was found, impact of ECEC on CEF was the same for younger and older children. Unlike for language, ECEC still had a positive increase on CEF regardless of SES.	
19	Little Village (2020)	Little Village: New research reveals the true extent of the impact of coronavirus on children living in poverty	8-36 month olds - parents/cares (n=189)	Educational outcomes; Social and Emotional Development; Physical Development	88% of respondents believed that children will fall behind in developmental and educational terms	66% agree that there has been a negative impact on children's mental health and behaviour and 78% agree that children are a greater risk of seeing/experiencing abuse as a result of Covid-19 lockdowns	85% believe families are worried about being unable to afford essentials such as food, nappies and baby milk with a further 64% agreeing that children will go hungry	6
20	Reed and Parish (2021)	Working for babies: Lockdown lessons from local systems	0-5 years - Health Care Professionals (n=131)	Educational outcomes; Social and Emotional Development; Physical Development; Language and Communication	Social isolation may reduce opportunities for play and interaction with others, impacting on development with nearly all respondents observing and increase in sedentary behaviour, less stimulation and less play. 92% of respondents said that they had observed families unwilling to step outside the home and engaging with 'self-isolation' for fear of the virus.	80% of respondents said that there had been an increase in the exposure to domestic conflict, child abuse or neglect, however child safeguarding referrals had dropped by more than half in the first few weeks of the covid-19 pandemic suggesting that many incidents may have gone unseen.	91% of respondents observed material deprivation due to reduced income during lockdown including increased food poverty. Those in poverty were more likely to experience difficulties accessing digital devices and were more likely to have poor and cramped living conditions.	7
21	Sutton Trust	Early Years and Covid-19: The Parents' View May 2021	0-2 years - senior leaders of key pregnancy to age two services (n=273)	Language and communication; social and emotional development; Educational outcomes; physical development	56% of participants were concerned about the development of their child including physical, language, social/emotional development and 33% were concerned for their child's mental health.	Parents expressed that not being able to interact with others had negatively impacted on their child with 69% raising concerns that their child could not play with other children, 67% expressing worry that closure of facilities such as children's centres was detrimental to their child and 63% stating that not being able to meet with close relatives had a negative effect on their child.	51% stated that they thought the UK government had not done enough to support the development of all preschool age children during the pandemic	6

Appendix C: Mitigating programmes

Programme	Summary of programme	Domain - Language and Communication Mitigation	Domain - Socioemotional wellbeing mitigation	Domain - Physical development mitigation	Domain - School readiness mitigation	Domain - Educational outcomes/ELGs mitigation	Rating of Evidence	Cost	Useful post-closure	Useful during closure
5 Pillars of Parenting	Aimed at muslim parents with a child aged between 4 and 11 years. Delivered in 8 weekly sessions to groups of 10-14 parents by a lead and co-practitioner. Parents learn how to effectively communicate with their child, set appropriate boundaries, manage negative and encourage positive behaviours, and improve parent-child relationships.	No	Yes	No	No	No	Low - rated a 2	Low to medium cost (EIF)	Possible	Possible
Abracadabra - Concordia University	online toolkit composed of phonics, fluency and comprehension activities based around a series of age appropriate texts. The trial assesses a 20 week programme of lesson plans using the ABRA activities - both on-line and off-line	No	No	No	No	Yes	Medium	average cost per pupil per year over three years is £8.52 for the ICT intervention and £8.49 for the non-ICT intervention	Yes	Possible
BookStart - Book Trust	Bookstart pack at 12months and 3-4 years (universal)	Yes	No	No	No	Yes	Low	TBC	Yes	Yes
Curiosity Corner - Success for All	An early childhood curriculum emphasizing children's language and literacy skills. It comprises two sets of 36 weekly thematic units—one for 3-year-olds and one for 4-year-olds. Program staff conduct daily lessons using	Yes	No	No	Yes	Yes	Moderate - WWC High - Allen Report (Level 1)	No info	Possible	Possible

Name	Description									
	sequential daily activities.									
Dialogic Reading	A shared picture book reading practice designed to enhance young children's language and literacy skills. Adult and child switch roles during the shared reading so that children learn to become the storyteller with the assistance of the adult functioning as an active listener and questioner. Two related practices are reviewed in the WWC intervention reports on Interactive Shared Book Reading and Shared Book Reading.	Yes	No	No	No	No	High	Some programmes are available freely online but no cost provided for teacher training	Yes	No
Doorstep Library - OVO Foundation	A reading and book lending service directly to family homes in deprived areas of London	Yes	Yes	No	No	Yes	Low	TBC	Possible	Yes
Early Words Together - National Literacy Trust	Six week programme with parents and children facilitated by volunteers with the focus on communication, language and vocabulary. 2-5 year olds	Yes	No	No	No	Yes	Moderate	TBC	Yes	Possible
Easy Peasy	Sends game ideas to parents of pre-school children to encourage play-based learning at home. Sends weekly text messages over a course of 20 weeks, with links to games which target EYFS areas of learning.	Yes	Yes	No	Yes	Yes	Evidence of promise	TBC	Yes	Yes
Family Skills - Skills Funding Agency	Focuses on children learning EAL. Supports parents of reception-ages children through 11 weekly sessions delivered at the child's school by external tutors.	Yes	No	No	No	No	Low - mainly due to recruitment issues	Per-pupil cost of around £143	Yes	No
Flexible Phonics	Training for reception teachers to optimise their existing phonics teaching.	No	No	No	No	Yes	Efficacy trial but promising	TBC	Possible	Possible

Programme	Description						Evidence			
Headsprout® Early Reading - Learning A-Z	Internet-based supplemental early literacy curriculum consisting of eighty 20-minute animated episodes. Episodes aim to teach phonemic awareness, phonics, fluency, vocabulary, and comprehension.	Yes	No	No	No	Yes	Moderate. Evidence of effectiveness in US, piloted in UK with two RCTs, currently undergoing evaluation in the UK following a pilot studies showing evidence of promise	Not stated but a subscription must be purchased for each student	Yes	No
Healthy and Active Parenting Programme for early Years (HAPPY) - Born in Bradford/Family Links	A range of verbal and written advice and activities delivered to groups by parenting facilitators in a to target specific behaviours in the mother to help prevent child obesity. Promotes positive parenting.	No	No	Yes	No	No	Low - Feasibility study	TBC	No	No
HENRY	A range of verbal and written advice and activities delivered to groups by parenting facilitators in a to target specific behaviours in the mother to help prevent child obesity. Promotes positive parenting.	No	No	Yes	No	No	Low - Feasibility study	TBC	Possible	Possible
HighScope	Educational approach for pre-school emphasizing active participatory learning to allow children to build knowledge through interactions with the world and others around them	Yes	Yes	No	Yes	Yes	Low. BEE didn't rate it highly and mainly US	TBC	Possible	No
Imagination Library - Dolly Parton Imagination Library	Book gifting - children receive a book a month from birth to their fifth birthday (universal)	Yes	No	No	No	Yes	Low	TBC	Yes	Yes
Incredible Years - Carolyn Webster-Stratton	Focus on behavioural but the evidence is across 4-8 year olds	No	Yes	No	No	No	Low	High	Yes	Possible
Letterbox Club (purple) - Book Trust	One pack each month for six months (vulnerable children, LAC)	Yes	No	No	No	Yes	low - qualitative outcomes show children and families enjoyed the parcels but no other robust	TBC	Yes	Yes

							evidence			
Lovaas Model of Applied Behavior Analysis - University of California	brief periods of one-on-one instruction, during which a teacher cues a behavior, prompts the appropriate response, and provides reinforcement to the child. Children in the program receive an average of 35 to 40 hours of intervention per week	No	No	No	No	Yes	Low - studies used were US based	between $45,575 and $69,050 annually	Yes	Possible
Maths Champions - National Day Nurseries Association	Maths champions are nominated who are provided with two, 2 hour online courses on how to audit EYFS maths teaching. Champions audit their nursery's practice and create an action plan which is implemented with the support of online resources.	No	No	No	No	Yes	High - RCT	£9 per pupil per year	Yes	Possible
NELI - University of Oxford	scripted individual and small-group language teaching sessions delivered by teaching assistants, or early years educators, to children identified as being in need of targeted language support	Yes	No	No	No	Yes	High	Currently funded by DfE	Yes	No
Parental Engagement Network (PEN) - OVO Foundation	helps to build effective relationships with parents and carers in early years settings, to help improve children's literacy and school readiness	No	No	No	Yes	Yes	Low	TBC	Possible	Possible
ParentChild+ - Family Lives	Twice-weekly home visits are designed to stimulate the parent–child verbal interaction, reading and educational play. Home visitors bring a book or educational toy that remains with the families permanently, and model reading, conversation and play activities.	Yes	Yes	No	Yes	No	Moderate. Evidence of effectiveness in US, piloted in UK, currently undergoing an RCT in the UK following a pilot study showing evidence of promise	TBC	Yes	Possible
PEEP – Peeple	Initial home visit, then 20	Yes	No	No	No	Yes	High - RCT	£31.60 per	Yes	No

	weekly one-hour sessions held in the nursery setting, delivered by nursery practitioners and attended by parents and their child in order to improve parenting skills and HLE.							pupil		
Playshop	A workshop with parents to improve their knowledge of physical activity and how they can facilitate it	No	No	Yes	No	No	Low	TBC	Yes	Yes
Social Skills Training	A behavioural approach for teaching preschool children age-appropriate social skills and competencies, including communication, problem solving, decision making, self-management, and peer relations	No	Yes	No	No	No	Low - two studies in two schools, 103 children in total. Both studies US. But evidence of promise	Some programmes are available freely online but no cost provided for teacher training	Yes	Possible
Tales Toolkit - OVO Foundation	Online training and resources for educators to help delivery play-based storytelling	Yes	Yes	No	No	Yes	Low	TBC	Possible	Possible
Talking Together – BHT	6 week intervention delivered by specialist language development workers focussing on building confidence, knowledge and skills required to provide a high quality language rich home environment	Yes	Yes	No	No	No	Low - no RCT evidence as yet	Training for one LDW = £676.80. Cost of delivery per family £153.50	Yes	Possible
Tips by Text - annenberg.brown.edu Behavioural Insights Team	a 9-month text curriculum to the parents of Reception children, sending 3 texts per week designed to improve 4-5 year olds' literacy, language, numeracy and social and emotional skills	No	Yes	No	No	Yes	No evidence in UK but currently being evaluated by EEF/BIS/NIESR. Some evidence from the US	TBC	Yes	Yes
Triple P	a toolbox of ideas for parents based on positive parenting programmes that help to provide strategies to build strong, healthy relationships	Yes	Yes	No	No	No	High EEF report due soon	On-line £72 per parent for 12 months and 8 interactive modules. Cost	Yes	Possible

	and manage their child's behaviour including							per school per pupil probably higher - need to see latest EEF report (due in June/July)		