Pre-Analysis Plan

Can parenting programs increase their coverage and inclusiveness and still be effective?

Team

Tamara Arnold Urzua (The World Bank), Pedro Carneiro (University College London), Katia Herrera Sosa (The World Bank), Lara Lebedinski (Institute of Economic Sciences), Ana Maria Munoz Boudet (The World Bank), Julie Perng (Federal Retirement Thrift Investment Board)

1. Background and Motivation

Access to Early Childhood Education and Care (ECEC) in Serbia is both low and extremely inequitable: in 2017, ECEC enrollment was at 80 percent for children from wealthy families, versus less than ten percent for those from the poorest families (World Bank, 2017). In areas near Roma communities, the pre-primary enrollment rate of three to six-year-old Roma (non-Roma) children is only 17 (41) percent (UNDP, 2018). Overall, around half of children aged 3 to 5.5 have no access to preschool programs (UNICEF, 2017).

Education is important to childhood development (Berhman, Cheng, and Todd, 2004; Martinez, Naudeau, and Pereira, 2012). In part because of the lack of ECEC access, a substantial number of children in Serbia lack basic skills before entering formal education. Less than 35 percent of children 36-59 months are developmentally on track in literacy-numeracy; this percentage is only 12 percent for children in the poorest families (UNICEF, 2015).

To improve learning outcomes, a stimulating home environment for learning and development is vital, since very young children spend most of their time at home. However, only 44.1 percent of children (and fewer than nine percent of Roma children) have access to three or more children's books (UNICEF, 2015). In addition, there are clear differences in parental time allocated to children. The 2016 Time Use Survey is one of the studies to have shown a large gap between fathers' and mothers' time use in relation to domest ic tasks and children care. For instance, women spend twice longer on unpaid work (four hours and 36 minutes per day) than men do (Statistical Office of the Republic of Serbia, 2016). Mothers are also much more likely to be the ones actively involved in school-related and child engagement activities (Matejevic et al., 2014; UNICEF, 2015), while fathers are less active in these tasks.

The team helped developed a testable parenting education program to teach caregivers how to interact with their children in a stimulating way (Black et al. 2017; Britto et al. 2017; Engle et al. 2007, 2011). While a variety of program types and intensities has been implemented, from home visits in Jamaica (Gertler et al. 2014) and other South Asian and South American countries (Attanasio et al. 2014; Hamadani et al. 2006; Nahar et al. 2012; Grantham-McGregor et al. 1991, Vazir et al. 2013), to group-based interventions (Aboud and Akhter, 2011; Aboud & Yousafzai, 2015; Al-Hassan and Lansford, 2010; Carneiro et al., 2019; Singla, Kumbakumba, and Aboud 2015; Ozler et al., 2018; Skrypnek and Charchun, 2011; Yousafzai et al., 2014, Fernald et al 2017), and hybrid models (Gowani et al. 2014), most of them have shown positive impacts.

Lighter-touch interventions such as information-based interventions -for example, in Bangladesh (Chinen and Bos, 2016), have also shown positive results on children's development. In fact, messages related to (targeted)

parental advice and returns to education can increase the time spent on child development by as much as 24 percent (Cunha et al., 2013; Gandy et al. 2016; Jensen 2010; York & Loeb, 2014).

In the Western Balkans, where our intervention takes place, Huillery, de Laat, & Gertler (2017) tested a multiarmed trial combining monetary and behavioral incentives to improve kindergarten enrollment in Bulgaria and find that community meetings improved parental beliefs and aspirations. In Serbia, an evaluation of the Support, Not Perfection program found that a group-based program may have increased parenting selfefficacy and decreased depressive symptoms and child behavior problems (Sokolovic, Grujic, & Pajic, 2021).

Engaging fathers is also important for child outcomes (Panter-Brick et al., 2014). There is evidence that father-focused interventions can enhance the relationship between father and child (Magill-Evans et al. 2006), and on men' spousal behavior (Bjorkman, Nyqvist & Jayachandran, 2017).

2. Intervention

The objective of the intervention is to effectively train parents on early childhood development through parenting skills workshops in Serbia for parents of children aged 2-6. The intervention was delivered online and included virtual group discussions, SMS messages, audio messages, calls, and a guide and complementary materials to have at home.¹ The workshops spanned 8 weeks, and covered topics of play, parentings stimulation, family environment and father involvement, among others (further details are in Appendix A). Workshop were delivered by trained preschool teachers who were closely monitored and supervised by mentors who are educational specialists. Each preschool teacher was in charge of one group of 6-10 families.

The weekly schedule was:²

- MONDAY: introductory text message (introduction to the topic and tasks), audio message, second text message
- TUESDAY: Text message (and reminder of Wednesday group discussion)
- WEDNESDAY: Group discussion phone meeting. Facilitator calls or sends audio message afterwards, and also sends a text message.

¹ The content was developed based on a preexisting program from CIP Center for Interactive Pedagogy, Strong from the Start - Give them Wings. The research team provided additional feedback to help refine the content. While longterm evidence on channels through which child outcomes can be improved through parents is scant (Carneiro et al., 2019), parental stress, mental health, knowledge, social support, and beliefs and attitudes could all be drivers of behavioral change (Bandura, 1995; Baumrind, 1966, 1968; Bornstein 2001; Bornstein et al., 1998; Briscoe and Aboud, 2012; Coleman & Karraker, 1998; Cunha, Elo, & Culhane, 2013; Duncan and Brooks-Gunn, 2000; Singla, Kumbakumba, & Aboud, 2015; Wentzel, 1998). Studies suggest that some parents face behavioral barriers such as lack of knowledge or confidence, biases, and lack of connection to schools (Hoover-Dempsey et al. 2005). ² In terms of delivery, it is well-documented that personalizing messages or providing additional nudges to reduce frictions and avoid biases are often more effective than only general information (Castleman & Page, 2016; Gandy et al. 2016). Additionally, receiving feedback and positive encouragement signs can increase feelings of 'doing the right thing' among parents. For example, there were measurable outcomes on child performance and parental actions in an intervention providing "report cards" on children and schools (Andrabi et al, 2017). There is also a wealth of experimental and quasi-experimental literature on communications and edutainment distributed through a variety of channels (radio, television, newspapers/flyers, and more), as well as testing different types of messaging on behavioral outcomes. They all show that packaging messaging into an entertaining format can be effective (Adena et. al. 2015; Banerjee, La Ferrara, & Orozco, 2019; DellaVigna et al. 2014; DellaVigna & Kaplan, 2007; Do & Kincaid, 2006; Enikolopov et al. 2011; Green & Vasudevan, 2016; Hoff & Jalan, 2021; Jensen & Oster, 2009; Kearney & Levine, 2015; La Ferrara, Chong & Duryea, 2012; Paluck, 2009; Vogt et al., 2016; Yanagizawa-Drott, 2014).

• FRIDAY: Audio or text message inviting sharing. Second audio or text, and last audio/text of the week (with reminder of next week's participation).

Materials shared with families

- Guidance Booklet with complementary information and guidance of each workshop session
- Book about us to be filled with the children and learn about their family.
- Cards Family games with dynamic activities that can easily be implemented at home.
- A package for children, that includes a picture book, notebook, pencil case, writing and drawing supplies, provided through the Open Society Foundations (OSF) Project.

The evaluation uses a randomized control trial (RCT) to test the impact of virtual parenting workshops on parenting behaviors and early childhood development. The evaluation will also test whether father participation in parental training improves fathers' behaviors and its impact on early childhood development.

The sampling frame is the universe of families who expressed interest in participation when approached by their preschool institutions in the target municipalities where this program is being implemented. From this universe, we randomly assigned families in three groups. The unit of randomization is at the individual level. The sample was stratified by education level, income, and Serbian language ability. Within each preschool institution/stratum, families were randomly assigned to the 2 treatment arms and one control arm, and groups of individuals were formed by the team (and reviewed by implementing partners) based on the size of feasible groups, as well, to some extent, on preferred language. The study arms are as follows:

- 1. **Treatment 1 (T1): Parenting virtual workshops for main caregiver (n=366).** Under this treatment group, the main caregiver receives text messages and are invited to participate in weekly virtual group sessions.
- 2. Treatment 2 (T2): Parenting virtual workshops for female and male caregivers (n=382). Under this treatment group, both mother and father receive text messages, and both are invited to participate in weekly group sessions. In addition, male caregiver receives an extra weekly text actionable text message.
- 3. **Control (n=686):** The third group are parents that will receive no intervention. This group is formed by parents who enrolled to the program and were placed on a waitlist and will be prioritized to receive the workshops in the future after the endline survey is completed.

The intervention covered 1,434 families in total. The intervention was delivered to two groups of parents at two different times. The first group of preschools started the implementation in December 2020 and included 1,073 families in 14 preschool institutions in 13 municipalities. The second group started the program in February 2021 and included 367 families in 8 preschools in 8 municipalities. In total, 82 groups were formed of 6-10 families over 13 (out of 24) districts in Serbia.

Note that, of this sample, no more than 87% of (or 1,247) families are expected to respond to the endline survey (as this is the number of parents who consented to having their data shared with the survey team).

3. Data

We collect data on *(i)* variables that are commonly used in impact evaluation, psychology, and economics literature to measure home environmental outcomes, parenting behaviors (such as discipline and other practices), and parenting stress and beliefs; and *(ii)* standard measures from the early childhood development literature to track child cognitive and non-cognitive skills.

See Appendix B Tables B.1 and B.2 for the complete set of covariates and outcome variables, and below, we discuss heterogeneity and moderators.

The initial baseline survey was used to collect interest from parents and includes education and language of the primary caregiver, prior participation in a parenting program and child enrollment in preschool, age of children aged 0 to 6, and simple economic data (see Appendix C for the full instrument).³

The data on outcomes will be collected through an endline survey delivered to caregivers who had been randomized to one of the three arms and who additionally consented to having their data shared with the data collection firm. Female caregivers surveyed were also asked to provide the contact information for male caregivers to respond to a shortened version of the survey. See Appendix C for the different instruments.

4. Methodology

Randomization ensures that any group differences are non-systematic (i.e., not the result of investigator influence), so the comparison of means across assigned study arms establishes the impact of the treatments. There will be survey attrition from three groups of caregivers; respondents who did not provide consent for their data to be shared for the endline data, respondents who could not be located after rollout of the interventions, and respondents who gave consent but did not end up participating in the survey. Therefore, the team will control for baseline characteristics which are imbalanced among respondents. Additionally, the team will attempt to estimate bounds on treatment effects, utilize inverse probability weighting, and replace missing values with multiple imputations (Lee, 2009; Seaman et al., 2012).

Impacts will be assessed for each treatment group against the control group, and for the two treatment groups against one another. We expect male caregiver time and effort spent with children to have a greater change in T2 than in T1; this increased time and quality of parenting may indirectly lead to improved child development outcomes.

Specification of Outcomes and Hypotheses

Post-intervention, we expect the intervention to impact the three classes of outcomes discussed earlier.

Home environment and parenting outcomes (self-reported by one and, in some cases, both caregivers) 1: Parenting practices and involvement (male/female caregiver/both) (increased; and in T2 over T1, increased male caregiver/both involvement) (increase); Parental practices were measured using an adapted version of Home Observation Measurement of the Environment- Short Form (HOME-SF) and the Family Care Indicators (FCI) and the Child Discipline Module of the MICS6 survey (Kariger et al., 2012; UNICEF, 2021; U.S. Bureau of Labor Statistics, n.d.).

1a: How parents help their children learn; sense of responsibility for teaching children (increase); assessed through the Attitudes and Beliefs about Early Learning instrument (Hembacher & Frank, 2020; Silander et al., 2018).

1b: Parental warmth/affection and attachment and parental control (authoritative parenting styles) (increase); assessed in part through the Affection and Attachment factor of the Early Parenting Attitudes Questionnaire (EPAQ)

³ The anonymized data and survey documentation will be published within the World Bank Microdata Library under project ID 2259.

Parenting stress⁴

1: Stress (decrease); Parental stress was assessed using the Generalized Anxiety Disorder Assessment (GAD-7) that is used to measure or assess the severity of generalized anxiety disorder (Spitzer et al., 2006).

Child development (reported by caregivers)3

Child development of children 2–6-year-olds, as reported by the main caregiver, was assessed combining the Early Childhood Development Index (ECDI2030) and the Anchor Items for Measurement of Early Childhood Development Caregiver Report of (AIM-ECD-CR) (Pushparatnam et al., 2021; UNICEF, 2021). 1: Health (increase)

2: Learning (increase)

3: Psychosocial well-being (increase)

4: Attendance in early childhood program⁵

We will examine impacts on these variables individually and also grouped as indices. When examining the variables individually, we will implement a multiple hypothesis testing procedure developed by Romano and Wolf (2015).

The following are covariates we plan to control for in our analyses (see Appendix B.1 for the complete set of covariates), all measured at baseline:

- o Educational level of reporting caregiver
- o Educational level of secondary caregiver
- Gender of primary caregiver
- Age of primary caregiver
- Preferred language of primary caregiver
- Income-related variables
- o Household characteristics (e.g. caregivers, number of children 0-6)
- o Gender of child (for child-specific outcomes)
- o Preschool institution that the family is affiliated with
- o Spring or fall version of the intervention⁶

Some families agreed to have a secondary caregiver provide responses to a shortened version of the endline survey. We will use these data to verify or support the main findings. Additional analysis will also be conducted comparing the answers from both primary and secondary caregivers to understand discrepancies in reported outcomes.

Balancing Tests

Prior to starting our analysis, we will provide summary statistics of the pre-treatment outcome variables to present the initial distribution of home environment, parenting practice, stress, child development, and educational development variables in the control group and two treatment groups. See above for a discussion on attrition and item non-response.

Basic Empirical Model

As mentioned above, the design of the intervention as a randomized control trial addresses non-random assignment into treatments, or selection bias, allowing the measurement of average treatment effect on those treated.

⁵ This outcome's baseline-level information will be controlled for in the analysis.

⁴ Note, however, that prior power calculations indicate that we may be underpowered to show impact in this outcome).

⁶ As stated earlier, the first group of preschools in 14 municipalities started the implementation in December 2020. The second group in six municipalities started the program in February 2021.

We will rely on simple differences-in-means comparisons between the outcome variables of students in the control group (C) and those in the two treatment groups (T1, T2). This is depicted in Equation (1). We will then extend this specification by including a set of covariates to improve the precision of our coefficient estimates without jeopardizing consistency. This is depicted in Equation (2).

 $y_{ip} = \alpha + \beta_1 T \mathbf{1}_i + \beta_2 T \mathbf{2}_i + \varepsilon_p \quad (1)$ $y_{ip} = \alpha + \beta_1 T \mathbf{1}_i + \beta_2 T \mathbf{2}_i + \beta_5 X_{ip} + \mu_p + \varepsilon_p \quad (2)$

where y_{ip} is the outcome variable for the family *i* who is affiliated with preschool institution *p*. $T1_i$ takes a value of one if the family *i* was assigned to the parenting virtual workshops (T1), and 0 if otherwise. Similarly, $T2_{ip}$ takes a value of one if the family *i* was assigned to the parenting virtual workshops for female and male caregivers (T2).

Equation (2) controls for various individual characteristics in vector X_{ip} , including gender of primary caregiver (and reported child, as relevant), education of reporting caregiver (i.e., whether the repotting caregiver has at least a secondary school degree), preferred language of primary caregiver, household income-related variables, household characteristics and size, baseline measurement (as relevant), and preschool institution μ_p . Standard errors will be clustered at the preschool institution level.

Regressions will be run with a linear model estimated by ordinary least squares, linear probability models for discrete variables, and/or a discrete model estimated by maximum likelihood; the choice of model will depend on the type of outcome variable. To account for multiple hypothesis testing, we will also present estimates using different indices of outcomes and tests (Anderson, 2020; Clark, Romano, & Wolf, 2020; List et al., 2019; Young, 2019).

Finally, there are some caregivers who dropped out of the program or who attended only some of the sessions. As long as there is random non-compliance, we can additionally account for the compliance rate by dividing the intent to-treat estimate by the compliance rate. Formally, we will implement standard instrumental variable estimators of the impact of the program on outcomes.

Heterogeneity

We will examine how program impacts vary according to some baseline characteristics, namely gender and age of the (target) child, education of each parent, language and ethnicity, family characteristics (such main caregiver characteristics), intensity of treatment (i.e. reported attendance), and baseline values of the child development variables and home environment variables.

We will expand the regression models described above to include interactions between the indicators for each treatment arms and the baseline controls we are interested in using in this heterogeneity analysis.

Mediation

Given that there may be mediators which may lead to improvements in the outcomes that we are analyzing, we plan to conduct some mediation analysis. We will utilize both qualitative and quantitative analyses to understand the ways through which the interventions could impact outcomes. Qualitative research will include qualitative feedback from parents, instructors, preschool institution administrators, and the implementing organization related to household decision-making, social norms, and more.

Quantitative analysis will utilize endline controls believed to be mediators as controls to see if the coefficients change, and if so, test if there are mediation effects. To verify mediation effects, we will look at the

conditional decomposition for a less sensitive accounting (Aizer, Devereaux, & Salvanes, 2020; Gelbach, 2016; Heckman and Pinto, 2015).

Bibliography

Aboud, F. E., & Akhter, S. (2011). A cluster-randomized evaluation of a responsive stimulation and feeding intervention in Bangladesh. *Pediatrics*, *127*(5), e1191-e1197.

Aboud, F. E., & Yousafzai, A. K. (2015). Global health and development in early childhood. *Annual review of psychology*, *66*, 433-457.

Adena, M., Enikolopov, R., Petrova, M., Santarosa, V., & Zhuravskaya, E. (2015). Radio and the Rise of the Nazis in Prewar Germany. *The Quarterly Journal of Economics*, 130(4), 1885-1939.

Aizer, A., Devereaux, P., & Salvanes, K. (2020). Grandparents, Moms, or Dads? Why children of teen mothers do worse in life. *Journal of Human Resources*, 1019-10524R2.

Al-Hassan, S. M., & Lansford, J. E. (2011). Evaluation of the better parenting programme in Jordan. *Early child development and care*, 181(5), 587-598.

Anderson, M. L. (2008). Multiple inference and gender differences in the effects of early intervention: A reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects. *Journal of the American statistical Association*, 103(484), 1481-1495.

Andrabi, T., Das, J., & Khwaja, A. I. (2017). Report cards: The impact of providing school and child test scores on educational markets. *American Economic Review*, 107(6), 1535-63.

Attanasio, O. P., Fernández, C., Fitzsimons, E. O., Grantham-McGregor, S. M., Meghir, C., & Rubio-Codina, M. (2014). Using the infrastructure of a conditional cash transfer program to deliver a scalable integrated early child development program in Colombia: cluster randomized controlled trial. *Bmj*, *349*.

Bandura, A. (Ed.). (1995). Self-efficacy in changing societies. Cambridge university press.

Banerjee, A., Ferrara, E. L., & Orozco, V. (2019). Entertainment, education, and attitudes toward domestic violence. In *AEA Papers and Proceedings* (Vol. 109, pp. 133-37).

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. Child development, 887-907.

Baumrind, D. (1968). Authoritarian vs. authoritative parental control. Adolescence, 3(11), 255.

Behrman, J. R., Cheng, Y., & Todd, P. E. (2004). Evaluating preschool programs when length of exposure to the program varies: A nonparametric approach. *Review of economics and statistics*, *86*(1), 108-132.

Black, M. M., Walker, S. P., Fernald, L. C., Andersen, C. T., DiGirolamo, A. M., Lu, C., ... & Lancet Early Childhood Development Series Steering Committee. (2017). Early childhood development coming of age: science through the life course. *The Lancet*, *389*(10064), 77-90.

Björkman Nyqvist, M., & Jayachandran, S. (2017). Mothers care more, but fathers decide: Educating parents about child health in Uganda. *American Economic Review*, *107*(5), 496-500.

Bornstein, M. H. (2001). Parenting science and practice.

Bornstein, M. H., Haynes, O. M., Azuma, H., Galperin, C., Maital, S., Ogino, M., ... & Wright, B. (1998). A cross-national study of self-evaluations and attributions in parenting: Argentina, Belgium, France, Israel, Italy, Japan, and the United States. *Developmental psychology*, *34*(4), 662.

Briscoe, C., & Aboud, F. (2012). Behaviour change communication targeting four health behaviours in developing countries: a review of change techniques. *Social science & medicine*, 75(4), 612-621.

Britto, P. R., Lye, S. J., Proulx, K., Yousafzai, A. K., Matthews, S. G., Vaivada, T., ... & Lancet Early Childhood Development Series Steering Committee. (2017). Nurturing care: promoting early childhood development. *The Lancet*, *389*(10064), 91-102.

Carneiro, P. M., Galasso, E., Lopez Garcia, I. X., Bedregal, P., & Cordero, M. (2019). Parental Beliefs, Investments, and Child Development: Evidence from a Large-Scale Experiment. *World Bank Policy Research Working Paper*, (8743).

Castleman, B. L., & Page, L. C. (2016). Freshman year financial aid nudges: An experiment to increase FAFSA renewal and college persistence. *Journal of Human Resources*, *51*(2), 389-415.

Chinen, M. & Bos, J. (2016). Impact evaluation of the Save the Children early childhood stimulation program in Bangladesh: Final report. Washington, D.C.: American Institutes for Research. Retrieved from: http://pubdocs.worldbank.org/ en/163331484753270396/SIEF-Bangladesh-Endline-Report-Nov2016FINAL.pdf

Clarke, D., Romano, J. P., & Wolf, M. (2020). The Romano–Wolf multiple-hypothesis correction in Stata. *The Stata Journal*, 20(4), 812-843.

Coleman, P. K., & Karraker, K. H. (1998). Self-efficacy and parenting quality: Findings and future applications. *Developmental review*, *18*(1), 47-85.

Cunha, F., Elo, I., & Culhane, J. (2013). *Eliciting maternal expectations about the technology of cognitive skill formation* (No. w19144). National Bureau of Economic Research.

Cunha, D. B., Souza, B. D. S. D., Pereira, R. A., & Sichieri, R. (2013). Effectiveness of a randomized schoolbased intervention involving families and teachers to prevent excessive weight gain among adolescents in Brazil. *PLoS One*, *8*(2), e57498.

DellaVigna, S., Enikolopov, R., Mironova, V., Petrova, M., & Zhuravskaya, E. (2014). Cross-border media and nationalism: Evidence from Serbian radio in Croatia. *American Economic Journal: Applied Economics*, 6(3), 103-32.

DellaVigna, S., & Kaplan, E. (2007). The Fox News effect: Media bias and voting. *The Quarterly Journal of Economics*, *122*(3), 1187-1234.

Do, M. P., & Kincaid, D. L. (2006). Impact of an entertainment-education television drama on health knowledge and behavior in Bangladesh: an application of propensity score matching. *Journal of health communication*, *11*(3), 301-325.

Duncan, G. J., & Brooks-Gunn, J. (2000). Family poverty, welfare reform, and child development. *Child development*, 71(1), 188-196.

Engle, P. L., Black, M. M., Behrman, J. R., De Mello, M. C., Gertler, P. J., Kapiriri, L., ... & International Child Development Steering Group. (2007). Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. *The lancet*, *369*(9557), 229-242.

Enikolopov, R., Petrova, M., & Zhuravskaya, E. (2011). Media and political persuasion: Evidence from Russia. *American Economic Review*, 101(7), 3253-85.

Fernald, L. C., Prado, E., Kariger, P., & Raikes, A. (2017). A toolkit for measuring early childhood development in low and middle-income countries.

Gandy, K., King, K., Streeter Hurle, P., Bustin, C., & Glazebrook, K. (2016). Poverty and decisionmaking. *How behavioral science can improve opportunity in the UK. London: Behavioural Insights Team.*

Gelbach, J. B. (2016). When do covariates matter? And which ones, and how much?. Journal of Labor Economics, 34(2), 509-543.

Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeersch, C., Walker, S., ... & Grantham-McGregor, S. (2014). Labor market returns to an early childhood stimulation intervention in Jamaica. *Science*, *344*(6187), 998-1001.

Green, D., & Vasudevan, S. (2016). Diminishing the effectiveness of vote buying: Experimental evidence from a persuasive radio campaign in India. *Unpublished Manuscript, Columbia University*.

Gowani, S., Yousafzai, A. K., Armstrong, R., & Bhutta, Z. A. (2014). Cost effectiveness of responsive stimulation and nutrition interventions on early child development outcomes in Pakistan. *Annals of the New York Academy of Sciences*, 1308(1), 149-161.

Grantham-McGregor, S. M., Powell, C. A., Walker, S. P., & Himes, J. H. (1991). Nutritional supplementation, psychosocial stimulation, and mental development of stunted children: the Jamaican Study. *The Lancet*, *338*(8758), 1-5.

Hamadani, J. D., Huda, S. N., Khatun, F., & Grantham-McGregor, S. M. (2006). Psychosocial stimulation improves the development of undernourished children in rural Bangladesh. *The Journal of nutrition*, 136(10), 2645-2652.

Heckman, J. J., & Pinto, R. (2015). Econometric mediation analyses: Identifying the sources of treatment effects from experimentally estimated production technologies with unmeasured and mismeasured inputs. *Econometric reviews*, *34*(1-2), 6-31.

Hembacher, Emily & Frank, Michael C.. The Early Parenting Attitudes Questionnaire: Measuring Intuitive Theories of Parenting and Child Development. Collabra: Psychology 1 January 2020; 6 (1): 16. doi: https://doi.org/10.1525/collabra.190

Hoff, K., Jalan, J., & Santra, S. (2021). Participatory Theater Empowers Women.

Hoover-Dempsey, K. V., Walker, J. M., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., & Closson, K. (2005). Why do parents become involved? Research findings and implications. *The elementary school journal*, 106(2), 105-130.

Huillery, É., de Laat, J., & Gertler, P. (2017). Supporting Disadvantaged Children Enter Kindergarten: Experimental Evidence from Bulgaria (No. hal-01646124).

Jensen, R. (2010). The (perceived) returns to education and the demand for schooling. *The Quarterly Journal of Economics*, *125*(2), 515-548.

Jensen, R., & Oster, E. (2009). The power of TV: Cable television and women's status in India. *The Quarterly Journal of Economics*, 124(3), 1057-1094.

Kariger, P., Frongillo, E. A., Engle, P., Britto, P. M. R., Sywulka, S. M., & Menon, P. (2012). Indicators of family care for development for use in multicountry surveys. *Journal of health, population, and nutrition, 30*(4), 472.

Kearney, M. S., & Levine, P. B. (2015). Media influences on social outcomes: The impact of MTV's 16 and pregnant on teen childbearing. *American Economic Review*, 105(12), 3597-3632.

La Ferrara, E., Chong, A., & Duryea, S. (2012). Soap operas and fertility: Evidence from Brazil. *American Economic Journal: Applied Economics*, 4(4), 1-31.

Lee, D. S. (2009). Training, wages, and sample selection: Estimating sharp bounds on treatment effects. *The Review of Economic Studies*, *76*(3), 1071-1102.

List, J. A., Shaikh, A. M., & Xu, Y. (2019). Multiple hypothesis testing in experimental economics. *Experimental Economics*, 22(4), 773-793.

Magill-Evans, J., Harrison, M. J., Rempel, G., & Slater, L. (2006). Interventions with fathers of young children: systematic literature review. *Journal of Advanced nursing*, *55*(2), 248-264. Martinez, S., Naudeau, S., & Pereira, V. (2012). The promise of preschool in Africa: A randomized impact evaluation of early childhood development in rural Mozambique.

Matejevic, M., Jovanovic, D., & Jovanovic, M. (2014). Parenting style, involvement of parents in school activities and adolescents' academic achievement. *Procedia-Social and Behavioral Sciences*, *128*, 288-293.

Nahar, B., Hossain, M. I., Hamadani, J. D., Ahmed, T., Huda, S. N., Grantham-McGregor, S. M., & Persson, L. A. (2012). Effects of a community-based approach of food and psychosocial stimulation on growth and development of severely malnourished children in Bangladesh: a randomised trial. *European Journal of Clinical Nutrition*, *66*(6), 701-709.

Özler, B., Fernald, L. C., Kariger, P., McConnell, C., Neuman, M., & Fraga, E. (2018). Combining pre-school teacher training with parenting education: A cluster-randomized controlled trial. *Journal of Development Economics*, *133*, 448-467.

Paluck, E. L. (2009). Reducing intergroup prejudice and conflict using the media: a field experiment in Rwanda. *Journal of personality and social psychology*, 96(3), 574.

Panter-Brick, C., Burgess, A., Eggerman, M., McAllister, F., Pruett, K., & Leckman, J. F. (2014). Practitioner review: engaging fathers-recommendations for a game change in parenting interventions based on a systematic review of the global evidence. *Journal of child psychology and psychiatry, and allied disciplines, 55*(11), 1187.

Pushparatnam A, Luna Bazaldua DA, Holla A, Azevedo JP, Clarke M and Devercelli A (2021) Measuring Early Childhood Development Among 4–6 Year Olds: The Identification of Psychometrically Robust Items Across Diverse Contexts. Front. Public Health 9:569448. doi: 10.3389/fpubh.2021.569448

Seaman, S. R., White, I. R., Copas, A. J., & Li, L. (2012). Combining multiple imputation and inverse-probability weighting. *Biometrics*, 68(1), 129-137.

Silander, M., Grindal, T., Hupert, N., Garcia, E., Anderson, K., Vahey, P. & Pasnik, S. (2018). What Parents Talk About When They Talk About Learning: A National Survey About Young Children and Science. New York, NY, & Menlo Park, CA: Education Development Center, Inc., & SRI International.

Singla, D. R., Kumbakumba, E., & Aboud, F. E. (2015). Effects of a parenting intervention to address maternal psychological wellbeing and child development and growth in rural Uganda: a community-based, cluster-randomised trial. *The Lancet Global Health*, *3*(8), e458-e469.

Skrypnek, B. J., & Charchun, J. (2011). *An evaluation of the Nobody's Perfect parenting program*. Canadian Association of Family Resource Programs.

Sokolovic, N., Grujic, S., & Pajic, S. (2021). Evaluation of the Support, not Perfection Parenting Program in Serbia. *European Journal of Developmental Psychology*, 1-18.

Spitzer RL, Kroenke K, Williams JB, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med. 2006 May 22;166(10):1092-7. doi: 10.1001/archinte.166.10.1092. PMID: 16717171.

Statistical Office of the Republic of Serbia, 2016. "Time use in the Republic of Serbia, 2010 and 2015."

UNDP, 2018. "Regional Roma survey 2017: Country fact sheets." https://www.eurasia.undp.org/content/rbec/en/home/library/roma/regional-roma-survey-2017-country-fact-sheets.html.

UNICEF, 2015. "Child poverty in Serbia: The analysis of Multiple Indicator Cluster Survey data." https://www.unicef.org/serbia/media/4896/file/Child%20poverty%20in%20Serbia.pdf

UNICEF, 2017. "Press release: Investment in early childhood education – the safest investment in future." https://www.unicef.org/serbia/en/press-releases/investment-early-childhood-education-safest-investment-future.

UNICEF, 2021. Questionnaire for Children Under Five. ttps://mics.unicef.org/tools?round=mics6#survey-design.

UNICEF, 2021. "Early Childhood Development Index 2030." https://data.unicef.org/resources/early-childhood-development-index-2030-ecdi2030/.

U.S. Bureau of Labor Statistics. (n.d.). "The HOME (Home Observation Measurement of the Environment)." https://www.nlsinfo.org/content/cohorts/nlsy79-children/topical-guide/assessments/home-home-observation-measurement

Vazir, S., Engle, P., Balakrishna, N., Griffiths, P. L., Johnson, S. L., Creed-Kanashiro, H., ... & Bentley, M. E. (2013). Cluster-randomized trial on complementary and responsive feeding education to caregivers found improved dietary intake, growth and development among rural Indian toddlers. *Maternal & child nutrition*, 9(1), 99-117.

Vogt, S., Zaid, N. A. M., Ahmed, H. E. F., Fehr, E., & Efferson, C. (2016). Changing cultural attitudes towards female genital cutting. *Nature*, *538*(7626), 506-509.

Wentzel, K. R. (1998). Parents' aspirations for children's educational attainments: Relations to parental beliefs and social address variables. *Merrill-Palmer Quarterly (1982-)*, 20-37.

Wolf, S., Aber, J. L., Behrman, J. R., & Peele, M. (2019). Longitudinal causal impacts of preschool teacher training on ghanaian children's school readiness: Evidence for persistence and fade-out. *Developmental science*, *22*(5), e12878.

World Bank, 2017. "Serbia champions early childhood development: 17,000 additional preschool spaces with World Bank support." https://www.worldbank.org/en/news/press-release/2017/02/21/serbia-champions-early-childhood-development-17000-additional-preschool-spaces-with-world-bank-support.

Yanagizawa-Drott, D. (2014). Propaganda and conflict: Evidence from the Rwandan genocide. *The Quarterly Journal of Economics*, 129(4), 1947-1994.

Young, A. (2019). Channeling fisher: Randomization tests and the statistical insignificance of seemingly significant experimental results. *The Quarterly Journal of Economics*, 134(2), 557-598.

Yousafzai, A. K., Rasheed, M. A., Rizvi, A., Armstrong, R., & Bhutta, Z. A. (2014). Effect of integrated responsive stimulation and nutrition interventions in the Lady Health Worker programme in Pakistan on child development, growth, and health outcomes: a cluster-randomised factorial effectiveness trial. *The Lancet*, *384*(9950), 1282-1293.

York, B. N., Loeb, S., & Doss, C. (2019). One step at a time the effects of an early literacy text-messaging program for parents of preschoolers. *Journal of Human Resources*, 54(3), 537-566.

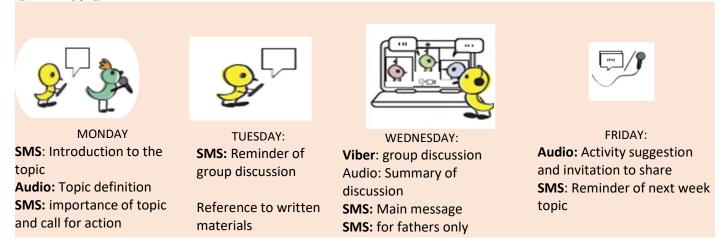
Appendix A: Learning plan

One main goal of the program was to teach parents to help children remain curious and learn through life, learn to take care of themselves, others, and the environment, and to enjoy playing and creating. The program was run from the local preschool who conducted recruitment and led the delivery of the program. The preschool institution teachers were trained to deliver the program. The program was adapted to be delivered in a virtual manner (given COVID-19), and included SMS content and discussion groups formation.

Prior to the program, which was held remotely, parents received a brochure, "Book about us," a set of game cards and a sheet with suggestions for different child and family games and supplies.

Each preschool teacher oversaw one group of 6-10 families (82 groups total). The agenda included weekly a virtual group discussion, SMS, audio messages, and calls. The weekly schedule is shown in Figure 1.

Figure 1 Weekly program



The following eight topics were covered (one per week):

- 1. Welfare and resilience: importance for the child and how to achieve them
- 2. How to recognize, strengthen and use personal strength
- 3. Why play is important for a child
- 4. Family environment that is stimulating for children to play and learn
- 5. Successful communication with children we listen to each other, we hear and understand
- 6. We educate today and think about the future
- 7. We educate with love and the application of rules
- 8. The role of fathers and other male figures in the growth of children

Parents were encouraged to share experiences with other families through messages and discussion.

Appendix B: Variables

Outcome	Items	Scales/formats of total score	Scale of individual items
Parental practices: Scores on the home	Children younger than 3 years: 7-9 items Children 3-5 years: 13-15 items Children older than 5 years: 9- 13 items.	Addition of the individual scored items divided by the number of items of the corresponding age group. The range of the score goes between 0-1. Individual scores are dichotomous. non- dichotomous responses were recoded into a 1,0.	Dummy
Family care practices and resources important for caregiving: Percentage of children with whom adult household members have engaged in four or more activities	12 sub-items	FCI; other scales The score indicator takes the value 1 if adult household members have engaged in four or more activities and 0 otherwise. The range of the score goes between 0-1	Dummy for the activity question and 3 options for the with whom questions
 Child discipline Only non-violent discipline Psychological aggression Any physical punishment Severe physical punishment Severe physical punishment Any violent discipline method Percentage of mothers/caretakers who believe that a child needs to be physically punished 	11 items	MICS6 survey 6 indicators. The range of the score of each indicator goes between 0-1	Dummy
Parental stress (decrease)	7 items	 GAD-7 4 point subscale : 1. Minimal anxiety 2. Mild anxiety 3. Moderate anxiety 4. Severe anxiety 	4 point scale
Affection and Attachment	8 items	EPAQ; other scales	7 point scale

Table B.1: Set of Outcome Variables (from endline unless otherwise noted)

		No score, each items is a 7- point Likert scale	
Sense of responsibility for teaching children	4 items	Attitudes and Beliefs about Early Learning instrument Firs two items 4-point scale 1 (Strongly Disagree), 2 (Disagree), 3 (Agree), 4 (Strongly Agree).	
		The second two questions, 3 options: ask about who should be responsible for teaching the child some skills: 1 parent are the most responsible, 2 school is most responsible, 3 parent and school are equally responsible	
Child development	37 items	ECDI2030 and AIM-ECD- CR Addition of the individual scored items divided by the number of items. The range of the score goes between 0- 1.	Dummy
Attendance in early childhood program	1 item	Self-reported in baseline and endline	Dummy

Table B.2: Set of Covariates

Covariate	Items	Scales/formats	Source
Age of primary caregiver	1	Integer	Baseline, endline
Gender of primary caregiver	1	2-point scale	Baseline, endline
Number of caregivers	1	3-point scale	Endline
Main source of income in the household	1	10-point scale	Baseline
Employment status	1	12-point scale	Endline
Possession of smartphone	1	Dummy	Baseline
Possession of mobile phone (excluding	1	Dummy	Baseline
smartphones)			
Possession of computer	1	Dummy	Baseline
Possession of TV	1	Dummy	Baseline
Possession of landline phone	1	Dummy	Baseline
Internet access	1	Dummy	Baseline
Language (for communicating and reading material)	1	11-point scale	Baseline
Caregiver structure?			
Number of children aged 0-6	1	Integer	Baseline, endline
Highest level of education of primary caregiver	1	9-point scale	Baseline

Highest level of education of secondary caregiver	1	9-point scale	Baseline
Gender of child being reported on	1	2-point scale	Baseline, endline
Preschool institution	1	Dummy	Baseline
Spring or fall version of the intervention	1	2-point scale	RCT administrative data

Appendix C: Instruments

Baseline Survey

Dear parents/caregivers,

Thank you for expressing your interest for the "Program for parents: STRONG FROM THE START – GIVE THEM WINGS". Please send your application no later than on <date>. You can apply for the program in one of the 3 ways listed below:

1. Fill in this online survey.

2. Submit the filled survey to the preschool institution or to the following address: <address>

3. Fill in the questionnaire in the preschool institution, after making an appointment by phone.

For more information, contact this number: <contact number>

DI	
	the questions about your family. We need the information to form groups and they will be kept in a
•	res respect of your privacy and confidentiality.
1	The closest preschool institution facility:
2	Name and surname of the primary parent/caregiver:
3	What is the highest level of education completed (for the parents/caregivers listed in #2)?
	a. No schooling
	b. Four years of primary school
	c. Primary school (8 years)
	d. Vocational school lasting 1 or 2 years
	e. Vocational school lasting 3 or 4 years
	f. General education secondary school
	g. College/University or higher
	h. I don't know
	i. I don't wish to respond
4	Has anyone in the household ever participated in a parenting program before? *
	a. Yes
	b. No
	c. I don't know
	d. I don't wish to respond
	If your answer is YES, please write the name of the Program and what organization or individual
	implemented it:
5	Name, month and year of birth of each child or children aged 0 to 6:
6	Do you children aged 3 – 5,5 attend any preschool program? *
	a. Yes
	b. No
	c. I don't know
	d. I don't wish to respond
7	If your answer is YES, please circle what kind of program your child attends (if your children attend
	different programs, please not the program that your eldest child attends):
	a. Full day
	b. Half day
	c. Short, periodically
8	Main source of income in the household (please select one):
	a. Salary

	b. Income from self-employment (excluding agriculture)
	c. Agricultural income
	d. Pension
	e. Social assistance (unemployment, severance, MESP, child allowance, parental allowance,
	other)
	f. Income from investments, savings, insurance or property
	g. Income from other sources
	h. There is no source of income
	i. I don't know
	j. I don't wish to respond
9	Does your household own any of the following? (Please check all that apply.) *
	a. Smartphone
	b. Mobile phone (excluding smartphones)
	c. Computer
	d. TV
	e. Landline phone
10	Does your household have access to the internet? *
	a. Yes
	b. No
11	Do you speak Serbia well enough to be able to communicate and read the material you will receive in
	this Program in this language? *
	a. Yes
	b. No
12	If the answer to the previous question is NO, in what language can you communicate and read
	material from this program? <checkbox options=""></checkbox>
13	Do you read and write in Serbian or Hungarian?
	a. Yes
	b. No

Endline Survey

Greetings. I am [Enumerator Name] I am calling you from a research organization named Ipsos Strategic Marketing. We got this number through your preschool institution prefilled name of PI> because you applied for the parenting program STRONG FROM THE START - Give them wings and you consented to share your information for the evaluation of this program.

We are conducting a phone survey with everyone who applied for the program developed by the Centre for Interactive Pedagogy Program, STRONG FROM THE START – Give them Wings. The main aim of this survey is to get a sense for how parents of young children in Serbia are interacting with their children and within their families, and how children are developing. This survey will take a maximum of 25 minutes. Any information you share with us will be kept strictly confidential and only be used for research purposes. The information will not be shared directly with preschool institutions, except at an aggregated level, and it will not affect the services you receive in any way. If at any point there are any questions you do not feel comfortable answering, you can choose not to answer them. You can also choose to stop the interview at any point.

Demographics

1	Full name of first parent/caregiver
2	Sex of first parent/caregiver Note to the interviewer: Please mark the answer based on the name and/or the voice of the respondent. In case you are not sure, check it with the respondent.
	1. Male
	2. Female
3	What is your year of birth?
4	What is the highest level of education completed for [prefilled name of parent / guardian]?
	1. No schooling
	2. Four years of primary school
	3. Primary school (8 years)
	4. Vocational school lasting 1 or 2 years
	5. Vocational school lasting 3 or 4 years
	6. General education secondary school
	7. College/university or higher
	8. I don't know
	9. I don't wish to respond
5	Can you please give us full name of the second parent/caregiver of [name child] in your household? (This could be your spouse, parent, in-law, etc.) There is a possibility that we will contact him/her in order to hear his/her opinion within this survey. The fact that you give us his/her data does not oblige him/her to participate in the survey.
	99. There are no other parent/caregiver in the household.
6	In which relationship is (name from Q5) with you?
	1. Spouse
	2. Parent
	3. In-law
	4. Other
7	Sex (name from Q5)
	1. Male
	2. Female
8	What is the highest level of education completed for [secondary caregiver]?
	1. No schooling
	2. Four years of primary school

	3. Primary school (8 years)
	4. Vocational school lasting 1 or 2 years
	5. Vocational school lasting 3 or 4 years
	6. General education secondary school
	7. College/university or higher
	8. I don't know
	9. I don't wish to respond
10	What is your current employment status?
	Employed full time or part-time
	Self-employed or own business
	Unemployed (including looking for jobs and looking for jobs for the first time)
	Unemployed (student)
	Unemployed (pensioner)
	Not looking for job or homemaker
11	Has your employment status been the same for the past 6 months?
	Yes
	No
12	What was your employment status before?
	Employed full time or part-time
	Self-employed or own business
	Unemployed (including looking for jobs and looking for jobs for the first time)
	Unemployed (student)
	Unemployed (pensioner)
	Not looking for job or homemaker
13	What is the current employment status of (prefill with name of second caregiver)?
	Employed full time or part-time
	Self-employed or own business
	Unemployed (including looking for jobs and looking for jobs for the first time)
	Unemployed (student)
	Unemployed (pensioner)
	Not looking for job or homemaker
14	Has employment status of (prefill with name of second caregiver/IN5) been the same for the past 6 months?
	Yes
	No
15	What was employment status f (prefill with name of second caregiver/IN5) before?
	Employed full time or part-time
	Self-employed or own business
	Unemployed (including looking for jobs and looking for jobs for the first time)
	Unemployed (student)
	Unemployed (pensioner)
	Unemployed (pensioner) Not looking for job or homemaker
16	Unemployed (pensioner) Not looking for job or homemaker As a result of COVID-19, how has your family income been affected?

Increased income
Decreased income
Lost income entirely

Child information

1	We would like to verify some information about the children in your household who are younger than 7 or, more precisely, have up to 6 years 11 months and 29/30 days, that you listed on your registration form with your PI [prefill PI name]. In order to verify the data, I will read their names, gender and age and would like to ask you to let us know in case certain data is not correct
	Name
2	Gender
3	What is (his/her) birthday?.
	In addition to the children we have just mentioned, have been another child/children born in the meantime?
4	Yes, how many?
	No
5	What is date of birth of this child?
6	Which language(s) does/do (prefill with names of all the children aged 0 to 6) speak at home? Please select all that are applicable.
	Serbian
	Albanian
	Bosnian
	Bulgarian
	Croatian
	Hungarian
	Roma
	Romanian
	Ruthene (Rusyn)
	Slovak
	Other
7	Did (name of the child) attend an early childhood programme, such as kindergarten, or the compulsory preschool program in the kindergarten or school last year/currently attending/enrolled to attend?
	Yes, he/she attended it last year (1)
	Yes, he/she is currently attending (2)
	Yes, he/she is enrolled to attend (3)
	No, but he/she attended it earlier (4)
	No, he/she never attended kindergarten/preschool education (5)
8	How satisfied are you with the quality of the kindergarten/preschool education in general?
	1 Dissatisfied
	2 Neither satisfied nor dissatisfied
	3 Satisfied

Home environment and parental practices

1	How often do you take [Child First Name] to the grocery store?
1	1. Twice a week or more
_	2. Once a week
_	3. Once a month
_	4. Hardly ever
2	In the past 3 days, did you or any household member or close family member age 15 or over take [Name of child] outside the home?
	1 Yes
	2 No, no one
3	Who took (<i>name</i>) outside the home in the past 3 days?
	1 Mother
	2 Father
_	3 Other
4	About how many children's books does [Child First Name] have?
	1. None
	2. 1 or 2 books
_	3. 3 to 9 books
_	4. 10 or more books
5	How often do you read stories to [Child First Name]?
	1. Never
_	2. Several times a year
	3. Several times a month
_	4. Once a week
	5. A few times a week
	6. Everyday
6	In the past 3 days, did you or any household member or close family member age 15 or over read
~	books or look at picture books with [Name of child]?
	1 Yes
	2 No, no one
7	Who read books or looked at picture books with (name) in the past 3 days?
	1 Mother
	2 Father
	3 Other
8	In the past 3 days, did you or any household member or close family member age 15 or over tell stories to [Name of child]?
	1 Yes
	2 No, no one
0	Who told stories to (<i>name</i>) in the past 3 days?
9	

	2 Father
	3 Other
10	In the past 3 days, did you or any household member or close family member age 15 or over sing songs to or with (name) including lullabies?
	1 Yes
	2 No, no one
11	Who sang songs to or with (name), including lullabies in the past 3 days?
	1 Mother
	2 Father
	3 Other
12	In the past 3 days, did you or any household member or close family member age 15 or over play with [Name of child]? 1 Yes
	2 No, no one
13	Who played with (<i>name</i>) in the past 3 days?
	1 Mother
	2 Father
	3 Other
14	In the past 3 days, did you or any household member or close family member age 15 or over name, count, or draw things for or with [Name of child]?
	1 Yes
	2 No, no one
15	Who named, counted, or drew things for or with (name) in the past 3 days?
	1 Mother
	2 Father
	3 Other
16	About how many hours is the TV on in your home each day?
	Enter hours per day
17	
	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figur How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure?
17	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figur How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you?
17 18	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? 1 More than once a day
17 18	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? 1 More than once a day 2 Once a day
17 18	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? 1 More than once a day 2 Once a day 3 Several times a week
17 18	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? 1 More than once a day 2 Once a day 3 Several times a week 4 About once a week
17 18	 How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? More than once a day Once a day Several times a week About once a week About once a month
17 18	 How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? More than once a day Once a day Several times a week About once a week About once a month Never
17 18 19	 How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? More than once a day Once a day Several times a week About once a week About once a month Never No father, stepfather, or father-figure
17 18	 How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? More than once a day Once a day Several times a week About once a week About once a month Never No father, stepfather, or father-figure Children seem to demand attention when their parents are busy around the house. How often doe
17 18 19	 How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? More than once a day Once a day Several times a week About once a week About once a month Never No father, stepfather, or father-figure Children seem to demand attention when their parents are busy around the house. How often do you talk to [Child First Name] while you are working or busy with other house tasks?
17 18 19	 How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? More than once a day Once a day Several times a week About once a week About once a month Never No father, stepfather, or father-figure Children seem to demand attention when their parents are busy around the house. How often do you talk to [Child First Name] while you are working or busy with other house tasks? Always (talk to your child when working)
17 18 19	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? 1 More than once a day 2 Once a day 3 Several times a week 4 About once a week 5 About once a month 6 Never 7 No father, stepfather, or father-figure Children seem to demand attention when their parents are busy around the house. How often do you talk to [Child First Name] while you are working or busy with other house tasks? 1 Always (talk to your child when working) 2 Often (talk to your child when working)
17 18 19	 How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you? More than once a day Once a day Several times a week About once a week About once a month No father, stepfather, or father-figure Child First Name] while you are working or busy with other house tasks? Always (talk to your child when working) Often (talk to your child when working)

21	Sometimes kids mind pretty well and sometimes they don't. About how many times, if any, have you had to spank [Child First Name] in the past week?
	Enter number
22	How often does your whole family get together with relatives or friends?
	1 Once a year or less
	2 A few times a year
	3 About once a month
	4 Two or three times a month
	5 About once a week or more
23	How often does [Child First Name] spend time with his/her father, stepfather, or father-figure?
24	How often does [Child First Name] spend time with you?
	 Once a day or more often A few times a week
	3 About once a week
	4 About every two weeks
	5 About once a month
	6 A few times a year or less
	7 Never
	8 No father, stepfather, or father-figure
	Children 3-5 years (>= 36 months - <71 month, 29,30 days)
1	How often do you read stories to [Child First Name]?
	1. Never
	2. Several times a year
	3. Several times a month
	4. Once a week
	5. A few times a week
	6. Everyday
2	In the past 3 days, did you or any household member or close family member age 15 or over read books or look at picture books with [Name of child]?
	1 Yes
	2 No, no one
3	Who read books or looked at picture books with (name) in the past 3 days?
	1 Mother
	2 Father
	3 Other
4	About how many children's books does [Child First Name] have?
	1. None
	2. 1 or 2 books
	3. 3 to 9 books
	4. 10 or more books
	Please tell me which of the following you (or someone else) have helped [Child First Name] learn at home.
5	Do you or have you helped [Child First Name] to learn numbers?
	1 Yes
	0 No
6	Do you (or someone else) help [Child First Name] to learn the alphabet?
	1 Yes

	0 No
7	Do you (or someone else) help [Child First Name] to learn colors?
	1 Yes
	0 No
8	Do you (or someone else) help [Child First Name] to learn shapes and sizes?
	1 Yes
	0 No
9	In the past 3 days, did you or any household member or close family member age 15 or over tell stories to [Name of child]?
	1 Yes
	2 No, no one
10	Who told stories to (<i>name</i>) in the past 3 days?
10	1 Mother
	2 Father
	3 Other
11	In the past 3 days, did you or any household member or close family member age 15 or over sing songs to or with (name) including lullabies?
	1 Yes
	2 No, no one
12	Who sang songs to or with (name), including lullabies in the past 3 days?
	1 Mother
	2 Father
	3 Other
13	In the past 3 days, did you or any household member or close family member age 15 or over play with [Name of child]?
	1 Yes
	2 No, no one
14	Who played with (<i>name</i>) in the past 3 days?
	1 Mother
	2 Father
	3 Other
15	In the past 3 days, did you or any household member or close family member age 15 or over name, count, or draw things for or with [Name of child]?
	1 Yes
	2 No, no one
16	Who named, counted, or drew things for or with (name) in the past 3 days?
	1 Mother
	2 Father
	3 Other
17	How much choice is [Child First Name] allowed in deciding foods s/he eats at breakfast & lunch?
	1 A great deal of choice
	2 Some choice
	3 Little choice

	4 No choice
18	About how many hours is the TV on in your home each day?
	Enter hours per day
19	Most children get angry at their parents from time to time. If [Child First Name] got so angry that
	[he/she] hit you, what would you do?
	Note to the interviewer: do not read anwers and mark all that apply.
	1 Hit him/her back
	2 Send him/her to his/her room
	3 Spank him/her
	4 Talk to him/her
	5 Ignore it
	6 Give him/her household chore
	7 Take away his/her allowance
	8 Hold child's hands until he/she was calm
	10 Put child in a short 'time out'
	9 Other (SPECIFY)
20	How often does a family member get a chance to take [Child First Name] on any kind of outing
	(like shopping, to the park, a picnic, drive-in, museum, and so on)?
	Note to the interviewer: This refers to any member of the household, including the respondent. 1 A few times a year or less
	2 About once a month
	3 About two or three times a month
	4 Several times a week
	5 About once a day
21	In the past 3 days, did you or any household member or close family member age 15 or over take
	[Name of child] outside the home?
	1 Yes
	2 No, no one
22	Who took (name) outside the home in the past 3 days?
	1 Mother
	2 Father
	3 Other
23	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure?
24 25	How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure? How often does [Child First Name] eat a meal with you?
	1 More than once a day
	2 Once a day
	3 Several times a week
	4 About once a week
	5 About once a month
	6 Never
	7 No father, stepfather, or father-figure
26	Children seem to demand attention when their parents are busy around the house. How often do
	you talk to [Child First Name] while you are working?
	1 Always (talk to your child when working)

	2 Often (talk to your child when working)
	3 Sometimes (talk to your child when working)
	4 Rarely (talk to your child when working)
	5 Never (talk to your child when working)
27	Sometimes kids mind pretty well and sometimes they don't. About how many times, if any, have you had to spank [Child First Name] in the past week?
	Enter number
28	How often does your whole family get together with relatives or friends?
	1 Once a year or less
	2 A few times a year
	3 About once a month
	4 Two or three times a month
	5 About once a week or more
29 30	How often does [Child First Name] spend time with his/her father, stepfather, or father-figure? How often does [Child First Name] spend time with you?
	1 Once a day or more often
	2 A few times a week
	3 About once a week
	4 About every two weeks
	5 About once a month
	6 A few times a year or less
	7 Never
	8 No father, stepfather, or father-figure
	Children > 6 years (>= 72 months)
1	About how many children's books does [Child First Name] have?
	1. None
	2. 1 or 2 books
	3. 3 to 9 books
	3. 3 to 9 books 4. 10 or more books
2	
2	4. 10 or more books
2	4. 10 or more booksHow often do you read aloud to [Child First Name]?
2	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never
2	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year
2	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year 3. Several times a month
2	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year 3. Several times a month 4. Once a week
2	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year 3. Several times a month 4. Once a week 5. A few times a week
	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year 3. Several times a month 4. Once a week 5. A few times a week 6. Everyday In the past 3 days, did you or any household member or close family member age 15 or over read books or look at picture books with (name)?
	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year 3. Several times a month 4. Once a week 5. A few times a week 6. Everyday In the past 3 days, did you or any household member or close family member age 15 or over read books or look at picture books with (name)? 1 Yes
3	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year 3. Several times a month 4. Once a week 5. A few times a week 6. Everyday In the past 3 days, did you or any household member or close family member age 15 or over read books or look at picture books with (name)? 1 Yes 2 No, no one
3	 4. 10 or more books How often do you read aloud to [Child First Name]? 1. Never 2. Several times a year 3. Several times a month 4. Once a week 5. A few times a week 6. Everyday In the past 3 days, did you or any household member or close family member age 15 or over read books or look at picture books with (name)? 1 Yes 2 No, no one Who read books or looked at picture books with (name) in the past 3 days?

5	In the past 3 days, did you or any household member or close family member age 15 or over tell
	stories to (name)? 1 Yes
	2 No, no one
6	Who told stories to (<i>name</i>) in the past 3 days?
	1 Mother
	2 Father
	3 Other
7	In the past 3 days, did you or any household member or close family member age 15 or over sing songs to or with (name), including lullabies?
	1 Yes
	2 No, no one
8	Who sang songs to or with (name), including lullabies in the past 3 days?
	1 Mother
	2 Father
	3 Other
9	In the past 3 days, did you or any household member or close family member age 15 or over play
	with (name)?
	1 Yes
	2 No, no one
10	Who played with (name) in the past 3 days?
	1 Mother
	2 Father
	3 Other
11	In the past 3 days, did you or any household member or close family member age 15 or over name, count, or draw things for or with (name)?
	1 Yes
	2 No, no one
12	Who named, counted, or drew things for or with (name) in the past 3 days?
	1 Mother
	2 Father
	3 Other
13	How often is [Child First Name] expected to clean his/her own room?
	1 Almost never
	2 Rarely (less than 1/2 of the time)
	3 Sometimes yes, sometimes no $(1/2 \text{ of the time})$
	4 Often (more than 1/2 of the time)
	5 Almost always
14	How often is [Child First Name] expected to pick up after himself/herself? 1 Almost never
	 2 Rarely (less than 1/2 of the time) 3 Sometimes yes, sometimes no (1/2 of the time)
	4 Often (more than 1/2 of the time)
	5 Almost always
15	Is there a musical instrument that [Child First Name] can use here at home?
	1 Yes

	0 No
16	Does [Child First Name] get special lessons or belong to any organization that encourages activities
	or hobbies such as sports, music, art, dance, drama, etc.? 1 Yes
	0 No
17	How often has a family member taken or arranged to take [Child First Name] to any type of
17	museum (children's, scientific, art, historical, etc.), musical, or theatrical performance within the past year?
	1 Never
	2 Once or twice
	3 Several times
	4 About once a month
	5 About once a week or more often
18	How often does your whole family get together with relatives or friends?
	1 Once a year or less
	2 A few times a year
	3 About once a month
	4 Two or three times a month
	5 About once a week or more
19	How often does [Child First Name] spend time with his/her father, stepfather, or father-figure?
20	How often does [Child First Name] spend time with you?
	1 Once a day or more often
	2 A few times a week
	3 About once a week
	4 About every two weeks
	5 About once a month
	6 A few times a year or less
	7 Never
	8 No father, stepfather, or father-figure
21	How often does [Child First Name] spend time with his/her father, stepfather, or father-figure in outdoor activities?
22	How often does [Child First Name] spend time with you in outdoor activities?
	1 Once a day or more often
	2 A few times a week
	3 About once a week
	4 About every two weeks
	5 About once a month
	6 A few times a year or less
	7 Never
	8 No father, stepfather, or father-figure
23	How often does [Child First Name] eat a meal with you and his/her father/stepfather/father-figure
24	How often does [Child First Name] eat a meal with his/her father/stepfather/father-figure?
	How often does [Child First Name] eat a meal with you?
	1 More than once a day
	2 Once a day
	3 Several times a week
	4 About areas a weak
	4 About once a week

	6 Never
	7 No father, stepfather, or father-figure
25	When your family watches TV together, do you [or child's father/stepfather/father-figure] discuss TV programs with [him/her]?
26	When your family watches TV together, do you discuss TV programs with [him/her]?
	1 Yes
	0 No
	2 Do not have a TV
	3 Do not watch TV (together)
27	Most children get angry at their parents from time to time. If [Child First Name] got so angry that [he/she] hit you, what would you do?
	1 Hit him/her back
	2 Send him/her to his/her room
	3 Spank him/her
	4 Talk to him/her
	5 Ignore it
	6 Give him/her household chore
	7 Take away his/her allowance
	8 Hold child's hands until he/she was calm
	10 Put child in a short 'time out'
	9 Other (SPECIFY)

Discipline

	Adults use certain ways to teach children the right behaviour or to address a behaviour problem. I will read various methods that are used. Please tell me if you or any other adult in your household has used this method with (name) in the past month.
1	Took away privileges, forbade something (name) liked or did not allow (him/her) to leave the
	house in the past month
	1 Yes
	2 No
2	Explained why (name)'s behaviour was wrong in the past month
	1 Yes
	2 No
3	Shook (him/her) in the past month
	1 Yes
	2 No
4	Shouted, yelled at or screamed at (him/her) in the past month
	1 Yes
	2 No, but raised their voice
	Note to the interviewer: Do not read to the respondent, mark when appropriate.
	3 No
5	Gave (him/her) something else to do instead of doing something he/she shouldn't be doing, in the past month
	1 Yes
	2 No
6	Spanked, hit or slapped (him/her) on the bottom with bare hand in the past month
	1 Yes
	2 No
7	Hit (him/her) on the bottom or elsewhere on the body with something like a belt, hairbrush, stick or other hard object in the past month

	1 Yes
	2 No
8	Called (him/her) dumb, lazy or another name like that in the past month
	1 Yes
	2 No
9	Hit or slapped (him/her) on the face, head or ear in the past month
	1 Yes
	2 No
10	Hit or slapped (him/her) on the hand, arm, or leg in the past month
	1 Yes
	2 No
11	Do you believe that in order to bring up, raise, or educate a child properly, the child needs to be
	physically punished?
	1 Yes
	2 No
	3 Don't know/no opinion

Stress

	Question: Over the past 2 weeks, how often have you been bothered by the following problems
1	1. Feeling nervous, anxious or on edge over the past 2 weeks
	A. Not at all
	B. Several days
	C. More than half the days
	D. Nearly every day
2	2. Being unable to stop or control worrying over the past 2 weeks
	A. Not at all
	B. Several days
	C. More than half the days
	D. Nearly every day
3	3. Worrying too much about different things over the past 2 weeks
	A. Not at all
	B. Several days
	C. More than half the days
	D. Nearly every day
4	4. Having trouble relaxing over the past 2 weeks
	A. Not at all
	B. Several days
	C. More than half the days
	D. Nearly every day
5	5. Being so restless that it is hard to sit still over the past 2 weeks
	A. Not at all
	B. Several days
	C. More than half the days
	D. Nearly every day
6	6. Becoming easily annoyed or irritable over the past 2 weeks
	A. Not at all
	B. Several days
	C. More than half the days
	D. Nearly every day

7	7. Feeling afraid, as if something awful might happen over the past 2 weeks
	A. Not at all
	B. Several days
	C. More than half the days
	D. Nearly every day

Child development: CDA

	I'm going to ask you about some things your (pre-fill first name) may be able to do. Children develop at different rates and we don't expect all children to be able to do everything we ask.
	For the next questions, please answer with "Yes" or "No".
1	Can (name) walk on an uneven surface, for example, a bumpy or steep road, without falling? <u>Explanation:</u> The child can walk more than a few steps on an uneven surface, such as up and down an incline (a hill or a ramp, for example) or on a bumpy surface such as gravel), without falling. The child should be able to do this without the help or assistance of others (for example, not while holding someone? hand), or without holding any object that might help him or her walk.
2	Can (name) jump up with both feet leaving the ground? Explanation: The child can jump with both feet off the ground at the same time. Record 'NO' if the respondent says that the child can only jump with help or when holding onto something/someone. Also record 'NO' if the respondent says that the child can only jump down from somewhere, for example, jump down from a stair or step.
3	Can (name) dress (him/herself), that is, put on pants and a shirt, without help? Explanation: The child can put on his/her own clothes (for example, pants, shirt, dress, jacket) without help from others. The child does not need to be able to dress correctly (in other words, the shirt can be backwards) or close complex fixtures (such as clasps).
4	Can (name) fasten and unfasten buttons without help? <u>Explanation</u> : The child is able to button and unbutton shirts, pants, or other pieces of clothing without th assistance of an adult or other child. Record YES' for any answer that reflects that the child can fasten AND unfasten. Record YES' if the respondent says that the child can only fasten and unfasten the bigger buttons on a specific piece of clothing, but not on others that have smaller-sized buttons. The size of the buttons that the child can fasten/unfasten is irrelevant. Record NO' if the child can only use other types of fastening fixtures such as snaps, hooks, ties or zippers. If the child can fasten/unfasten buttons and other types of fastening fixtures, then record YES'. Please note that if the respondent answers that the child has never had a chance to manipulate buttons, the you should record the answer as 'DON'T KNOW'.
5	Can (name) say 10 or more words, like 'mama' or 'ball'? <u>Explanation</u> : The child can clearly say 10 or more different words. These words can be real words (such as objects or names) or 'made up' words that the child consistently uses to convey meaning (for example, a nickname for a person or food). Please note that sometimes children can use different names or nicknames for familiar objects or persons. For instance, the child might say 'gada' instead of 'grandad' or say 'sippy' instead of 'cup', in which case you should also record 'YES' if the respondent conveys that the child usually uses that word to refer to that person or object. It is fine if the respondent starts naming the words the child can say, if that helps her determine whether th child knows 10 words, but please note that she still has to give a yes or no answer by herself, so that you car record the respondent's answer. If the child used two different words to refer to the same object or person, for example 'mother' and 'mummy', these should count as only one word. Please note that, in some contexts, children might use words in different languages. All questions that targe verbal abilities refer to words produced in any language.

6	Can (name) speak using sentences of 3 or more words that go together, for example, "I want water" or "The house is big"? <u>Explanation:</u> The child can clearly speak by forming short simple sentences of three or more words. These sentences should reflect a child's ability to link words together to convey thoughts or feelings. For example, the sentence could include a subject, verb and object combination (for example, "I see a dog"), or it could include a directive (for example, "I want more"). Simple and/or repetitive word combinations that do not convey some meaning do not count as sentences. This should not involve simply repeating sentences the child commonly hears. Record 'YES' for any answer that reflects that the child can communicate using short simple sentences of at least three words. Please note that simple word repetitions (such as, 'go, go, go') as well as repetition of familiar rhymes or sentences the child commonly hears (such as 'twinkle, twinkle, little star', or popular slogans from ads), should be recorded as 'NO'.
7	Can (name) speak using sentences of 5 or more words that go together, for example, "The house is very big"? Explanation: The child can clearly speak by forming short sentences of five or more words. These sentences should reflect children's ability to link words together to convey thoughts or feelings. For example, the sentence could include a subject, verb, adjective and object combination (for example, "I see a big white dog"). Or, it could include a directive (for example, "I want some more water"). Simple and/or repetitive word combinations that do not convey some meaning do not count as sentences. This should not involve simply repeating sentences the child commonly hears. Record 'YES' for any answer that reflects that the child can communicate using sentences of at least five words. Please note that simple word repetitions (such as, 'go, go, go, go, go') as well as repetition of familiar rhymes or sentences (such as 'twinkle, twinkle, little star', or popular slogans from ads), should be recorded as 'NO'.
8	Can (name) correctly use any of the words 'I,' 'you,' 'she,' or 'he,' for example, "I want water" or "He eats rice"? <u>Explanation:</u> The child can use at least one pronoun (such as T, 'you', 'he', 'she', 'we', 'they') correctly in sentences. Please note that if the child is able to refer to a third person (he or she), but mixes up the sexes, you should also record YES'.
9	If you show (name) an object (he/she) knows well, such as a cup or animal, can (he/she) consistently name it? By consistently we mean that (he/she) uses the same word to refer to the same object, even if the word used is not fully correct. Explanation: When the child is shown a familiar object, the child uses the same word to refer to the same object, even if the word used is not fully correct. Record YES' for any answer that reflects that the child can say the object's name in a consistent way – this is, always using that word to refer to the object. Please note that sometimes children can use different names or nicknames for familiar objects or persons. For instance, the child can say 'gada' instead of 'grandad' or say 'sippy' instead of 'cup'. You should record 'YES' if the respondent conveys that the child usually uses that word to refer to that person or object.
10	Can <i>(name)</i> name at least ten letters? Explanation: This item tests the child's alphabet knowledge. Knowledge of letters can be shown in multiple ways: such as reciting the alphabet, spelling their name aloud, or identifying a letter when pointed at. Letter knowledge can be in multiple scripts used in the household (e.g., if a child can name 7 letters in Serbian, and say A, B, C, in English, the parent/caregiver should answer "Yes").
11	Can (name) read four simple words? Explanation: This item tests the child's early reading ability. For a parent/caregiver to give a "Yes" response, the child should be able to either read at least four words aloud, or indicate word knowledge by correctly pointing to a word in a sentence when asked.
12	Can (name) follow text in a correct direction from left to right and from top to bottom, even if they cannot read? <u>Explanation</u> : This item tests the child's understanding of how print/books work. A child does not need to be able to read for a caregiver to answer "Yes." The child should be able to correctly identify where on a page to begin reading (the top-left most word in English and many other languages) and where to continue (on the next word). To answer "Yes", the child does not need to be able to identify individual words, but just know the general flow of text on a page.

13	Can (name) write at least three letters or some letters in his/her name? <u>Explanation</u> : This item tests the child's fine motor skills and early ability to write. If a child can legibly write at least three letters, then the parent/caregiver should respond "Yes." Letters do not need to be written perfectly (e.g. some may be reversed),
	but they must clear enough to read. If the child can only scribble, then the response should be coded as "No."
14	Writes his/her own name <u>Explanation</u> : Children who cannot write their own names may not be able to do so because they cannot hold a pencil or do not know all the letters yet. Please note that the question refers to the child's name because that is generally the first, or one of the first, words a child learns to write. However, if the respondent says that the child cannot write his/her own name but can write some other word, this is record as a NO' answer.
	The child can use letters of the local alphabet to spell out his/her own name in print/block letters (not cursive/ handwriting). Record 'YES' if the child is able to write either his/her first name or last name, or able to write a nickname. The child also does not need to be able to write his/her name correctly (for example, letters may be reversed). The important thing is that the child can hold a writing utensil and use this to write his/her name either in full or in part.
	Record 'YES' for any answer that reflects that the child can hold a writing utensil to write his/her name either in full or in part, using letters of the local alphabet. Also record 'YES' if the child can write a name other than his or her own (such as the name of a pet or favourite friend). Record 'NO' if the child can only write letters using his/her fingers (for example, finger painting or writing his or her name in the sand using fingers).
	Please note that, in some cases, respondents might answer that the child can imitate, by watching the parent write his or her name and then writing it on his/her own, which should be recorded as 'YES'.
15	Can (name) write a simple word, beside his/her name? <u>Explanation</u> : This item tests the child's fine motor skills and early ability to write. A child should be able to write at least one word other than their name in a script used in the household when asked to by someone else. The word does not have to be written perfectly (e.g. some letters may be reversed) but should be legible. If the child can only write their name, then this question should be answered "No."
16	Can (name) count from 1 to 10? <u>Explanation:</u> This item tests the child's early number knowledge. The child should be able to correctly count from 1 to 10 (in the correct order and without skipping or repeating numbers). The child may occasionally make mistakes when counting from 1 to 10, but if the child is capable of counting correctly, the parent/caregiver should still respond as "Yes." The child does not need to be able to count 10 objects correctly, only to be able to say the numbers 1-10.
17	Can (name) count from 1 to 20? <u>Explanation</u> : This item tests the child's early number knowledge. The child should be able to correctly count from 1 to 20 (in the correct order and without skipping or repeating numbers). If the child can count from 1 to 20, but not always 100% correctly, the parent/caregiver should still respond as "Yes." This item does not include one-to-one correspondence (e.g. a child needs to know how to count aloud, but may not be able to count out the correct number of objects 1-20).
18	Can (name) recognize all numbers from 1 to 5? <u>Explanation</u> : The purpose of this item is to determine whether the child can clearly recognize all written or printed numbers from 1 to 5 in his/her native language. To 'recognize' written numbers does not necessarily mean the child can verbally name the numbers. Therefore, you should record 'YES' if a child can say the number when shown the symbol written down on paper (for example, says 'one' when shown the number '1') or if a child can point to a number when asked ("Which is the number '1?"). Record 'NO' if the respondent says that the child can only say some numbers s/he knows well from memory. For example, some children might sing a song with numbers, but they might not yet be able to recognize numbers in print.
19	If you ask (name) to give you 3 objects, such as 3 stones or 3 beans, does (he/she) give you the correct amount?
	Explanation: The child can hand or bring the respondent a specific and correct number of items that you request. Record 'YES' if the child gives the correct and specific number of items or objects requested. Record 'YES' if the respondent says the child is able to give her the correct amount of other objects requested, for example, "I ask him to give me 5 cars and he gives me the correct amount." Record 'NO' if the child gives less or more than the number of items or objects requested.

20	Can (name) count 10 objects, for example 10 fingers or 10 blocks, without mistakes?
	Explanation: The child can clearly and correctly count a finite number of objects up to 10. The child
	should be able to do so without making mistakes. Code 'NO' if the child skips numbers (for example,
	1,2,3,5,10) or if the child counts numbers out of order (for example, 1,2,3,4,6,5,7,8,9,10).
21	Does (name) know the difference between tall and short using two animal examples (e.g., that a
	tiger is taller than a cat.)?
	Explanation: This item tests the child's ability to understand differences by height, an early math skill. The child should be
	able to correctly identify a taller and shorter animal between two examples of familiar animals.
22	Does (name) knows the difference between heavy and light using two animal examples. (e.g., that
	an elephant is heavier than a pig.)?
	Explanation: This item tests the child's ability to understand differences by weight, an early math skill. The child should be
	able to correctly identify a heavier and lighter animal between two examples of familiar animals.
23	Does (name) know the difference between yesterday, today, and tomorrow?
	Explanation: This item tests a child's awareness of time and the past/present/future. A parent/caregiver should answer
	"Yes" if a child can correctly identify what has happened already, what is happening now, and what will happen in the future.
	For example, if the child can say what they ate yesterday compared to today, or that they went to school today but will not go
	tomorrow. This item does not test memory, but rather the child's ability to understand the difference what is happening now,
	what will happen, and what has already happened.
24	Does (name) know that a one-digit number is larger than another one-digit number (e.g., that 4 is
	more than 2).
	Explanation: This item tests a child's early math skills. The child should be able to correctly identify the larger of two one-
	digit numbers. The child should be able to tell which is larger for non-consecutive combinations, rather than only consecutive
	combinations (e.g. if they can say "1 is smaller than 2" and "2 is smaller than 3", but get confused with 2 and 8, then the
	answer should be "No."
25	Can (name) pay attention when doing an activity?
	Explanation: This item tests the child's ability to maintain attention during an activity. The question attempts to capture if
	the child can engage in an activity on her/his own, for at least a few minutes, without giving up or repeatedly asking for help. If
	the child usually quickly gets distracted and gives up faster than other children of the same age, then the parent/caregiver should
	answer "No." If the child can maintain attention for at least a few minutes on some (but not all) activities, then the
	parent/caregiver should answer "Yes."
26	When asked to do several things, does (name) remember all the instructions?
	Explanation: This item tests the child's memory and attention. If the parent/caregiver says that the child remembers "most"
	of the instructions or can remember all of the instructions "most of the time," "Yes" should be coded. If the child can only
	remember some of the instructions or often forgets or gets distracted, then the answer should be coded as "No."
27	Is <i>(name)</i> able to plan ahead?
	Explanation: This item tests ability to think about the future and avoid temptations. Behavior that would demonstrate
	planning ahead would be talking about a sequence of activities (e.g. "I will clean my room so I can play with my friend" or
	saving something for later (e.g. saving a piece of candy to eat later). If the parent/caregiver indicates that the child sometimes is
	able to plan ahead, but not always, the response should still be coded as "Yes."
28	Does (name) stop an activity when told to do so?
	Explanation: This item tests the child's self-regulation and ability to resist impulsive behavior. That is, the child's capacity to
	monitor her/his behavior, follow instructions, and resist impulses. If the child usually stops a behavior, at least for a few
	minutes, when asked to by the parent/caregiver, then the answer should be coded as "Yes." If the child usually does not listen
	until the parent/caregiver repeats the instructions several times, then the answer should be coded as "No."
29	Does (name) keep working at something until s/he is finished?
	Explanation: This item tests the child's persistence and executive functioning. If the child usually continues working on a
	task (e.g. coloring, building something, etc.) until they are finished without giving up, then the answer should be coded as "Yes."
	If the child usually does not finish the activities that they begin, then the answer should be coded as "No."
30	Does <i>(name)</i> get along with other children s/he plays with?
20	Explanation: This item tests the child's sociability and ability to get along with others. The child usually (more often than
	not) plays with other children without quarrelling or running away to play alone. If the child usually avoids playing with other
	children, or frequently gets into fights with them, the answer should be coded as "No." The child may occasionally get in quarrels
	Unitatell, of Teadentev yets into hypers with them, the answer should be toded as a solid mary other other optim analytes.
	or fights with other children, but if this behavior is not more often than other children of the same age, then the answer should

31	Does (name) adjust easily to transitions (for example, adjusting to a new caregiver or adapting to
	having a new baby at home)?
	Explanation: caregiver is the person who takes care of the child, could be a teacher, nanny.
	This item tests whether the child is comfortable with new situations. If the child usually adjusts to minor changes (e.g. removal of
	a toy, leaving school at the end of the day) quickly and major changes (e.g. going to school for the first time) similar to other
	children of the same age, the answer should be coded as "Yes." If the child often struggles with change (e.g. by crying for a long
	time) more so than other children of the same age, then the answer should be coded as "No."
22	
32	Does <i>(name)</i> accept responsibility for his/her actions?
	Explanation: This item tests the child's ability to understand the consequences of their actions and social responsibility. If the
	child usually is honest about their mistakes and misbehavior, then the answer should be "Yes." Note that even if the child
	frequently acts impulsively and misbehaves that the response may still be "Yes" as long as the child accepts responsibility for
	his/her actions. If the child frequently lies and tries to avoid being caught for his/her misbehavior, then the answer should be
	"No."
33	Does <i>(name)</i> settle down after periods of exciting activity?
	Explanation: This item tests the child's ability to control their emotions and transition from one activity to another. If the
	child often has trouble calming down at night or naptime, or sitting still for food after playing compared to other children of the
	same age, then the response should be "No." If the child usually does not have trouble returning to a calm state after being
	excited, then the answer should be coded as "Yes."
34	Does (name) ask about familiar people other than parents when they are not there, for example,
	"Where is Grandma?"?
	Explanation: The child asks questions about other people s/he knows well, other than parents or primary
	caregivers, when that person is absent or not in sight. This can include asking about where people are, when
	they will visit, or what they are doing.
35	Does (name) offer to help someone who seems to need help?
	Explanation: The child offers to help either adults or other children (including siblings) when they seem to
	need help, without being told to do so. Understanding that someone needs help requires being able to
	understand another's point of view. Recognizing that a person is in distress or upset is developed first and at
	earlier ages, followed by an understanding of how to help and a demonstrated willingness to offer help in
	some way.
	Record 'NO' if the respondent says that the child only offers to help others when told to do so. For
	example, if the child helps a sibling because the mother asked him or her to do so.
36	How often does (name) seem to be very sad or depressed?
	Would you say: daily, weekly, monthly, a few times a year, or never?
	Explanation: All children have some worries and may feel sad, but when these worries result in the child
	being frequently restless, tired, inattentive, irritable, tense, and having sleep problems, they may interfere
	with the child's schooling and social development.
	The purpose of this question is to capture the frequency with which children exhibit excessive unhappiness,
	sadness or depression. This could be expressed by the child appearing withdrawn,
	unenthusiastic or crying without an obvious or apparent cause. It could also be communicated by the child
	through verbal expressions of sadness. This is distinct from the child simply being tired, though it may look
	similar.
	This question is not meant to capture a child's response to transitory life events, such as grieving in response
	to the death of a parent or pet, or distress or crying related to starting day care. Such an event can trigger a
	more pronounced problem with worry or sadness, in which case it might be necessary that the interviewer
	probes to understand if the respondent is referring only to a transitory reaction to a recent life event. If the
	respondent answers that the child's sadness is due to a transitory and recent life event, the interviewer should
	ask: "Apart from that specific context/event, how often does (name) seem to be very sad or depressed?"
	and proceed to record the correct answer.
37	Compared with children of the same age, how much does (name) kick, bite, or hit other children or
51	adults?
	Would you say: not at all, the same or less, more, or a lot more?
	Explanation: The purpose of this question is to capture children's behavioural difficulties that limit their
	ability to interact with other people in an appropriate manner. More specifically, this question captures the
	degree to which the child demonstrates physical aggression towards other children or adults. This would not
	include play fighting or what would be considered 'normal' or 'typical' aggression towards a sibling.
	The inability to exhibit self-control at one time or another is normal behaviour for all young children, so the
	The mainty to exhibit sen-control at one time of another is normal behaviour for an young children, so the

question is preceded by the phrase, 'compared with children of the same age', and the response options
capture the degree to which the demonstrated behaviour is deemed excessive by the respondent.

Beliefs

Option 1	Early Parenting Attitudes Questionnaire items.
	7-point Likert scale
	And now I will ask you about some early parenting attitudes. For each statement please answer on a scale from 1 to 7, where 1 means that you don't agree at all, while 7 means you completely agree.
1	Children should be comforted when they are scared or unhappy.
2	Its important for parents to help children learn to deal with their emotions.
3	Parents should pay attention to what their child likes and dislikes.
4	A child who has close bonds with his or her parents will have better relationships later on in life.
5	Children who receive too much attention from their parents become spoiled.*
6	Too much affection, such as hugging and kissing, can make a child weak.*
7	Children and parents do not need to feel emotionally close as long as children are kept safe.*
8	Parents should not try to calm a child who is upset, it is better to let children calm themselves.*
Option 2	ATTITUDES AND BELIEFS ABOU'T EARLY LEARNING
	three statements about your role in [CHILD NAME]'s learning. For each statement, please tell me if you strongly agree, agree, disagree, or strongly disagree. First, (INSERT ITEM). Do you (READ LIST)?
	4 Strongly Agree
	3 Agree
	2 Disagree
	1 Strongly Disagree
	8 (DO NOT READ) Don't know
	9 (DO NOT READ) Refused
	b. You don't have to worry about your child's learning, because [IF QCHILD GENDER=1 INSERT: he, IF QCHILD GENDER=2 INSERT she], IF QCHILD GENDER=8 or 9 INSERT your child] will learn everything [IF QCHILD GENDER=1 INSERT: he, IF QCHILD GENDER=2 INSERT she, IF QCHILD GENDER=8 or 9 INSERT your child] needs to know in school.
	c. When playing/spending time with your child at home, it is more important to you that the activity is fun than for it to be educational.
2	Q7. Who do you think is most responsible for teaching your child about social skills, like sharing and being patient? Would you say?
	1 You as a parent are most responsible
	2 Your child's school is most responsible
	3 You and your child's school are equally responsible
	8 (DO NOT READ) Don't know
	9 (DO NOT READ) Refused
3	Q8. Who do you think is most responsible for teaching your child academic skills like reading,
3	writing, and mathematics? Would you say? (READ LIST)
3	writing, and mathematics? Would you say? (READ LIST) 1 You as a parent are most responsible
3	
3	1 You as a parent are most responsible

8 (DO NOT READ) Don't know
9 (DO NOT READ) Refused

Thoughts on program

1	Did you participate in the program, STRONG FROM THE START - GIVE THEM WINGS?
	1. Yes
	2. No, but someone in my household did
	3. No, no one in my household did
2	Did you like the program, STRONG FROM THE START – GIVE THEM WINGS?
	Interviewer instruction: Do not read the scale to the respondent.
	1. I liked it very much
	2. I liked it to some extent
	3. I disliked it to some extent
	4. I didn't like it at all
3	Did you receive and read SMS messages from the program?
	1. Yes, received but did not read
	2. Yes, received and read
	2. No
4	Did you like SMS messages you received from the program?
	1. I liked them very much
	2. I liked them to some extent
	3. I disliked them to some extent
	4. I didn't like them at all
5	What content do you remember from the program?
6	Have you seen or heard messages from the campaign with the slogan "Great People from the Early Age"?
	1. Yes
	2. No
	3. I can't remember/Don't know