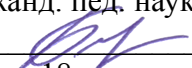


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НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ
ТОМСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ (НИ ТГУ)
Факультет психологии

ДОПУСТИТЬ К ЗАЩИТЕ В ГЭК

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« 18 » июня 2022 г.

МАГИСТЕРСКАЯ ДИССЕРТАЦИЯ

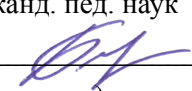
ВЗАИМОСВЯЗИ МЕЖДУ РОДИТЕЛЬСКИМИ УБЕЖДЕНИЯМИ, УСТАНОВКАМИ И
ЗНАНИЯМИ О РАЗВИТИИ РЕБЕНКА, И КОГНИТИВНЫМ И СОЦИАЛЬНЫМ
РАЗВИТИЕМ ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА

по основной образовательной программе подготовки магистров
направление подготовки 37.04.01 – Психология

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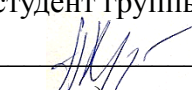
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« 18 » June 2022

MASTER'S THESIS

ASSOCIATIONS BETWEEN PARENTAL KNOWLEDGE, BELIEFS, AND ATTITUDES
TOWARDS CHILD DEVELOPMENT AND COGNITIVE AND SOCIAL DEVELOPMENT
OF PRESCHOOLERS

for Main Educational Programme of Master's Training
Training Direction 37.04.01 – Psychology

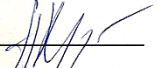
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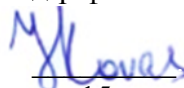
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Министерство науки и высшего образования
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НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ
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« 15 » 02 2022 г.

ЗАДАНИЕ

на выполнение выпускной квалификационной работы магистра обучающемуся Апариной Кристине Владимировне по направлению подготовки 37.04.01 «Психология», профиль «Развитие человека: генетика, нейронаука и психология»

1 Тема выпускной квалификационной работы **ВЗАИМОСВЯЗИ МЕЖДУ РОДИТЕЛЬСКИМИ УБЕЖДЕНИЯМИ, УСТАНОВКАМИ И ЗНАНИЯМИ О РАЗВИТИИ РЕБЕНКА, И КОГНИТИВНЫМ И СОЦИАЛЬНЫМ РАЗВИТИЕМ ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА**

2 Срок сдачи обучающимся выполненной выпускной квалификационной работы:
а) в деканат – 17.06.2022 б) в ГЭК – 20.06.2022

3 Исходные данные к работе:

Объект исследования – знания, убеждения и установки родителей относительно детского развития и когнитивное, социальное и поведенческое развитие детей дошкольного возраста.

Предмет исследования – ассоциации между знаниями, убеждениями и установками родителей относительно детского развития и когнитивным, социальным и поведенческим развитием детей дошкольного возраста.

Цель исследования – исследование особенностей взаимосвязей между знаниями, убеждениями и установками родителей относительно детского развития, и когнитивным, социальным и поведенческим развитием детей дошкольного возраста.

Задачи: 1. Анализ научных статей и литературы, посвященных определению ключевых аспектов когнитивного, социального и поведенческого развития детей дошкольного возраста, родительских знаний, убеждений, и установок относительно детского развития; а также методов их измерения. 2. Подготовка данных к анализу, проведение анализа. 3. Описание и интерпретация результатов.

Методы исследования:

Теоретические: анализ, синтез, систематизация научных сведений, связанных с тематикой исследования

Эмпирические: буклеты, позволяющие выявить характеристики когнитивного и поведенческого развития детей дошкольного возраста; онлайн опросники, позволяющие выявить характеристики социального развития детей дошкольного возраста, а также знания, убеждения, и установки родителей относительно детского развития.

Статистические: описательные статистики, корреляционный анализ Спирмена, регрессионный анализ ключевых взаимосвязей.

Организация или отрасль, по тематике которой выполняется работа - психология развития.

4 Краткое содержание работы:

В первой главе – введение, рассматриваются основные подходы к изучению когнитивного, социального и поведенческого развития у детей дошкольного возраста, убеждений, и установок родителей относительно детского развития, а также методы измерения.

Во второй главе описываются дизайн исследования, включая цель и гипотезы, процедура сбора данных, материалы, используемые в исследовании.

В третьей главе представлены статистические результаты и их интерпретация.

В четвертой главе содержатся выводы, сильные стороны и ограничения исследования, предложения для дальнейших исследований.

Руководитель выпускной квалификационной работы

Доцент, факультет психологии, ТГУ

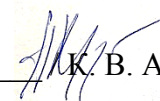
должность, место работы

 / О. Е. Богданова

Задание принял к исполнению

Студент, ТГУ

должность, место работы

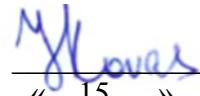
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Psychology Department

APPROVED

MSc Programme Director

PhD, Professor



Y.V. Smetana (Kovas)

« 15 » 02 2022

ASSIGNMENT

for the MSc graduation thesis to the student Aparina Kristina Vladimirovna in the field of study 37.04.01 «Psychology», training direction «Human Development: Genetics, Neuroscience and Psychology»

1 Title of the graduation thesis ASSOCIATIONS BETWEEN PARENTAL KNOWLEDGE, BELIEFS, AND ATTITUDES TOWARDS CHILD DEVELOPMENT AND COGNITIVE AND SOCIAL DEVELOPMENT OF PRESCHOOLERS

2 Submission dates of the completed graduation thesis by the student:

a) to the Dean's office – 17.06.2022

b) to the State Examination Board – 20.06.2022

3 Baseline information for MSc thesis:

Object of research – knowledge, beliefs and attitudes of parents regarding child development and cognitive, social and behavioural development of preschool children.

Subject of research – the associations between knowledge, beliefs and attitudes of parents regarding child development, and the cognitive, social and behavioural development of preschool children.

Purpose of research – study of the features of the relationship between the knowledge, beliefs and attitudes of parents regarding child development, and the cognitive, social and behavioural development of preschool children.

Tasks: 1. Analysis of scientific articles and literature devoted to the definition of key aspects of the cognitive, social and behavioural development of preschool children, parental knowledge, beliefs, and attitudes regarding child development; as well as methods for their measurement. 2. Preparation of data for analysis, analysis. 3. Description and interpretation of the results.

Research methods:

Theoretical: analysis, synthesis, systematisation of scientific information related to the research topic

Empirical: booklets to identify the characteristics of the cognitive and behavioural development of preschool children; online questionnaires that reveal the characteristics of the social development

of preschool children, as well as the knowledge, beliefs, and attitudes of parents regarding child development.

Statistical: descriptive statistics, Spearman correlation analysis, regression analysis of key relationships.

Organisation or field in which the work is being completed – Developmental psychology.

4 Summary of the graduation thesis:

The first chapter, an introduction, discusses the main approaches to the study of cognitive, social and behavioural development in preschool children, beliefs and attitudes of parents regarding child development, as well as measurement methods.

The second chapter describes the design of the study, including the purpose and hypotheses, the data collection procedure, and the materials used in the study.

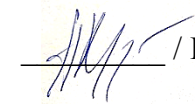
The third chapter presents the statistical results and their interpretation.

The fourth chapter contains conclusions, strengths and limitations of the study, and suggestions for further research.

Supervisor of the MSc graduation thesis
Associate Professor, Psychology Department, TSU
position, place of employment

 / O. Y. Bogdanova

Assignment is accepted for completion by
MSc student, TSU

 / K. V. Aparina

Abstract

Parental experience is transmitted from generation to generation biologically and socially in the family, supplemented not only by internal family factors, but also by the external surrounding society, its culture, norms and values. Also, the interaction with the child, the child's development itself, directly may affect parental experiences. The current study involved parent-child dyads who enlisted in kindergarten development programs. The purpose of this paper is to explore associations between parental knowledge, beliefs, and attitudes about child development, and cognitive, social, and behavioural patterns of preschoolers' development.

Parental knowledge is associated with parental support manifestations and both problem child behaviour and prosocial behaviour. The home environment is related to parental knowledge and support, as well as to social and behavioural development of children. Most important that parental knowledge about children development is associated with manifestations of parental support, which in turn are crucial for child development generally.

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1. INTRODUCTION

This section is divided into five topics: the milestones of development of preschoolers and importance of knowledge about it; main innovations through cognitive and social development in preschoolers; prosocial behaviour and behavioural problems in preschoolers; parental knowledge, beliefs and attitudes: interactions of parenthood and child development; concise overview of importance of child development programs both for children and parents. The first part provides a brief overview of the main psychological trends in preschoolers development. The second part explores major changes in the cognitive and social development of preschool children. The third part reveals key traits for socialisation in preschool age, prosocial behaviour and possible behavioural problems. The fourth part explores patterns of parenthood: parental knowledge of child development, parental beliefs and attitudes, and research into their impact on child development. Finally, the fifth part provides a laconic overview of the impact of child development programs and parent support programs on parenting patterns, and on the development of the child itself.

1.1. Why is knowledge about milestones of child development important?

The interdisciplinary approach uses methods of various fields to get a more objective picture of child developmental processes to describe, explain and optimise them (Skolnick, 1975; Dannefer&Perlmutter, 1990; Barker&Weller, 2003). In this way, we can trace the path from the first months of life, when temperament begins to manifest, genes affect brain development and certain areas of the brain are formed, and the environment makes its contribution, — to suggest the development trajectory (Žumárová, 2014; Feldman, 2015; Roebbers, 2017).

There are different approaches to determining the development trajectory. E. Erikson in the studies of child socialisation linked the style of motherhood, maternal beliefs and the requirements of society, which were presented to the children as they grow older (Kirsch&Buchholz, 2020). As in the psychoanalytic concept of development, each period is characterised by its own task, having overcome which, the child proceeds to the next stage and task. The physiological development of the child and the mentality of the surrounding society also influenced the solution of the task (Coll, Akerman&Cicchetti, 2000; Perez-Felkner, 2013).

The law of development of J. Piaget implied a process of decentration, including the processes of children becoming aware of themselves as agents of actions and coordinating their own point of view with others (Genovese, 2003; Kesselring&Mueller, 2011; Fernandez,

2014; Miller, 2019). With age, the situational context begins to have an increasingly important role in the behaviour of the child. By performing actions, children establish a balance in interactions with a constantly changing external environment: changing it (adapting it) or changing themselves (Grusec, 1992; Slater, Hocking&Loose, 2003; Hedegaard, 2009). Personal development occurs by expanding and complicating action schemes due to internalisation (Vygotsky, 2005; Vasileva&Balyasnikova, 2019; Perez-Felkner, 2013). These schemes are formed as a result of objective actions with the environment, while the child's activity is innate.

Uznadze formulated the "postulate of immediacy" about the direct and irresistible influence of the surrounding reality on consciousness and on activity in general (Asmolov, 2002; Grigorenko, Ruzgis&Sternberg, 1996). Further searches for the point of this influence led Uznadze to disclose the concept of a primary attitude — as the main regulator of human behaviour, a holistic, necessary intermediary-translator between the mental and physical, combining both spheres (Asmolov, 2002). Asmolov (2002) identifies two fundamental aspects in the relations of activity and attitude: genetic and functional. According to the genetic aspect, activity is not just a consequence of the work of regulatory mechanisms, but it itself develops the necessary "managerial hierarchy". In a functional aspect, the attitude directs activities.

Asmolov (2002) considers social influence as a multilateral process that does not consist in limitations and a deterministic approach, nor does it involve non-intervention and/or connivance. Education is not equal to learning, Asmolov quotes Leontiev: "meaning cannot be learned, it is acquired in the process of upbringing" (Asmolov, 2002). In the social-activity approach, personality development occurs through cooperation: values, ideals and beliefs — are not just inherited, but also the result of activities. In the process of developing empathy, the support of the caregiver is important, as well as the soft direction if the process is at an impasse (Verhoeven, Deković, Bodden&van Baar, 2017).

Based on the research of Vygotsky and Leontiev, Elkonin formulated a periodization of child development, including a description of social situations, leading activities, and major innovations for each period (Veresov, 2006; Wong&Fleer, 2013). For instance, the period of preschool age (3-7 y.o.) begins with a crisis of three years and ends with a crisis of seven years (Humphreys, Zeanah&Scheeringa, 2015; Zeanah et al., 2011). The leading subject-tool activity of early childhood (1-3 y.o.) is being replaced by a role-playing game (Samuelsson&Carlsson, 2008; Veresov, 2006; Wong&Fleer, 2013). The change in the social situation, consisting in the transition from joint activities with adults to modelling adult

behaviour through joint activities with peers (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Darling-Churchill&Lippman, 2016). In early childhood, children are characterised by so-called egocentrism: they evaluate any situation based only on their point of view, due to the lack of differentiation between their own selves and external reality (Kesselring&Mueller, 2011; Tierney&Rubin, 1975). In preschool age with the expansion of social contacts, a child's own point of view becomes not absolute and the only possible one (Fernandez, 2014). One of the intellectual achievements of the period lies in overcoming the egocentric position and accomplishment of decentralisation.

Modern research puts forward the concept Nature of Nurture — as the genetic influence extends to the environment (Kovas&Plomin, 2007; Harold et al., 2013; Kovas, Malykh&Gaysina, 2016; Kong et al., 2018). The genetic impact extends to how the child interacts with the environment, which, in turn, may interact with the child's genes. Thereby, the dynamics of the children's development is based on their genes, their experience of interaction with the environment; their level of activity; the degree of maturation of the nervous system and the body as a whole; language and education.

In sum, four main factors are involved in the formation of personality: genetic, environmental, independent activity, and the organisational activity of the caregiver (Kovas&Plomin, 2007; Kovas, Malykh&Gaysina, 2016; Kong et al., 2018). Knowledge of milestones and main innovations in different ages is necessary for parents, teachers and policy makers for a better understanding and harmonic enrichment of development processes in important periods, as well as advance warning of possible difficulties (Conti&Heckman, 2013; Bjorklund&Pellegrini, 2000; Samuelsson&Carlsson, 2008; Perez-Felkner, 2013; Gilleard&Higgs, 2016; Belsky&Pluess, 2013; Fernandez, 2014; Darling-Churchill&Lippman, 2016; Schulting, Malone&Dodge, 2005). In such periods, caregivers should create the optimal base for a child's further successful development (Žumárová, 2014; Feldman, 2015). Mainly because these sensitive periods are the most favourable for the development of certain functions of a person (Frankenhuis&Walasek, 2020; Wang, 2015; Dosman, Andrews&Goulden, 2012).

1.2. Cognitive and social development in preschoolers

The core of the theory of development is the disclosure of the driving forces, the identification of the role of biological and social factors (heredity, environment, training and education) in the formation of personality. Modern studies show: all traits have both biological and environmental bases, the main question is in what relation (Plomin et al.,

2016). Moreover, these relationships are not static across the lifespan (Haworth, Davis&Plomin, 2013). Within gene-environment co-action some traits may change significantly during development. For instance, the contribution of genes to the development of intelligence increases with age (Kovas et al., 2015; Plomin&Deary, 2015). Intelligence is associated with basic cognitive processes: memory, attention, spatial thinking, executive functions, etc. Krapohl et al. (2014) in the study of academic achievement, suggested its high heritability. Also, the results of this study show that, in addition to intelligence, other domains such as self-efficacy, personality, school environment, have a contribution to academic achievement's heritability (Krapohl et al., 2014).

Pursuant to the Generalist Genes Hypothesis, the genetic influence of many genes regarding learning abilities and learning disabilities may extend to other cognitive domains (Kovas&Plomin, 2007). The results of this effect are presumably distributed over all areas of the brain since different cognitive domains are associated with several areas at once. While some parts of the structure of the brain at birth are already developed to adulthood, others continue to develop throughout life (Casey et al., 2005; Lebel&Beaulieu, 2011; Brown&Jernigan, 2012; Frankenhuis&Walasek, 2020). Particularly intense during childhood development: neurogenesis is especially active in postnatal and preschool periods (Brown&Jernigan, 2012; Brown et al., 2012; Zeanah et al., 2011; Frankenhuis&Walasek, 2020). The ongoing processes of myelination and maturation of fibre pathways have a direct impact on the development of brain structure. The level of glucose metabolism in the cerebral cortex also increases, reaching a peak at the age of 3-9 years, when it exceeds the level of adults (Brown&Jernigan, 2012). In parallel, a period of active synaptogenesis occurs, which is also associated with an increase in the number of new connections (Zeanah et al., 2011).

Along with developmental changes in the brain, the child's temperament is revealed from the first months of life (Rothbart, 2019). Observing the manifestations of temperament in a preschooler, parents can make assumptions about his/her future character traits. Furthermore, relying on the biological basis, an attentive and patient parent may help the child in the development through supplementing it by diversifying the environment (Hosokawa&Katsura, 2018a; Spruijt, et. al, 2018). This is especially effective during a period of intensive development: first decade of life (Rothbart, 2019).

In the period of preschool age, qualitative changes occur in the basic cognitive structures: memory (Graf, 1990; Roman, Pisoni&Kronenberger, 2014), attention (Mahone&Schneider, 2012; Wray et al., 2017), thinking (Welch-Ross, 1995; Pipe et al., 2004), imagination (Dere, 2019; Solovieva&Quintanar, 2019) — gradually become arbitrary, voluntary and symbolic.

Generally, a child builds his/her personality interacting not only with material objects-tools, but also with psychological ones — signs (Welch-Ross, 1995; Gaskell&Ellis, 2009; Fernandez, 2014; Rodriguez, Marti&Salsa, 2018). Cognitive needs go out to acquire one of the key roles. Based on practical, visual-effective thinking, a visual-figurative is formed: problem solving becomes possible with the help of image manipulation, without practical actions (Fernandez, 2014). From the third year, children learn to solve problems on their own, remembering the path and more detailed orientation in space (Munakata, Michaelson, Barker&Chevalier, 2013; Kulagina, 1999; Dempster, 1992).

Through the game, as well as modelling adult behaviour, preschoolers form their own self-conceptions and discovers the world of others (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Elkonin, 2005; Bergen, 2002; Moriguchi, Lee&Itakura, 2007; Hughes&Ensor, 2005; Vygotsky, 1978; Dosman, Andrews&Goulden, 2012; Wang, 2015; Wang&Wang, 2015; McDermott&Noles, 2018; Altun, 2019). Simultaneously, such games are involved in the process of transition from external actions to actions in the internal plane. It becomes a support for the formation of thinking: reflective, analytical (Fleer, 2011; Petrovska, Sivevska&Cackov, 2013; Brocas&Carrillo, 2018). Also, in the process of playing activities, imagination starts developing (Fleer, 2011; Murray, 2018). Toys help children master the substantive actions (Chase, 1992).

The role-playing becomes the leading activity: modelling social relations, a child gets acquainted with social roles, copying adult behaviour (Perez-Felkner, 2013; Petrovska, Sivevska&Cackov, 2013; Bodrova&Leong, 2015; Wong&Fleer, 2013; Murray, 2018). Children learn to act as adults through identification and imitation (Bandura, 1963; Verhoeven, Deković, Bodden&van Baar, 2017). According to social learning theory, an important role for the development of the child is played by parental soft discipline — clear instructions (for example, why child should not act in a certain way), and a focus on positive behaviour, praise (Lereya, Samara&Wolke, 2013; Verhoeven, Deković, Bodden&van Baar, 2017).

One of the most important innovations of preschool age is the formation of self-regulation apparatus or self-control (Ziv, Benita&Sofri, 2017; Eisenberg, 2012; Vazsonyi&Jiskrova, 2018). In an early age, based on parental facial expressions and intonations, an external system of behaviour regulation is formed first (Dahl, Campos&Witherington, 2011). Then, through internalisation in the preschool period, an internal system of self-regulation begins to form on its basis, with the improvement of language skills and the internalisation of social concepts in 2 years (Vazsonyi&Jiskrova, 2018). In the

preschool period, children learn to cope better with such skills as waiting in line, managing emotions, and following the rules. A. Bandura (1991) in self-control identified three main processes: introspection (monitoring), judgement (determinants), and self-reaction (effects). That is, the child learns to observe his/her behaviour, learns certain rules and judgments, based on which he/she builds an assessment of his/her thoughts and actions.

Researchers defined self-control as a limited source of the brain (Baumeister, Wright&Carreon, 2019). Wherein, some studies showed various changes in this source through lifespan (Paschke, et. al, 2016), and others show opposite results (Jo&Bouffard, 2014; Beaver, Wright, DeLisi&Vaughn, 2008). According to genetic research, self-regulation training is possible. Since up to 60% of individual differences in self-control are mediated by genetic factors (Willems, et. al, 2019).

The child's self-regulation skills depend on both gene-environment correlation and interaction. For example, some genetic variations (polymorphisms) may be associated with the atypical work of neurotransmitters in the brain (such as serotonin, or dopamine), which with unsafe attachments may lead to the development of low self-control (Lereya, Samara&Wolke, 2013). In addition, G-E correlation may be passive: when the child adopts the parental model of behaviour both genetically and absorbing their social example, high self-regulation skills or high impulsivity. Also, it may be reactive when genetically based behaviour gets a response from the environment, and active when the child unconsciously or consciously changes the environment depending on heritable inclination (DeFries, Plomin, Vandenberg&Kuse, 1981).

Based on neuroscientific data, strong self-control skill is usually associated with activity in the prefrontal cortex, while a weak one is associated with ventral striatum and amygdala activity (Miller&Cohen, 2001; Uytun, 2018; Alvarez&Emory, 2006; Casey, Tottenham, Liston&Durston, 2005). The most powerful development of the prefrontal cortex occurs in preschool age (Uytun, 2018), while the formation of executive functions and self-regulation also gained strength (Uytun, 2018). While the prefrontal cortex usually develops longer than other areas of the brain, intensive development of self-control skills also lasts for the first two decades of life (Vazsonyi&Jiskrova, 2018).

Studies show significant correlations of self-control and emotional regulation, control of impulses and illusions, motivation and adaptation (Demetriou, et. al, 2020; Paschke, et. al, 2016; Sodian&Frith, 2008; Karpinski&Scullin, 2009; Bock, Gallaway&Hund, 2015). Accordingly, the development of the self-regulation structure as a strong skill in a child subsequently affects his/her overall self-discipline, achievement of goals and well-being in

future (Paschke, et. al, 2016, Ursache, Blair&Razza, 2007). While the weak self-regulation structure may lead to the development of impulsivity, shortsightedness, and risk-taking behavior (Vazsonyi&Jiskrova, 2018; Caspi, et. al, 2017; Meldrum, Young&Weerman, 2012). Such traits play a crucial role in control problems, behavioral disorders, addictions, as well as deviant and/or criminal behavior (Caspi, et. al, 2017; Meldrum, Young&Weerman, 2012). Thereby, the formation of self-regulation plays a crucial role in the development of the child: starting from preschool age with emotional regulation and readiness for school (Demetriou, et. al, 2020), to academic performance (Demetriou, et. al, 2020; Ursache, Blair&Razza, 2007), and the behaviour of adolescents and adults – self-discipline, habits, healthy lifestyles, career achievements, building long-term relationships, etc. (Caspi, et. al, 2017; Willems, et. al, 2019).

Furthermore, in preschool age qualitative changes in the memory apparatus affect the expansion of the vocabulary, language skills (Slot&von Suchodoletz, 2018; Fernandez, 2014), and the formation of the mental lexicon (Nation, 2013; Takashima, et al., 2019), which in turn affects the categorization processes (Gaskell&Ellis, 2009; Welch-Ross, 1995; Chandler, Lubeck&Fowler, 1992). Rosch and colleagues (1976) conducted a series of experiments with the task of level-wise categorization. The authors proposed three such levels: basic, superordinate and subordinate (example: "dog", "animal", "terrier" respectively). Among participants in children and adults of different ages (3, 4, 5, 6, 8, 10, and 18+), everyone coped with the basic level. However, with the task of a superordinate level, the younger group showed below the results. Children of 4 years on the same task showed results on a parent's gender with adults — 96% of correct decisions, while for 3-year-olds — 55% (Rosch et al., 1976). The children were not given tasks with the third level, subordinate, since they still could not cope with the previous, superordinate. At the same age children show the ability to distinguish between fantasy and reality (Welch-Ross, 1995; Pipe et al., 2004). Although at preschool years this skill is still far from completed, children distinguish between real objects and invented ones.

A qualitative shift is taking place in the child's metacognition system around the age of 3-4: in overcoming the egocentric position, the formation of several mechanisms is actively involved. Equally important as the development of a self-regulatory system, is the emergence of theory of mind (ToM) — representations system about mental states of child's own and other people's (Moriguchi, 2012, Fernandez, 2014; Moriguchi, Lee&Itakura, 2007; Hughes&Ensor, 2005; Vygotsky, 1978; Dosman, Andrews&Goulden, 2012; Wang, 2015; Wang&Wang, 2015; McDermott&Noles, 2018; Altun, 2019). With the formation of the theory of mind, the child begins to better understand his/her and other people's emotions, beliefs, desires, intentions, based on which s/he learns to predict behaviour. Theory of mind's arousal is also associated with the

ability to distinguish between false beliefs (Mutter, Alcorn&Welsh, 2006; Sabbagh et al., 2006); decision making (Lane et al., 2010; Wang, 2015); and with the executive functions, such as planning (Bergen, 2002), inhibitory control (Scullin&Bonner, 2006; Bellagamba et al., 2015). Moreover, studies have shown that targeted theory of mind training in preschoolers improves performance for executive functions tests (Moriguchi, Okanda&Itakura, 2008).

Villachan-Lyra and colleagues (2015) in testing the association-hypothesis of the type of early attachment with the development of ToM. Researchers found differences in understanding false beliefs depending on age and type of attachment. Of the three proposed types of control-protection, unreliable and safe, the latter showed the greatest investments in the progress of ToM in children. The authors of the experiment emphasised the importance of the following aspects: the quality of maternal sensitivity and care, their regularity, and the manifestations of creativity in game modelling. The authors also suggest the importance of researching complex cognitive qualities, like ToM, in the context of age-related development, since the prerequisites for the formation of ToM itself are already evident in infancy (Allen&Kelly, 2015).

In general, studies show that well-developed social-emotional skills may reduce the risks of aggressive behaviour and rejection by peers, and consequently, in part, the risks of difficulties in school (Lereya, Samara&Wolke, 2013; Fernald, Prado, Kariger&Raikes, 2017). At the same time, social-emotional well-being does not consist only in the absence of behavioural problems, but includes various norms and values due to cultural factors. The culture surrounding the child directly and indirectly dictates the methods of reaction to and expression of emotions, construction of social interactions accepted in society (Fernald, Prado, Kariger&Raikes, 2017).

In addition to ToM, important changes are taking place in the executive functions apparatus, which contribute to the effectiveness of cognitive processes such as planning, priority management, focused attention, multi-tasking, behavioural inhibition (Engelhardt, Briley, Mann, Harden&Tucker-Drob, 2015; Blair, 2016; Friedman&Miyake, 2017). These skills help children to learn, control their emotions and actions, hold information, and follow the rules. With proper development, executive functions can help children in the socio-emotional sphere, academic achievement and later — in professional activity (Best&Miller, 2010; Beck, Schaefer, Pang&Carlson, 2011; Moffitt et al., 2011; Schetinina, 2000; Vasquez, Patall, Fong, Corrigan&Pine, 2015). Therefore, research on this topic and the development of effective and easily implemented child development programs are so important.

Studies on the aetiology of individual differences in preschoolers' executive functions show the main role of genetic factors and nonshared environment (Engelhardt, Briley, Mann,

Harden&Tucker-Drob, 2015; Friedman&Miyake, 2017; Sun, Lau, Sincovich&Rao, 2018; DeFries, Plomin, Vandenberg&Kuse, 1981). For instance, in the Meta-analysis of Twin Correlations and Heritability (MaTCH), there are three domains related to executive functions: high-level cognitive functions with 54-77% heritability, attention functions with 15-41%, and memory functions with 19-36% (Polderman et al., 2015). Other studies also confirm that the contribution of the environment to individual differences in executive functions is moderate (Sun, Lau, Sincovich&Rao, 2018; DeFries, Plomin, Vandenberg&Kuse, 1981), at the same time, research is still needed that separates the environment into shared and non-shared in cross-cultural cohorts.

In a search of the neurophysiological basis of executive functions, researchers draw a parallel between the slow maturation of the prefrontal cortex at preschool age and the same gradual development of executive functions (Welsh, Pennington&Groisser, 1991; Benavides-Nieto et al., 2017; Aarts, Roelofs&Turennout, 2009; Fernald, Prado, Kariger&Raikes, 2017). The foundations of this development are laid during the first year of life and then they continue to develop most intensively during the period of early childhood and schooling (Brown&Jernigan, 2012). Particularly, in working with standard versions of DCCSt (Dimensional Change Card Sort task) children 4-5 years old showed a faster transition to new rules compared to 3-year-olds (Moriguchi, Lee&Itakura, 2007). Research also distinguishes between “hot” and “cold” executive functions: “cold” are associated with non-emotional mechanisms, such as arbitrary rules and dorsolateral areas of the prefrontal cortex; “hot” executive functions have been associated with emotional mechanisms like inhibition, delayed gratification, and the ventral and medial regions of the prefrontal cortex (Fernald, Prado, Kariger&Raikes, 2017).

Summarising the above, for the crisis of three years, the main mental innovations of children become obstinacy; self-will, depreciation of previously significant, as well as pride in their own achievements (Vygotsky, 1978). Further, from fourth year, role-play games contribute to the development of critical thinking, logic and rules acceptance. By the age of 5, flexibility of thinking usually begins to develop (Kulagina, 1999; Dempster, 1992; Heaviside&Farris, 1993; Blair&Razza, 2007). In the first five years of life, significant changes occur: genetically determined, and supplemented by the environment of the child (Shonkoff&Phillips, 2000; Miyake, Friedman, Emerson, Witzki&Howerter, 2000; Hosokawa&Katsura, 2018a; Bock, Gallaway&Hund, 2015; Lin, Liew&Perez, 2019; Paschke, et. al, 2016). The results of interdisciplinary research may help parents and ethical- and policymakers better understand the

developmental trajectories of children for balancing, saturation and possible preliminary adjustment (Raver, et. al, 2012; Jaramillo, et. al, 2017; Meldrum, Young& Weerman, 2012).

Given the main milestones of children development, as well as consequences and impacts for future life, researchers may offer certain options for intervention for the most effective development strategies for children's well-being. Based on this picture, caregivers, teachers, and policymakers may create the best fitting programs for child prosperous development (Healey&Healey, 2019; Caspi, et. al, 2017; Tomporowski, McCullick, Pendleton&Pesce, 2015; Paananen, et. al, 2019).

1.3. Prosocial behaviour and behavioural problems in preschoolers

Both the skills of understanding one's own and others' feelings and intentions and the skills of building social communications are important for socialisation and socio-cognitive development in preschool age (Hughes&Lecce, 2010; Miller, 2019). For parents, the task of supporting the social development of the child is no less important than the cognitive one. In addition to strengthening child-parent relationships, the intensive involvement of parents in the process of social and emotional development of the child can significantly help her/him in later life — communication with peers, other adults, readiness for school, academic achievements (McCarty, Zimmerman, Diguseppe&Christakis, 2005; Hughes&Lecce, 2010; Vasquez, Patall, Fong, Corrigan&Pine, 2015; September, Rich&Roman, 2017). Individual differences in the development of social consciousness are based both on family factors — parental support, home environment, and on exclusively child factors — language acquisition, executive functions (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Hughes&Lecce, 2010). At the same time, the trajectory of the development of social consciousness can be adjusted through child development programs and/or parental support programs that are individualised, multidimensional, and sustainable (Hughes&Lecce, 2010).

For preschool children, the main emotional competencies are: understanding the emotions of one's own and others, the development of empathy, adaptive strategies for coping with distress (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Saarni, 2011; Denham, Zinsser&Bailey, 2011). It is important for parents to name emotions for a preschooler so that s/he learns to recognize what s/he feels. The skill of recognizing emotions in the future can help in the formation of adaptive coping strategies and emotional regulation (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Saarni, 2011; Leraya, Samara&Wolke, 2013). Children with developed emotional competencies are better able to cope with stress and self-regulation, which affects both the development of other socio-cognitive domains and the navigation of ability

development in the future (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Saarni, 2011; Denham, Zinsser&Bailey, 2011; Lereya, Samara&Wolke, 2013). Thereby, the development of emotional competencies is a protective mechanism for the manifestation of risk factors.

One of these risk factors is the manifestation of aggression in preschoolers. Children may begin to show physical aggression as a reaction to frustration as early as one or two years of age (Tremblay, 2012). Young children are more likely to show physical aggression, for lack of other tools for manifestation. Usually, with age, physical aggression may decrease, or turn into relational, although both are destructive to the addressee (Tremblay, 2012; Brendgen, 2012). While relational aggression requires higher cognitive and language skills (Brendgen, 2012), aggressive behaviour in general is often associated with poor language ability, which affects both the socialisation process and the development of empathy and emotional regulation (Keenan, 2012).

Côté et al. (2017) suggested that with the start of attending classes in kindergarten, the child's stress level may increase. The reasons may be the following factors: a growing number of social contacts (Côté et al., 2017; Rickmeyer, Lebiger-Vogel&Leuzinger-Bohleber, 2017), the initial stage of development of emotional and behavioural control, as well as language skills and social competencies (Côté et al., 2017; Maleki et al., 2019). An increase in stress leads to consequences in the form of manifestations of aggression, noncompliance, overly oppositional behaviour, slow progress in mastering social competencies, increased risk of rejection by peers.

Gender differences in physical aggression appear in early childhood and may persist into adulthood (Archer, 2012). According to research, boys are more likely to show physical aggression, and relative — from the age of 4 years, regardless of gender (Brendgen, 2012). Gender differences can be quantitative — due to different heritability in boys and girls; and can be qualitative — when different genes are expressed in different genders (Vierikko et al., 2003).

On the one hand, such an early manifestation of gender differences in aggressive behaviour points to a negligible effect of socialisation (Archer, 2012). On the other hand, twin studies show rather controversial results for childhood aggression. Eley with colleagues did not detect any gender differences in the genetic architecture for aggression (Eley, Lichtenstein&Stevenson, 1999). Vierikko with colleagues investigated data from 1651 Finnish twin pairs 11-12 years old and found lower heritability estimates for aggression in boys (Vierikko et al., 2003). Other researchers have found in boys and girls of 3 and 7 years the same almost 60% heritability of aggression (van Beijsterveldt et al., 2003). Similar results are shown by

another study of children 4 years old and then as adolescents 12-16 years old: at a younger age, individual differences in problem behaviour are 59% explained by genetics, and in adolescence — by 61% (Lewis&Plomin, 2015)). Therein, scientists note the predictive role of problem behaviour in early childhood for the subsequent developmental trajectory.

Porsch with colleagues investigated heritability of childhood aggression behaviour with two longitudinal large twin cohorts: TEDS (Twin Early Development Study) and NTR (Netherlands Twin Register) (Porsch et al., 2016). In TEDS the parental ratings were used with SDQ (Strength and Difficulty Questionnaire) for almost 14 000 twin pairs; when in NTR the maternal ratings were used with CBCL (Child Behaviour Checklist) for almost 25 000 twin pairs. Aggressive behaviour scores decreased with age in all genders, although boys' scores were initially higher. At the same time, the scores of boys had a wider spread in both cohorts at all ages. Gender differences in NTR were slightly wider, and the genetic contribution to individual differences in aggressive behaviour was greater than in TEDS. One of the main conclusions of this comparison is that genetic factors are not the most significant for individual differences in the aggressive behaviour of children, while being the main contributor to the stability of this trait in child development (Porsch et al., 2016). Another important conclusion: significant quantitative gender differences in aggressive behaviour, in the absence of qualitative ones. Moreover, in NTR, common environmental factors were significant, especially for younger boys; while environmental factors generally had a larger effect for girls in both cohorts. Perhaps cultural and social differences between the Netherlands and the South Caucasus, as well as the difference in measurement tools, affected here.

Manifestations of child aggression often occur with other problems: impulsivity, low language skills, emotional dysregulation (Keenan, 2012; Bartels et al., 2018). The comorbidity of these factors can eventually lead to chronic aggressive and antisocial behaviour in adulthood (Keenan, 2012). So, for example, low language skills can affect both socialisation in general and the development of empathy and emotional regulation, which can also affect relationships with peers (Keenan, 2012). Whereas, inattention in early childhood is a predictor of chronic aggressive behaviour in both boys and girls (Keenan, 2012). Research on gender differences in aggression and co-emerging behavioural problems is needed to prevent chronic developmental manifestations of aggression. The age before 5 years is a period of risk for the development of problems with aggression, as well as a period for supporting the development of emotional and behavioural regulation.

Parents are faced with the task of how to teach a child to show negative emotions more adaptively, without harm to themselves and others. By setting the rules and restrictions necessary

for socialisation, parents can cause frustration in the child, which in turn can lead to aggressive behaviour, or in other cases, to increased independence of the child. Independence and autonomy in the preschool age is interdependent with verbal skills, self-awareness, and goal-directed behaviour. Sensitive and responsive parents can help a child develop attention and emotion regulation, reduce impulsive responses, and increase social competence and conflict regulation for their child (Lereya, Samara&Wolke, 2013).

Research shows that developing self-control and emotional and behavioural regulation reduces the risk of aggressive behaviour (Rueda&Cómbita, 2012). Self-control plays a key role in the process of socialisation of the child, and includes the development of attention, its concentration and retention, voluntary movements, inhibitory and activatory regulation of behaviour (Saarni, 2011; Denham, Zinsser&Bailey, 2011). Parental responsiveness and soft discipline can help develop a child's autonomy, self-control, and prosocial behaviour, which in turn can reduce the risk of conduct problems.

1.4. Parental knowledge, beliefs and attitudes: interactions of parenthood and child development

The foundations of parenthood are passed from generation to generation biologically and socially within the family, supplemented not only by intrafamily factors, but also externally by the surrounding society, its culture, norms and values (Grusec, 1992; Holden&Miller, 1999; Maccoby, 2000; Harold et al., 2013; Belsky, 2014; Oliver, Trzaskowski Plomin, 2014; Plomin et al., 2016; Cao et al., 2016; September, Rich&Roman, 2017; Kong et al., 2018; McGuire, Segal&Hershberger, 2012; Psouni, 2019; Jackson et al., 2019b; Jackson et al., 2019c). Studies show environmental factors are divided into shared ones, which lead to similarities among family members, and non-shared, which contribute to differences, all factors reflected in the formation of parental knowledge, beliefs and attitudes (Plomin&Daniels, 2011).

External factors affecting parenthood include the culture surrounding the family, which prescribes certain rules of education regarding milestones of development - when a child is supposed to learn and show certain skills (Holden&Miller, 1991). Also, the socio-economic status of the family plays an important role: studies show that parents belonging to the so-called middle class value independence and creativity more in a child; while low-income parents prefer conformity in the child and complaisance (Holden&Miller, 1991). The religious beliefs of parents can influence their perception of the level of possible punishment, and its disciplinary usefulness (Holden&Miller, 1991). Although for some parents the cause of misconduct plays a predominant role over ideas about proper discipline (Holden&Miller, 1991). Thereby, parents'

attitudes and beliefs about the usefulness of a particular parental approach for a child have a direct impact on parental style, behaviour, and affection.

The patterns of parental behaviour may be quite flexible and vary with experience (Bakermans-Kranenburg, van IJzendoorn&Juffer, 2003; McGuire, Segal&Hershberger, 2012; Belsky&Pluess, 2013; Lereya, Samara&Wolke, 2013; Goodnow, 2014). Over the past decades, the number of studies on the impact of G&E co-action on parenthood and child development has been growing (Maccoby, 2000; Mendes et al., 2009; ; Jaffee et al., 2009; McGuire, Segal&Hershberger, 2012; Horwitz&Neiderhiser, 2011; Oliver, Trzaskowski&Plomin, 2014; Kovas et al., 2015; Plomin et al., 2016; Avinun&Knafo-Noam, 2018; Bates et al., 2018; Esposito, Azhari&Borelli, 2018; Pezzoli et al., 2019; Chen et al., 2020). As well as their quality: various types of reports are being used more and more — not only from children and parents, but also from teachers, peers, school records, etc. (Maccoby, 2000). In her review on behavioural genetics, parenting behaviour and its impact on child development, Maccoby suggests the possibility of the impact of large-scale changes in the economy and the structures of social institutions (primarily families) on the development of children. Moreover, currently it is not known how much this influence could affect genetic changes in relation to individual characteristics. The influence of the environment is varied for different children in the same family, environmental factors may be stronger for genetically vulnerable children (Maccoby, 2000; Mendes et al., 2009; Horwitz&Neiderhiser, 2011; Pezzoli et al., 2019). Therefore, Maccoby (2000) suggests the possibility of changing certain traits through the manipulation of environmental conditions in child development.

Considering all types of G&E co-action, children's development and parenthood may mutually influence each other (Maccoby, 2000; Jaffee et al., 2009; McGuire, Segal&Hershberger, 2012; Oliver, Trzaskowski&Plomin, 2014; Plomin et al., 2016; Avinun&Knafo-Noam, 2018). Oliver, Trzaskowski&Plomin (2014) suggested a genetic effect on the manifestation of traits in the child, which in turn affect the behaviour of parents. Researchers divided the existing concepts of parental attitudes into "control" and "feelings", both positive and negative. The results of the study showed the strong significance of the genetic influence precisely on the negative manifestations of both "control" and "feelings". Also, the genetic contribution to "feelings" turned out to be stronger than to "control" (Oliver, Trzaskowski&Plomin, 2014; Maccoby, 2000). This turned out to be especially characteristic of genetically caused negative traits of the child for the manifestation of parental negativity (Oliver, Trzaskowski&Plomin, 2014; Kohl, Autry&Dulac, 2017).

Researchers usually define four basic components of the influence of parents on child development (Breiner, Ford&Gadsden, 2016; Anderson et al., 2003; Maccoby, 2000). Firstly, physical care and attention for children, as building a foundation for their successful growth (Breiner, Ford&Gadsden, 2016; Morrongiello&McArthur, 2018). Secondly, mental health: with assimilated in early childhood feelings of security, it's easier for a child to cultivate self-esteem, self-confidence, self-regulation, and, as a result, respect for others, which contributes to successful socialization in the future (Breiner, Ford&Gadsden, 2016; Lai&Carr, 2018). Thirdly, these are social competencies and prosocial behaviour patterns: tolerance, perception of other points of view, cooperation, empathy (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Belsky&Pluess, 2013; Trivette&Dunst, 2014; Eisenberg, Spinrad&Morris, 2014). In addition to participating in social adaptation, the successful assimilation of the necessary social competencies contributes to academic achievements and other life aspects, such as career, family, etc. (Maleki et al., 2019; Bakken, Brown&Downing, 2017; Landry, 2014). And finally, the fourth component is cognitive development: parents diligently or implicitly influence the child's acquisition of language skills, problem solving, as well as reading, writing, and maths (Glascoe&Leew, 2009; Breiner, Ford&Gadsden, 2016; Grusec&Danyliuk, 2014; Tamis-LeMonda&Rodriguez, 2014). The stimulating environment may bring a wide range of benefits for the child, which is reflected in later life (Breiner, Ford&Gadsden, 2016; Kuppens&Ceulemans, 2019).

The quality of the environment and stimulation also affects the number of neural connections and cognitive development (Fernandez, 2014). In the area of the hippocampus, which is associated with the work of the memory mechanisms (Bird&Burgess, 2008), spatial abilities (Wei et al., 2016; Shrager et al., 2007), imagination and future thinking (Mullally&Maguire, 2014), and stress regulation (McDermott, Ren&Lin, 2019; Kim, Pellman&Kim, 2015; Blakeship et al., 2019), there are a lot of glucocorticoid receptors (Blankenship et al., 2019). In particular, the regulation of cortisol may affect the basic processes of neurogenesis and synaptogenesis. In stressful situations, cortisol is produced reactively, which may lead to structural changes in the development of the hippocampus, especially in young children (Blankenship et al., 2019). The increased release of cortisol during the sensitive period of development may affect cognitive abilities in future (Blankenship et al., 2019; Kim, Pellman&Kim, 2015; McEwen, Nasca&Gray, 2015; Allen&Kelly, 2015; Gunnar, 2017).

The home environment also has a significant impact on the development of the child (Holden&Miller, 1991; Matheny et al., 1995). Noise, increased intonation, physical disorder, the number of people in the house are defined as environmental confusion (Matheny et al., 1995),

and lead to stress for both the child and the parents. The environmental confusion leads to the development of strategies in the child to avoid any stimulation, even positive. Also, by influencing parental behaviour, which becomes less responsive and less sensitive to the child. However, studies of early childhood development rarely include measurements of the home environment, perhaps due to the laboriousness and high cost of obtaining objective observations (Matheny et al., 1995; Dumas et al., 2005). Matheny and colleagues (1995) proposed a questionnaire Confusion, Hubbub, and Order scale (CHAOS) for such cases - parental reports about the situation at home. The questionnaire included weighted and processed characteristics of the home environment, which were used in direct observation by researchers; as well as descriptions of parents who participated in previous studies. The results of the original study show a relationship between CHAOS scores and parent-child relationship scores (Matheny et al., 1995). Therefore, the use of this questionnaire can provide fairly accurate results in the study of early childhood development and parental attitudes.

The ability to manage negative emotions, the ability to cope with a dangerous situation, as well as get support, is a basic security scenario (van IJzendoorn, Schuengel&Bakermans-Kranenburg, 1999; Verhoeven, Deković, Bodden&van Baar, 2017; Lai&Carr, 2018). Feeling safe is generally the main goal of attachment behaviour. Research identifies three main types of attachment: secure, insecure, and avoidant (Lai&Carr, 2018; Mikulincer&Shaver, 2012). The avoiding type in early childhood often leads to an irresponsible and neglectful attitude toward attempts at intimacy, and rejection of it, with understatements of negative emotions manifestations (van IJzendoorn, Schuengel&Bakermans-Kranenburg, 1999; Lai&Carr, 2018; Mikulincer&Shaver, 2012). Experiencing an insecure type of attachment in children leads to manifestations of uncertainty, inconsistency in the search for emotional support, and the formation of anxious attachment (Lai&Carr, 2018; Mikulincer&Shaver, 2012). This type of attachment, insecure and disorganised, leads the child to increase the expression of his emotions (van IJzendoorn, Schuengel&Bakermans-Kranenburg, 1999). Through the attentive, supportive, empathic attitude of the caregiver to the emotional needs of the child, a secure type of attachment is formed, which leads to optimal options for seeking intimacy in the future (van IJzendoorn, Schuengel&Bakermans-Kranenburg, 1999; Vasquez, Patall, Fong, Corrigan&Pine, 2015; Verhoeven, Deković, Bodden&van Baar, 2017; Lai&Carr, 2018; Gunnar, 2017). In secure attachment, a child can learn to appropriately and safely express emotions while receiving gentle support and acceptance from their parents (van IJzendoorn, Schuengel&Bakermans-Kranenburg, 1999). With high levels of sensitivity, responsiveness and affection, parents can provide a safe and warm foundation for healthy child development (McCarty, Zimmerman, Diguseppe&Christakis, 2005; Vasquez, Patall, Fong, Corrigan&Pine, 2015; September,

Rich&Roman, 2017; Verhoeven, Deković, Bodden&van Baar, 2017; September, Rich&Roman, 2017).

Also, attachment types may vary depending on the caregiver and context. In young children, the formation of attachment to parents may have a high probability. Whereas in adolescents it can be a peer, teacher, trainer. Within different contexts, it can be different persons, or one figure of attachment can cross several contexts at once (Lai&Carr, 2018; Cassidy, Jones&Shaver, 2013). Additionally, changes in interpersonal relationships may lead to a shift in the formed type of attachment (Cassidy, Jones&Shaver, 2013; Cortazar&Herreros, 2010; Hudson, 2014; Goodnow, 2014).

Based on knowledge, beliefs, relationships and practices, parental styles are formed, supported by the interplay of parenting experience and child development. Parental styles are sets of practices that parents ordinarily apply (Kuppens&Ceulemans, 2019). A large part of theoretical and practical research in this field is built on the parameters of control and support — in what proportions they may be inherent in each of the existing styles (Maccoby, 2000; Power, 2013; Verhoeven, Deković, Bodden&van Baar, 2017; Kuppens&Ceulemans, 2019). An authoritarian style implies increased control and lower support, an permissive style means low control and high support, uninvolved — low both control and support, and authoritative — high both control and support. Studies have shown that authoritative parental style presents the optimal consequences for the development of the child (Power, 2013; Bornstein&Bornstein, 2014; Kuppens&Ceulemans, 2019). When authoritarian, permissive, and uninvolved styles were associated with negative consequences (Hosokawa&Katsura, 2018b). In continuation of Baumrind's work, different studies separated the maternal and paternal styles and found that they may complement each other regarding the consequences for children's development (Holden&Miller, 1991; Power, 2013; Bridgett et al., 2018; Kuppens&Ceulemans, 2019; Wittig&Rodriguez, 2019). However, depending on the goals set by the parents, their style may vary and change (Kuppens&Ceulemans, 2019; Power, 2013; Bakermans-Kranenburg, van IJzendoorn&Juffer, 2003). Kuppens&Ceulemans (2019) examined maternal and paternal styles, with respect to three basic areas: support, behavioural and psychological control. Indicators of psychological control were directly related to inadequate behavioural control and inversely related to adequate.

Avdulova&Zharova (2015) suggested a connection between a rigid, directive maternal style and the expression of difficulties in a child's communication with peers. In this study, as a factor of parental influence, the level of machiavellism was considered — combining well-developed social competences, the desire to manipulate others, and a minimum of negative

experiences about this. The results showed an association between the expressed level of paternal makevialism and the characteristics of interpersonal relationships of children (independence from peers and a desire for leadership).

Parental styles influence the child's externalising and internalising behaviour (Liu, 2004; Aunola&Nurmi, 2005; McCarty, Zimmerman, Diguseppe&Christakis, 2005; Healey&Consedine, 2011; Vasquez, Patall, Fong, Corrigan&Pine, 2015; Basten et al., 2016; September, Rich&Roman, 2017). Externalising behaviour problems include aggression, inattention, oppositional behaviour, while internalising - anxiety, depression, somatic complaints (Liu, 2004; Aunola&Nurmi, 2005; McCarty, Zimmerman, Diguseppe&Christakis, 2005; Healey&Consedine, 2011; Basten et al., 2016). For the internalisation and externalisation of behavioural problems in preschoolers, high maternal affection together with a high level of psychological control plays a key role (Aunola&Nurmi, 2005). At the same time, high indicators of maternal behavioural control, together with low psychological control, reduce the risks of external behavioural problems (Aunola&Nurmi, 2005). Another longitudinal study included parental patterns, child behaviour problems, and family characteristics (Hosokawa&Katsura, 2018b). The results show associations between children's problem behaviour and family processes.

However, some manifestations of problem behaviour may be part of the experience of living in a crisis between sensitive periods (Basten et al., 2016), such as oppositional behaviour and aggression. Studies show that by the age of 6, externalising problems appear less and less (Basten et al., 2016). Studies show conflicting results on the increase or decrease of internalised behaviour problems in the preschool period (Basten et al., 2016). Although the stability of behaviour problems is shown over time, the manifestations may change with the age of the child (Basten et al., 2016). It is the individual approach that is important in the upbringing of children with internalised and externalised behavioural problems.

Long-term postnatal development of the cerebral cortex in children requires care and a healthy parental attitude, especially in sensitive periods (Kohl, Autry&Dulac, 2017). Van der Sluis, van Steensel&Bögels (2015) in studying the internalisation of problems in children and parental rejection-control strategies, the following results were obtained. Excessive punishment affected the expansion of the range of internalising symptoms in children. Positive reinforcement, without helping the child feel a sense of control over the situation, as well as reinforcing dependence on parents (particularly, avoiding a dangerous situation), had no connections with internalising symptoms. Calming parental behaviour, phased modelling,

helping the child to feel control over his/her environment, and led to a decrease in the number of internalising symptoms.

Gunzenhauser et al. (2014) investigated the strategies of emotional regulation (conscious control and suppression) in parents and their children, together with supportive and unsupportive reactions of parents. The main result was the reinforcement of Bandura's theory of modelling — a tendency to master parental strategies by children was identified. Suppression of emotions by parents may adversely affect children's mastery of conscious control strategies. Therefore, it is important to spread the parental knowledge not only of how to teach children most effectively, but also how to cope with emotions themselves (Sanders&Morawska, 2014).

Parental reactions to the child's emotions have an impact both on their manifestation and on the child's self-regulation when s/he is alone (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Dunsmore, Her, Halberstadt&Perez-Rivera, 2009). For a child to recognize her/his emotions, as well as self-reflection about them, which is important in emotional regulation, parental prohibitions on the manifestation of emotions are critical. In Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair (1997) study, children clearly reflect parental emotions: with more negative parents, children show lower emotional competencies than with more positive, balanced parents.

With manifestations of responsiveness, warmth, adequate emotional reaction, structuring of the situation, soft discipline, communication with children, joint reading of books, parents may positively influence children's development (Landry, 2014; Vasquez, Patall, Fong, Corrigan&Pine, 2015; Breiner, Ford&Gadsden, 2016; Clark, 2007; Dickinson et al., 2012; Bornstein&Bornstein, 2014; Belsky&Pluess, 2013; Bornstein&Putnick, 2012; Verhoeven, Deković, Bodden&van Baar, 2017). Emotional communication occupies a special place among the factors affecting the development of the child. When parents are friendly and attentive to the needs of the child, a steady attachment is formed between them, which correlates with the manifestations of discipline and tractability in children. Also, self-confidence is formed by a positive assessment by the parents of the actions and personal qualities of the child. Deprived of constant positive emotional contact with caregivers in early years, the child is at risk in the future to have problems in establishing trusting relationships with other people. Also, the child adopts moral norms and values initially in the family environment at an early age and continues to transform them in preschool age (Lane et al., 2010; Dworazik et al., 2019). The world makes sense by assimilating the values supported by the social environment.

Parental approach may also influence the occurrence of anxiety and/or depression in children (McLeod, Wood&Weisz, 2007; Hudson, 2014). Anxious parents are more likely to show overprotectiveness, over-involvement, insecure attachment and avoidance strategies, which may be a risk factor for the development of anxiety already in children. Whereas critical parenting is a risk factor for the development of depression in a child (Hudson, 2014). Both approaches — anxious and critical — negatively affect the development of emotional regulation and self-perception in a child (McLeod, Wood&Weisz, 2007; Hudson, 2014). Healey&Consedine (2011) maintained that negative affectivity, such as fears, sadness, anger or frustration with high intensity may predict both internalising (for instance, anxiety, depression) and externalising disorders (for instance, hyperactivity, aggression). Conduct problems usually co-occur when parents have dysfunctional expectations, beliefs about child behaviour, high anxiety, low ability to manage distress, and less social support (McLeod, Wood&Weisz, 2007; Healey&Consedine, 2011).

Parental knowledge about the basic milestones of a child's development, as well as parental beliefs, cognitions, and attitudes, can influence parental responsiveness, which is positively associated with the quality of parent-child interactions, and parental involvement in practices that help the child grow up healthy (Holden&Miller, 1991; Grusec, 2014; Breiner, Ford Gadsden, 2016; September, Rich&Roman, 2017). In turn, parental knowledge can be affected by support programs, as well as, in general, knowledge about the availability of such services helps to access them. The broader the parent's knowledge of various practices, the better the choice becomes in favour of the healthy development of the child. However, at the moment, no specific positive parental attitudes have been identified that would be acceptable for the development of all children (Breiner, Ford Gadsden, 2016). Researchers recognize the need to take into account the opinions and beliefs of parents when formulating development programs for greater coverage of parents (Breiner, Ford Gadsden, 2016). Warmth and sensitivity, responsiveness, communication with children, discipline as a reduction of chaos, health promotion practices by parents have a beneficial effect on both child development in general and its specific parts: emotional, behavioural, social and cognitive competencies (Holden&Miller, 1991; McCarty, Zimmerman, Digiuseppe&Christakis, 2005; Breiner, Ford&Gadsden, 2016; September, Rich&Roman, 2017; Verhoeven, Deković, Boddén&van Baar, 2017). Breiner, Ford&Gadsden (2016) scrutinised parental knowledge as learned information, a set of facts; beliefs as a set of relations, certain actions and attitudes; practice — as acquired skills of behaviour and approaches to rearing a child. These aspects are interdependent: based on a set of knowledge and beliefs, the parental practice of behaviour is built, and vice versa — during parental practice, the existing set

of knowledge and attitudes is supplemented with exponential growth (Greek Daniliuk, 2014; Jackson et al., 2019a; September, Rich&Roman, 2017).

Parents show less authoritarianism and less dysfunctional parenting when their knowledge of child development is broad (September, Rich&Roman, 2017). Less knowledge was associated with both high levels of authoritarianism and low levels of parental confidence and competence (September, Rich&Roman, 2017). At the same time, a predictive effect was not found - it is possible that other factors also contribute to these associations. There were no associations between authoritative parental styles and knowledge (September, Rich&Roman, 2017). Studies show that the younger the parents, the higher the risk of less knowledge they have, as well as dysfunctional expectations from the child, this aspect is especially well researched for mothers (September, Rich&Roman, 2017). However, mothers are often more aware of the main aspects of child development than fathers (September, Rich&Roman, 2017).

Holden&Miller (1991) conducted a meta-analysis to explore similarities and differences in parenthood. To what extent can parental attitudes regarding the upbringing of a child be fundamental and stable over time? This question leads to the following - how much is it possible to change parental knowledge and attitudes about the development of the child? The researchers identified key factors for such changes: the strength of the initial parental attitudes, and changes in the expectations and perceptions of parents with the growth of the child (Holden&Miller, 1991). With an increase in the level of independence of the child, the number of conflicts may increase and the amount of warmth in the parent-child relationship may fall. The results of the meta-analysis also showed that differences in parenthood are related to the possibility of changes in parental behaviour regarding the child, context, or time (Holden&Miller, 1991).

Researchers also note that the pattern of parental sensitivity should be easier to change than the type of child attachment (Bakermans-Kranenburg, van IJzendoorn&Juffer, 2003). Parental sensitivity, involvement and support are a protective factor for the child not to become a victim of bullying, and not be directly involved in bullying behaviour (van IJzendoorn, Schuengel&Bakermans-Kranenburg, 1999). Wherein, overprotection increases the risks for children to become victims, in part because of the worse development of autonomy in such children. However, these relationships can also be reversed - when parents show more overprotection with a child who is a victim of bullying (Lereya, Samara&Wolke, 2013). Autonomy, as independence and parental support for its development in the child, has a beneficial effect on future academic achievements and adaptive psychological functioning (Vasquez, Patall, Fong, Corrigan&Pine, 2015). In general, the psychological health of the child has a strong relationship with parental support for independence - the child learns to interact with

the environment and autonomy is extremely important for the formation of motivation (Vasquez, Patall, Fong, Corrigan&Pine, 2015). Parents who give the child the opportunity to make choices, inspiring to try new things, using the flexibility of the language, instead of controlling, help develop the child's intrinsic motivation, which in turn plays an important role in the child's academic achievement and psychological health (Vasquez, Patall, Fong, Corrigan&Pine, 2015).

In general, parents differ principally in their responsiveness and their self-control (Holden&Miller, 1991; Bornstain&Bornstain, 2014). Of greatest importance to a child's development is the quality of the caregiver's approach, which includes moderation, cognitive stimulation, and sensitivity. The parenting approach is also influenced by the characteristics of the parent himself, the characteristics of the child, and the breadth of the social context in which the family lives (Bornstain&Bornstain, 2014). Parents who understand the reasons for a particular behaviour of a child, who are aware of the basic developmental milestones, may be more caring and accepting (Bornstain&Bornstain, 2014). A balance of control and support is important there — a flexible and supportive parenting style will bring more positive directions to children's development (Bornstain&Bornstain, 2014; Halberstadt et al., 2013; Vasquez, Patall, Fong, Corrigan&Pine, 2015).

Parental interest and acceptance also affects their responsiveness, which among other things helps the child develop coping strategies, attentional and cognitive skills, autonomy and independence to help with later problem solving (Lereya, Samara&Wolke, 2013; Landry, 2014; Vasquez, Patall, Fong, Corrigan&Pine, 2015). With the included and interested communication of the parent with the child, the formation of boundaries and trust occurs, which again affects the development of self-regulation and cooperation skills, including executive functions (Landry, 2014). Understanding responsive parenting in different families is important in order to study and model the overall picture of raising children with positive outcomes for their well-being in the future (McCarty, Zimmerman, Digiuseppe&Christakis, 2005; Dunsmore, Her, Halberstadt&Perez-Rivera, 2009; Landry, 2014; Basten et al., 2016).

Parental knowledge and beliefs are predictors of parental behaviour and guide the development of parent-child interactions (Holden&Miller, 1991; Grusec, 2014; Grusek&Danilyuk, 2014; September, Rich&Roman, 2017). Research shows that mothers are more likely to attribute negative traits to their child when he behaves in a vague way for her (Grusek&Danilyuk, 2014). At the same time, parental knowledge can change and expand, increasing parental confidence (Sanders&Morawska, 2014).

In early childhood, as already mentioned, there is an intensive development of various interdependent domains of emotional, behavioural, social and cognitive competencies. Inhibition in the development of one of them increases the risk for the occurrence of conduct problems (Spinrad&VanSchyndel, 2015). At the same time, the development of prosocial behaviour, including ToM and self-, reduces such risks (Spinrad&VanSchyndel, 2015). Already at 1.5 years old, children show helping, soothing behaviour to distressed people, and it usually increases with age (Spinrad&VanSchyndel, 2015). Researchers consider prosocial behaviour to be interdependent with socio-cognitive skills: perspective taking, self-awareness, emotional understanding (Spinrad&VanSchyndel, 2015). The development of empathy and ToM increase social competencies and reduce the risk of aggressive behaviour. Research on how parents directly and indirectly influence the development of prosocial behaviour in a child can help in the further design and implementation of supportive parenting and child development programs.

In summary, more support and less authoritarianism in parents lead to higher scores for social and cognitive development in children (Vasquez, Patall, Fong, Corrigan&Pine, 2015; September, Rich&Roman, 2017). Children with warm, supportive parents, which cognitively stimulated them, may show greater results in the future than children of authoritarian, conniving or condescending parents. Also, parents who have good knowledge of child development are more attentive to children's initiatives, have the highest level of parental skills, their children may have higher scores of cognitive skills and fewer behavioural problems in the future (Glascoe&Leew, 2009; Sanders&Morawska, 2014; Grusec&Danyliuk, 2014; Roskam et al, 2014; September, Rich&Roman, 2017). Parents need to be confident in their influence and its importance for effective parenting (Knight&Goodnow, 1988). Supporting and disseminating parental knowledge may help parents in rearing children, taking into account the optimal number of necessary factors for their further well-being.

1.5. Child development programs

Mastering the mental innovations characteristic of preschool age in self-regulation, metarepresentation and categorization systems, emotional volitional sphere, and executive functions allows children to prepare for school more successfully, and to show further high academic achievements (Tamis-LeMonda&Rodriguez, 2014; Metsäpelto et al., 2015; Chambers et al., 2010), which in turn may affect their future lives: careers, self-actualization, their own families and children (Kern&Friedman, 2008; Samuelsson&Park, 2017).

Among the studies of the influence of parental practices on child development, the effects of homework by language skills on school readiness, which parental discipline may also

influence, are noted (Glascoe&Leew, 2009; Goodson, 2014). In addition to homework, parents may benefit from child development or family support programs (Bakermans-Kranenburg, van IJzendoorn&Juffer, 2003; Trivette&Dunst, 2014; Shaw, 2014; Sanders&Morawska, 2014; Boutin&Forget, 2010; Goodson, 2014; Murano, Sawyer&Lipnevich, 2020; Pedersen et al., 2019; Rao et al., 2017; Roskam et al., 2017).

In general, preschool institutions suggest three main areas: diversified development, an individual approach, and preparation for school (Goodnow, 2014). With the help of such programs, it is easier for parents to learn basic parenting skills: how to strengthen the development of positive qualities and skills in a child, how to maintain optimal sleep-feeding regimes, how to gently teach a child discipline and self-control, etc. (Goodall&Vorhaus, 2011; Jeong, Pitchik&Yousafzai, 2018). Researches show the effectiveness of these programs in preventing risk factors and increasing the influence of protective factors (Anderson et al., 2003; Bakermans-Kranenburg, van IJzendoorn&Juffer, 2003; Côté et al., 2017; Larose et al., 2019; Rouquette, Côté, Pryor, Carbonneau, Vitaro&Tremblay, 2014). Different programs correspond to different goals: some for particular functions improvement (Diamond&Lee, 2011), some to increase school readiness (Anderson et al., 2003; Fernald, Prado, Kariger&Raikes, 2017), or complex prevention programs (Larose et al., 2019, 2020; Côté et al., 2017).

Larose et al. (2019) have revealed the effect of the Minipally program on reducing stress levels in children and benefits for their social competencies. The Minipally program as part of the Brindami project (Côté et al., 2017; Larose et al., 2019, 2020), was designed specifically for preschoolers: using game methods, children learn to independently regulate social contacts, problem solving skills, self-control skills and emotional regulation (Côté et al., 2017; Larose et al., 2019, 2020). The program is designed for 16 sessions, during which the teacher communicates with the children using a glove doll. Thanks to the interactive game form, it is easier for children to learn new skills, analyse everyday situations, their emotions and difficulties, and find constructive ways to respond to them. The program also offers an appeal to parents in the form of a letter and a proposal for each session, which allows them to keep abreast of the material passed by the child and help him/her practice this outside the kindergarten.

Minipally program was chosen as a programme for pilot evaluation in collaboration with kindergartens. According to research protocol, parents were offered a diagnostic package that includes a printed booklet of stimulus materials and an online questionnaire. The booklets contain cognitive development tasks according to the age of the child, presented in a playful way (adapted from the Parent Report of Children's Abilities (PARCA), (Martin et al., 2013; Plomin et al., 2002; Pike et al., 2006; Oliver et al., 2002). Parents with their children were supposed to fill

out booklets in a comfortable home environment. The second part, online questionnaires were aimed at the social aspects of child development, and at parental knowledge, beliefs, and attitudes. The diagnostic package was designed to track the dynamics of the development of children, taking into account the program under which they are engaged.

The current study includes three programs besides Minipally: ABC of communication, School of good wizards, and By the road of good. The main criteria for selecting programs were aspects that affect the effectiveness of child development programs for preschoolers:

- focus on social skills and the communicative component of school readiness;
- attention to the development of self-control, emotional regulation, and executive functions in the child;
- considering the peculiarities of communication of a preschooler with adults and peers;
- the game as a leading activity of this age;
- the involvement of adults — educators and parents who actively participate in the development of the child.

Parents, teachers and policy-makers may have different ideas about the quality of educational programs, but in general the basic requirements are the same: focus on safety and health, an individual approach based on age, developmental stimulation and assistance in socialisation (Rouquette et al., 2014). Conducting large-scale studies of the effectiveness of children's development programs, taking into account the long-term effects, will help in the design and implementation of the optimal educational practices with the aim to help educators and parents in finding the most positive ways for children development and their well-being (Bogdanova, Bogdanova&Kiselev, 2020; Goodson, 2014; Murano, Sawyer&Lipnevich, 2020).

2. METHODS

This section is divided into four main topics: design, procedure, sample, and materials. The first topic includes statements of research questions and hypotheses. This is followed by a description of the procedure and sample of current study. The final topic, materials, includes the description of all measuring methods: for the cognitive and social development of children, and for parental knowledge, beliefs, and attitudes.

2.1. Design

According to previous studies, preschool age is a period of intense development of the cognitive, emotional-volitional sphere and social skills (Shonkoff&Phillips, 2000; Miyake et. al, 2000; Hosokawa&Katsura, 2018a; Bock, Gallaway&Hund, 2015; Lin, Liew&Perez, 2019; Paschke et. al, 2016). Therefore, this is the best-fit period for interventions aimed at the effective development of the self-regulatory apparatus and social competencies (Healey&Healey, 2019; Caspi, et. al, 2017; Tomporowski, McCullick, Pendleton&Pesce, 2015; Paananen, et. al, 2019). Child development programs may have an effect on child development not only directly, but also through the influence on parents — their knowledge, beliefs, attitudes (Anderson et al., 2003; Côté et al., 2017; Larose et al., 2019; Rouquette et al., 2014). Broadening the range of parenting knowledge and practices may help parents in their task to raise children.

In the current study the following research question was supposed as the purpose of the study: will there be any associations between child development scores and scores of parental knowledge about it?

Five hypotheses are being tested:

1. There will be associations between children development scores and parental scores of knowledge, support and/or home discipline in both age groups.
2. There will be associations between children's prosocial behaviour scores and parental scores of knowledge, support, beliefs and attitudes, and home environment in both age groups.
3. There will be associations between children's behaviour problems scores and parental scores of knowledge, support, beliefs and attitudes, and home environment in both age groups.
4. There will be associations between parental knowledge scores and parental support and soft discipline scores.
5. There will be associations between children development scores and different parental scores depending on children's age.

2.2. Procedure

This study is a part of a larger longitudinal study. The focus of the current study is concentrated on the analysis of parents and children's data of the first wave, considering the aims and hypothesis. The study was approved by the Ethical Committee for Interdisciplinary Research, NR TSU.

2.3. Sample

The current research was conducted on the basis of 7 kindergartens, with parent-child dyads without neurological diseases and not undergoing medical treatment at the time of the study, who signed an informed consent to participate. Originally there were two domains of data: booklets for cognitive child development (CCD) that were filled by parents with children; and online questionnaires for social child development and parental knowledge (SCD and PK) that were completed by parents. The online part consists of 5 blocks: "Child's behaviour", "Your child", "How your child plays", "Your house", "Social-communicative development", with the demographic part that included information about gender and age of both parent and child. Before the start of all procedures, the parents were thoroughly acquainted with the ethical consent and the objectives of the study.

Booklets were divided into 2 groups by tasks: junior (3-4 years old), and senior (4-5 years old). In junior groups, CCD booklets were completed by 186 participants in the first wave, and in senior groups — by 211 participants. Online questionnaires were completed by 149 parents in junior groups, and by 139 — in senior. All scales of CCD, SCD, and at least one block of PK were completed by 132 participants in junior groups, and 142 — in senior.

The booklets were filled out by parents with children at home, then returned to the educators in the kindergarten. For each task, a sheet was compiled with detailed instructions on how to present the task to the child for the parent. Parents filled out online questionnaires on their own, a detailed description of the measurements is presented below.

2.4. Materials

2.4.1. Measures for cognitive development in children

In the booklets assignments were compiled according to age – junior or senior. For junior groups, the booklet consisted of three parts. The scores were put down according to the "offset" system — passed (1 score) / did not pass (0 score).

- The first part included 16 "find a pair" tasks — as a variant of the "odd-one-out" task with three images among which it was necessary to choose the components of the pair (or to pick one that does not belong). The same tasks from Bayley scales in divers variants were used in different studies to investigate central executive capacity (Henry&MacLean, 2003), abstraction separation (Kharitonova&Munakata, 2011), semantic memory (Westfall&Lee, 2021), composite measure of general intelligence (Rimfeld, Kovas, Dale&Plomin, 2015). This scale shows acceptable internal consistency: in TEDS Cronbach's alpha = .67.

- The second part included 6 tasks for drawing: the first three were first drawn by the parent, then the child repeated according to the pattern — vertical and horizontal lines, circle. The last three tasks the child drew independently according to the pattern given in the booklet: angle, cross, intersecting circles. There, additional points could be counted for the accuracy and accuracy of the drawing. This task is a version of McCarthy scale “draw-a-design”, that measures perceptual performance and motor functions. Rimfeld, Kovas, Dale&Plomin (2015) used the same tasks for general intelligence measures in 3-4 year olds. Internal consistency of this scale is moderately low in TEDS (.48).

- The third part included 16 tasks similar in meaning to those in the first part. However, there it was important to find a matching: the child was offered five images, one — a model, three slightly different and one — identical to model, and the child needed to find an identical to model one.

For children in the senior groups, the questionnaire consisted of four parts.

- The first was slightly complicated versions of the first part tasks for the junior groups — “find a pair”.

- The second part repeated the same part for the junior groups “draw-a-design”, with an additional task “draw-a-child” with instruction depending on the gender of the child — “draw a girl” or “draw a boy”. Twelve items were taken into account: head, eyes, nose, mouth, ears, hair, body, arms, legs, hands, feet, clothes. For each item, a point was awarded, so a maximum of 12 points could be scored, that is appropriate for 4-years-old children (Malanchini et al., 2016). Researchers use this scale in conjunction with other measurements of general intelligence, since by drawing a human figure, a child simultaneously activates several cognitive and motor domains (Badini, Toivainen, Oliver&Kovas, 2018). Badini, Toivainen, Oliver&Kovas (2018) revealed the predictive ability of indicators on the scale “draw a child” at 4 years old with cognitive abilities and creativity at 9 years old. Arden, Trzaskowski, Garfield&Plomin (2014) found that scores on the “draw a child” scale at 4 years old can predict general intelligence at 12 and 14. Malanchini and colleagues found a similar predictive ability for mathematics in 14 (Malanchini et al., 2016). This scale shows good reliability in TEDS (.8).

- The third part — “puzzles”, consisted of 12 tasks to continuation of the series: the child was offered a row of three pictures, including the fourth “absent”, and a row of four pictures below — from which it was necessary to choose the one that would continue the first row (in place of the “absent”). These tasks are adapted from Bayley scales, usually such tasks are aimed at measuring the intellectual abilities of children (Rimfeld, Kovas, Dale&Plomin, 2015). This scale shows acceptable reliability in TEDS (.64).

- The fourth part consists of 8 tasks with pictures: for each task 4 images offered, the parent reads the inscription, and the child needs to show the image to which the inscription corresponds. These tasks are a version of the Peabody Picture Vocabulary Test (PPVT), an intelligence measure adopted for preschoolers. This scale shows moderately low reliability in TEDS (.55).

At the end of each part, a block of 4 questions was proposed for parents of children from both ages. This block was adapted from Behavioural Responses After Task (BRAT) used in TEDS, (Oliver&Plomin, 2006; Haworth, Davis&Plomin, 2012). Questions regarding the behaviour of the child during the performance of tasks were evaluated on a single scale. The example of a question: "In your opinion, was it often difficult for a child to complete tasks?". The answers were the same for all questions of this block: "yes" (2 scores), "no" (1 score), when omitted by parents, the items of this block received 0.

2.4.2. Measures for social-emotional development in children and parental knowledge about it

Online questionnaires for parents consisted of eight blocks: "Child's behaviour", "Your child", "How your child plays", "Your house", two scales for parental beliefs regarding their own and educator's influence on a child's social and cognitive development, measure of parental focus on positive behaviour, four scales for interaction with a child, and seven scales for parental knowledge about emotions in childhood.

The first block "Child's behaviour" was based on the Child Behaviour questionnaire (BEH) — adapted version of the Preschool Behaviour Questionnaire (PBQ) used in Quebec Longitudinal Study on Child Development (QLSCD) (Rouquette et al., 2014), and Minipally program effects investigation (Côté et al., 2017). It included 25 items and measurements on five scales:

- hyperactivity with 4 items: 1, 9, 14, 20, an example: "In your opinion, how often the child could not sit still during the last month, was hectic, hyperactive?"
- inattention with 3 items: 10, 19, 21, an example: "In your opinion, how often did the child during the last month not concentrate, focus?"
- prosociality with 7 items: 2, 6, 8, 11, 15, 18, 23, an example: "In your opinion, how often has a child treated others with tenderness over the past month?"
- opposition with 5 items: 3, 5, 7, 13, 24, an example: "In your opinion, how often has the child been naughty in the last month, refusing to comply with the request of an adult?"

- physical aggression with 6 items: 4, 12, 16, 17, 22, 25, an example: "In your opinion, how often has the child fought in the last month?"

The answers to each item of this block were the same:

- "never" — 1 score,
- "sometimes" — 2 scores,
- "often" — 3 scores,
- "I don't know" — 4 scores,
- "I prefer not to answer this question" — 5 scores.

With the exception of 19 and 20 items, they were reversed (scores for both: "never" — 5 score, "sometimes" — 4 scores, "often" — 3 scores, "I don't know" — 2 scores, "I prefer not to answer this question" — 1 scores). The total score was considered the summation of all scores. This questionnaire shows good reliability: Cronbach's alpha = .86 (Côté et al., 2017).

The second block "Your child" included nine scales and 52 items. Scales were adapted from TEDS research (Oliver&Plomin, 2006), based on the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997; Mieloo et al., 2012; Hawoth, Davis&Plomin, 2012; Nielsen et al., 2019), and the Preschool behaviour Questionnaire (PBQ) (Behar&Stringfield, 1974, Behar, 1977).

- Behar anxiety scale, 6 items: 13, 14, 17, 24, 26, 41, an example: "Is your child excited, worried about a lot?"
- Behar conduct scale, 8 items: 5, 9, 20, 27, 35, 43, 47, 49, an example: "Does your child fight with other children?"
- Behar hyperactivity scale, 4 items: 2, 4, 23, 36, an example: "Does your child constantly spin and fidget?"
- Behar prosociality scale, 11 items: 1, 3, 11, 16, 21, 25, 29, 37, 44, 50, 52, an example: "Is your child attentive to the feelings of others?"
- Behar total behaviour problems scale, 27 items: 2, 4, 5, 9, 10, 13, 14, 15, 17, 18, 19, 20, 23, 24, 26, 27, 31, 32, 35, 36, 40, 41, 43, 46, 47, 49, 51, an example: "Is your child annoyed, easily losing his/her temper?"
- General anxiety scale, 6 items: 13, 17, 22, 34, 41, 51, an example: "Does your child look into the void, stare blankly at others?"

- General hyperactivity scale, 6 items: 2, 4, 8, 23, 36, 38, an example: "Does your child have difficulty when you need to wait your turn?"
- General total behaviour problems scale, included 29 items: 2, 4, 5, 8, 9, 10, 13, 14, 15, 17, 18, 19, 20, 23, 24, 26, 27, 31, 32, 35, 36, 38, 40, 41, 43, 46, 47, 49, 51, an example: "Does your child hit or bite other children?"
- General shyness scale, included 4 items: 24, 39, 45, 48, an example: "Does your child get used to strangers for a long time?"

The answers were the same for all items of the second block:

- "absolutely true" — 1 score,
- "sometimes true" — 2 scores,
- "completely wrong" — 3 scores,
- "I prefer not to answer this question" — 4 scores.

Except for the 48th item that was reversed ("absolutely true" — 4 scores, "sometimes true" — 3 scores, "completely wrong" — 2 scores, "I prefer not to answer this question" — 1 scores). The total score was considered the summation of all scores, all scales in TEDS show high or acceptable reliability.

The third block "How your child plays" consisted of one entire scale with 24 items, originally based on Parent-Reported PARCA (conceptual knowledge) adapted from TEDS (Hawoth, Davis&Plomin, 2012). This scale shows satisfactory reliability in TEDS: Cronbach's alpha = .6. Examples of items: "Has your child ever laid out toys by colour?", "Does your child play with other children imagining him/herself to be someone?", "Does your child share the treat equally?"

The total score was a sum of scores for all items, except 13 and 20 because they measure non-cognitive aspects. The range of answers that were the same for all items of this block:

- "yes" — 1 score,
- "no" — 2 scores,
- "I do not know" — 3 scores,
- "I prefer not to answer this question" — 4 scores.

The fourth block included 6 questions adapted from Confusion, Hubbub, and Order scale (CHAOS), standardised measurements of the home environment — common for children and parents (Jaffee et al., 2012; Matheny et al., 1995; Petrill, Pike, Prise&Plomin, 2004). The scale

was divided into two subscales — chaos, 3 items: 2, 3, 5, and calm, 3 items: 1, 4, 6. In the original study there were 15 items in one scale with Cronbach's alpha coefficient = .79. The questionnaire measures the parameters of the home environment that affects the development of the child, as well as parental attitudes (Jaffee et al., 2012). Child behaviour problems, such as inattention or hyperactivity, can be interconnected with the home environment — they can be affected by a lack of structure, order, and they can affect a noisy environment, gaps in discipline (Jaffee et al., 2012). Consequently, only 6 items for 2 subscales were selected — to investigate the effect of domestic chaos or order on child development and parenting patterns. Dumas et al. (2005) showed that only 6 items can get high reliability (.83).

The question example: "Is it impossible to stay at home alone with your thoughts?". The total score was a sum of scores for all items, the range of answers that were the same for all items of this block:

- "completely wrong" — 1 score,
- "rather wrong" — 2 scores,
- "difficult to answer" — 3 scores,
- "rather true" — 4 scores,
- "absolutely true" — 5 scores,
- "I prefer not to answer this question" — 6 scores.

Then questionnaires included two scales for parental beliefs regarding their own and educator's influence on a child's social and cognitive development (Knight&Goodnow, 1988). One scale was dedicated to parental beliefs regarding their own influence, and the other scale was dedicated regarding educator's influence. Both scales consisted of 5 similar items that differ only in the agent of influence. Parents were asked to choose the most suitable answer for each of the areas of development: development of communication skills; independence and self-control; emotional regulation; emotional responsiveness, empathy; and willingness to collaborate with peers. The answers for the items on both scales were identical: "I have practically no effect" and "Educator has practically no effect" — 1 score, "I have a slight impact" and "Educator has a slight impact" — 2 scores, "I have a significant impact" and "Educator has a significant impact" — 3 scores, "I prefer not to answer this question" — 4 scores. The total score for each scale was considered the sum of all items.

The next scale included 4 items about parental focus on positive behaviour, adapted from the analogous scale in the Caregiver Wish List (CWL), that has good reliability: Cronbach's alpha = .66 (Thijssen, Broers&Muris 2018; Achenbach&Ruffle, 2000). Only this scale was chosen

because the rest of the scales of CWL overlapped with other blocks (such as adequate discipline, controlled responding, and monitoring). Also, as previously stated, the focus on positive behaviour is related to externalising behaviour problems such as inattention, aggressiveness, and oppositional behaviour (Breiner, Ford&Gadsden, 2016; Verhoeven, Deković, Boddén&van Baar, 2017; Thijssen, Broers&Muris 2018).

The total score was considered the sum of all items. Questions and answers are presented below.

1. What do you do more often — tell your child what not to do or say what to do?
 - I often say what not to do — 1 score
 - I often say what to do — 2 scores
 - Prefer not to answer this question — 3 scores
0. What do you do most often — praise your child or correct "bad behaviour"?
 - I praise more often — 1 score
 - I often correct bad behaviour -2 scores
 - Prefer not to answer this question — 3 scores
0. When your child behaves well, how often do you praise him?
 - Almost never — 1 score
 - Infrequently — 2 scores
 - Sometimes — 3 scores
 - Often — 4 scores
 - Almost always — 5 scores
 - Prefer not to answer this question — 6 scores
0. How often do you express positive feelings about your child?
 - Almost never — 1 score
 - Infrequently — 2 scores
 - Sometimes — 3 scores
 - Often — 4 scores
 - Almost always — 5 scores
 - Prefer not to answer this question — 6 scores

The next part included 17 questions adapted from the Comprehensive Early Childhood Parenting Questionnaire (CECPAQ) with two scales — support and positive discipline (Verhoeven, Deković, Boddén&van Baar, 2017). These scales showed good reliability: .88 for support scale, and .76 for positive discipline. The support scale was divided into three subscales:

- sensitivity, 4 questions, example: "I notice when my child is sad or not feeling well";
- responsiveness, 5 questions, example: "When my child has difficulties in anything, I can help him";
- affection, 4 questions, example: "I often hug, kiss my child for no reason"

The scale of the positive discipline included 4 questions, an example: "I explain to the child the consequences of his/her behaviour." The answers were the same for all scales and subscales of this block; the total score was considered the sum of all items. Examples of answers:

- "almost never" — 1 score,
- "rarely" — 2 scores,
- "sometimes" -3 scores,
- "often" — 4 scores,
- "almost always" — 5 scores,
- "I prefer not to answer this question" — 6 scores

The last part of the online questionnaire was adapted from Parent's Beliefs About Children's Emotions Questionnaire (PBACE) (Halberstadt et al., 2013), and included 33 questions and 7 scales:

- "cost of positivity," 4 questions, example: "Can children stop concentrating on the task that needs to be completed if they are very happy at that moment?";
- "value of anger", 6 questions, example: "Is it helpful for children to sometimes feel angry?";
- "manipulation", 4 questions, example: "Do children often pretend to be sad or pretend that they are angry just to get what they need?";
- "control", 5 questions, example: "When children are very angry, can they control what they show to other people?";
- "parental knowledge", 3 questions, example: "Do not parents need to know everything about the feelings of their children?";
- "autonomy", 7 questions, example: "Do children strive to understand their feelings even when their parents are not around to help them with this?";
- "stability", 4 questions, example: "The emotions of children last for a long time"

The answers were the same for all questions of this block: "completely disagree" — 1 score, "rather disagree" — 2 scores, "find it difficult to answer" — 3 scores, "rather agree" — 4

scores, "completely agree" — 5 scores, "I prefer not to answer this question" — 6 scores. The total score was considered the sum of all items. In the original study reliability for each was acceptable (Halberstadt et al., 2013). The results showed that parents who value positive feelings are less likely to express them themselves and are less supportive of such expressions in their children. Parents who often express negative feelings themselves are more likely to support and accept such feelings in their children. Parents who believe that children use emotions to manipulate show less support for children's positive feelings. However, parental beliefs about child manipulation were not related to the parent's unsupportive behaviour regarding the child's negative feelings. Parents also show less support when they believe that the children can control their emotions and can learn it on their own. Support for negative emotions in a child was more often shown by parents who noted that it is important for them to know how the child feels. Finally, parents who believed that their child's emotional styles were stable and changed little with age were less supportive of their children. In other words, parents who believe that the child's behaviour remains stable with age may show both less support and fewer attempts to somehow influence it.

3. RESULTS

This section consists of two parts: associations between child development scores in junior and in senior groups, including descriptive statistics, gender differences, age and program differences, correlations and regression analyses for both age groups. All statistical analysis was conducted using R-Studio 4.2.0. Data screening and cleaning was performed as recommended by Kabacoff (2015).

3.1. Associations between child development scores and parental scores in junior groups

In independent variables, the coding was made: by programs, age of children and age of parents. Since the Minipally program involved significantly more children than other programs, the latter had to be combined into one "9th" program. Thus, according to Minipally, 85 children were engaged in the first wave, according to others ("9th") — 47. In junior groups there were 65 girls, and 67 boys.

There were three groups of children age:

- 41 children under or exactly 3 years old (in months: mean = 33.63, sd = 1.87),

- 45 children between 3 and 3.5 years old (in months: mean = 38.13, sd = 1.22),
- 46 children between 3.5 and 4.5 years old (in months: mean = 45.7, sd = 4.89).

There were three groups by parental age:

- 22-30 years old — 39 participants;
- 31-35 years old — 43 participants;
- 36-50 years old — 50 participants.

As indicated above, the analysis included participants who completed all the booklet scales and at least one block of online questionnaires. In the junior groups, the parents completed all the booklet scales and the first block of opponents — 132 participants, the second block — 127, the third and fourth 125, and the fifth block completed 124. Due to the fact that the ranks in the responses of online questionnaires were quite compact, and assuming that the missing values are random, the kNN imputation method was applied (Crookston&Finley, 2008; Kabacoff, 2014; Jadhav, Pramod&Ramanathan, 2019). For each missing value, the k nearest points were determined based on the Euclidean distance, and their distance-weighted average was calculated.

Further, only those scales that passed the test of internal consistency were selected, the results are in Table 1. Since low alpha values can be associated with poor interrelationship between elements or dissimilar constructs, the lower bound for exploratory analysis was defined as low in .5, questionable in .6, and acceptable in .7 and above (Adamson&Prion, 2013; Vaske, Beaman&Sponarski, 2017; Wadkar, Singh, Chakravarty&Argade, 2016; Verhoeven, Deković, Bodden&van Baar, 2016).

Table 1. Internal consistency of the scales: junior groups

	Cronbach's α raw	Cronbach's α std	95% confidence boundaries lower bound	95% confidence boundaries upper bound	Excluded items
codd	0.78	0.8	0.72	0.83	
coddrep	0.87	0.87	0.83	0.9	
cpd	0.62	0.62	0.51	0.71	
cpd1	0.46	0.46	0.28	0.6	
cpd2	0.59	0.59	0.45	0.7	
cpdrep	0.91	0.91	0.89	0.94	
cpm	0.82	0.83	0.77	0.86	
cpmrep	0.93	0.93	0.9	0.94	
bhvhyp	0.17	0.17	-0.09	0.38	
bhvinat	0.51	0.51	0.35	0.64	

bhvpros	0.5	0.47	0.36	0.62	
bhvpros2	0.55	0.54	0.41	0.66	11,6,23
bhvopp	0.22	0.26	-0.01	0.41	
bnhvopp2	0.38	0.41	0.13	0.56	24,7,3
bhvagg	0.71	0.71	0.63	0.78	
banx	0.59	0.61	0.47	0.69	
bcon	0.75	0.76	0.69	0.81	
bhyp	0.76	0.77	0.69	0.82	
bpros	0.71	0.73	0.63	0.78	
ganx	0.47	0.44	0.32	0.6	
ganx2	0.5	0.51	0.34	0.63	22,51
ghyp	0.79	0.79	0.73	0.84	
gsh	0.61	0.61	0.49	0.71	
btbp	0.84	0.83	0.79	0.87	
gtbp	0.85	0.85	0.81	0.89	
pl	0.69	0.68	0.61	0.76	
cha	0.43	0.44	0.24	0.58	
cha2	0.55	0.55	0.36	0.68	5
ord	0.44	0.45	0.25	0.59	
resp	0.8	0.81	0.75	0.85	
sens	0.51	0.56	0.36	0.63	
sens2	0.65	0.65	0.53	0.74	15
pat	0.65	0.66	0.54	0.74	
disc	0.6	0.6	0.47	0.7	
bpi	0.69	0.69	0.6	0.77	
bti	0.83	0.84	0.78	0.87	
fopb	0.23	0.23	-0.01	0.43	
fopb2	0.67	0.68	0.54	0.77	11,12
cop	0.72	0.71	0.63	0.79	
voa	0.76	0.76	0.69	0.82	
mnpl	0.77	0.77	0.7	0.83	
cntr	0.82	0.82	0.77	0.87	
parkn	0.05	0.17	-0.27	0.3	
parkn2	0.57	0.57	0.39	0.69	39
aut	0.85	0.85	0.8	0.88	
stab	0.71	0.71	0.61	0.78	

Descriptive statistics for selected scales are in table 2. Due to the fact that the range between the CCD and SCD & PK scales is very different, standardisation of the scores was

carried out. None of the scales showed a normal distribution, so further nonparametric tests were used.

Table 2. Descriptive statistics: junior groups

	N	Range	Mean	Median	St. Dev.	Skewness	Kurtosis	Shapiro-Wilk	Lilliefors
codd	132	0-16	12.5	13	3.02	-1.74	4.61	.85****	.19****
coddrep	132	1-8	7.03	8	1.74	-2.21	4.39	.61****	.33****
cpd	132	0-6	3.3	3	1.45	-0.04	-0.34	.94****	.18****
cpd2	132	0-3	1.12	1	0.96	0.48	-0.73	.85****	.24****
cpdrep	132	0-8	7.04	8	1.96	-2.38	4.77	.55****	.37****
cpm	132	0-16	11.14	12	3.77	-1.07	1.55	.91****	.17****
cpmrep	132	0-8	6.94	8	2.08	-2.26	4.11	.57****	.35****
bhvinat	132	5-12	7.82	8	1.61	0.38	-0.38	.94****	.19****
bhvpros2	132	4-17	10.88	11	2.25	-0.02	0.29	.98****	.11***
bhvagg	132	6-20	11.13	10	3.75	0.76	-0.26	.92****	.15****
bcon	132	11-26	20.6	21	2.87	-0.77	0.4	.95****	.14****
bhyp	132	4-13	9.02	9	2.05	-0.4	-0.33	.96***	.12****
bpros	132	11-32	17.93	17	4.23	0.83	0.21	.93****	.16****
ganx2	132	6-13	9.89	10	1.51	-0.48	-0.18	.94****	.2****
ghyp	132	6-20	13.14	13	2.84	-0.42	-0.11	.97**	.11***
gsh	132	5-13	10.01	10	1.81	-0.35	-0.5	.95***	.15****
btbp	132	45-81	67.95	69	7.15	-0.62	0.09	.97**	.09**
gtbp	132	47-86	72.06	73	7.9	-0.64	0.07	.97**	.09**
pl	132	24-55	35.8	36	6.46	0.37	-0.31	.98*	.08*
cha2	132	2-12	4.7	4	2.2	0.71	-0.11	.92****	.17****
resp	132	16-30	22.23	23	2.62	-0.51	-0.13	.92****	.17****
sens2	132	10-18	13.21	13	1.55	-0.24	-0.23	.93****	.16****
pat	132	11-24	17.2	17	2.07	-0.03	0.16	.97**	.11***
disc	132	14-24	17.98	18	1.67	0.04	-0.1	.93****	.15****
bpi	132	6-20	13.32	14	1.98	-0.57	1.06	.9****	.18****
bti	132	7-20	13.86	15	2.39	-0.4	0.85	.88****	.24****
fopb2	132	7-12	9.04	9	1.04	-0.07	-0.5	.86****	.24****
cop	132	5-24	13	13	3.38	0.1	0.55	.97**	.11***
voa	132	6-36	17.65	18	4.59	0.87	3.19	.94****	.1**
mnpl	132	4-24	14.02	15	3.63	-0.49	-0.09	.95****	.16****
cntr	132	5-30	12.56	12	4.12	1.17	3.51	.92****	.12****
parkn2	132	6-12	8.57	9	1.21	-0.12	0.09	.91****	.17****
aut	132	7-42	18.73	18	5.74	1.13	2.58	.93****	.13****
stab	132	4-24	11.28	11	3.47	0.97	1.74	.94****	.15****

Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$

To identify gender differences, the Wilcoxon test was used, the results are in Table 3. Adjusted for multiple comparisons, the lower threshold for significance is also $p < .001$. No significant results were found.

Table 3. Gender differences: junior groups

	Wilcox	Cohen's d	r
codd	2118.5	-0.03	-0.01
coddrep	2482	-0.34	-0.17
cpd	2707*	-0.4	-0.2
cpd2	2602*	-0.36	-0.18
cpdrep	2568.5*	-0.37	-0.18
cpm	1913	0.23	0.11
cpmrep	2300	-0.01	-0.01
bhvinat	1890	0.19	0.1
bhvpros2	2199	0.03	0.01
bhvagg	1832	0.25	0.12
bcon	2577.5	-0.33	-0.16
bhyp	2062.5	0.08	0.04
bpros	1714*	0.35	0.17
ganx2	2162.5	-0.01	0
ghyp	2055.5	0.09	0.05
gsh	2155	0.11	0.05
btbp	2325.5	-0.1	-0.05
gtbp	2287.5	-0.08	-0.04
pl	1763	0.36	0.18
cha2	2125.5	0.05	0.03
resp	2129	0.1	0.05
sens2	2182	0.05	0.03
pat	2121.5	0.06	0.03
disc	2070.5	0.11	0.05
bpi	1965.5	0.24	0.12
bti	2068	0.11	0.06
fopb2	2340.5	-0.1	-0.05
cop	2236.5	-0.02	-0.01
voa	2128.5	0.07	0.03
mnpl	2571.5	-0.3	-0.15
cntr	2029.5	0.2	0.1
parkn2	2571	-0.23	-0.11
aut	1873.5	0.24	0.12
stab	2250.5	0	0

Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$

The same tests were used to investigate the difference in scores across programs. The results are presented in table 4. After adjusting for multiple comparisons, there were no significant differences.

Table 4. Differences in scores across programs: junior groups

	Wilcox	Cohen's d	r
codd	1541.5*	0.28	0.13
coddrep	1815	0.11	0.05
cpd	2073.5	-0.09	-0.04
cpd2	2059.5	-0.06	-0.03
cpdrep	1885	0.02	0.01
cpm	1928.5	-0.06	-0.03
cpmrep	1893.5	-0.02	-0.01
bhvinat	2250	-0.02	-0.09
bhvpros2	2031	-0.05	-0.02
bhvagg	2320.5	-0.27	-0.13
bcon	1539.5*	0.31	0.15
bhyp	1790	0.11	0.05
bpros	2273	-0.29	-0.14
ganx2	1877.5	0.07	0.04
ghyp	1807.5	0.08	0.04
gsh	1486*	0.42	0.2
btbp	1603.5	0.27	0.13
gtbp	1647	0.24	0.11
pl	2589.5**	-0.54	-0.25
cha2	2439*	-0.39	0.18
resp	1870.5	0.13	0.06
sens2	1910	0.11	0.05
pat	1797	0.21	0.01
disc	1973.5	0.07	0.04
bpi	2173.5	-0.13	-0.06
bti	1827.5	0.18	0.08
fopb2	1774.5	0.23	0.11
cop	1773.5	0.21	0.1
voa	2074	0.02	0.01
mnpl	2001	0.03	0.01
cntr	1803	0.23	0.11
parkn2	1835.5	0.12	0.06
aut	2086.5	0.01	0.01
stab	1659.5	0.38	0.18

*Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$*

The Kruskal-Wallis test was used to explore age differences. Significant differences were found for children's age in the final scale of behaviour during the task ($H=13.37$, $p<.001$), adjusted for multiple comparisons, as table 5 shows.

Table 5. Age differences in junior scores

	Children's age	Parent's age
codd	2.05	0.23
coddrep	9.53**	0.52
cpd	4.13	2.35
cpd2	0.2	4.32
cpdrep	1.99	1.45
cpm	6.13*	3.07
cpmrep	13.37***	1.38
bhvinat	1.17	1.85
bhvpros2	0.04	6.22*
bhvagg	7.42*	0.25
bcon	0.81	5.08
bhyp	2.33	2.94
bpros	1.75	0.04
ganx2	2.04	1.95
ghyp	2.97	3.37
gsh	1.4	0.39
btbp	0.97	4.29
gtbp	1.2	4.42
pl	12.45**	2.57
cha2	0.34	0.36
resp	4.21	7.8*
sens2	3.31	5.23
pat	0.97	1.86
disc	2.89	5.9
bpi	5.01	1.31
bti	0.18	3.01
fopb2	0.86	2.49
cop	0.3	0.33
voa	0.95	1.58
mnpl	0.52	0.99
cntr	1.31	7.78*
parkn2	0.88	2.74
aut	0.98	1.47
stab	0.41	5.14

Note: **** $p<.0001$, *** $p<.001$, ** $p<.01$, * $p<.05$

The image 1 presents Spearman correlations between all scales in junior groups. Significant correlations highlighted in bold and colour.

Image 1. Correlations between all scales in junior groups

	codd_	coddre_	cpd_	cpd2_	cpdrep_	cpm_	cpmrep_	bhinat_	bhpros_	bhag_	bcon_	bhyp_	bpros_	ganx_	ghyp_	gsh_	btbp_	gtbp_	pl_	cha_	resp_	sens_	pat_	dis_	bpl_	bl_	fopb_	cop_	voa_	mppl_	cntr_	pkn_	aut_	stab_	
codd_	1																																		
coddre_	.29***	1																																	
cpd_	.29***	.11	1																																
cpd2_	.18*	.06	.77***	1																															
cpdrep_	.12	.43***	.28**	.27**	1																														
cpm_	.65***	.22**	.31***	.27**	.23**	1																													
cpmrep_	.28**	.59***	.27**	.18*	.5***	.41***	1																												
bhinat_	.1	-.15	-.09	-.08	-.21*	.04	-.11	1																											
bhpros_	.1	.15	.11	.04	.1	.18*	.19*	.03	1																										
bhag_	-.04	-.01	-.15	-.19*	0	-.03	-.04	.22**	.01	1																									
bcon_	-.03	.04	.17	.11	.08	-.05	.11	-.27**	.23**	.5***	1																								
bhyp_	-.08	.23**	.08	.13	.11	-.06	.2*	.39***	-.13	.33***	.48***	1																							
bpros_	.22*	.02	-.17*	-.04	-.05	.18*	-.08	.24**	-.08	.3***	-.21*	-.02	1																						
ganx_	.07	0	.13	.12	.01	-.04	-.05	-.1	.12	-.2*	.46***	.31	-.05	1																					
ghyp_	-.03	.21*	.14	.18*	.14	-.05	.02*	.41***	-.01	.37***	.54***	.93***	-.04	.41***	1																				
gsh_	.27**	.15	.14	.08	.08	.16	.12	.01	.12	-.18	.09	.17	.35***	.37***	.2*	1																			
btbp_	.07	.14	.21*	.17*	.09	-.01	.13	.31***	.16	.48***	.86***	.7***	-.21*	.63***	.75***	.31**	1																		
gtbp_	.06	.14	.22*	.18*	.1	-.01	.13	.31***	.17	.49***	.84***	.71***	-.19*	.64***	.8***	.33**	.99***	1																	
pl_	.3***	.34***	.28**	-.01	-.16	.19*	.34***	.15	0	.01	-.18*	.2*	.28***	-.13	.24**	-.26**	-.25**	-.29**	1																
cha_	-.03	-.18	-.08	-.07	-.02	-.07	-.11	.13	-.07	.24**	-.26**	.19*	.04	-.07	.19*	-.05	-.22**	-.21*	.15	1															
resp_	.08	.14	-.01	-.01	-.05	.04	-.17*	.03	-.3***	.35***	.19*	-.19*	.24**	.17*	.08	.33***	.3**	-.11	-.26**	.1	1														
sens_	.03	.07	-.01	0	.01	-.08	.01	-.14	.04	-.19*	.32***	.16	.21*	.11	.14	.05	.29***	.27**	-.18*	-.29***	.7***	1													
pat_	.14	.07	-.06	-.01	-.1	.12	.04	-.02	.19*	-.15	.25**	.11	.24**	.04	.1	.08	.27**	.25**	-.15	-.22*	.59***	.61***	1												
dis_	-.05	-.01	-.11	-.13	-.19*	-.03	-.03	.12	.01	.08	-.07	-.09	-.02	-.11	.01	0	-.03	.02	-.08	.65***	.51***	.46***	1												
bpl_	-.06	-.14	-.19*	-.16	.18*	.29***	.13	-.1	-.06	.08	-.03	-.01	.03	-.08	-.04	.02	0	.09	-.04	.19*	.2*	.14	.23**	1											
bl_	-.02	-.03	-.05	-.06	-.09	.08	-.07	.11	0	-.1	.15	-.09	0	-.06	-.09	.01	.07	.04	.14	-.13	.17*	.19*	.15	.3***	.66***	1									
fopb_	.04	0	-.05	-.09	.03	0	-.05	-.1	.15	.02	.15*	-.02	-.07	.15	-.04	-.02	.14	.1	-.04	-.15	.34***	.38***	.5***	.35***	.08	.1	1								
cop_	.12	-.17*	-.09	-.11	-.09	.01	-.18*	.44***	.08	.16	-.1	.36***	.22*	-.18*	-.33***	-.04	.23**	-.23**	.01	.08	-.15	-.15	-.11	.02	.1	.18	-.09	1							
voa_	-.03	.07	-.04	-.13	.07	-.1	.09	.02	.05	.27**	.11	.12	.18*	-.06	.08	-.06	.07	.07	-.07	-.02	-.11	.03	.04	.05	-.06	-.05	.1	.21*	.1						
mppl_	.09	-.19*	-.07	-.11	-.11	.03	-.1	.31***	.03	.19*	-.13	.32***	.05	-.23**	-.31***	-.02	.21*	-.22*	-.01	.02	-.04	0	.04	.04	.09	.19*	0	.48***	.23**	.1					
cntr_	-.1	-.08	.09	.11	-.09	0	-.17	.15	.05	-.1	.14	-.03	.13	.26**	.07	.08	.14	.16	.09	-.06	-.02	-.02	-.1	-.18*	-.01	-.02	-.15	.08	-.02	.01	-.15	.1			
pkn_	.2*	0	-.06	-.08	-.03	.09	.02	.05	.05	-.16	.04	.3	.21*	-.14	.02	.21*	.04	.04	-.09	-.04	.09	.04	.21*	.14	.13	.07	.1	.19*	-.06	.18*	-.15	.1			
aut_	-.04	-.02	-.04	-.01	-.04	-.06	-.01	.2*	.06	.08	.08	.08	.14	-.03	.09	-.08	.08	.08	.13	.07	-.17	-.01	.01	.01	.03	.11	-.05	.17	.49***	.017	.3***	-.13	.1		
stab_	-.07	-.06	-.01	-.07	.06	.04	-.15	.07	.16	.05	.1	.04	.1	.1	.1	.09	.09	.12	-.06	.19*	-.04	.03	-.01	-.07	.15	.14	-.02	.24**	.31***	.28***	.42***	.11	.21*	1	

Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$

The associations between child development and parental scales according to the hypotheses will be discussed in the next chapter. A series of regression analyses were conducted for each scale to explore the first four hypotheses of current study.

The following scales of problematic behaviour were included for regression analysis in junior groups: inattention (bhinat), aggression (bhag), conduct behaviour (bcon), anxiety (ganx), two scales of hyperactivity (bhyp, ghyp), and two scales of total behaviour problems (btbp, gtbp).

An increase in points on the inattention scale by 1% is associated with an increase in the points of the scale of “cost of positivity” ($t=.35$, $p<.0001$). The scores on this parent scale can explain 20% of the variance in inattention scores ($F=32.09$, $p<.0001$; $r^2=.2$, $\text{adj.}r^2=.19$). Also, increase in inattention points associated with increase in points of the scale “manipulation” ($t=.33$, $p<.0001$). The scores on this parent scale can explain 11% of the variance in inattention scores ($F=15.69$, $p<.0001$; $r^2=.11$, $\text{adj.}r^2=.1$).

Changes in the scale of aggression are associated with the scales of chaos ($t=.24$, $p<.001$) and responsiveness ($t=.29$, $p<.001$). These parental scales can explain only 6% ($F=7.78$, $p<.01$) and 8% ($F=11.69$, $p<.001$) of the variance in the scale of aggression, respectively.

Changes in the scale of conduct behaviour are associated with scales of chaos ($t=-.26$, $p<.001$; $F=9.69$, $p<.01$; $r^2=.07$, $\text{adj.}r^2=.06$), responsiveness ($t=-.31$, $p<.0001$; $F=13.52$, $p<.001$;

$r=.09$, $\text{adj.}r=.09$), sensitivity ($t=-.29$, $p<.0001$; $F=12.12$, $p<.001$; $r=.09$, $\text{adj.}r=.08$), and parental affection ($t=-.26$, $p<.001$; $F=9.42$, $p<.01$; $r=.07$, $\text{adj.}r=.06$).

Changes in both hyperactivity scales are associated with scales of “cost of positivity” ($t=-.34$, $p<.0001$; $F=17.26$, $p<.0001$; $r=.12$, $\text{adj.}r=.11$ for “Behar’s hyperactivity scale”, and $t=-.31$, $p<.0001$; $F=13.66$, $p<.001$; $r=.1$, $\text{adj.}r=.09$ for “general hyperactivity scale”), and “manipulation” ($t=-.32$, $p<.0001$; $F=14.49$, $p<.001$; $r=.1$, $\text{adj.}r=.09$ for “Behar’s hyperactivity scale”, and $t=-.32$, $p<.0001$; $F=14.81$, $p<.001$; $r=.1$, $\text{adj.}r=.01$ for “general hyperactivity scale”).

Changes in the scale of anxiety are associated with the scales of “manipulation” ($t=-.23$, $p<.001$) and “control” ($t=.25$, $p<.001$). These parental scales can explain 5% ($F=6.95$, $p<.01$) and 6% ($F=8.9$, $p<.01$) of the variance in the scale of anxiety, respectively.

Changes in both total behaviour problems scales are associated with scales of chaos ($t=-.26$, $p<.001$; $F=9.32$, $p<.01$; $r=.07$, $\text{adj.}r=.06$ for “btbp”, and $t=-.26$, $p<.001$; $F=9.25$, $p<.01$; $r=.07$, $\text{adj.}r=.06$ for “gtbp”), responsiveness ($t=.28$, $p<.0001$; $F=11.37$, $p<.001$; $r=.08$, $\text{adj.}r=.07$ for “btbp”, and $t=.27$, $p<.001$; $F=9.91$, $p<.01$; $r=.07$, $\text{adj.}r=.06$ for “gtbp”), sensitivity ($t=.28$, $p<.0001$; $F=10.66$, $p<.001$; $r=.08$, $\text{adj.}r=.07$ for “btbp”, and $t=.26$, $p<.001$; $F=9.26$, $p<.01$; $r=.07$, $\text{adj.}r=.06$ for “gtbp”), parental affection ($t=.27$, $p<.0001$; $F=10.17$, $p<.01$; $r=.07$, $\text{adj.}r=.07$ for “btbp”, and $t=.25$, $p<.001$; $F=8.81$, $p<.01$; $r=.06$, $\text{adj.}r=.06$ for “gtbp”), “cost of positivity” scale ($t=-.24$, $p<.001$; $F=6.89$, $p<.01$; $r=.05$, $\text{adj.}r=.04$ for “btbp”, and $t=-.23$, $p<.001$; $F=6.96$, $p<.01$; $r=.05$, $\text{adj.}r=.04$ for “gtbp”), and “manipulation” scale ($t=-.25$, $p<.001$; $F=8.76$, $p<.01$; $r=.06$, $\text{adj.}r=.06$ for “btbp”, and $t=-.26$, $p<.001$; $F=9.47$, $p<.01$; $r=.07$, $\text{adj.}r=.06$ for “gtbp”).

To explore the third hypothesis about associations between children's prosocial behaviour scores and parental scores, a series of regression analyses were also conducted for each scale.

An increase in points on the first prosocial behaviour scale (BEH) by 1% is associated with an increase in the points of the scale of parental affection ($t=.24$, $p<.001$). The scores on this parent scale can explain 6% of the variance in prosocial behaviour scale (BEH) scores ($F=8$, $p<.01$; $r=.06$, $\text{adj.}r=.05$). An increase in points on the second prosocial behaviour scale (Behar) is associated with changes in points of the scale “parental knowledge” ($t=-.23$, $p<.001$). The scores on this parent scale can explain 5% of the variance in the second prosocial behaviour scale (Behar) scores ($F=7.38$, $p<.01$; $r=.05$, $\text{adj.}r=.05$).

Regression analysis was also applied to study associations between scales of parental knowledge and scales of cognitive and social development of children, and scales of parental beliefs, attitudes and support.

The scores on the scale of parental beliefs regarding their own influence on a child's development can explain 6% of the variance in drawing scale “cpd” ($t=-.25$, $p<.001$; $F=8.96$, $p<.01$). The scores on the scale of “manipulation” can explain 5% of the variance in the scale of parental beliefs regarding educator's influence on a child's development ($t=.23$, $p<.001$; $F=7.4$, $p<.01$). Finally, a regression analysis was performed to investigate associations between children's cognitive and social development scales.

Changes in points on the cognitive scale “codd” by 1% is associated with changes in the points of the scale of prosocial behaviour (Behar) ($t=-.25$, $p<.001$). The scores on this behavioural scale can explain 6% of the variance in cognitive “codd” scores ($F=8.95$, $p<.01$). Also, changes in “codd” points are associated with changes in points of the scale “general shyness” ($t=.29$, $p<.0001$; $F=11.63$, $p<.001$; $r=.08$, $\text{adj.}r=.08$).

Changes in points on the other cognitive scale “cpm” is associated with changes in the points of the other prosocial behaviour scale (BEH) ($t=.23$, $p<.001$; $F=7.31$, $p<.01$; $r=.05$, $\text{adj.}r=.05$).

Finally, an increase in points on the first scale of behaviour during the tasks by 1% is associated with an increase in the points of the both scales of hyperactivity ($t=-.23$, $p<.001$; $F=6.94$, $p<.01$; $r=.05$, $\text{adj.}r=.04$; and $t=-.24$, $p<.001$; $F=8.28$, $p<.01$; $r=.06$, $\text{adj.}r=.05$).

3.2. Associations between child development scores and parental scores in senior groups

In independent variables, the coding was made: by programs, age of children and age of parents. Since the Minipally program involved significantly more children than other programs, the latter had to be combined into one "9th" program. Thus, according to Minipally, 82 children were engaged in the first wave, according to others ("9th") — 60. In senior groups there were 65 girls, and 77 boys.

There were four groups of children age:

- 38 children under or exactly 4 years old (in months: mean = 45.5, sd = 2.23),
- 45 children between 4 and 4.5 years old (in months: mean = 51.67, sd = 1.67),
- 29 children between 4.5 and 5 years old (in months: mean = 57.07, sd = 1.58),
- 30 children between 5 and 5.5 years old (in months: mean = 63.63, sd = 2.13).

There were three groups by parental age:

- 22-30 years old — 49 participants;

- 31-35 years old — 48 participants;
- 36-55 years old — 45 participants.

As indicated above, the analysis included participants who completed all the booklet scales and at least one block of online questionnaires. In the senior groups, the parents completed all the booklet scales and the first block of opponents — 142 participants, the second block — 128, the third — 127, the fourth 126, and the fifth block completed 124. Due to the fact that the ranks in the responses of online questionnaires were quite compact, and assuming that the missing values are random, the kNN imputation method was applied (Crookston&Finley, 2008; Kabacoff, 2014; Jadhav, Pramod&Ramanathan, 2019). For each missing value, the k nearest points were determined based on the Euclidean distance, and their distance-weighted average was calculated.

Further, only those scales that passed the test of internal consistency were selected, the results are presented in Table 6. Again, since low alpha values can be associated with poor interrelationship between elements or dissimilar constructs, the lower bound for exploratory analysis was defined as low in .5, questionable in .6, and acceptable in .7 and above (Adamson&Prion, 2013; Vaske, Beaman&Sponarski, 2017; Wadkar, Singh, Chakravarty&Argade, 2016).

Table 6. Internal consistency of the scales: senior groups

	Cronbach's α raw	Cronbach's α std	95% confidence boundaries lower bound	95% confidence boundaries upper bound	Excluded items
dodd	0.55	0.57	0.43	0.65	
doddrep	0.92	0.93	0.89	0.94	
dpd	0.54	0.55	0.41	0.65	
dpd1	0.58	0.58	0.42	0.7	
dpd2	0.55	0.56	0.41	0.67	
dman	0.87	0.89	0.84	0.9	
dpdrep	0.92	0.92	0.9	0.94	
dpuz	0.78	0.78	0.72	0.83	
dpuzrep	0.84	0.84	0.79	0.88	
dpic	0.85	0.88	0.8	0.88	
dpicrep	0.98	0.98	0.97	0.98	
bhvhyp	0.51	0.52	0.37	0.63	
bhvinat	0.48	0.49	0.31	0.61	
bhvpros	0.55	0.54	0.42	0.65	

bhvopp	0.29	0.27	0.09	0.46	
bhvagg	0.64	0.65	0.54	0.72	
banx	0.59	0.6	0.48	0.69	
bcon	0.75	0.76	0.69	0.81	
bhyp	0.71	0.71	0.63	0.78	
bpros	0.77	0.78	0.72	0.83	
ganx	0.56	0.59	0.44	0.67	
ghyp	0.77	0.77	0.71	0.82	
gsh	0.54	0.53	0.4	0.65	
btbp	0.84	0.84	0.8	0.87	
gtbp	0.85	0.85	0.81	0.88	
pl	0.83	0.85	0.78	0.87	
cha	0.42	0.43	0.23	0.56	
cha2	0.53	0.53	0.35	0.66	5
ord	0.44	0.46	0.26	0.58	
resp	0.75	0.75	0.67	0.81	
sens	0.76	0.77	0.68	0.82	
pat	0.81	0.82	0.75	0.86	
disc	0.8	0.79	0.74	0.85	
bpi	0.84	0.84	0.79	0.88	
bti	0.85	0.86	0.81	0.89	
fopb	0.44	0.42	0.27	0.58	
fopb2	0.68	0.69	0.56	0.77	11, 12
cop	0.74	0.74	0.67	0.81	
voa	0.83	0.83	0.79	0.87	
mnpl	0.81	0.81	0.75	0.86	
cntr	0.86	0.86	0.82	0.89	
parkn	0.28	0.35	0.05	0.47	
parkn2	0.57	0.57	0.4	0.69	39
aut	0.84	0.84	0.79	0.87	
stab	0.73	0.73	0.65	0.79	

Descriptive statistics for selected scales are presented in table 7. Due to the fact that the range between the CCD and SCD & PK scales is very different, standardisation of the scores was carried out. Again, none of the scales showed a normal distribution, so further nonparametric tests were used.

Table 7. Descriptive statistics: senior groups

	N	Range	Mean	Median	St. Dev.	Skewness	Kurtosis	Shapiro- Wilk	Lilliefors
dodd	142	7-16	13.82	14	1.85	-0.95	0.81	.9****	.17****
doddrep	142	0-8	7.6	8	1.3	-4.55	22.44	.34****	.46****
dpd	142	1-9	6.51	7	1.73	-0.8	0.2	.92****	.17****
dpd1	142	1-3	2.8	3	0.49	-2.48	5.27	.44****	.5****
dpd2	142	0-6	3.71	4	1.52	-0.55	-0.35	.92****	.17****
dman	142	0-12	8.12	9	3.26	-1.12	0.75	.87****	.17****
dpdrep	142	0-8	7.31	8	1.71	-3.37	11.19	.45****	.38****
dpuz	142	1-12	9.05	10	2.76	-0.91	0.02	.89****	.18****
dpuzrep	142	0-8	7.06	8	1.54	-2.45	7.44	.65****	.3****
dpic	142	0-8	7.54	8	1.29	-4.5	22.31	.38****	.4****
dpicrep	142	0-8	7.8	8	1.16	-6.4	39.92	.16****	.52****
bhvhyp	142	5-16	9.68	9	1.95	0.49	0.41	.96***	.16****
bhvpros	142	13-27	18.37	18	2.53	0.62	1.06	.96***	.11***
bhvagg	142	6-20	10.33	10	3.1	0.74	0.08	.94****	.13****
banx	142	7-24	14.85	15	2.1	-0.23	2.65	.92****	.16****
bcon	142	11-31	20.65	21	2.74	-0.34	2.22	.94****	.13****
bhyp	142	4-14	9	9	1.81	-0.14	-0.01	.97**	.12****
bpros	142	11-38	16.68	16	4	1.57	4.49	.88****	.16****
ganx	142	9-24	15.84	16	1.83	-0.47	3.77	.88****	.16****
ghyp	142	7-22	13.25	13	2.44	0.06	0.56	.98**	.09**
gsh	142	6-13	10.58	11	1.59	-0.24	-0.64	.94****	.13****
btbp	142	49-105	68.96	70	6.77	0.52	4.78	.93****	.08*
gtbp	142	51-113	73.2	74	7.25	0.64	5.37	.92****	.09**
pl	142	24-88	30.88	30	7.3	3.66	24.49	.72****	.17****
cha2	142	2-12	4.28	4	2.15	1.11	0.83	.87****	.2****
resp	142	17-30	22.65	23	2.27	-0.12	0.41	.93****	.15****
sens	142	13-24	18.2	19	2.07	-0.45	0.04	.89****	.19****
pat	142	10-24	17.75	18	2.4	-0.71	0.63	.91****	.17****
disc	142	13-24	18.44	19	1.87	-0.46	0.7	.9****	.18****
bpi	142	5-20	12.95	14	2.59	-0.57	0.56	.9****	.21****
bti	142	5-20	13.46	14	2.6	-0.08	1.18	.91****	.21****
fopb2	142	6-12	8.97	9	1.1	-0.23	-0.17	.86****	.24****
cop	142	5-24	12.34	12.5	3.5	0.42	1.16	.96***	.1**
voa	142	6-36	17.48	18	5.1	0.56	2.54	.93****	.14****
mnpl	142	4-24	13	14	3.66	-0.07	0.04	.95****	.15****
cntr	142	5-30	12.57	12	4.5	1.55	3.54	.87****	.18****
parkn2	142	3-12	8.82	9	1.28	-0.78	2.51	.88****	.17****
aut	142	8-42	19.3	19	5.68	1.37	3.72	.9****	.14****
stab	142	4-24	10.77	10	3.3	1.38	3.68	.9****	.14****

Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$

To identify gender differences, the Wilcoxon test was used, the results are presented in Table 8. After adjusting for multiple comparisons, significant differences were discovered only in the draw-a-child scale ($W=3370.5$, $p<.001$).

Table 8. Gender differences: senior groups

	Wilcox	Cohen's d	r
dodd	2703	-0.15	-0.07
doddrep	2545.5	0.04	0.02
dpd	2930.5	-0.34	-0.17
dpd1	2594.5	-0.16	-0.08
dpd2	2890	-0.34	-0.17
dman	3370.5***	-0.6	-0.29
dpdrep	2302.5	0.07	0.03
dpuz	2872.5	-0.18	-0.09
dpuzrep	2415.5	0.11	0.06
dpic	2634.5	-0.15	-0.07
dpicrep	2302.5*	0.35	0.17
bhvhyp	2413.5	0.02	0.01
bhvpros	2872.5	-0.12	-0.06
bhvagg	2125.5	0.26	0.13
banx	2310	0.13	0.07
bcon	2695	-0.08	-0.04
bhyp	2696	-0.09	-0.05
bpros	2063.5	0.39	0.19
ganx	2019*	0.29	0.14
ghyp	2723	-0.08	-0.04
gsh	2358.5	0.07	0.04
btbp	2695	-0.08	-0.04
gtbp	2726	-0.08	-0.04
pl	1887**	0.42	0.21
cha2	2772.5	-0.14	-0.07
resp	2517	0.01	0.01
sens	2787	-0.13	-0.06
pat	2733	-0.13	-0.07
disc	2403	0.13	0.07
bpi	2445	0.12	0.06
bti	2430	0.03	0.02
fopb2	2699.5	-0.1	-0.05
cop	2560.5	0.01	0
voa	2832	-0.13	-0.07
mnpl	2757	-0.14	-0.07
cntr	2872.5	-0.16	-0.08

parkn2	2879	-0.18	-0.09
aut	3041.5*	-0.22	-0.11
stab	2662.5	-0.05	-0.02

*Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$*

The same tests were used to investigate the difference in scores across programs. The results are presented in table 9. Considering adjusted for multiple comparisons, no significant results were found.

Table 9. Differences in scores across programs: senior groups

	Wilcox	Cohen's d	r
dodd	2285	0.07	0.04
doddrep	2265.5	0.05	0.02
dpd	2107.5	0.22	0.11
dpd1	2434	0.05	0.02
dpd2	2165.5	0.24	0.12
dman	1950.5*	0.4	0.19
dpdrep	2301	0.02	0.01
dpuz	2325.5	-0.03	-0.02
dpuzrep	2504.5	-0.09	-0.04
dpic	2312	-0.03	-0.02
dpicrep	2462	0.05	0.02
bhvhyp	2407	-0.04	-0.02
bhvpros	2626	-0.13	-0.06
bhvagg	2856.5	-0.24	-0.12
banx	2601	-0.11	-0.05
bcon	2309.5	0.09	0.04
bhyp	2798.5	-0.23	-0.11
bpros	2565	-0.06	-0.03
ganx	2507	-0.15	-0.07
ghyp	2787	-0.25	-0.12
gsh	2677	-0.15	-0.07
btbp	2533.5	-0.13	-0.06
gtbp	2549	-0.15	-0.07
pl	2713.5	-0.23	-0.11
cha2	2328.5	0.1	0.05
resp	2199.5	0.17	0.08
sens	2447.5	0	0
pat	2391	-0.04	-0.02
disc	2038.5	0.27	0.13
bpi	2112.5	0.27	0.13
bti	1862.5**	0.33	0.16

fopb2	2462	-0.06	-0.03
cop	2249.5	0.19	0.09
voa	2169	0.27	0.13
mnpl	2210.5	0.2	0.1
cntr	2618	-0.05	-0.02
parkn2	2227.5	0.11	0.06
aut	1951*	0.33	0.16
stab	2563.5	0.07	0.04

Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$

The Kruskal-Wallis test was used to study age differences. Significant differences were found for children's age in drawing scales: "dpd" ($H=19.16$, $p < .001$), "dpd2" ($H=20.72$, $p < .001$), and "draw-a-child" ($H=19.53$, $p < .001$), as table 10 shows. In groups of parents' age significant differences were found in the scale of chaos ($H=20.35$, $p < .001$).

Table 10. Age differences in senior scores

	Children's age	Parent's age
dodd	2.51	0.06
doddrep	1.33	2.5
dpd	19.16***	0.28
dpd1	3.03	0.26
dpd2	20.72***	0.43
dman	19.53***	0.82
dpdrep	5.06	1.46
dpuz	3.81	2.63
dpuzrep	2.57	3.81
dpic	5.27	0.04
dpicrep	1.11	1.28
bhvhyp	3.54	4.07
bhvpros	7.43	0.1
bhvagg	6.21	5.02
banx	1.48	1.22
bcon	0.56	0.66
bhyp	1.43	0.49
bpros	3.38	2.98
ganx	2.34	0.58
ghyp	1.47	0.14
gsh	9.05*	0.59
btbp	0.42	0.36
gtbp	0.35	0.49
pl	11.81**	0.67
cha2	2.89	20.35****

resp	4.2	0.96
sens	4.24	0.42
pat	1.53	2.73
disc	4.54	1.94
bpi	2.69	1.63
bti	8.01*	0.75
fopb2	2.58	0.04
cop	2.1	0.91
voa	2.58	0.38
mnpl	3.25	2.58
cntr	2.77	0.52
parkn2	1.92	1.98
aut	0.27	0.24
stab	2.81	0.44

Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$

The image 2 presents Spearman correlations between all scales in senior groups. Significant correlations highlighted in bold and colour.

Image 2. Correlations between all scales in senior groups

	dodd	dodd	dpd	dpd1	dpd2	dmai	dpdr	dpuz	dpuz	dpic	dpicr	bhhy	bhpr	bhag	banx	bcon	bhyp	bpro	ganx	ghyp	gsh	gtbp	gtbp	pl	cha2	resp	sens	pat	disc	bpi	bti	fopb2	cop	voa	mnpl	cntr	parkn	aut	stab			
dodd	1																																									
doddrep	0.1	1																																								
dpd	.35***	.21**	1																																							
dpd1	0.14	0.15	.43***	1																																						
dpd2	.35***	.19*	.97***	.25**	1																																					
dmai	.23**	0.16	.41***	.34***	.37**	1																																				
dpdr	0.03	.29***	0.09	.17*	0.08	0.11	1																																			
dpuz	.45***	0.16	.34***	.24**	.32***	.3***	.18*	1																																		
dpuzrep	0.02	.48***	0.1	.17*	0.09	0.12	.39***	0.16	1																																	
dpic	.17*	0.11	0.08	.17*	0.08	.17*	.07	.3***	0.11	1																																
dpicrep	0.03	0.08	-0.01	0.08	-0.02	-0.02	0.01	0	0.03	0.03	1																															
bhhy	-.18*	-0.1	0.01	0	0.01	-0.13	-0.09	-0.1	-0.14	-0.1	-0.02	1																														
bhpros	-0.01	0.09	-0.05	-0.09	-0.03	0.04	0.04	0.02	0.07	-0.05	0	-0.01	1																													
bhag	-.19*	-0.07	-0.02	-0.02	-0.02	-0.14	-0.07	-0.04	-0.02	-0.02	.32***	0.04	1																													
banx	0.06	0.1	0.04	.16*	0	.17*	0.12	0.07	.21**	-0.08	-0.05	-.25**	-0.02	.3***	1																											
bcon	0.11	-0.03	0.01	0.14	-0.01	0.16	-0.05	.21**	0.07	.18*	-0.03	-.25**	0.13	.32***	.46***	1																										
bhyp	0.1	.22**	0.06	0.14	0.06	0.14	0.1	.21**	.25**	0.05	-0.06	-.38**	0.07	-0.14	.23**	.39**	1																									
bpros	-.32**	-0.07	-0.04	-0.02	-0.05	-.25**	-0.11	-.17*	-0.11	-0.08	0	0.14	-0.11	.31***	.22**	.17*	0	1																								
ganx	-0.01	0.07	-0.02	0.12	-0.04	0.06	0.11	0.01	.21**	-.17*	0.01	-.19*	-0.01	-.18*	.81***	.36***	.28***	-0.06	1																							
ghyp	0.12	.24**	0.07	0.13	0.07	0.14	0.06	.22**	.22**	0.04	-0.01	-.38**	0.09	-0.16	.25**	.41***	.95***	-0.03	.28***	1																						
gsh	0.13	0.08	0.07	0.06	0.05	0.12	0.01	0.07	0.11	0.06	-0.11	-.21**	-0.05	-0.1	.64***	0.1	0.01	-.17*	.36***	0.05	1																					
gtbp	0.14	0.09	0.04	.17*	0.02	.23**	0.1	.21**	.24**	0.07	-0.07	-.37**	0.1	-.38**	.72***	.83***	.61***	-.24**	.61***	.61***	.3***	1																				
gtbp	0.16	0.12	0.05	0.16	0.03	.22**	0.1	.23**	.25**	0.07	-0.05	-.38**	0.11	-.38**	.7***	.82***	.64***	-.23**	.59***	.68***	.26***	.99***	1																			
pl	-0.15	0	-.03**	-0.14	-.03**	-.38**	-.17*	-.24**	-0.11	-0.09	-0.08	0.06	-0.05	0.11	-0.05	-0.11	-0.08	.4***	0	-0.11	-0.06	-0.13	-0.14	1																		
cha2	-0.16	-0.03	-0.03	0.05	-0.04	-0.06	-0.01	-0.02	-0.07	0.08	-.18*	0.13	-0.09	.17*	-0.12	-0.12	-0.14	.19*	-0.1	-0.16	-0.01	-.17*	-.18*	0.13	1																	
resp	0.14	0.04	0.14	0.02	0.15	.23**	0.15	.18*	0.08	-0.03	-0.05	-.37**	0.1	-0.14	.32***	.25**	-.19*	-.37**	.23**	.21**	.22**	.34***	.33***	.32***	-0.09	1																
sens	0.06	-0.06	0.11	-0.02	0.13	.24**	0.05	0.12	0.02	-0.02	0.04	-.19*	0.13	-0.11	.26***	.26***	0.13	.3***	.21**	0.13	0.04	.29***	.29***	.29***	-0.13	.68***	1															
pat	0.14	0.04	0.06	-0.03	0.08	.21**	0.09	0.13	0.01	-0.04	-0.11	-.23**	-.19*	-0.11	.25**	.31***	-.18*	-.24**	0.16	.2*	0.12	.32***	.32***	-.26**	-0.14	.69***	.67**	1														
disc	0.08	0.05	0.15	0.02	0.15	.22**	0.01	0.11	0	-0.05	0.12	-.17*	0.07	-0.05	.19*	0.11	-0.04	-.24**	0.16	-0.01	.23**	0.09	0.09	-.28**	-0.08	.61***	.56***	.58***	1													
bpi	0.06	-0.07	-0.15	-0.03	-.18*	-0.06	-0.02	-0.05	-0.01	-0.12	0.13	-0.07	-.19*	-0.05	0.08	0.15	-0.04	-.16*	0.03	-0.03	-0.03	0.07	0.06	-0.09	-0.1	.18*	.26**	.24**	.3***	1												
bti	-0.01	-0.15	-0.02	0.03	-0.04	0.16	-0.09	-0.04	-0.11	-0.08	0.08	0.11	0.15	0.1	0.15	.22**	-0.05	-0.04	0.11	-0.06	0.07	0.16	0.13	-0.17*	-0.01	0.12	.2*	.17*	.17*	.43***	1											
fopb2	0	0.01	0.09	0.05	0.1	.25**	0.04	0.07	0.01	0.01	0	-.19*	.3***	-0.14	.18*	.27***	0.14	-.17*	0.14	0.15	0.12	.26**	.26**	-0.22**	-0.1	.49***	.53***	.57***	.49***	.23**	.24**	1										
cop	-.2*	-0.1	-0.08	0.03	-0.08	0.12	0.01	-0.11	-0.07	0.1	-0.12	.21**	0.04	0.02	-0.07	0.04	-0.04	0.13	-0.09	-0.07	-0.08	-0.01	-0.02	0.01	0.1	-.17*	-0.09	-0.1	-0.09	-0.15	.2*	-0.03	1									
voa	-0.13	0.02	-0.01	0	0	-0.1	0.02	-0.06	-0.04	0.07	-0.07	0.02	-0.04	0.08	-0.12	-0.11	-0.05	.22**	0.03	-0.08	-0.07	-0.14	-0.14	0.07	.2*	-.18*	0.03	-0.1	-0.05	-0.06	0.08	0.01	.31***	1								
mnpl	-.27**	-.24**	0.03	0.1	0.03	0.12	-0.04	-0.06	-0.15	0	-.07	.23***	-0.06	0.12	-0.1	-0.01	-0.16	.17*	-0.07	-.2*	-0.12	-0.13	-0.15	-0.05	0.09	-0.03	0.07	-0.08	0.08	-0.04	.23**	0.11	.53***	.32***	1							
cntr	-0.04	0.13	0.13	0.12	0.12	0.16	-0.03	-0.02	0.04	0.05	-0.03	0.1	0.02	0.04	0.08	0.06	-0.03	-0.01	0.06	-0.03	-0.01	0.07	0.07	-0.04	0.05	-0.05	-0.05	-0.1	-0.05	-0.08	.23**	0.02	.3***	.2*	.33***	1						
parkn2	0.04	-0.06	0.01	.19*	-.03**	.23**	0.08	0.03	0.01	0.13	0.09	-0.15	0.08	-.18*	.27***	0.15	0.12	-0.16	0.16	0.16	0.09	.25**	.26**	-.26**	0.03	.21**	.31***	.2*	.17*	.18*	.2*	.31***	-0.03	-0.16	0.04	-0.01	1					
aut	-0.14	0.1	0.04	0.09	0.03	0.04	0.06	-0.1	-0.03	0.03	-0.01	0.14	0.03	0.05	-0.09	-0.12	-0.02	0.06	-0.03	-0.04	-0.01	-0.12	-0.12	-0.11	0.12	-0.1	0.01	-0.05	0	-0.02	0.13	-0.07	.42***	.64***	.35**	.42***	-0.11	1				
stab	-0.05	-0.03	0.04	0.09	0.03	0.06	-.22**	-0.02	-0.01	0.13	0.01	-0.03	0.02	-0.03	0.08	0.14	0.05	0.14	0.08	0.09	0.07	0.13	0.14	-0.02	0.07	-0.09	0.05	-0.01	-0.03	-0.05	0.13	0.12	.3***	.25**	.31***	.41**	0.09	.23**	1			

Note: **** $p < .0001$, *** $p < .001$, ** $p < .01$, * $p < .05$

The associations between child development and parental scales according to the hypotheses of current study will be discussed in the next chapter. Again, a series of regression analyses were conducted for each scale to explore all hypotheses of current study.

The following scales of problematic behaviour were included for regression analysis in senior groups: three scales of hyperactivity (bhhy, bhyp, ghyp), aggression (bhag), conduct

behaviour (bcon), two scales of anxiety (banx, ganx), and two scales of total behaviour problems (btbp, gtbp).

Changes in the first scale of hyperactivity (BEH) are associated with changes in scales of parental responsiveness ($t=-.34$, $p<.0001$; $F=17.77$, $p<.0001$; $r=.11$, $\text{adj.}r=.11$), and “positive discipline” ($t=-.23$, $p<.001$; $F=7.75$, $p<.01$; $r=.05$, $\text{adj.}r=.05$). Changes in the second hyperactivity scale (Behar) are associated with changes only in parental responsiveness ($t=.22$, $p<.001$; $F=6.96$, $p<.001$; $r=.05$, $\text{adj.}r=.04$). Changes in the third hyperactivity scale (general hyperactivity) are associated with changes in scales of parental responsiveness ($t=.25$, $p<.001$; $F=9.25$, $p<.01$; $r=.06$, $\text{adj.}r=.06$), and parental affection ($t=.25$, $p<.001$; $F=9.46$, $p<.01$; $r=.06$, $\text{adj.}r=.06$).

Changes in the scale of conduct behaviour are associated with scales of parental responsiveness ($t=.24$, $p<.001$; $F=8.27$, $p<.01$; $r=.06$, $\text{adj.}r=.05$), sensitivity ($t=.23$, $p<.001$; $F=7.54$, $p<.01$; $r=.05$, $\text{adj.}r=.04$), parental affection ($t=.28$, $p<.001$; $F=11.78$, $p<.001$; $r=.08$, $\text{adj.}r=.07$), and scale of parental focus on positive behaviour ($t=.28$, $p<.001$; $F=11.88$, $p<.001$; $r=.08$, $\text{adj.}r=.07$).

Changes in the first anxiety scale (Behar) are associated with changes in parental responsiveness scale ($t=.32$, $p<.001$; $F=16.1$, $p<.0001$; $r=.1$, $\text{adj.}r=.1$), parental sensitivity scale ($t=.29$, $p<.001$; $F=12.92$, $p<.001$; $r=.08$, $\text{adj.}r=.08$), parental affection ($t=.26$, $p<.001$; $F=7.95$, $p<.01$; $r=.05$, $\text{adj.}r=.05$), and parental knowledge ($t=.31$, $p<.0001$; $F=14.98$, $p<.001$; $r=.1$, $\text{adj.}r=.1$). Changes in the second anxiety scale (general anxiety) are associated with changes in scales of parental responsiveness ($t=.27$, $p<.001$; $F=11.27$, $p<.001$; $r=.07$, $\text{adj.}r=.07$), sensitivity ($t=.24$, $p<.001$; $F=8.91$, $p<.01$; $r=.06$, $\text{adj.}r=.05$), and parental knowledge ($t=.22$, $p<.001$; $F=7.36$, $p<.01$; $r=.05$, $\text{adj.}r=.04$).

Changes in both total behaviour problems scales are associated with scales of parental responsiveness ($t=.36$, $p<.0001$; $F=20.2$, $p<.0001$; $r=.13$, $\text{adj.}r=.12$ for “btbp”, and $t=.36$, $p<.0001$; $F=20.92$, $p<.0001$; $r=.13$, $\text{adj.}r=.12$ for “gtbp”), sensitivity ($t=.31$, $p<.0001$; $F=15.31$, $p<.001$; $r=.1$, $\text{adj.}r=.1$ for “btbp”, and $t=.32$, $p<.0001$; $F=15.43$, $p<.0001$; $r=.1$, $\text{adj.}r=.1$), parental affection ($t=.34$, $p<.0001$; $F=17.88$, $p<.0001$; $r=.11$, $\text{adj.}r=.11$ for “btbp”, and $t=.35$, $p<.0001$; $F=19.23$, $p<.0001$; $r=.12$, $\text{adj.}r=.11$), scale of parental focus on positive behaviour ($t=.32$, $p<.0001$; $F=16.05$, $p<.0001$; $r=.1$, $\text{adj.}r=.1$ for “btbp”, and $t=.32$, $p<.0001$; $F=16.33$, $p<.0001$; $r=.1$, $\text{adj.}r=.1$), parental knowledge ($t=.28$, $p<.0001$; $F=12.13$, $p<.001$; $r=.08$, $\text{adj.}r=.07$ for “btbp”, and $t=.28$, $p<.0001$; $F=12.09$, $p<.001$; $r=.08$, $\text{adj.}r=.07$), and “stability” scale ($t=.24$,

$p < .001$; $F = 8.7$, $p < .01$; $r = .06$, $\text{adj.}r = .05$ for “btbp”, and $t = .25$, $p < .001$; $F = 9.32$, $p < .01$; $r = .06$, $\text{adj.}r = .06$).

To explore the third hypothesis about associations between children's prosocial behaviour scores and parental scores, a series of regression analyses were also conducted for each scale.

An increase in points on the first prosocial behaviour scale (BEH) by 1% is associated with an increase in scale of parental focus on positive behaviour ($t = .27$, $p < .001$). The scores on this parent scale can explain 7% of the variance in prosocial behaviour scale (BEH) scores ($F = 11.17$, $p < .001$; $r = .07$, $\text{adj.}r = .07$). An increase in points on the second prosocial behaviour scale (Behar) is associated with changes in scales: “cost of positivity” ($t = .23$, $p < .001$; $F = 7.77$, $p < .01$; $r = .05$, $\text{adj.}r = .05$), “value of anger” ($t = .3$, $p < .001$; $F = 14.29$, $p < .001$; $r = .09$, $\text{adj.}r = .09$), “manipulation” ($t = .22$, $p < .001$; $F = 7.35$, $p < .01$; $r = .05$, $\text{adj.}r = .04$), “autonomy” ($t = .24$, $p < .001$; $F = 8.49$, $p < .01$; $r = .06$, $\text{adj.}r = .05$), and “stability” ($t = .29$, $p < .0001$; $F = 12.63$, $p < .001$; $r = .08$, $\text{adj.}r = .08$).

Regression analysis was also applied to study associations between scales of parental knowledge, beliefs, attitudes and support and scales of cognitive and social development of children.

The scores on the scale of “manipulation” can explain 7% of the variance in the first cognitive scale “dodd” ($t = -.27$, $p < .001$; $F = 10.79$, $p < .001$; $r = .07$, $\text{adj.}r = .06$). The scores on the scale of parental knowledge can explain 7% of the variance in the drawing scale “dpd1” ($t = .27$, $p < .001$; $F = 10.78$, $p < .001$; $r = .07$, $\text{adj.}r = .06$). Changes in the scale “draw-a-child” are associated with changes in the scale of parental knowledge too ($t = .29$, $p < .001$; $F = 13.12$, $p < .001$; $r = .09$, $\text{adj.}r = .08$).

Regression analyses of associations between children's cognitive and social development scales found that changes in Behar's prosocial scale are associated with changes in the first cognitive scale “dodd” ($t = -.32$, $p < .0001$; $F = 15.49$, $p < .0001$; $r = .1$, $\text{adj.}r = .09$).

Finally, a regression analysis was performed to investigate associations between parental knowledge and parental beliefs and attitudes scales.

Changes in points on the chaos scale are associated with changes in the scales of “value of anger” ($t = .3$, $p < .0001$; $F = 13.76$, $p < .001$; $r = .09$, $\text{adj.}r = .08$), and “control” ($t = .22$, $p < .001$; $F = 7.04$, $p < .01$; $r = .05$, $\text{adj.}r = .04$). Changes in points on the parental knowledge scale are associated with changes in the parental responsiveness ($t = .25$, $p < .001$; $F = 9.58$, $p < .01$; $r = .06$, $\text{adj.}r = .06$), parental sensitivity ($t = .34$, $p < .0001$; $F = 17.98$, $p < .0001$; $r = .11$, $\text{adj.}r = .11$), parental

affection ($t=.24$, $p<.001$; $F=8.29$, $p<.01$; $r=.06$, $\text{adj.}r=.05$), and parental focus on positive behaviour ($t=.32$, $p<.0001$; $F=16.45$, $p<.0001$; $r=.11$, $\text{adj.}r=.1$).

Changes in scale of parental beliefs regarding educator's influence on a child's development are associated with changes in all 7 parental knowledge scales: "cost of positivity" ($t=.29$, $p<.0001$; $F=12.74$, $p<.001$; $r=.08$, $\text{adj.}r=.08$), "value of anger" ($t=.24$, $p<.001$; $F=8.78$, $p<.01$; $r=.06$, $\text{adj.}r=.05$), "manipulation" ($t=.29$, $p<.0001$; $F=12.41$, $p<.001$; $r=.08$, $\text{adj.}r=.07$), "control" ($t=.38$, $p<.0001$; $F=24.35$, $p<.0001$; $r=.15$, $\text{adj.}r=.14$), "parental knowledge" ($t=.26$, $p<.001$; $F=10.12$, $p<.01$; $r=.07$, $\text{adj.}r=.06$), "autonomy" ($t=.31$, $p<.0001$; $F=14.36$, $p<.001$; $r=.09$, $\text{adj.}r=.09$), and "stability" ($t=.32$, $p<.0001$; $F=15.59$, $p<.0001$; $r=.1$, $\text{adj.}r=.09$).

4. DISCUSSION

This section includes five parts: conclusions for junior groups, conclusions for senior groups, general conclusions, strengths and limitations, and implications for future research.

4.1. Conclusions for junior groups

In junior groups scores of the first wave there were not found any gender and program differences. The two genders were represented almost equally. The lack of differences across programs in the first wave (before the intervention) suggests a uniform sample for further study of the intervention itself.

Age differences were found in only one, the behavioural scale — the last one in the booklet — BRAT, that measures behaviour during tasks. In the previous behavioural scales of the booklet, no such differences were found, which may indicate that by the end of completing all the tasks in the booklet, children of different age groups showed their behaviour in different ways. Perhaps this is due to age differences in the long-term performance of tasks in preschoolers (Hanna, Risdén & Alexander, 1997), which requires further research on this aspect.

In the correlation table, significant strong associations are visible between the scales by blocks — since they measure similar patterns: cognitive, social, behavioural development of children, and parental knowledge, beliefs, and attitudes.

The behavioural scale "coddrep" has a weak significant negative association with "how your child play" scale which measures cognitive capacities in children. The same weak negative association with "how your child play" scale has cognitive scale "codd" with "find a pair" tasks, drawing scale "cpd", and behavioural scale "cpmrep". Such associations between cognitive and

behavioural scales show the continuity of preschool developmental domains (Skolnick, 1975; Dannefer&Perlmutter, 1990; Barker&Weller, 2003; Humphreys, Zeanah&Scheeringa, 2015; Zeanah et al., 2011; Frankenhuys&Walasek, 2020; Wang, 2015; Dosman, Andrews&Goulden, 2012).

A weak positive association was found between the scales of chaos and children's aggression. At the same time, a weak and negative correlation was found between the scales of problematic behaviour and chaos. That is, the order in the house can influence the manifestation of physical aggression and problem behaviour by the child which is in line with previous research (Jaffee et al., 2012; Matheny et al., 1995; Petrill, Pike, Priske&Plomin, 2004).

Weak and significant associations were found between the scales of parental responsiveness and conduct behaviour, as well as with both scales of total behavioural problems. A negative association for the parental responsiveness scale was found with the child aggression scale. Another negative association for parental responsiveness was related to the chaos scale. The scale of parental sensitivity is positively related to the scales of conduct behaviour, and both scales of total behavioural problems. Whereas it is negatively related to the scale of aggression, prosocial behaviour, and chaos. The scale of parental affection is positively related to the scale of conduct behaviour and both scales of total behavioural problems, and negatively to prosocial behaviour and chaos. Manifestations of parental responsiveness, sensitivity, and affection are associated with manifestations of problematic behaviour in the child, as well as aggression, and possibly associated with order in the house, which is consistent with Fernandez (2014), Sanders&Morawska (2014), Bornstein&Bornstein (2014), Shaw (2014), Belsky (2014).

The scale of parental beliefs regarding their own influence on child development has weak negative association with the scale of behaviour during tasks "cpmrep", and positive association with scale of positive discipline. Whereas, the scale of parental beliefs regarding educator's influence on child development has only positive association with positive discipline scale. The scale of parental focus on positive behaviour has significant positive associations with all scales of parental support: responsiveness, sensitivity, affection, and positive discipline. These results are consistent with previous studies on the effect of parental confidence on expressions of parental positive support (Halberstadt et al, 2013; Sanders&Morawska, 2014; Goodnow, 2014; Thijssen, Broers&Muris 2018).

The scale "cost of positivity" has a significant medium association with the child's inattention, and negative ones — with the scales of hyperactivity and weakly with the scales of total behavioural problems. Parents themselves who show less positive emotions provide less

support in the manifestation of such emotions in children, which in the future may be associated with the externalisation of behaviour (Halberstadt et al, 2013).

The "value of anger" scale has a weak significant association with the child's aggression. Research shows that parents who show negative emotions more often themselves may be more supportive and accepting of children's negative emotions (Halberstadt et al, 2013). In general, accepting the manifestation of children's negative emotions and teaching children to adequately express them is important for long-term externalising behaviours. Also, learning to accept and adequately express negative emotions such as anger plays a key role in the development of resilience in children (Halberstadt et al, 2013).

The "manipulation" scale has a positive association with the child's inattention, and a negative association with the scales of hyperactivity and anxiety. Parents who believe that children use emotions to manipulate show less support for positive children's emotions (Halberstadt et al, 2013). More support is shown by parents who consider it necessary to observe the emotions of the child in order to know how s/he feels. It also has a beneficial effect on parent-child relationships.

The "control" scale has a weak significant association with the child's anxiety, which again agrees with Halberstadt with colleagues (2013): parents who believe that children can control their emotions and/or learn it on their own, are less supportive of the child's negative emotions.

Regression analysis showed the following results. Changes in the "cost of positivity" and "manipulation" scales are associated with a change in the inattention scale, both scales of hyperactivity, as well as total behavioural problems. Although for both scales of total behavioural problems, changes in the scales of chaos, parental responsiveness, sensitivity and affection are also important. For changes in the scale of anxiety, changes in the scales of manipulation and control are important. Changes in the scales of chaos and responsiveness are associated with changes in the scale of aggression. Changes in the chaos, parental responsiveness, sensitivity, and affection scales are associated with changes in the conduct behaviour scale.

In other words, parental ratings of positive emotions, as well as perceptions of child manipulation, influence inattention, hyperactivity, and general child behaviour problems. Also, general behaviour problems are influenced by home environment, parental responsiveness, sensitivity and affection, which is consistent with previous studies (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997; Hughes&Lecce, 2010; Jaffee et al., 2012; Matheny et al.,

1995; Dumas et al., 2005; Petrill, Pike, Priske&Plomin, 2004). For internalised anxiety problems in a child, parental beliefs about the child's ability to control their emotions and ideas about children's manipulations are important. Whereas for externalised problems with aggressive behaviour in a child, chaos of the home environment and parental responsiveness are associated. That is, for internalised behaviour problems, dysfunctional representations of parents are critical, when externalised aggression behaviour is influenced by domestic chaos and parental responsiveness, as was shown in previous studies (Dumas et al., 2005; Healey&Consedine, 2011; Hudson, 2014; McCarty, Zimmerman, Diguseppe&Christakis, 2005; Dunsmore, Her, Halberstadt&Perez-Rivera, 2009; Landry, 2014; Basten et al., 2016).

For the first scale of prosocial behaviour (BEH), changes in the scale of parental affection are important. Whereas for the second scale of prosocial behaviour (Behar), changes on the scale of parental knowledge are important. These results are again consistent with previous studies - when parents themselves show empathic behaviour, the child is more likely to show prosocial behaviour (Denham, Mitchell-Copeland, Strandberg, Auerbach&Blair, 1997); also, the more knowledge parents have about the child and her/his development, the more often they appear as supportive and accepting (Breiner, Ford Gadsden, 2016; Kuppens&Ceulemans, 2019).

Changes on the manipulation scale are associated with changes on the scale of parental beliefs about educators' influence on child behaviour. That is, parents who tend to believe that the child uses emotions for manipulation will also be confident in the effect of the educator on the development of the child. These results are consistent with previous studies (Landry, 2014; Breiner, Ford&Gadsden, 2016; Clark, 2007; Dickinson et al., 2012; Bornstein&Bornstein, 2014; Belsky&Pluess, 2013; Bornstein&Putnick, 2012).

The scale of parental beliefs about their influence on the development of the child is associated with the drawing scale. Changes in the scales of prosocial behaviour (Behar) and shyness are associated with changes in the cognitive scale "codd". Whereas another scale of prosocial behaviour (BEH) is associated with the cognitive scale "cpm". Changes on the hyperactivity scales are associated with changes in the behavioural scale "codrep". The relationship between individual patterns of behavioural and cognitive development of a child requires further research, since, as mentioned above, earlier child development includes several changing patterns of cognitive, social, and behavioural at the same time.

4.2. Conclusions for senior groups

In the senior groups, gender differences were found only for the "draw a child" task. It originally had instructions depending on the gender of the child — to draw a girl or a boy.

Unexpectedly, Malancini and colleagues (2016) also found gender differences for this scale, which is consistent with the results of a current study. Opposite results were obtained by Arden, Trzaskowski, Garfield&Plomin (2014): at 4 years, the influence of genetic and environmental factors is the same for girls and boys in the "draw a child" task. Perhaps, in this case, the priming of the instructions, as well as individual differences in spatial abilities when drawing, had an influence (Malancini et al., 2016).

Age differences for children were found in drawing scales, including the "draw a child" task. The age groups of older children were balanced and separated by exactly six months. It is likely that intensive and rapidly changing innovations in cognitive abilities take place during the preschool period. For example, Malanchini and colleagues (2016) used different variations of drawing tasks for children 4 and 4.5 years old. Children 4, 4.5, 5 and 5.5 years old participated in the current study in the senior groups - perhaps for each age group an individual version of the "draw a child" task is needed.

Differences in the chaos scale were found in groups of parental age. That is, parents of different age groups perceive and cope with the chaos in the house differently. Perhaps there is a link between parental age and knowledge of child development, which is consistent with previous studies (September, Rich&Roman, 2017). Since then, relationships were found between indicators of domestic chaos and parental perception of anger and parents' beliefs about the child's ability to control their emotions.

Strong significant correlations are again observed between scales of the blocks measuring the same patterns. At the same time, there are several different associations between scales from different blocks.

The "dodd" cognitive scale with "find a pair" tasks has a medium significant negative association with the Behar scale of prosocial behaviour, and a negative association with the aggressive behaviour scale. Also, the "dodd" scale has weak negative associations with the scales of anxiety and conduct behaviour. The total behaviour problem scales weakly positively correlate with the tasks "draw a child", "puzzle" and behaviour during puzzle tasks. The "how your child plays" scale, which measures cognitive capacities, has a moderately positive association with the prosocial behaviour scale (Behar), and a moderately negative association with the "draw a child" task. There again, the continuity of the development of the cognitive and behavioural domains can be traced, as in the younger groups (Skolnick, 1975; Dannefer&Perlmutter, 1990; Barker&Weller, 2003; Humphreys, Zeanah&Scheeringa, 2015; Zeanah et al., 2011; Frankenhuys&Walasek, 2020; Wang, 2015; Dosman, Andrews&Goulden, 2012).

The shyness scale has a medium positive correlation with the anxiety scales, a weak one with the behaviour problems scales, and a weak negative one with the hyperactivity scale (BEH). Shyness may be a predictor of internalised behavioural problems (Karevold, Coplan, Stoolmiller&Mathiesen, 2011), which is consistent with the found correlation with anxiety. Hyperactivity belongs to another type - externalised behaviour problems, so the correlation with shyness is negative.

The scale of parental responsiveness is positively associated with the scales of anxiety, conduct behaviour, hyperactivity (Behar), shyness, and total behaviour problems; and negatively correlated with the hyperactivity scale (BEH), prosocial behaviour scale (Behar), and the "how your child plays" cognitive scale. The scale of parental sensitivity, as well as the scale of parental affection, is associated with the scales of drawing "draw a child", anxiety, conduct behaviour, prosocial behaviour, total behaviour problems, and the cognitive scale "how your child plays". The positive discipline scale is related to the "draw a child" drawing scale, prosocial behaviour (Behar), shyness, and the "how your child plays" cognitive scale. These results are consistent with the previous ones: manifestations of parental responsiveness, sensitivity, and mild discipline are associated with the social, behavioural and cognitive development of the child (Lereya, Samara&Wolke, 2013; Landry, 2014; Vasquez, Patall, Fong, Corrigan&Pine, 2015; Holden&Miller, 1991; McCarty, Zimmerman, Diguseppe&Christakis, 2005; Breiner, Ford&Gadsden, 2016; September, Rich&Roman, 2017; Verhoeven, Deković, Bodden&van Baar, 2017).

The scales of parental beliefs about their or the educator's influence on the child's development are related to the scales of parental support: sensitivity, affection, and positive discipline. However, the scale of parental beliefs about the educator's influence on the child's development has also a weak positive association with conduct behaviour. In other words, parental beliefs about the influence of them and the educator on the development of the child are associated with manifestations of parental support, while beliefs about the educator's influence are associated with problematic behaviour of the child.

The scale of parental focus on positive behaviour is associated with the "draw a child" task, prosocial behaviour (BEH), total behaviour problem, and the "how your child plays" cognitive scale. Also, the scale of parental focus on positive behaviour has average significant associations with the scales of parental support: responsiveness, sensitivity, affection, and positive discipline. Weak positive connections are noted with the scales of parental beliefs about their and the educator's influence on the child's development, which is in line with previous

studies (Halberstadt et al, 2013; Sanders&Morawska, 2014; Goodnow, 2014; Thijssen, Broers&Muris 2018).

The “cost of positivity” scale has a weak significant relationship with the hyperactivity scale (BEH). In the younger groups, this scale was associated with inattention in the child, which, like hyperactivity, refers to externalised behavioural problems. The “value of anger” scale has weak association with prosocial behaviour (Behar). In older children, perhaps the knowledge of the rules of behaviour is already stronger and empathy is more developed, which can be associated as prosocial behaviour with parental acceptance of negative emotions. In other words, when parents themselves more often allow themselves the manifestation of negative emotions and accept such emotions in children, the development of prosocial behaviour skills is more intense.

The "manipulation" scale is negatively associated with the "find a pair" cognitive tasks and behaviour during these tasks; when positively - with the hyperactivity scale (BEH), and the scale of parental beliefs about the educator's influence on the child's development. That is, parental perceptions that children use emotions for manipulation are associated with cognitive patterns of child development, behavioural, and parents' beliefs about the effect of an educator on a child's development.

The parental knowledge scale is positively associated with the "draw a child" tasks, anxiety, total behaviour problems, and parental responsiveness, sensitivity, and focus on positive behaviour; negative — with a cognitive scale "how your child plays". Which shows the connection between parental knowledge about the development of the child and manifestations of parental support (Holden&Miller, 1991; Breiner, Ford Gadsden, 2016; September, Rich&Roman, 2017; Bornstain&Bornstain, 2014; Halberstadt et al., 2013; Vasquez, Patall, Fong, Corrigan&Pine, 2015).

The "stability" scale is negatively weakly related to the behaviour scale during drawing tasks; medium and positive — with scales "manipulation" and "control", which again agrees with previous studies (Halberstadt et al, 2013).

In the senior groups, regression analysis showed results that differed from those of the junior groups. Changes for the scale of inattention here are associated with changes with the scales of parental responsiveness and positive discipline. Changes on the anxiety scale (Behar) are associated with changes in the scales of parental responsiveness, sensitivity, affection, focus on positive behaviour, and parental knowledge. At the same time, changes on the second scale of

anxiety (general) depend on changes on the scales of parental responsiveness, sensitivity and parental knowledge.

The first scale of hyperactivity (Behar) depends on changes only in the scale of parental responsiveness, while the second (general) depends on responsiveness and affection. The conduct behaviour scale is affected by changes in the scales of parental responsiveness, sensitivity, affection, and a focus on positive behaviour. The scales of total behaviour problems in senior groups depend on changes in the scales of parental responsiveness, sensitivity, affection, focus on positive behaviour, parental knowledge and stability.

The prosocial behaviour scale (BEH) is affected by changes in the scale of focus on positive behaviour, while the second prosocial behaviour scale (Behar) is affected by changes in the “cost of positivity”, “value of anger”, "manipulation", "autonomy", and "stability" scales.

The cognitive scale "dodd" depends on changes in the "manipulation" scale and prosocial behaviour (Behar) scale, and the drawing scales "dpd1" and "draw a child" depend on changes in the scale of parental knowledge.

Changes on the scales of “value of anger” and “control” are important for changes on the scale of chaos. For the scales of parental responsiveness, sensitivity, affection, and focus on positive behaviour changes on the scale of parental knowledge are important.

There were no significant associations were found for the scale of parental beliefs about their influence on the child's development, when for the scale of parental beliefs about educator's influence on the child's development all scales of parental knowledge about the development of the child were significant: “cost of positivity”, “value of anger”, “manipulation”, “control”, “parental knowledge”, “autonomy”, and “stability”.

4.3. General conclusions

Interesting differences in significant associations between age groups. So, for inattention in younger children, links were found with parental ideas about manipulation and the manifestation of positive emotions. Whereas in older children, inattention is associated with parental responsiveness and positive discipline. Hyperactivity in young children is associated with parental beliefs about the manipulation of emotions and the display of positive emotions. In older children, hyperactivity is associated with parental responsiveness and affection. Parental support, like responsiveness, sensitivity and affection, is associated with externalised behaviour problems in children of both age groups, which is in line with previous research (Vasquez, Patall, Fong, Corrigan&Pine, 2015; September, Rich&Roman, 2017). However, for the younger ones, it

is more crucial the parental beliefs about the ability of children to control their emotions, while for the older ones the parental focus on positive behaviour, parental knowledge and ideas about the stability of the child's character are more important.

At a younger age, the prosocial behaviour of children is associated with parental affection and parental knowledge, and at an older age, with a focus on positive behaviour, parents' ideas about the manifestation of positive emotions and anger, manipulation, autonomy, and stability in the development of the child's emotional styles. Perhaps older children have more developed emotional competencies, which helps them better understand emotions and build prosocial behaviour in specific situations (September, Rich&Roman, 2017).

In younger children, links were found between cognitive developmental patterns and parental beliefs about their influence on child development, as well as with the prosocial behaviour of the child, and shyness. At the same time, hyperactivity showed a connection with patterns of behavioural development. In older children, cognitive patterns have been shown to be associated with prosocial behaviour and parental perceptions of the child's use of emotions to manipulate, as well as parental knowledge of child development.

Parental focus on positive behaviour and soft discipline did not show an association with the behaviour of young children, but showed associations with the behaviour of children older than 4 years, which is consistent with the results of previous studies (Verhoeven, Deković, Bodden&van Baar, 2017; Thijssen, Broers&Muris 2018). Perhaps the younger children are still in the process of learning the rules of behaviour, while the older ones have already begun to navigate them.

In junior groups, there is no clear connection between parental knowledge and parental support, except for the association between the ideas about the child's use of emotions for manipulation and the ideas about the influence of the educator on the child's development. In the senior groups, however, links were found between parental knowledge of child development and parental support, such as responsiveness, sensitivity, affection, and positive discipline. Also, the connection with parental knowledge was shown by parental ideas about the effect of the educator on the development of the child. In the older groups, a connection was also revealed between the chaos at home and the manifestation of anger and the parents' ideas about the child's ability to control their emotions. Probably, the age of the parents affects, although there were almost the same number of young parents in the junior and senior groups. Parents of older children already have more experience and perhaps more knowledge about child development (September, Rich&Roman, 2017).

In summary, parental support such as responsiveness, sensitivity, affection, and positive discipline are related to both problem child behaviour and prosocial behaviour, and, in some cases, cognitive developmental patterns. The environment of chaos in the home is related both to parental patterns of support and knowledge, and to patterns of child development. Parental knowledge is associated with parental manifestations of support, which is important both for the development of the child, and for the research, design and implementation of parental support programs aimed at expanding parental knowledge about the development of children.

4.4. Strength and limitations

The strengths of current study include the application of standardised and already tested on a wide cohort sample (TEDS) methods of research on child development and parental patterns. Also, the sample was initially randomised due to the design of the study.

The limitations of this study include the aspect of completing questionnaires only by parents — evaluations by third-party observers of child development (possibly educators) are needed to obtain more objective data. Also, the vast majority of parents were mothers (90.91% in junior groups and 89.44% in senior groups) — it is important to include in the study, as well as in the involvement of both parents in the development of the child. It is also important for further research on the impact of parenting roles and parenting styles.

4.5. Implications for future research

For further study of the associations between child development and parental knowledge about it, it is important to include both parents in the process of raising and unleashing the potential of the child (Tamis-LeMonda&Rodriguez, 2014; Goodall&Vorhaus, 2011; Van Voorhis et al., 2013). It is possible to collect two samples separately - mothers and fathers, to study the similarities and differences in parenting styles. Attachment theories, the role and gender of the parent can influence the child's assortative and/or socialisation processes (Kuppens&Ceulemans, 2019).

Cohort cross-cultural studies are necessary. The educational process is not just the issuance of information, but also training in its application in practice, strengthening cognitive motivation (Holden&Miller, 1999; Morrison et al., 2014; Goodall&Vorhaus, 2011; Schulting, Malone&Dodge, 2005). Moreover, to understand a person is to know not only age, height, weight and temperament, but also the social context: depending on the cultural and historical conditions, the child and the caregiver are assigned tasks in accordance with the norms and values adopted in the surrounding society (Asmolov, 2002; Rubin et al., 2006;

Kirsch&Buchholz, 2020). As the development of a categorization system helps the child perceive the world, social roles and attitudes help optimise activity processes in standard situations (Bicchieri, Muldoon&Sontuoso, 2018; Chaiklin, 2011). Unfamiliar, non-standard situations require non-standard solutions and manifestations of individuality (Lloyd&Howe, 2003; Bijvoet-van den Berg&Hoicka, 2014). Thereby, with the help of instructions, discipline and cultural impact, a personality is formed, while in the context of the struggle for value — an individuality is developed (Asmolov, 2002). The value of the individual is strengthened in the transition of motivation from consumption to contemplation and creativity (Feist, 2010).

With the growth in the number and availability of various child development and parental support programs, the question of assessing their quality and goal setting is raised. In its turn, strengthening individuals and communities, along with political changes such as improving living conditions, can help promote and maintain child health equity (Spencer et al., 2019). Equity in children's health refers to an equal and fair opportunity for every child to grow up to be optimally healthy (September, Rich&Roman, 2017; Spencer et al., 2019; Sun, Lau, Sincovich&Rao, 2018).

REFERENCES

- Aarts, E., Roelofs, A., & van Turenout, M. (2009). Attentional control of task and response in lateral and medial frontal cortex: brain activity and reaction time distributions. *Neuropsychologia*, 47(10), 2089-2099.
- Adamson, K. A., & Prion, S. (2013). Reliability: measuring internal consistency using Cronbach's a. *Clinical Simulation in Nursing*, 9(5), pp e179-e180. <http://dx.doi.org/10.1016/j.ecns.2012.12.001>
- Altun, D. (2019). Young Children's Theory of Mind: Home Literacy Environment, Technology Usage, and Preschool Education. *Journal of Education and Training Studies*, 7, pp. 86-98. DOI 10.11114/jets.v7i3.4057
- Anderson, L. M., Shinn, C., Fullilove, M. T., Scrimshaw, S. C., Fielding, J. E., Normand, J., & Carande-Kulis, V. G. (2003). The effectiveness of early childhood development programs: A systematic review. *American Journal of Preventive Medicine*, 24(3), pp. 32-46. [https://doi.org/10.1016/S0749-3797\(02\)00655-4](https://doi.org/10.1016/S0749-3797(02)00655-4)
- Asmolov, A.G. Psychology of personality: principles of general psychological analysis. - M.: "Meaning", Information Center "Academy", 2002.
- Archer, J. (2012). Sex Differences in the Development of Aggression From Early Childhood to Adulthood. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/aggression>
- Arden, R., Trzaskowski, M., Garfield, V., & Plomin, R. (2014). Genes influence young children's human figure drawings and their association with intelligence a decade later. *Psychological science*, 25(10), pp 1843–1850. <https://doi.org/10.1177/0956797614540686>
- Aunola, K., & Nurmi, J.-E. (2005). The role of parenting styles in children's problem behaviour. *Child Dev*, 76(6):1144-59. doi: 10.1111/j.1467-8624.2005.00841.x.
- Avdulova, T. P., & Zharova, T. A. (2015). Interpersonal relations of preschool children and parental Machiavellianism. In Karabanova O.A., Zakharova E.I., Churbanova S.M., Vasyagina N.N. (Eds.), *Psychological problems of the modern family: a collection of theses of the VI International Scientific Conference*, pp. 251-261

Avinun, R., & Knafo-Noam, A. (2018). Gene environment correlation. In Bornstein, M.H. (Ed.), *The SAGE Encyclopedia of Lifespan Human Development* (pp. 937-938). SAGE Publications, Inc. <http://dx.doi.org/10.4135/9781506307633.n348>

Badini, I., Toivainen, T., Oliver, B.R., & Kovas, Y. (2018). Early Predictors of Creative Writing at Age 9. *The European Proceedings of Social & Behavioural Sciences EpSBS*, 49(8), pp. 63-74. <https://doi.org/10.15405/epsbs.2018.11.02.8>

Bakermans-Kranenburg, M.J., van IJzendoorn, M.H., Juffer, F. (2003). Less is more: meta-analyses of sensitivity and attachment interventions in early childhood. *Psychol Bull.*, 129(2), pp 195-215. doi: 10.1037/0033-2909.129.2.195

Bakken, L., Brown, N., & Downing, B. (2017). Early Childhood Education: The Long-Term Benefits. *Journal of Research in Childhood Education*, 31(2), pp. 255-269. DOI: 10.1080/02568543.2016.1273285

Bandura, A. (1963). The role of imitation in personality development. *The Journal of Nursery Education*, 18(3), pp. 207-215.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Orh Beh and Hum Dec Proc*, 50, pp. 248-287.

Barker, J., & Weller, S. (2003). "'Is it fun?' developing children centred research methods". *International Journal of Sociology and Social Policy*, 23(1), pp 33-58. <https://doi.org/10.1108/01443330310790435>

Bartels, M., Hendriks, A., Mauri, M., Krapohl, E., Whipp, A., Bolhuis, K., ... Boomsma, D.I. (2018). Childhood aggression and the co-occurrence of behavioural and emotional problems: results across ages 3–16 years from multiple raters in six cohorts in the EU-ACTION project. *Eur Child Adolesc Psychiatry* 27, pp 1105–1121. <https://doi.org/10.1007/s00787-018-1169-1>

Basten, M., Tiemeier, H., Althoff, R.R., van de Schoot, R., Jaddoe, V.W.V., Hofman, A., Hudziak, J.J., Verhulst, F.C., van der Ende, J. (2016). The Stability of Problem Behavior Across the Preschool Years: An Empirical Approach in the General Population. *Journal of Abnormal Child Psychology*, 44, pp 393-404. <https://doi.org/10.1007/s10802-015-9993-y>

Bates, T., Maher, B., Medland, S., McAloney, K., Wright, M., Hansell, N., ... Gillespie, N. (2018). The Nature of Nurture: Using a Virtual-Parent Design to Test Parenting Effects on

Children's Educational Attainment in Genotyped Families. *Twin Research and Human Genetics*, 21(2), pp. 73-83

Baumeister, R.F., Wright, B.R.E., & Carreon, D. (2019). Self-control "in the wild": Experience sampling study of trait and state self-regulation. *Self and Identity*, 18(5), pp 494-528. <https://doi.org/10.1080/15298868.2018.1478324>

Beaver, K.M., Wright, J.P., DeLisi, M., Vaughn, M.G. (2008). Genetic influences on the stability of low self-control: Results from a longitudinal sample of twins. *Journal of Criminal Justice*, 36, pp 478–485. doi:10.1016/j.jcrimjus.2008.09.006

Beck, D. M., Schaefer, C., Pang, K., & Carlson, S. M. (2011). Executive function in preschool children: Test–retest reliability. *J Cogn Dev*, 12(2), pp. 169–193.

Behar, L., & Stringfield, S. (1974). A behaviour rating scale for the preschool child; *Developmental Psychology*, 33, pp. 3-66.

Behar, L. (1977). The Behar Preschool Behaviour Questionnaire. *Journal of Abnormal Child Psychology*, 5(3), pp 265-275. DOI:10.1007/BF00913697

Bellagamba, F., Addressi, E., Focaroli, V., Pecora, G., Maggiorelli, V., Pace, B., & Paglieri, F. (2015). False belief understanding and "cool" inhibitory control in 3-and 4-years-old Italian children. *Frontiers in psychology*, 6(872). <https://doi.org/10.3389/fpsyg.2015.00872>

Belsky, J. (2014). Social-Contextual Determinants of Parenting. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/parenting-skills>

Belsky, J., & Pluess, M. (2013). Beyond risk, resilience, and dysregulation: Phenotypic plasticity and human development. *Development and psychopathology*, 25, pp. 1243-1261. 10.1017/S095457941300059X

Benavides-Nieto, A., Romero-López, M., Quesada-Conde, A. B., & Corredor, G. A. (2017). Basic executive functions in early childhood education and their relationship with social competence. *Procedia-Social and Behavioral Sciences*, 237, pp 471-478. <https://doi.org/10.1016/j.sbspro.2017.02.092>

Bergen, D. (2002). The Role of Pretend Play in Children's Cognitive Development. *Early Childhood Research & Practice*, 4(1). <https://files.eric.ed.gov/fulltext/ED464763.pdf>

Best, J. R., & Miller, P. H. (2010). A developmental perspective on executive function. *Child development*, 81(6), pp. 1641–1660. doi:10.1111/j.1467-8624.2010.01499.x

Bicchieri, C., Muldoon, R., & Sontuoso, A. (2018). Social Norms. In Zalta, E.N. (Ed.), *The Stanford Encyclopedia of Philosophy*. <https://plato.stanford.edu/archives/win2018/entries/social-norms/>

Bijvoet-van den Berg, S., & Hoicka, E. (2014) Individual differences and age-related changes in divergent thinking in toddlers and preschoolers. *Developmental Psychology*, 50(6), pp. 1629 - 1639. ISSN 0012-1649. <https://doi.org/10.1037/a0036131>

Bird, Ch. M., & Burgess, N. (2008). The hippocampus and memory: insights from spatial processing. *Nature*, 9, pp. 182-194.

Bjorklund, D.F. & Pellegrini, A.D. (2000). Child Development and Evolutionary Psychology. *Child Development*. 71 (6), 1687–1708.

Blair, C. (2016). Executive function and early childhood education. *Current opinion in behavioural sciences*, 10, pp. 102–107. doi:10.1016/j.cobeha.2016.05.009

Blair, C., & Razza, R. P. (2007). Relating effortful control, executive function, and false belief understanding to emerging math and literacy ability in kindergarten. *Child Dev*, 78(2), pp. 647–663.

Blankenship, S.L., Botdorf, M., Riggins, T., Dougherty, L.R. (2019). Lasting effects of stress physiology on the brain: Cortisol reactivity during preschool predicts hippocampal functional connectivity at school age. *Developmental Cognitive Neuroscience*, 40, 100736. <https://doi.org/10.1016/j.dcn.2019.100736>

Bock, A. M., Gallaway, K. C., & Hund, A. M. (2015). Specifying Links Between Executive Functioning and Theory of Mind during Middle Childhood: Cognitive Flexibility Predicts Social Understanding. *Faculty Publications – Psychology*, 5. <https://ir.library.illinoisstate.edu/fppsyach/5>

Bodrova, E., & Leong, D. J. (2015). Vygotskian and Post-Vygotskian Views on Children's Play. *American Journal of Play*, 7(3), pp. 371-388

Bogdanova, E., Bogdanova, O., & Kiselev, S. (2020). Current Developmental Tendencies of Assessment Practices in Preschool Education: Functions of Pedagogical Assessment

Bulletin of Tomsk State University, 459, pp. 195-204. URL:
<http://vital.lib.tsu.ru/vital/access/manager/Repository/vtls:000790687>

Bornstein, L., & Bornstein, M. H. (2014). Parenting Styles and Child Social Development. In Tremblay, R. E., Boivin, M., Peters, R. DeV. (Eds.), *Encyclopaedia on Early Childhood Development* [online].
<http://www.child-encyclopedia.com/sites/default/files/dossiers-complets/en/parenting-skills.pdf>
Updated September 2015.

Bornstein, M. H., & Putnick, D. L. (2012). Cognitive and socioemotional caregiving in developing countries. *Child development*, 83(1), pp. 46–61.
<https://doi.org/10.1111/j.1467-8624.2011.01673.x>

Brendgen, M. (2012). Development of Indirect Aggression Before School Entry. *Encyclopedia on Early Childhood Development* [online].
<https://www.child-encyclopedia.com/pdf/complet/aggression>

Bridgett, D. J., Ganiban, J. M., Neiderhiser, J. M., Natsuaki, M. N., Shaw, D. S., Reiss, D., & Leve, L. D. (2018). Contributions of mothers' and fathers' parenting to children's self-regulation: Evidence from an adoption study. *Developmental science*, 21(6), e12692.
<https://doi.org/10.1111/desc.12692>

Brocas, I., & Carrillo J. D. (2018) The determinants of strategic thinking in preschool children. *PLoS One*, 13(5):e0195456. doi:10.1371/journal.pone.0195456

Brown, T. T., & Jernigan, T. L. (2012). Brain development during the preschool years. *Neuropsychology review*, 22(4), pp. 313–333. <https://doi.org/10.1007/s11065-012-9214-1>

Brown, T. T., Kuperman, J. M., Chung, Y., Erhart, M., McCabe, C., Hagler, D. J., Jr, Venkatraman, V. K., Akshoomoff, N., Amaral, D. G., Bloss, C. S., Casey, B. J., Chang, L., Ernst, T. M., Frazier, J. A., Gruen, J. R., Kaufmann, W. E., Kenet, T., Kennedy, D. N., Murray, S. S., Sowell, E. R., ... Dale, A. M. (2012). Neuroanatomical assessment of biological maturity. *Current biology: CB*, 22(18), pp. 1693–1698. <https://doi.org/10.1016/j.cub.2012.07.002>

Cao, H., Mills-Koonce, W. R., Wood, C., & Fine, M. A. (2016). Identity Transformation During the Transition to Parenthood Among Same-Sex Couples: An Ecological, Stress-Strategy-Adaptation Perspective. *Journal of family theory & review*, 8(1), pp. 30–59.
<https://doi.org/10.1111/jftr.12124>

Casey, B. J., Tottenham, N., Liston, C., & Durston, S. (2005). Imaging the developing brain: what have we learned about cognitive development? *Trends in Cognitive Sciences*, 9(3), pp.104-110. <https://doi.org/10.1016/j.tics.2005.01.011>

Caspi, A., Houts, R. M., Belsky, D. W., Harrington, H., Hogan, S., Ramrakha, S., Poulton, R., & Moffitt, T. E. (2017). Childhood forecasting of a small segment of the population with a large economic burden. *Nat Hum Behav* 1, 0005. <https://doi.org/10.1038/s41562-016-0005>

Cassidy, J., Jones, J. D., & Shaver, P. R. (2013). Contributions of attachment theory and research: a framework for future research, translation, and policy. *Development and psychopathology*, 25(4 Pt 2), pp. 1415–1434. <https://doi.org/10.1017/S0954579413000692>

Chaiklin, H. (2011). Attitudes, behaviour, and Social Practice. *The Journal of Sociology&Social Welfare*, 38(1). <https://scholarworks.wmich.edu/jssw/vol38/iss1/3>

Chambers, B., Cheung, A., Slavin, R. E., Smith, D., & Laurenzano, M. (2010). Effective early childhood education programs: A systematic review. Johns Hopkins University School of Education's Centre for Data-Driven Reform in Education (CDDRE): The Best Evidence Encyclopedia.

Chandler, L., Lubeck, R. & Fowler, S. (1992). Generalisation and maintenance of preschool children's social skills: A critical review and analysis. *Journal of applied behaviour analysis*. 25, pp. 415-28. 10.1901/jaba.1992.25-415

Chase, R. (1992). Toys and Infant Development: Biological, Psychological, and Social Factors. *Children's Environments*, 9(1), pp. 3-12. Retrieved July 3, 2020, from www.jstor.org/stable/41514845

Chen, Ch., Chen, Ch., Xue, G., Dong, Q., Zhao, L., & Zhang, Sh. (2020). Parental warmth interacts with several genes to affect executive function components: a genome-wide environment interaction study. *BMC Genetics*, 21. 10.1186/s12863-020-0819-8

Clark, C. (2007). Why it is important to involve parents in their children's literacy development. National Literacy Trust. <https://files.eric.ed.gov/fulltext/ED496346.pdf>

Coll, C.G., Akerman, A., & Cicchetti, D. (2000). Cultural influences on developmental processes and outcomes: Implications for the study of development and psychopathology. *Development and psychopathology*, 12, pp. 333-56. 10.1017/S0954579400003059.

Conti, G., & Heckman, J. J. (2013). The developmental approach to child and adult health. *Paediatrics*, 131 Suppl 2(Suppl 2), pp. 133-141. <https://doi.org/10.1542/peds.2013-0252d>

Cortazar, A., & Herreros, F. (2010). Early Attachment Relationships and the Early Childhood Curriculum. *Contemporary Issues in Early Childhood*, 11. <https://doi.org/10.2304/ciec.2010.11.2.192>

Côté, S. M., Larose, M. P., Geoffroy, M. C., Laurin, J., Vitaro, F., Tremblay, R. E., & Ouellet-Morin, I. (2017). Testing the impact of a social skill training versus waiting list control group for the reduction of disruptive behaviours and stress among preschool children in child care: the study protocol for a cluster randomised trial. *BMC psychology*, 5, 29. <https://doi.org/10.1186/s40359-017-0197-9>

Crookston, N.L., & Finley, A.O. (2008). *yaImpute: An R package for kNN imputation*. *Journal of statistical software*. 23(10), p. 16

Dahl, A., Campos, J. J., & Witherington, D. C. (2011). Emotional Action and Communication in Early Moral Development. *Emotion Review*, 3(2), pp.147-157. DOI: 10.1177/1754073910387948

Dannefer, D., & Perlmutter, M. (1990). Development as a multidimensional process: individual and social constituents. *Human development*, 33, pp 108-137.

Darling-Churchill, K. E., & Lippman, L. (2016). Early childhood social and emotional development: Advancing the field of measurement. *Journal of Applied Developmental Psychology*, 45, pp. 1-7. <https://doi.org/10.1016/j.appdev.2016.02.002>

DeFries, J.C., Plomin, R., Vandenberg, S.G., Kuse, A.R. (1981). Parent-offspring resemblance for cognitive abilities in the Colorado Adoption Project: Biological, adoptive, and control parents and one-year-old children. *Intelligence*, 5(3), pp 245-277. [https://doi.org/10.1016/S0160-2896\(81\)80012-8](https://doi.org/10.1016/S0160-2896(81)80012-8)

Demetriou, A., Kazali, E., Kazi, S., & Spanoudis, G. (2020). Cognition and cognizance in preschool predict school achievement in primary school. *Cogn Dev*, 54, 100872. <https://doi.org/10.1016/j.cogdev.2020.100872>

Dempster, F. N. (1992). The rise and fall of the inhibitory mechanism: Toward a unified theory of cognitive development and ageing. *Dev Rev*, 12(2), pp. 45-75.

Denham, S.A., Mitchell-Copeland, J., Strandberg, K., Auerbach, Sh., & Blair, K. (1997). Parental Contributions to Preschoolers' Emotional Competence: Direct and Indirect Effects. *Motivation and Emotion*, 21(1), pp 65-87.

Denham, S.A., Zinsser, K., & Bailey, C.S. (2011). Emotional Intelligence in the First Five Years of Life. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/expert/emotions/according-experts/emotional-intelligence-first-five-years-life>

Dere, Z. (2019). Investigating the creativity of children in early childhood education institutions. *Universal Journal of Educational Research*. 7, pp. 652-658. 10.13189/ujer.2019.070302

Diamond, A., & Lee, K. (2011). Interventions shown to aid executive function development in children 4 to 12 years old. *Science*, 333(6045), pp. 959–964.

Dickinson, D. K., Griffith, J. A., Golinkoff, R. M., & Hirsh-Pasek, K. (2012). How Reading Books Fosters Language Development around the World. *Child Development Research*. DOI 10.1155/2012/602807

Dosman, C. F., Andrews, D., & Goulden, K. J. (2012). Evidence-based milestones as a framework for developmental surveillance. *Paediatrics & child health*, 17(10), pp. 561–568. <https://doi.org/10.1093/pch/17.10.561>

Dumas, J.E., Nissley, J., Noerstrom, A., Smith, E.Ph., Prinz, R.J., & Levine, D.W. (2005). Home Chaos: Sociodemographic, Parenting, Interactional, and Child Correlates. *Journal of Clinical Child and Adolescent Psychology*, 34(1), pp 93–104. DOI: 10.1207/s15374424jccp3401_9

Dunsmore, J.C., Her, P., Halberstadt, A.G., & Perez-Rivera, M.B. (2009). Parents' Beliefs about Emotions and Children's Recognition of Parents' Emotions. *Journal of nonverbal behavior*, 33(2), pp 121–140. <https://doi.org/10.1007/s10919-008-0066-6>

Dworazik, N., Kärtner, J., Lange, L., & Köster, M. (2019). Young Children Respond to Moral Dilemmas Like Their Mothers. *Front. Psychol.*, <https://doi.org/10.3389/fpsyg.2019.02683>

Eisenberg, N. (2012). Temperamental Effortful Control (Self-Regulation). In: Tremblay, R.E., Boivin, M., Peters, R.DeV., eds. Rothbart, M.K., topic ed. *Encyclopedia on Early Childhood Development* [online].

<https://www.child-encyclopedia.com/temperament/according-experts/temperamental-effortful-control-self-regulation>.

Eisenberg, N., Spinrad, T. L., & Morris, A. (2014). Empathy-Related Responding in Children. In Killen, M., & Smetana, J.G. (Ed.), *Handbook of moral development* (chapter 9, pp.184-207). Psychology Press.

Eley, T.C., Lichtenstein, P., Stevenson, J. (1999). Sex differences in the etiology of aggressive and nonaggressive antisocial behavior: results from two twin studies. *Child Dev.*, 70(1):155-68. doi: 10.1111/1467-8624.00012. PMID: 10191520

Elkonin, D. B. (2005). The psychology of play. *Journal of Russian and East European Psychology*, 43(1), pp. 11-21.

Engelhardt, L. E., Briley, D. A., Mann, F. D., Harden, K. P., & Tucker-Drob, E. M. (2015). Genes Unite Executive Functions in Childhood. *Psychological science*, 26(8), pp. 1151–1163. doi:10.1177/0956797615577209

Esposito, G., Azhari A., & Borelli, J. L. (2018). Gene × Environment Interaction in Developmental Disorders: Where Do We Stand and What's Next? *Front. Psychol.*, <https://doi.org/10.3389/fpsyg.2018.02036>

Feist, G. J. (2010). The Function of Personality in Creativity. The Nature and Nurture of the Creative Personality. In Kaufman, J.C., & Sternberg, R.J. (Eds.), *The Cambridge Handbook of Creativity* (chapter 6, pp. 113-130). Cambridge University Press.

Feldman, R. (2015). Sensitive periods in human social development: New insights from research on oxytocin, synchrony, and high-risk parenting. *Development and Psychopathology*, 27, pp. 369-395. doi:10.1017/S0954579415000048

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

Fernandez, E. (2014) Early Childhood: Dimensions and Contexts of Development and Well-Being. In Ben-Arieh, A., Casas, F., Frønes, I., & Korbin, J. (Eds.), *Handbook of Child Well-Being*. Springer, Dordrecht

Fleer, M. (2011). 'Conceptual Play': foregrounding imagination and cognition during concept formation in early years education. *Contemporary Issues in Early Childhood*, 12. <https://doi.org/10.2304/ciec.2011.12.3.224>

Frankenhuis, W. E., & Walasek, N. (2020). Modelling the evolution of sensitive periods. *Developmental Cognitive Neuroscience*, 41. <https://doi.org/10.1016/j.dcn.2019.100715>

Friedman, N. P., & Miyake, A. (2017). Unity and diversity of executive functions: Individual differences as a window on cognitive structure. *Cortex*, 86, pp. 186-204. <https://doi.org/10.1016/j.cortex.2016.04.023>

Gaskell, M. G., & Ellis, A. W. (2009). Word learning and lexical development across the lifespan. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 364(1536), pp. 3607–3615. <https://doi.org/10.1098/rstb.2009.0213>

Genovese, J. E. C. (2003). Piaget, Pedagogy, and Evolutionary Psychology. *Evolutionary psychology*, 1(1). <https://doi.org/10.1177/147470490300100109>

Gilleard, C., & Higgs, P. (2016). Connecting Life Span Development with the Sociology of the Life Course: A New Direction. *Sociology*, 50(2), pp. 301–315. <https://doi.org/10.1177/0038038515577906>

Glascoe, F.P., & Leew, Sh. (2009). Parenting Behaviors, Perceptions, and Psychosocial Risk: Impacts on Young Children's Development. *PEDIATRICS*, 125(2), pp 313-320. doi:10.1542/peds.2008-3129

Goodall, J., & J. Vorhaus. (2011). Review of best practice in parental engagement. London: Department of Education.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note; *Journal of Child Psychology and Psychiatry*, 38, pp. 581-586.

Goodnow, J. J. (2014). Sources, Effects and Possible Changes in Parenting Skills: Comments on Belsky, Grusec, and Sanders and Morawska. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/parenting-skills>

Goodson, B.D. (2014). Parent support programs and outcomes for children. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/parenting-skills>

Graf, P. (1990). Life-span changes in implicit and explicit memory. *Bulletin of the Psychonomic Society*, 28(4), pp. 353-358.

Grigorenko, E., Ruzgis, P., & Sternberg, R. J. (1996). *Russian Psychology: Past, Present and Future*. Nova Science Pub Inc, p.33.

Grusec, J.E. (1992). Social learning theory and developmental psychology: the legacies of Robert Sears and Albert Bandura. *Developmental Psychology*, 28(5), pp.776-786.

Grusec, J.E. (2014). Parents' Attitudes and Beliefs: Their Impact on Children's Development. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/parenting-skills>

Gunnar, M. R. (2017). Social Buffering of Stress in Development: A Career Perspective. *Perspectives on psychological science: a journal of the Association for Psychological Science*, 12(3), pp. 355–373. <https://doi.org/10.1177/1745691616680612>

Gunzenhauser, C., Fäsche, A., Friedlmeier, W. & van Suchodoletz, A. (2014). Face it or hide it: parental socialisation of reappraisal and response suppression. *Front. Psychol.*, <https://doi.org/10.3389/fpsyg.2013.00992>

Halberstadt, A.G., Dunsmore, J.C., Bryant Jr., A., Parker, A.e., Beale, K.S., Thompson, J.A. (2013). Development and Validation of the Parents' Beliefs about Children's Emotions Questionnaire. *Psychological Assessment*, 25(4), 1195-1210. <https://doi.org/10.1037/a0033695>

Hanna, L., Riden, K., & Alexander, K.J. (1997). Guidelines for Usability Testing with Children. *Interactions*, 4(5), pp 9-14. <https://doi.org/10.1145/264044.264045>

Harold, G. T., Leve, L. D., Elam, K. K., Thapar, A., Neiderhiser, J.M., Natsuaki, M. N., Shaw, D. S., & Reiss, D. (2013). The nature of nurture: disentangling passive genotype-environment correlation from family relationship influences on children's externalising problems. *Journal of family psychology: JFP: journal of the Division of Family Psychology of the American Psychological Association (Division 43)*, 27(1), pp. 12–21. <https://doi.org/10.1037/a0031190>

Haworth, C. M., Davis, O. S., & Plomin, R. (2012). Twins Early Development Study (TEDS): a genetically sensitive investigation of cognitive and behavioural development from childhood to young adulthood. *Twin research and human genetics*, 16(1) pp. 1-9. <https://doi.org/10.1017/thg.2012.91>

Healey, D. M., & Consedine, N. S. (2011). Emotions and Psychopathology in the First 5 Years of Life. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/expert/emotions/according-experts/emotions-and-psychopathology-first-5-years-life>

Healey, D., & Healey, M. (2019). Randomised Controlled Trial comparing the effectiveness of structured-play (ENGAGE) and behaviour management (TRIPLE P) in reducing problem behaviours in preschoolers. *Scientific Reports*, 9 (1) DOI: [10.1038/s41598-019-40234-0](https://doi.org/10.1038/s41598-019-40234-0)

Heaviside, S., & Farris, E. (1993). Public school kindergarten teachers' views on children's readiness for school (NCES No. 93-410). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=93410>

Hedegaard, M. (2009). Children's Development from a Cultural–Historical Approach: Children's Activity in Everyday Local Settings as Foundation for Their Development. *Mind, Culture, and Activity*, 16, pp. 64-81. DOI: 10.1080/10749030802477374

Henry, L.A., & MacLean, M. (2003). Relationships between working memory, expressive vocabulary and arithmetical reasoning in children with and without intellectual disabilities. *Educational and Child Psychology*, 20(3), pp 51-64.

Holden, G.W., & Miller, P.C. (1991). Enduring and different: a meta-analysis of the similarity in parents' child rearing. *Psychological Bulletin*, 125(2), pp 223-254.

Horwitz, B. N., & Neiderhiser, J. M. (2011). Gene - Environment Interplay, Family Relationships, and Child Adjustment. *Journal of marriage and the family*, 73(4), pp. 804–816. <https://doi.org/10.1111/j.1741-3737.2011.00846.x>

Hosokawa, R., & Katsura, T. (2018a). Marital relationship, parenting practices, and social skills development in preschool children. *Child Adolesc Psychiatry Ment Health* 11, 2. <https://doi.org/10.1186/s13034-016-0139-y>

Hosokawa, R., & Katsura, T. (2018b). Role of Parenting Style in Children's Behavioral Problems through the Transition from Preschool to Elementary School According to Gender in Japan. *International journal of environmental research and public health*, 16(1), 21. <https://doi.org/10.3390/ijerph16010021>

Hudson, J. L. (2014). Parent-Child Relationships in Early Childhood and Development of Anxiety & Depression. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/parenting-skills>

Hughes, C., & Ensor, R. (2005) Executive Function and Theory of Mind in 2 Year Olds: A Family Affair?, *Developmental Neuropsychology*, 28(2), pp. 645-668, DOI: 10.1207/s15326942dn2802_5

Hughes, C., & Lecce, S. (2010). Early social cognition. Encyclopedia on Early Childhood Development [online]. <https://www.child-encyclopedia.com/pdf/complet/social-cognition>

Humphreys, K., Zeanah, Ch., & Scheeringa, M. (2015). Infant Development: The First 3 Years of Life. In Tasman, A., Kay, J., Lieberman, J. A., First, M. B., & Riba, M. B. (Eds.) Psychiatry, Edition: Fourth Edition, (chapter 9, pp.134-158) 10.1002/9781118753378.ch9

Institute of Medicine and National Research Council. (2015). Child Development and Early Learning. In Allen, L. R., & Kelly, B. B. (Eds.), Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation. Washington (DC): National Academies Press (US). <https://www.ncbi.nlm.nih.gov/books/NBK310550/>

Jackson, J., Ahmed, S. K., Carslake, T., Lietz, P. (2019a). Effective child-focused education and nurturing care interventions. (Insights from a scoping review ; Policy note 2). Camberwell, Australia: Australian Council for Educational Research

Jackson, J., Ahmed, S. K., Carslake, T., & Lietz, P. (2019b). Improving young children's learning in economically developing countries: What works, why, and where? Scoping review. Camberwell, Australia: Australian Council for Educational Research.

Jackson, J., Ahmed, S. K., Carslake, T., & Lietz, P. (2019c). Parent-focused interventions in economically developing countries. (Insights from a scoping review; Policy note 3). Camberwell, Australia: Australian Council for Educational Research. Sage Psychological Sciencem 23(6), pp 643-650.

Jadhav, A., Pramod, Dh., & Ramanathan, K. (2019). Comparison of Performance of Data Imputation Methods for Numeric Dataset, Applied Artificial Intelligence, 33:10, pp 913-933. DOI: 10.1080/08839514.2019.1637138

Jaffee, S.R., Handscombe, K.B., Haworth, C.M.A., Davis, O.S.P., & Plomin, R. (2012). Chaotic Homes and Children's Disruptive Behaviour: A Longitudinal Cross-Lagged Twin Study. <https://doi.org/10.1177/0956797611431693>

Jaramillo, J. M., Rendon, M. I., Munoz, L., Weis, M., & Trommsdorff, G. (2017). Children's Self-Regulation in Cultural Contexts: The Role of Parental Socialisation Theories, Goals, and Practices. Front Psychol, 06 June 2017. <https://doi.org/10.3389/fpsyg.2017.00923>

Jeong, J., Pitchik, H. O., & Yousafzai, A. K. (2018). Stimulation Interventions and Parenting in Low- and Middle-Income Countries: A Meta-analysis. Paediatrics, 141(4), e20173510. DOI: <https://doi.org/10.1542/peds.2017-3510>

Jo, Y.-S., & Bouffard, L. (2014). Stability of self-control and gender. *Journal of criminal justice*, 42(4), pp 356-365. DOI:10.1016/j.jcrimjus.2014.05.001

Kabacoff, R. I. (2015). *R in Action* (2nd ed.). Manning Publications.

Karevold, E., Coplan, R., Stoolmiller, M., & Mathiesen, K.S. (2011). A longitudinal study of the links between temperamental shyness, activity, and trajectories of internalising problems from infancy to middle childhood, *Australian Journal of Psychology*, 63:1, 36-43, DOI: 10.1111/j.1742-9536.2011.00005.x

Karpinski, A. C., & Scullin, M. H. (2009). Suggestibility under pressure: Theory of mind, executive function, and suggestibility in preschoolers. *Journal of Applied Developmental Psychology*, 30(6), pp. 749-763. <https://doi.org/10.1016/j.appdev.2009.05.004>

Keenan, K. (2012). Development of Physical Aggression from Early Childhood to Adulthood. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/aggression>

Kern, M. L., & Friedman, H. S. (2008). Early educational milestones as predictors of lifelong academic achievement, midlife adjustment, and longevity. *Journal of applied developmental psychology*, 30(4), pp. 419–430. <https://doi.org/10.1016/j.appdev.2008.12.025>

Kesselring, T., & Mueller, U. (2011). The concept of egocentrism in the context of Piaget's theory. *New Ideas in Psychology*, 29, pp. 327-345. 10.1016/j.newideapsych.2010.03.008.

Kharitonova, M., & Munakata, Y. (2011). The role of representations in executive function: investigating a developmental link between flexibility and abstraction. *Front. Psychol.* <https://doi.org/10.3389/fpsyg.2011.00347>

Kim, E. J., Pellman, B., & Kim, J. J. (2015). Stress effects on the hippocampus: a critical review. *Learning & memory* (Cold Spring Harbor, N.Y.), 22(9), pp. 411–416. <https://doi.org/10.1101/lm.037291.114>

Kirsch, M., & Buchholz, M. B. (2020). On the Nature of the Mother-Infant Tie and Its Interaction With Freudian Drives. *Front. Psychol.* <https://doi.org/10.3389/fpsyg.2020.00317>

Kohl, J., Autry, A. E., & Dulac, C. (2017). The neurobiology of parenting: A neural circuit perspective. *BioEssays : news and reviews in molecular, cellular and developmental biology*, 39(1), pp. 1–11. <https://doi.org/10.1002/bies.201600159>

Kong, A., Thorleifsson, G., Frigge, M. L., Vilhjalmsen, B. J., Young, A. I., Thorgeirsson, Th. E., Benonisdottir, S., Oddsson, A., Halldorsson, B. V., Masson, G., Gudbjartsson, D. F., Helgason, A., Bjornsdottir, G., Thorsteinsdottir, U., & Stefansson, K. (2018). The nature of nurture: Effects of parental genotypes. *Science*, 359(6374), pp. 424-428. DOI: 10.1126/science.aan6877

Kovas, Y., Garon-Carrier, G., Boivin, M., Petrill, S. A., Plomin, R., Malykh, S. B., Spinath, F., Murayama, K., Ando, J., Bogdanova, O. Y., Brendgen, M., Dionne, G., Forget-Dubois, N., Galajinsky, E. V., Gottschling, J., Guay, F., Lemelin, J. P., Logan, J. A., Yamagata, S., Shikishima, C., ... Vitaro, F. (2015). Why children differ in motivation to learn: Insights from over 13,000 twins from 6 countries. *Personality and individual differences*, 80, pp. 51-63. <https://doi.org/10.1016/j.paid.2015.02.006>

Kovas, Y., Malykh, S., Gaysina, D. (2016). *Behavioural Genetics for Education*, pp 113-129. <https://doi.org/10.1057/9781137437327>

Kovas, Y., & Plomin, R. (2007). Learning Abilities and Disabilities: Generalist Genes, Specialist Environments. *Current directions in psychological science*, 16(5), pp. 284-288. <https://doi.org/10.1111/j.1467-8721.2007.00521.x>

Knight, R.A., & Goodnow, J.J. (1988). Parents' Beliefs about Influence over Cognitive and Social Development. *International Journal of behavioural Development*, 11(4), 517 – 527. <https://doi.org/10.1177/016502548801100409>

Krapohl, E., Rimfeld, K., Shakeshaft, N.G., Trzaskowski, M., McMillan, A., Pingault, J.-B., Asbury, K., Harlaar, N., Kovas, Y., Dale, Ph.S., Plomin, R. (2014). The high heritability of educational achievement reflects many genetically influenced traits, not just intelligence. *Biological Sciences*, 111(42), pp 15273-15278. <https://doi.org/10.1073/pnas.140877711>

Kulagina, I. Y. (1999). *Developmental psychology: child development from the birth to 17 years*. Un-Ros. Acad. Education, 5th ed. Publishing House of URAO.

Kuppens, S., & Ceulemans, E. (2019). Parenting Styles: A Closer Look at a Well-Known Concept. *Journal of child and family studies*, 28(1), pp. 168-181. <https://doi.org/10.1007/s10826-018-1242-x>

Lai, Y. H., & Carr, S. (2018). A Critical Exploration of Child-Parent Attachment as a Contextual Construct. *behavioural sciences* (Basel, Switzerland), 8(12), 112. <https://doi.org/10.3390/bs8120112>

Landry, S. H. (2014). The role of parents in early childhood learning. Solitary play and convergent and divergent thinking skills in preschool children. *Early Childhood Research Quarterly*, 18(1), pp. 22-41. [https://doi.org/10.1016/S0885-2006\(03\)00004-8](https://doi.org/10.1016/S0885-2006(03)00004-8)

Lane, J., Wellman, H., Olson, S., Labounty, J. & Kerr, D. (2010). Theory of Mind and Emotion Understanding Predict Moral Development in Early Childhood. *The British journal of developmental psychology*, 28, pp. 871-89. 10.1348/026151009X483056.

Lebel, C., & Beaulieu, C. (2011). Longitudinal development of human brain wiring continues from childhood into adulthood. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 31(30), pp. 10937–10947. <https://doi.org/10.1523/JNEUROSCI.5302-10.2011>

Lereya, S.T., Samara, M., & Wolke, D. (2013). Parenting behavior and the risk of becoming a victim and a bully/victim: A meta-analysis study. *Child Abuse Negl.*, 37(12), pp 1091-108. doi: 10.1016/j.chiabu.2013.03.001. Epub 2013 Apr 25. PMID: 23623619

Lewis, G.J., & Plomin, R. (2015). Heritable influences on behavioural problems from early childhood to mid-adolescence: evidence for genetic stability and innovation. *Psychological Medicine*, 45(10), 2171-2179. doi:10.1017/S0033291715000173

Lin, B., Liew, J., & Perez, M. (2019). Measurement of self-regulation in early childhood: Relations between laboratory and performance-based measures of effortful control and executive functioning. *Early childhood research quarterly*, 47, 2nd Q, pp. 1-8. <https://doi.org/10.1016/j.ecresq.2018.10.004>

Liu, J. (2004). Childhood externalizing behavior: theory and implications. *Journal of child and adolescent psychiatric nursing : official publication of the Association of Child and Adolescent Psychiatric Nurses, Inc*, 17(3), pp 93–103. <https://doi.org/10.1111/j.1744-6171.2004.tb00003.x>

Lloyd, B., & Howe, N. (2003). Solitary play and convergent and divergent thinking skills in preschool children. *Early Childhood Research Quarterly*, 18(1), pp. 22-41. [https://doi.org/10.1016/S0885-2006\(03\)00004-8](https://doi.org/10.1016/S0885-2006(03)00004-8)

Maccoby, E. (2000). Parenting and its Effects on Children: On Reading and Misreading behaviour Genetics. *Annual Review of Psychology*, 51(1), pp.1-27. <https://doi.org/10.1146/annurev.psych.51.1.1>

- Mahone, E. M., & Schneider, H. E. (2012). Assessment of attention in preschoolers. *Neuropsychology review*, 22(4), pp. 361–383. <https://doi.org/10.1007/s11065-012-9217-y>
- Malanchini, M., Tosto, M.G., Garfield, V., Dirik, A., Czerwik, A., Arden, R., Malykh, S., Kovas, Y. (2016). Preschool Drawing and School Mathematics: The Nature of the Association. *Child Development*, 87(3), pp 929-943. <https://doi.org/10.1111/cdev.12520>
- Maleki, M., Mardani, A., Mitra Chehrzad, M., Dianatinasab, M., & Vaismoradi, M. (2019). Social Skills in Children at Home and in Preschool. *behavioural sciences* (Basel, Switzerland), 9(7), 74. <https://doi.org/10.3390/bs9070074>
- Martin, A. J., Darlow, B. A., Salt, A., Hague, W., Sebastian, L., McNeill, N., & Tarnow-Mordi, W. (2013). Performance of the Parent Report of Children' s Abilities–Revised (PARCA-R) versus the Bayley Scales of Infant Development III. *Arch Dis Child*, 98, pp 955–958. doi:10.1136/archdischild-2012-303288
- Matheny Jr., A. P., Wachs, Th. D., Ludwig, J. L., & Phillips, K. (1995). Bringing order out of chaos: Psychometric characteristics of the confusion, hubbub, and order scale *Journal of Applied Developmental Psychology*, 16(3), pp 429-444 [https://doi.org/10.1016/0193-3973\(95\)90028-4](https://doi.org/10.1016/0193-3973(95)90028-4)
- McDermott, K., Ren, P., & Lin, F. (2019). The mediating role of hippocampal networks on stress regulation in amnesic mild cognitive impairment. *Neurobiology of Stress*, 10. <https://doi.org/10.1016/j.ynstr.2019.100162>
- McDermott, C. H., & Noles, N. S. (2018). The role of age, theory of mind, and linguistic ability in children's understanding of ownership. *PLOS ONE* 13(10): e0206591. <https://doi.org/10.1371/journal.pone.0206591>
- McEwen, B. S., Nasca C., & Gray, J. D. (2015). Stress Effects on Neuronal Structure: Hippocampus, Amygdala, and Prefrontal Cortex. *Neuropsychopharmacol* 41, pp. 3–23. <https://doi.org/10.1038/npp.2015.171>
- McGuire, Sh., Segal, N.L., Hershberger, S. (2012). Parenting as Phenotype: A Behavioural Genetic Approach to Understanding Parenting. *Parenting*, 12:2-3, 192-201, DOI: 10.1080/15295192.2012.683357
- McLeod, B.D., Wood, J.J., Weisz, J.R. (2007). Examining the association between parenting and childhood anxiety: a meta-analysis. *Clin Psychol Rev.*, 27(2), pp 155-72. doi: 10.1016/j.cpr.2006.09.002

Meldrum, R. C., Young, J. T. N., & Weerman, F. M. (2012). Changes in self-control during adolescence: Investigating the influence of the adolescent peer network. *Journal of criminal justice*, 40(6), pp. 452-462. <https://doi.org/10.1016/j.jcrimjus.2012.07.002>

Mendes, D. D., Mari, J. deJ., Singer, M., Barros, G. M. & Mello, A. F. (2009). Review study of biological, social and environmental factors associated with aggressive behaviour. *Brazilian Journal of Psychiatry*, 31(2). <https://doi.org/10.1590/S1516-44462009000600006>

Metsäpelto, R., Pakarinen, E., Kiuru, N., Poikkeus, A.-M., Lerkkanen, M.-K., & Nurmi, J.-E. (2015). Developmental dynamics between children's externalising problems, task-avoidant behaviour, and academic performance in early school years: A 4-year follow-up. *Journal of Educational Psychology*. 107, pp. 246-257. 10.1037/a0037389

Mieloo, C., Raat, H., van Oort, F., Bevaart, F., Vogel, I., Donker, M., Jansen, W. (2012). Validity and Reliability of the Strengths and Difficulties Questionnaire in 5–6 Year Olds: Differences by Gender or by Parental Education? *PLoS One*. 2012; 7(5): e36805. doi: 10.1371/journal.pone.0036805

Mikulincer, M., & Shaver, P. R. (2012). An attachment perspective on psychopathology. *World psychiatry : official journal of the World Psychiatric Association (WPA)*, 11(1), pp. 11–15. <https://doi.org/10.1016/j.wpsyc.2012.01.003>

Miller, S. A. (2019). Social-Cognitive Development in Early Childhood. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/expert/social-cognition/according-experts/social-cognitive-development-early-childhood>

Miller, E.K., & Cohen, J.D. (2001). An integrative theory of prefrontal cortex function. *Annu. Rev. Neurosci.*, 24, pp 167–202.

Miyake, A., Friedman, N. P., Emerson, M. J., Witzki, A. H., & Howerter, A. (2000). The unity and diversity of executive functions and their contributions to complex "frontal lobe" tasks: A latent variable analysis. *Cogn Psychol*, 41(1), pp. 49–100.

Moffitt, T. E., Arseneault, L., Belsky, D. W., Dickson, N., Hancox, R. J., Harrington, H. L., Houts, R., Poulton, R., Roberts, B. W., Ross, S., Sears, M. R., Thomson, W. M., & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *P Natl Acad Sci USA*, 108(7), pp. 2693–2698.

Moriguchi, Y. (2012). The effect of social observation on children's inhibitory control. *J Exp Child Psychol*, 113(2), pp. 248-58.

Moriguchi, Y., Lee, K., & Itakura, S. (2007). Social transmission of disinhibition in young children. *Dev Sci*, 10(4), pp. 481-91.

Moriguchi, Y., Okanda, M., & Itakura, S. (2008). Young children's yes bias: How does it relate to verbal ability, inhibitory control, and theory of mind? *First Lang*, 28(4), pp. 431-442.

Morrison, J., Pikhart, H., Ruiz, M., & Goldblatt, P. (2014). Systematic review of parenting interventions in European countries aiming to reduce social inequalities in children's health and development. *BMC Public Health* 14, 1040. <https://doi.org/10.1186/1471-2458-14-1040>

Morrongiello, B. A., & McArthur, B. A. (2018). Parent Supervision to Prevent Injuries to Young Children. In Tremblay, R. E., Boivin, M., Peters, R. DeV. (Eds.), *Encyclopaedia on Early Childhood Development* [online]. <http://www.child-encyclopedia.com/sites/default/files/dossiers-complets/en/parenting-skills.pdf> Updated September 2015.

Mullally, S. L., & Maguire, E. A. (2014). Memory, Imagination, and Predicting the Future: A Common Brain Mechanism? *The Neuroscientist : a review journal bringing neurobiology, neurology and psychiatry*, 20(3), pp. 220–234. <https://doi.org/10.1177/1073858413495091>

Munakata, Y., Michaelson, L., Barker, J., & Chevalier, N. (2013). Executive functioning during infancy and childhood. In Tremblay, R.E., Boivin, M., & Peters, R.DeV. (eds), *Encyclopedia on Early Childhood Development*. Centre of Excellence for Early Childhood Development (CEECD) . <<http://www.child-encyclopedia.com/enca/home.html>>

Murano, D., Sawyer, J. E., & Lipnevich, A. A. (2020). A Meta-Analytic Review of Preschool Social and Emotional Learning Interventions. *Review of Educational Research*, 90(2), pp. 227-263. <https://doi-org.ez.lib.tsu.ru/10.3102/0034654320914743>

Murray, J. (2018). The play's the thing, *International Journal of Early Years Education*, 26(4), pp. 335-339, DOI: 10.1080/09669760.2018.1527278

Mutter, B., Alcorn, M. B., & Welsh, M. (2006). Theory of mind, and executive function: working-memory capacity and inhibitory control as predictors of false-belief task performance. *Perceptual and Motor Skills*, 102, pp. 819-835. [DOI 10.2466/PMS.102.3.819-835](https://doi.org/10.2466/PMS.102.3.819-835)

Nation, K. (2013). Lexical learning and lexical processing in children with developmental language impairments. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 369(1634), 20120387. <https://doi.org/10.1098/rstb.2012.0387>

National Academies of Sciences, Engineering, and Medicine. (2016). Parenting Knowledge, Attitudes, and Practices. In Breiner, H., Ford, M., & Gadsden, V.L. (Eds.), *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington (DC): National Academies Press (US). <https://www.ncbi.nlm.nih.gov/books/NBK402020/>

Nielsen, L.G., Rimvall, M.K., Clemmensen, L., Munkholm, A., Elberling, H., Olsen, E.M., Rask, Ch.U., Skovgaard, A.M., Jeppesen, P. (2019). The predictive validity of the Strengths and Difficulties Questionnaire in preschool age to identify mental disorders in preadolescence. *PLoS One*. 2019; 14(6): e0217707. doi: 10.1371/journal.pone.0217707

Oliver, B., Dale, Ph. S., Saudino, K. J., Petrill, St. A., Pike A., & Plomin, R. (2002). The validity of a Parent-based Assessment of Cognitive Abilities in three-year olds. *Early child development and care*, 172(4), pp 337-348. DOI: 10.1080/0300443022000004648

Oliver, B., & Plomin, R. (2006). Twins' Early Development Study (TEDS): A Multivariate, Longitudinal Genetic Investigation of Language, Cognition and Behaviour Problems from Childhood Through Adolescence. *Twin Research and Human Genetics* 10(1), pp. 96–105. doi:10.1375/twin.10.1.96

Oliver, B. R., Trzaskowski, M., & Plomin, R. (2014). Genetics of parenting: The power of the dark side. *Developmental psychology*, 50(4), pp. 1233–1240. <https://doi.org/10.1037/a0035388>

Paananen, M., Aro, T., Viholainen, H., Koponen, T., Tolvanen, A., Westerholm, J., Aro, M. (2019). Self-regulatory efficacy and sources of efficacy in elementary school pupils: Self-regulatory experiences in a population sample and pupils with attention and executive function difficulties. *Learning and Individual Differences*, 70, pp. 53-61. <https://doi.org/10.1016/j.lindif.2019.01.003>

Paschke, L. M., Dörfel, D., Steimke, R., Trempler, I., Magrabi, A., Ludwig, V. U., Schubert, T., Stelzel, Ch., & Walter, H. (2016). Individual differences in self-control predict successful emotion regulation. *Soc Cogn and Affect Neurosc*, pp. 1193-1204. doi: 10.1093/scan/nsw036

Pedersen, G. A., Smallegange, E., Coetzee, A., Hartog, K., Turner, J., Jordans, M. J. D., & Brown, F. L. (2019). Systematic Review of the Evidence for Family and Parenting Interventions in Low- and Middle-Income Countries: Child and Youth Mental Health Outcomes. *J Child Fam Stud* 28, pp. 2036–2055. <https://doi.org/10.1007/s10826-019-01399-4>

Perez-Felkner, L. (2013). Socialisation in Childhood and Adolescence. In J. DeLamater & A. Ward (Eds.), *Handbook of Social Psychology*, 2nd Edition: Springer Publishing. 10.1007/978-94-007-6772-0_5

Petrill, St. A., Pike, A., Price, T., & Plomin, R. (2004). Chaos in the home and socioeconomic status are associated with cognitive development in early childhood: Environmental mediators identified in a genetic design. *Intelligence* 32, pp 445–460. doi:10.1016/j.intell.2004.06.010

Petrovska, S., Sivevska, D., & Cackov, O. (2013). Role of the Game in the Development of Preschool Child. *Social and behavioural Sciences*, 92, pp. 880-884. doi: 10.1016/j.sbspro.2013.08.770

Pezzoli, P., Antfolk, J., Hatoum, A. S., & Santtila, P. (2019). Genetic Vulnerability to Experiencing Child Maltreatment. *Frontiers in genetics*, 10, 852. <https://doi.org/10.3389/fgene.2019.00852>

Pike, A. Iervolino, A. C., Eley, Th. C., Price, Th. S., & Plomin, R. (2006). Environmental risk and young children's cognitive and behavioural development. *International Journal of behavioural Development* 2006, 30 (1), pp. 55–66. DOI: 10.1177/0165025406062124

Pipe, M.-E., Lamb, M.E., Orbach, Y., & Esplin, Ph. W. (2004). Recent research on children's testimony about experienced and witnessed events. *Developmental Review*, 24(4), pp. 440-468. <https://doi.org/10.1016/j.dr.2004.08.006>

Plomin, R., & Daniels, D. (2011). Why are children in the same family so different from one another? *International journal of epidemiology*, 40(3), pp. 563–582. <https://doi.org/10.1093/ije/dyq148>

Plomin, R., & Deary, I. J. (2015). Genetics and intelligence differences: five special findings. *Molecular psychiatry*, 20(1), pp. 98–108. <https://doi.org/10.1038/mp.2014.105>

Plomin, R., DeFries, J.C., Knopik, V.S., Neiderhiser, J.M. (2016). Top 10 Replicated Findings From Behavioural Genetics. *Perspectives on Psychological Science*. <https://doi.org/10.1177/1745691615617439>

Plomin, R., Price, Th. S., Eley, Th. C., Dale, Ph. S., & Stevenson, J. (2002). Associations between behaviour problems and verbal and nonverbal cognitive abilities and disabilities in early childhood. *Journal of Child Psychology and Psychiatry*, 43:5, pp 619–633. DOI: 10.1111/1469-7610.00051

Polderman, T. J., Benyamin, B., De Leeuw, C. A., Sullivan, P. F., Van Bochoven, A., Visscher, P. M., & Posthuma, D. (2015). Meta-analysis of the heritability of human traits based on fifty years of twin studies. *Nature genetics*, 47(7), pp 702-709. doi:10.1038/ng.3285

Porsch, R.M., Middeldorp, C.M., Cherny, S.S., Krapohl, E., van Beijsterveldt, C.E.M., Loukola, A., Korhonen, T., Pulkkinen, L., Corley, R., Rhee, S., Kaprio, J., Rose, R. R., Hewitt, J. K., Sham, P., Plomin, R., Boomsma, D. I., Bartels, M. (2016). Longitudinal heritability of childhood aggression. *Am. J. Med. Genet. Part B Neuropsychiatr. Genet.*, 171, 697–707. <https://doi.org/10.1002/ajmg.b.32420>

Power, T. G. (2013). Parenting dimensions and styles: a brief history and recommendations for future research. *Childhood obesity (Print)*, 9 (Suppl 1), pp. 14–21. <https://doi.org/10.1089/chi.2013.0034>

Psouni, E. (2019) The influence of attachment representations and co-parents' scripted knowledge of attachment on fathers' and mothers' caregiving representations, *Attachment & Human Development*, 21(5), pp. 485-509, DOI: 10.1080/14616734.2019.1582598

Rao, N., Sun, J., Chen, E. E., & Ip, P. (2017). Effectiveness of Early Childhood Interventions in Promoting Cognitive Development in Developing Countries: A Systematic Review and Meta-analysis. *HK J Paediatr (new series)*, 22, pp. 14-25.

Raver, C. C., Carter, J. S., McCoy, D. C., Roy, A., Ursache, A., & Friedman, A. (2012). Testing models of children's self-regulation within educational contexts: implications for measurement. *Advances in child development and behaviour*, 42, pp. 245–270. <https://doi.org/10.1016/b978-0-12-394388-0.00007-1>

Rimfeld, K., Kovas, Y., Dale, Ph.S., Plomin, R. (2015). Pleiotropy across academic subjects at the end of compulsory education. *Sci Rep* 5, 11713. <https://doi.org/10.1038/srep11713>

Roebers, C. M. (2017). Executive function and metacognition: Towards a unifying framework of cognitive self-regulation. *Developmental Review*, 45, pp. 31-51. <https://doi.org/10.1016/j.dr.2017.04.001>

Roman, A. S., Pisoni, D. B., & Kronenberger, W. G. (2014). Assessment of Working Memory Capacity in Preschool Children Using the Missing Scan Task. *Infant and child development*, 23(6), pp. 575–587. <https://doi.org/10.1002/icd.1849>

Roskam, I., Brassart, E., Houssa, M., Loop, L., Mouton, B., Volckaert, A., Nader-Grosbois, N., Noël, M.-P., & Schelstraete, M.-A. (2017). Child-Oriented or Parent-Oriented Focused Intervention: Which is the Better Way to Decrease Children's Externalizing behaviours?. *J Child Fam Stud* 26, pp. 482–496. <https://doi.org/10.1007/s10826-016-0570-y>

Rosch, E., Mervis, C. B., Gray, W. D., Johnson, D. M., & Boyes-Braem, P. (1976). Basic objects in natural categories. *Cognitive psychology*, 8, pp.382-439

Rothbart, M.K. (2019). Early Temperament and Psychosocial Development. *Encyclopaedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/temperament>

Rouquette, A., Côté, S. M., Pryor, L.E., Carbonneau, R., Vitaro, F., & Tremblay, R. E. (2014). Cohort profile: the Quebec Longitudinal Study of Kindergarten Children (QLSKC). *Int J Epidemiol*. 2014 Feb; 43(1): 23–33. Published online 2012 Nov 18. doi: 10.1093/ije/dys177

Rubin, K.H., Hemphill, Sh.A., Chen, X., Hastings, P.D. (2006). Parenting Beliefs and behaviours: Initial Findings From the International Consortium for the Study of Social and Emotional Development (ICSSED). In K.H. Rubin & Chung O.B. (Eds). *Parental Beliefs, Parenting, and Child Development in Cross-Cultural Perspective* (p. 81-106). Psychology Press, New York, Hove.

Rueda, M. R., & Cómbita, L. M. (2012). Best Practices in the Development of Effortful Control in Early Childhood. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/aggression>

Saarni, C. (2011). Emotional Development in Childhood. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/expert/emotions/according-experts/emotional-development-childhood>

Sabbagh, M. A., Xu, F., Carlson, S. M., Moses, L. J., & Lee, K. (2006). The development of executive functioning and theory of mind. A comparison of Chinese and U.S. preschoolers. *Psychological science*, 17(1), pp. 74–81. <https://doi.org/10.1111/j.1467-9280.2005.01667.x>

Samuelsson, I. P., & Carlsson, M. A. (2008). The Playing Learning Child: Towards a pedagogy of early childhood, *Scandinavian Journal of Educational Research*, 52(6), pp. 623-641, DOI: 10.1080/00313830802497265

Samuelsson, I. P., & Park, E. (2017). How to Educate Children for Sustainable Learning and for a Sustainable World. *IJEC* 49, pp. 273–285. <https://doi.org/10.1007/s13158-017-0197-1>

Sanders, M. R., & Morawska, A. (2014). Can Changing Parental Knowledge, Dysfunctional Expectations and Attributions, and Emotion Regulation Improve Outcomes for Children?. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/parenting-skills>

Schetinina, A. M. (2000). Diagnosis of the social development of the child. Teaching aid. Novgorod State University named after Yaroslav the Wise.

Schulting, A. B., Malone, P. S., & Dodge, K. A. (2005). The effect of school-based kindergarten transition policies and practices on child academic outcomes. *Developmental psychology*, 41(6), pp. 860–871. <https://doi.org/10.1037/0012-1649.41.6.860>

Scullin, M. H., & Bonner, K. (2006). Theory of mind, inhibitory control, and preschool-age children's suggestibility in different interviewing contexts. *Journal of Experimental Child Psychology*, 93(2), pp. 120-138. <https://doi.org/10.1016/j.jecp.2005.09.005>

September, Sh. J., Rich, E., & Roman, N. (2017). Association Between Knowledge of Child Development and Parenting: A Systematic Review. *The Open Family Studies Journal*, 9, pp. 1-14. DOI: 10.2174/1874922401709010001

Shaw, D. S. (2014). Parenting Programs and Their Impact on the Social and Emotional Development of Young Children. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/parenting-skills>

Shonkoff, J. P., & Phillips, D. A. (2000). From Neurons to Neighbourhoods: The Science of Early Childhood Development, chapter 2, Rethinking Nature and Nurture. Washington (DC): National Academies Press (US). <https://www.ncbi.nlm.nih.gov/books/NBK225550/>

Shrager, Y., Bayley, P. J., Bontempi, B., Hopkins, R. O., & Squire, L. R. (2007). Spatial memory and the human hippocampus. *Proceedings of the National Academy of Sciences of the United States of America*, 104(8), pp. 2961–2966. <https://doi.org/10.1073/pnas.0611233104>

Skolnick, A. (1975). The limits of childhood: conceptions of child development and social context. *Law and contemporary problems*, 39(3), pp 38-77.

Slater, A., Hocking, I., & Loose, J. (2003). Theories and issues in child development. In Slater, A., & Bremner, J. (Ed.) *An introduction to developmental psychology* (chapter 2, pp. 34-63). Blackwell Pub.

Slot, P. L., & von Suchodoletz, A. (2018). Bidirectionality in preschool children's executive functions and language skills: Is one developing skill the better predictor of the other? *Early Childhood Research Quarterly*, 42, pp. 205-214. <https://doi.org/10.1016/j.ecresq.2017.10.005>

Sodian, B., & Frith, U. (2008). Metacognition, Theory of Mind, and Self-Control: The Relevance of High-Level Cognitive Processes in Development, Neuroscience, and Education. *Mind, Brain, and Education*, 2(3). <https://doi.org/10.1111/j.1751-228X.2008.00040.x>

Solovieva, Yu., & Quintanar, L. (2019). Playing activity with orientation as a method for preschool development. *Psychological-educational studies*, 11(4), 49-66. DOI: 10.17759/psyedu.2019110404

Spencer, N., Raman, Sh., O'Hare, B., Tamburlini, G. (2019). Addressing inequities in child health and development: towards social justice. *BMJ Paediatr Open*. doi: 10.1136/bmjpo-2019-000503

Spinrad, T. L., & VanSchyndel, S. (2015). Socio-Cognitive Correlates of Prosocial Behaviour in Young Children. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/expert/prosocial-behaviour/according-experts/socio-cognitive-correlates-prosocial-behaviour-young-children>

Spruijt, A. M., Dekker, M. C., Ziermans, T. B., & Swaab, H. (2018). Attentional control and executive functioning in school-aged children: Linking self-regulation and parenting strategies. *Journal of Experimental Child Psychology*, 166, pp. 340-359. <https://doi.org/10.1016/j.jecp.2017.09.004>

Sun, J., Lau, C., Sincovich, A., & Rao, N. (2018). Socioeconomic status and early child development in East Asia and the Pacific: The protective role of parental engagement in learning activities. *Children and youth services review*, 93, pp. 321-330. <https://doi.org/10.1016/j.childyouth.2018.08.010>

Takashima, A., Bakker-Marshall, I., van Hell, L. G., McQueen, J. M., & Janzen, G. (2019). Neural correlates of word learning in children. *Developmental Cognitive Neuroscience*, 37. <https://doi.org/10.1016/j.dcn.2019.100649>

Tamis-LeMonda, C. S., & Rodriguez, E. T. (2014). Parents' Role in Fostering Young Children's Learning and Language Development. <https://doi.org/10.1016/j.shpsc.2011.11.006>

Thijssen, J., Broers, N.J., Muris, P. (2018). Initial Validation of the Dutch Translation of the Caregiver Wish List: An Interview-Based Scale for Measuring Parenting Practices. <https://doi.org/10.1177/215824401876347>

Tierney, M. C., & Rubin, K. (1975). Egocentrism and Conformity in Childhood. *The Journal of genetic psychology*, 126, pp. 209-215. 10.1080/00221325.1975.10532334.

Tomprowski, P. D., McCullick, B., Pendleton, D. M., & Pesce, C. (2015). Exercise and children's cognition: The role of exercise characteristics and a place for metacognition. *Journal of Sport and Health Science*, 4(1), pp. 47-55. <https://doi.org/10.1016/j.jshs.2014.09.003>

Tremblay, R.E. (2012). The Development of Physical Aggression. *Encyclopedia on Early Childhood Development* [online]. <https://www.child-encyclopedia.com/pdf/complet/aggression>

Trivette, C.M., & Dunst, C.J. (2014). Community-Based Parent Support Programs. In Tremblay, R. E., Boivin, M., Peters, R. DeV. (Eds.), *Encyclopedia on Early Childhood Development* [online]. <http://www.child-encyclopedia.com/sites/default/files/dossiers-complets/en/parenting-skills.pdf> Updated September 2015.

Ursache, A., Blair, C., & Raver, C. C. (2012). The Promotion of Self-Regulation as a Means of Enhancing School Readiness and Early Achievement in Children at Risk for School Failure. *Child development perspectives*, 6(2), pp. 122–128. <https://doi.org/10.1111/j.1750-8606.2011.00209.x>

Uytun, M.C. (2018). Development period of prefrontal cortex. In *Prefrontal Cortex*. IntechOpen. <http://dx.doi.org/10.5772/intechopen.78697>

Vasileva, O., & Balyasnikova, N. (2019). (Re)Introducing Vygotsky's Thought: From Historical Overview to Contemporary Psychology. *Front. Psychol.*, <https://doi.org/10.3389/fpsyg.2019.01515>

Vaske, J.J., Beaman, J., Sponarski, C.C. (2017). Rethinking Internal Consistency in Cronbach's Alpha. *Leisure Sciences*, 39:2, pp 163-173. DOI: 10.1080/01490400.2015.1127189

Van Beijsterveldt, C. E. M., Bartels, M., Hudziak, J. J., Boomsma, D. I. (2003). Causes of Stability of Aggression from Early Childhood to Adolescence: A Longitudinal Genetic Analysis in Dutch Twins. *Behaviour Genetics*, 33(5).

Van der Sluis, C. M., van Steensel, F. J., & Bögels, S. M. (2015). Parenting and Children's Internalising Symptoms: How Important are Parents? *Journal of child and family studies*, 24(12), pp. 3652–3661. <https://doi.org/10.1007/s10826-015-0174-y>

van Ijzendoorn, M.H., Schuengel, C., Bakermans-Kranenburg, M.J. (1999). Disorganized attachment in early childhood: meta-analysis of precursors, concomitants, and sequelae. *Dev Psychopathol. Spring*, 11(2), pp 225-49. doi: 10.1017/s0954579499002035

Van Voorhis, F. L., Maier, M. F., Epstein, J. L., & Lloyd, C. M. (2013) The impact of family involvement on the education of children ages 3 to 8: A focus on literacy and maths achievement outcomes and social-emotional outcomes, MDRC.

Vasquez, A., Patall, E., Fong, C.J., Corrigan, A.S., & Pine, L. (2015). Parent Autonomy Support, Academic Achievement, and Psychosocial Functioning: A Meta-analysis of Research. *Educational Psychology Review*, 28(3). DOI:10.1007/s10648-015-9329-z

Vazsonyi, A. T., & Jiskrova, G. K. (2018). On the development of self-control and deviance from preschool to middle adolescence. *Journal of criminal justice*, 56, pp. 60-69. <https://doi.org/10.1016/j.jcrimjus.2017.08.005>

Veresov, N. (2006). Leading Activity in Developmental Psychology: Concept and Principle. *Journal of Russian and East European Psychology*, 44, pp. 7-25. 10.2753/RPO1061-0405440501

Verhoeven, M., Deković, M., Boddén, D., van Baar, A.L. (2017). Development and initial validation of the comprehensive early childhood parenting questionnaire (CECPAQ) for parents of 1-4 year olds. *European Journal of Developmental Psychology*, 14(2), 233-247. <https://doi.org/10.1080/17405629.2016.1182017>

Vierikko, E., Pulkkinen, L., Kaprio, J.A., Viken, R., Rose, R.J. (2003). Sex differences in genetic and environmental effects on aggression. *Aggressive Behav.*, 29(1): 55-68.

Villachan-Lyra, P., Almeida, E., Hazin, I., & Maranhão, S. (2015). Styles of attachment and acquisition of the Theory of Mind. *Estudos de Psicologia*, 20. 10.5935/1678-4669.20150016

Vygotsky, L. S. (1978). *Mind In Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard Univ Press.

Vygotsky, L. S. (2005). The historical meaning of the psychological crisis. In Vygotskaya, G. L., & Kravtsova, E. E. (Eds.), *Human developmental psychology* (pp. 41-190). Publishing house Meaning; Eksmo.

Wadkar, S.K., Singh, Kh., Chakravarty, R., & Argade, Sh. D. (2016). Assessing the Reliability of Attitude Scale by Cronbach's Alpha. *Journal of Global Communication*, 9(2), pp 113-117. DOI: 10.5958/0976-2442.2016.00019.7

Wang, Z. (2015) Theory of mind and children's understanding of teaching and learning during early childhood, *Cogent Education*, 2(1), DOI: 10.1080/2331186X.2015.1011973

Wang, Z., & Wang, L. (2015). The Mind and Heart of the Social Child: Developing the Empathy and Theory of Mind Scale. *Child Development Research*. <https://doi.org/10.1155/2015/171304>

Wei, W., Chen, C., Dong, Q., & Zhou, X. (2016). Sex Differences in Gray Matter Volume of the Right Anterior Hippocampus Explain Sex Differences in Three-Dimensional Mental Rotation. *Frontiers in human neuroscience*, 10, 580. <https://doi.org/10.3389/fnhum.2016.00580>

Welch-Ross, M.K. (1995). Developmental changes in preschoolers' ability to distinguish memories of performed, pretended, and imagined actions. *Cognitive Development*, 10(3), pp. 421-441. [https://doi.org/10.1016/0885-2014\(95\)90005-5](https://doi.org/10.1016/0885-2014(95)90005-5)

Welsh, M. C., Pennington, B. F., & Groisser, D. B. (1991). A normative-developmental study of executive function: A window on prefrontal function in children, *Developmental Neuropsychology*, 7(2), pp. 131-149, DOI: 10.1080/87565649109540483

Westfall, H.A., & Lee, M.D. (2021). A model-based analysis of the impairment of semantic memory. *Psychon Bull Rev* 28, pp 1484–1494. <https://doi.org/10.3758/s13423-020-01875-9>

Willems, Y. E., Boesen, N., Finkenauer, C., Li, J., & Bartels, M. (2019). The heritability of self-control: A meta-analysis. *Neuroscience & Biobehavioural Reviews*, 100, pp. 324-334. <https://doi.org/10.1016/j.neubiorev.2019.02.012>

Wittig, Sh. M. O., & Rodriguez, Ch. M. (2019). Emerging Behaviour Problems: Bidirectional Relations between Maternal and Paternal Parenting Styles with Infant Temperament. *Dev Psychol.* 55(6), pp 1199–1210. doi: 10.1037/dev0000707

Wong, P.L., & Fler, M. (2013). The development of learning as the leading activity for Hong Kong immigrant families in Australia. *International Research in Early Childhood Education.* 4(1), pp. 18-34.

Wray, A.H., Stevens, C., Pakulak, E., Isbell, E., Bell T., & Neville, H. (2017). Development of selective attention in preschool-age children from lower socioeconomic status backgrounds. *Developmental Cognitive Neuroscience*, 26, pp. 101-111. <https://doi.org/10.1016/j.dcn.2017.06.006>

Zeanah, C. H., Gunnar, M. R., McCall, R. B., Kreppner, J. M., & Fox, N. A. (2011). Sensitive Periods. *Monographs of the Society for Research in Child Development*, 76(4), pp. 147–162. <https://doi.org/10.1111/j.1540-5834.2011.00631.x>

Ziv, Y., Benita, M., & Sofri, I. (2017). Self-regulation in childhood: A developmental perspective. In Matson, J. L. (Ed.), *Autism and child psychopathology series. Handbook of social behaviour and skills in children* (pp. 149–173). Springer International Publishing. https://doi.org/10.1007/978-3-319-64592-6_10

Žumárová, M. (2014). The Influence of Social Environments on Child Development at the Preschool Age. *The International Journal of Early Childhood Learning*, 20, pp. 11-19. 10.18848/2327-7939/CGP/v20i03/48420

Отчет о проверке на заимствования №1



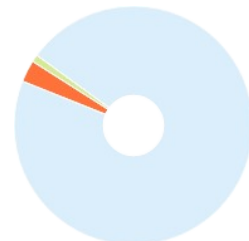
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Длительность проверки: 00:00:39
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Поиск с учетом редактирования: да
Модули поиска: ИПС Адилет, Библиография, Сводная коллекция ЭБС, Интернет Плюс, Сводная коллекция РГБ, Цитирование, Переводные заимствования (RuEn), Переводные заимствования по eLIBRARY.RU (EnRu), Переводные заимствования по Интернету (EnRu), Переводные заимствования издательства Wiley (RuEn), eLIBRARY.RU, СПС ГАРАНТ, Медицина, Диссертации НББ, Перефразирования по eLIBRARY.RU, Перефразирования по Интернету, Патенты СССР, РФ, СНГ, СМИ России и СНГ, Шаблонные фразы, Модуль поиска "ТГУ", Кольцо вузов, Издательство Wiley, Переводные заимствования



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