


Chapter 130

Literature review: Impacts of decrease in socialization on child development

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ABSTRACT

Social isolation in childhood has several consequences from low social interaction to impaired growth and development, so this work aims to bring these effects to the various aspects of child development today. This will be done through the characterization of the experiences that are placed around them, leading to cognitive development, quick thinking, communication, languages, motor and social skills. An integrative literature review was carried out in an electronic database of SciELO and PubMed done accordingly to DeCS, through inclusion and exclusion criterias for the selection scientific works, associated with complementary database from FIOCRUZ and Ministry of Health . Furthermore, for the development of the first stage of the project, the PICO method was used. Through this work, the importance of the environment in which the individual is inserted is exposed, showing that the lack of social interaction through isolation will damage their development. As well as showing the importance of understanding the process of human development and its two main stages, the social and the emotional, to deal better with problems that may appear in early childhood. It is concluded that child isolation would bring harm in adult life and delays in child development. In adult life, it causes difficulties in academic achievements, greater chance of neural, biological, psychiatric, socioeconomic and educational damage. The delay in childhood would be directed towards motor, intellectual, linguistic and psycho-emotional skills.

Keywords: Social isolation; Child development; Social interaction.

1 INTRODUCTION

Child development is something much discussed today. This is because it is characterized by different variables, such as socioeconomic and cultural conditions, life habits and factors that influence individual experiences that all child will pass through his life (Sabanathan, et al., 2015).

These experiences interfere in the construction of your personality, besides offering risks and potentialities for your psychological, emotional and social development to occur in a way that (Fadman & Fragner, 2002). From this, we can perceive that abstract cognitive development is related to the experiences that each individual experiences during life (Linhares & Martins, 2015).

In addition to being characterized by variables, child development is also characterized by stages of advancement of cognition, performance and practical reasoning, communication, expressive language and receptive, thick and fine motor skills, socialization, feature and emotion, which are considered gold standard to assess how child development is according (Silva & Filho, 2019). Language and speech formation occurs in childhood in a gradual process of receptive and expressive skills (Arantes de Araújo *et al.*, 2021). Thus, social distancing can generate functional and behavioral difficulties in this age group.

It is clear how the experience of accidental and sudden situations can represent a negative response for example, stress (Jiang, et al., 2020). These experiences lived by the child are generally the fruit of social interactions and, in view of this fact, it is clear that any form of social isolation can become a delay factor for child development, either due to emotional stress, due to lack of contact with the outside world, or due to the lack of audiovisual stimuli (Enumo & Linhares, 2020; Muratori & Ciacchini, 2020).

The unequal conditions to which each child is being subjected reflect how the decrease in socialization, ends up affecting child development in different ways (Vicentini, et al., 2021). Thus, it is possible to perceive that the pandemic context can significantly interfere in the development of this individual, and there should be greater attention on this group, physical and mental health (Enumo & Linhares, 2020).

Thus, it is visible that this change in the global scenario will influence in several ways in the child's development, because it is not determined only by congenital factors (Mouzinho, 2008 apud Rocha, 2021). From this, the research will have as a principle the evaluation of what is happening in child development, due to isolation, and based on this, warn about possible impacts of this atypical panorama, considering psychosocial and emotional factors.

2 METHODOLOGY

The bibliographic research will be the basis of the research project, this will be done by an integrative literature review (IR) that will provide a connection between child development and social isolation, in order to observe psychoemotional and social issues during this period. The stages of the project constitute: I- identification of the theme and selection of the main issue; II - criteria for inclusion and exclusion; III - definition of the information to be extracted from the selected studies and categorization of these studies; IV- Evaluation of studies; V- Interpretation of the results and VI- Presentation of the review and synthesis of knowledge.

For the development of the first step, the method called PICO was used, which consists of defining the population, problem or patient, considering age, gender, medication that uses, health status (P), intervention, indication or interest (I), standard procedure, comparison intervention, placebo or non-intervention (C) and finally *the outcome*, i.e. expected outcome (O). Thus, for P is defined "infant", I as "social isolation", C as "without social isolation" and "development". Based on this, the guidequestion is defined as: How does social isolation interfere in child development?

From this, the following databases are established for use in the research: *Scientific Electronic Library*

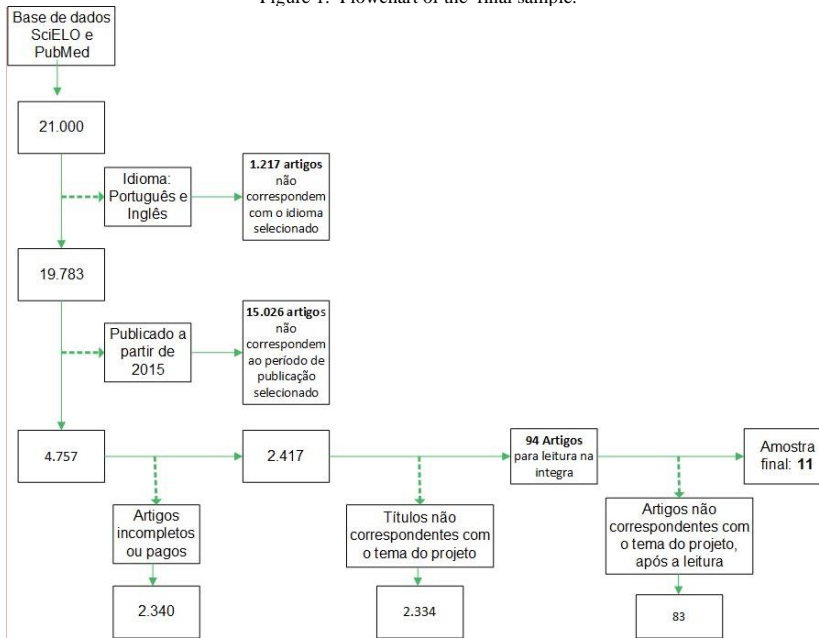
(SciELO) and *U.S. National Library of Medicine* (PubMed), together with complementary databases such as

Oswaldo Cruz Foundation (FIOCRUZ) and Ministry of Health. Next, the selected descriptors were "Growth & Development, Child Behavior and Patient Isolation" and are in accordance with health science descriptors (DeCS) and for PubMed the descriptors are called Medical Subject Heading (MeSH) and are equivalent to that of The DeCS, however the alternative terms in the SciELO database, which are according to those defined by the DeCS, these are: development, isolation.

These descriptors were used jointly by making the following associations: "Isolation" AND "Child Behavior" OR "Development" AND "Child Behavior" OR "Isolation" AND "Child Behavior" AND "Development". The descriptors were combined using Boolean operators AND and OR.

After crossing the descriptors in the database, 21,000 articles were found, of which the criteria were used inclusion in the text are: research in Portuguese and English, and the articles published from 2015, and the exclusion criterion is the non-availability in full in electronic means with free access, in addition, texts related to sports science were eliminated, resulting in a total of 2,417 results, along with this, the texts based on the guide question were selected and from these are defined 94 articles for full reading. Finally, after reading the pre-selected texts, there was the exclusion of non-corresponding texts with the theme defined, resulting in 11 texts.

Figure 1. Flowchart of the final sample.

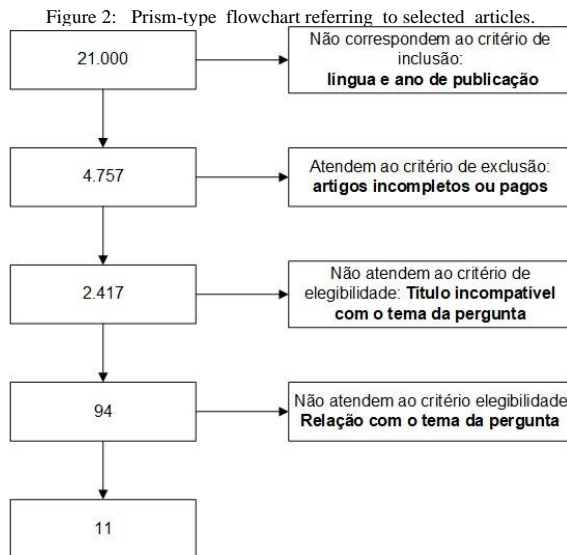


Source: Authors of the text (2022).

Comentado [IC1]: Database: Scielo and PubMed
 Language: Portuguese and English
 Published from 2015
 Incomplete or paid articles
 1,217 articles do not match the selected language
 15,026 articles do not match the selected publication period
 94 articles to read in full
 Final sample 11
 Titles do not match the theme of the project
 Articles do not correspond with the theme of the project, after reading

3 RESULTS AND DISCUSSION

Of the 21,000 articles found, 1,217 do not include in the criterion of "language" and 15,026 with the "year of publication". These only 94 remained for full reading after selection by the titles and removal of articles that are not available free of charge on the chosen platforms, finally, only 11 articles parameters used (Figure 2). The main information of the final sample can be found in Chart 1. Regarding language, 10 articles were published in English (90.9%) and 1 (9.1%) in Portuguese, in addition, 2 (18.1%) articles were published in national journals and 9 (81.8%) in journals international organisations.



Source: Authors of the text (2022).

Comentado [IC2]: They do not correspond to the inclusion criteria: language and year of publication
 Meet the exclusion criteria: Incomplete or paid articles
 Do not meet the eligibility criteria: Title incompatible with the topic of the question
 Do not meet the eligibility criteria: relationship with the topic of the question

In relation to the year of publication, we can affirm that 1 study was published in 2020, 2 (18.1%) in 2019, 3 (27.2%) in 2018, 3 (27.2%) in 2017, 2 (18.1%) in 2016 and none (0%) in 2015. The countries where the studies took place were: Scotland 1, 2 from Brazil, 4 from the United States of America, 1 Canada and 2 from England, 1 Netherlands. From this, we can define that of the articles chosen for this work, only 7 (63.6%) can be classified as level A according to the classification of the adapted CASP and 4 (36.3%) articles at level B.

Table one. Synthesized description and levels of evidence, according to adapted CASP and AHRQ, of each study that composed the review. Recife-PE, 2021.

| Author year | Country of the study | Study design | Sample | Goal | Main findings | Evidence (ADAPTED CASP) |
|----------------------------------|--------------------------|--------------|--|--|--|-------------------------|
| Jeremy Walsh <i>et al</i> ; 2018 | United States of America | Longitudinal | 4524 American children of varying age from 8-11 years. | Investigate the relationship between the recommendations of The Canadian 24Hour Movement Guidelines for Children and Youth and the global cognicao | Overall, 2,303 (51%) of the participants met the sleep recommendation, 1,655 (37%) screen time and 793 (18%) met the recommendation of physical activity. 3,190 (71%) participants met at least one recommendation, while 216 (5%) of the participants attended all three recommendations. | The |

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| | | | | | Overall cognition was positively associated with each additional recommendation met ($\beta = 1.44$, CI 95% 0.82-2.07, $p < 0.0001$). | |
| Elizabeth A. Richardson <i>et al.</i> ; 2017 | Scotland | Longitudinal | 2909 children living in Cities | Investigate whether the natural space of the neighborhood and access to the private garden were | It has been concluded that the natural space of the neighborhood can reduce social, emotional and behavioral difficulties | The |
| | | | | related to the change in children's development over time. | for children aged 4 to 6 years, although access to private gardens may be more beneficial for the initial development of children from families with low schooling | |
| Charles Nelson <i>et al.</i> ; 2019 | There was no country and study | Integrative review | | The question addressed is what happens to the brain and behavior when a child is deprived of key experiences critical periods of brain development. | Children deprived of maternal contact have symptoms of anxiety or depression. They show cognitive deficits (e.g., poorer spatial memory, reduced interest in novelties) and, more importantly, they show a variety of related problems including indiscriminate social behavior. | B |
| Eirini Flouri and Zahra Sarmadi; 2016 | England | Longitudinal | The sample was 9.850 families of the <i>Millennium Cohort Study</i> that lived in the England, england. | Investigate the role of the interaction between prosocial behavior and contextual risk (school and neighborhood) in trajectories of outsourcing and internalization of problems at 3, 5 and 7 years. | Pro-social behaviour was related both to of problematic behavior in entering school, as to their trajectory before and after. | The |
| Jessica Michelis Lemos and Ana Priscilla Batista; 2017 | Brazil | Transverse | Participate in this research 124 students with an average age of 9.5, 4th and 5th years of elementary school, from public schools. | The objective of this study was to verify the relationship between self-concept in children and teacher leadership styles. | The results showed a positive correlation between the responsiveness scale and the family self-concept, and two negative correlations, one between the control dimension Coercive and personal self-concept and another between the coercive | The |

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| | | | | | control dimension and the social self-concept. | |
| Marília Mariano and Alessandra Turini Bolsoni-Silva; 2018 | Brazil | Transverse | A total of 283 children and their teachers from public schools. | The aim of this study was to identify associations and predictions between relative variables and socio-educational skills. | In all groups there were positive correlations between educational and child social skills and negative educational practices and behavior problems. negative educational practices, behavior problems and social skills of students differentiated by schooling, clinical indicators of behavior and gender problems | The |
| Lynne Muray <i>et Al</i> ; 2019 | England | Interventional study. | Twelve centers children, including 3,074 children | To evaluate the parental intervention of children between 28 and 45 months of age. | The impact of early parental intervention on several risk factors for child development impairment, including aspects of parental and child cognition, development problems of behavior and emotional regulation. | The |
| Sheri Madigan <i>et Al</i> ; 2019 | Canada | Longitudinal | 2441 mothers and children | Evaluate directional association between screen time and development in a population of mothers and children. | A cross-lag panel model of random interceptions revealed that higher levels of screen time in infants between 24 and 36 months were significantly associated with worse performance in screening tests of development at 36 months and 60 months, respectively. | B |
| Adam Lobel <i>et al</i> , 2017 | Holland | Longitudinal | 298 parents and children | The article adds to the discussion about the positive and negative consequences of games with data from a study that addresses the relationships between the different ways of playing video games. | Video games do not seem to harm most domains of child psychosocial development. Competitive games have been associated with decreases in pro-social behavior, but only among children who played video games often . | B |

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|------------------------------------|--------------------------------|----------------------|--------------|--|--|-----|
| Fatima Malik <i>et al.</i> ; 2020 | There was no country and study | Revision Integrative | | Review the stages of development of socio-emotional development and also discuss the role of the interprofessional team in identifying the cause of socio-emotional problems and, therefore, intervene effectively . | The inability to reach age-appropriate milestones may be a manifestation of psychosocial disorder and needs to be further explored | B |
| Laura McItyre <i>et al.</i> ; 2017 | United States of America | Longitudinal | 731 children | Test whether a language administered during early childhood provides for referrals for special education and placement in the middle of childhood. | The results suggest that brief and structured evaluations of language in early childhood are robust predictors of children's future involvement in special education services and underperformance academic. | The |

Source: Authors of the text (2022).

From an analysis by Flouri and Sarmadi (2016), it is possible to identify that the prosocial behavior of a child is defined from their school conduct and the relationship with the neighborhood, that is, development is closely linked to issues related to the community, which is determined by the for economic and social issues, so the environment in which this individual is inserted is essential for its psychosocial evolution. Thus, we can observe that isolation causes losses due to several issues , because it interferes in the normal condition in which this child should be created . Based on other articles such as mailk *et al.* (2020), it is evident the importance of understanding the process of human growth and development, also addressing the stages that the individual goes through during this process, which corresponds to two important points, social and emotional maturation. The first corresponds to the relationships that the human being builds with the medium and the second with himself. Through this understanding, we can analyze the problems that tend to appear in early childhood and thus better architect more effective approaches to dealing with such a situation. Added to this , the understanding of the temperament of these children will be facilitated, temperament that influences their behavior and their social interaction with other individuals. Thus, it is worth emphasizing how the understanding of child development is necessary in all aspects, ranging from individual to social behavior.

Second, Murray *et al.* (2018) essential skills that exist at preschool age affect school readiness, resulting in disparities that persist and can influence academic achievements employment and adaptation of children. Such skills can be considered as simple as book sharing, for example, which according to research can result in increased child cognition (language attention and executive functions), social development, emotional and behavioral regulation. Thus, a preschool child can develop various skills from the contact and sharing of their belongings with other individuals, this type of process , even though

it is considered simple, when interrupted because of isolation can result in future problems for these young people, restricting their development social.

This same idea can be observed by Nelson, et al., (2019), according to the article, which made a study with children in isolation in orphanages, the cognitive, emotional and social behaviors of these children were poorer, in addition to having lower intelligence quotients (IQ) compared to children living in a normal environment without restrictions. This demonstrates that isolation in one of the most important periods of human development, childhood, is something quite critical and that causes great losses in the future. Causing neural, biological, psychiatric, socio-emotional and educational damage. However, the shorter the time of this restriction, the effects can be reversed and/or minimized, however, still harmful.

When we enter the school period some measures such as decreased interaction with the teacher also interfere in child development. According to Lemos and Batista (2017), after a survey conducted with 124 children, it is possible to consider that even the teacher's leadership style can influence the students' self-concept, when this type of relationship is limited, the process of representations about oneself is restricted. Adding to this same line of thought, the study conducted by Mariano and Bolsoni-Silva (2018) had the analysis of 283 children correlating the interaction between teachers and students, noting the positive points related to this relationship as an improvement in educational, social and behavioral skills.

Another analysis to be performed is the question referring to screen time, because from an isolation it is common that young people at different ages they start to replace their activities with virtual practices, spending more time on the internet and television. A study by Madigan *et al.* (2018) with 2,441 children, revealed that higher levels of screen time at 24 and 36 months were significantly associated with lower performance in developmental screening tests. Moreover, the excessive use of video games during this isolation can also cause greater problems, as already mentioned by Lobel *et al.*, (2017) that from the analysis of 194 children, concluded that competitive games are associated with reductions in prosocial behavior, but only among children who played video games with high frequency.

Along with this, we can cite the article by Walsh *et al.* (2018), which also portrays the issue of internet use. This study, takes into account physical activity, which when practiced regularly can help in the cognition of the child. However, with the limitation of leisure time due to isolation, physical activities are reduced and this reflects in the worsening of the cognition of this child. Another issue resulting from the decrease in laser time in public places is the increase in emotional, social and behavior difficulties in children, as already studied by Richardson *et al.*, (2017), after a survey with 2,909 children in Scotland.

Furthermore, a study by Lee McIntyre *et al.*, (2017) on early childhood language skills reports the importance of a consolidated basis in the language and communication of child for the future of their education and academic performance. He cites that the primary care physician should use a protocol to monitor the evolution of speech identifying the need of each child at the right time not to disturb their activities in the future. Therefore, the isolation in which a child undergoes, will jeopardize this balance in

their school development. Thus, it is clear how isolation can affect the development of certain fundamental skills such as communication and speech in early childhood.

4 FINAL CONSIDERATIONS

It is believed that the present study indicates a series of reflections on child development associated with factors limiting, which restrict socialization. It is clear from this project that child development interferes both in interactions with other individuals and with you, in addition to triggering problems during adulthood if this process is not carried out properly. These future losses involve from difficulty in subsequent academic achievements, to the increase in the possibility of neural, biological, psychiatric, socio-emotional and educational factors.

It is also considered, from what has been observed, that the decrease in social interaction slows the evolution of skills intellectual, linguistic and psycho emotional, both in the preschool phase and in the school phase. Along with this, there are other issues related to insulation, such as the increase in the use of electronic devices and the decrease in outdoor time, which reach negative impact of these individuals.

Thus, it is evident that isolation significantly interferes in a child's life. From this understanding, the importance is given in the realization of more scientific productions associated with this theme, with the objective of determining which factors, when may be harmful and may affect the development of the subject. In addition, it is suggested that more studies be produced that analyze the level of interference of the use of electronic devices by children and demonstrate what points would be influenced by their evolutionary process. In order to minimize possible future damage.

REFERENCES

- Araújo, L. A., Veloso, C. F., Souza, M. C., Azevedo, J. M. C., & Tarro, G. (2021). The potential impact of the COVID-19 pandemic on child growth and development: a systematic review. *J Pediatr (Rio J)*. 97(4), 369-77
- Enumo, S. R. F., & Linhares, M. B. M. (2020). Contribuições da Psicologia no contexto da Pandemia da COVID-19: seção temática. *Estudos de Psicologia*. 37, 1-4
- Fadiman, J., & Frager, R. (2002). *Teorias da Personalidade*. Ed. Harbra.
- Flouri, E., & Sarmadi, Z. (2015). Prosocial behavior and childhood trajectories of internalizing and externalizing problems: The role of neighborhood and school contexts. *Developmental Psychology. American psychological Association*. 52(2), 1-6.
- Jiao, W. Y., et al. (2020). Behavioral and Emotional Disorders in Children during the COVID-19 Epidemic. *European Paediatric Association*. 221(1), 264-266.
- Lemos, J. M., & Batista A. P. (2017). Relação entre autoconceito de crianças e estilos de liderança de professores. *Psicologia Escolar e Educacional*. 21(1), 111.
- Linhares, M. B. M., & Enumo, S. R. F. (2020). Reflexões baseadas na Psicologia sobre efeitos da pandemia COVID-19 no desenvolvimento infantil. *Estudos de Psicologia*. 37(1), 1-14.
- Lobel, A., et al. (2017). Video Gaming and Children's Psychosocial Wellbeing: A Longitudinal Study. *Journal of Youth and Adolescence*. 46(4), 884-897.
- Madigan, S., et al. (2019). Association Between Screen Time and Children's Performance on a Developmental Screening Test. *JAMA Pediatrics*. 173(3), 244-250.
- Malik, F., & Marwaha, R. (2021). *Developmental Stages of Social Emotional Development In Children*. StatPearls Publishing.
- Mariano, M., & Bolsoni-Silva, A. T. (2018). Social Interactions between Teachers and Students: A Study Addressing Associations and Predictions. *School and educational psychology*. 28(1), 1-10.
- McIntyre, L. L., et al. (2017). A Brief Measure of Language Skills at 3 Years of Age and Special Education Use in Middle Childhood. *The journal of Pediatrics*. 181(1), 189-194.
- Murray, L., et al. (2018). The impact of early-years provision in Children's Centres (EPICC) on child cognitive and socio-emotional development: study protocol for a randomised controlled trial. *Trials*. 22(19), 1-450.
- Nelson, A. C., Zeanah, H. C., & Fox, A. N. (2019). How Early Experience Shapes Human Development: The Case of Psychosocial Deprivation. *US National Library of Medicine National Institutes of Health*. 1-12.
- Richardson, A. E., et al. (2017). The role of public and private natural space in children's social, emotional and behavioural development in Scotland: A longitudinal study. *Environmental Research*. 158, 729-736.
- Rocha, P. M. B. (2021). A pandemia de Covid-19 e suas possíveis consequências para o desenvolvimento e atraso da linguagem e da fala em crianças: uma questão urgente. *Audiology - Communication Research*. 26(53), 1-2.

Sabanathan, S., Wills, B., & Gladstone, M. (2020). Child development assessment tools in low-income and middle-income countries: how can we use them more appropriately?. *US National Library of Medicine National Institutes of Health*. 100(5), 482-488.

Saito, T. H., *et al.* (2021). Educação infantil e desenvolvimento humano no contexto da pandemia: reflexões a partir da teoria histórico-cultural. *Cadernos Cajuína, revista interdisciplinar*. 6(4), 194 – 217.

Silva, M. A., & Filho, E. J. M. (2019). Development of the Dimensional Inventory of Child Development Assessment (IDADI). *Psico-USF*, 11-26.

Walsh, J. J., *et al.* (2018). Associations between 24 hour movement behaviours and global cognition in US children: a cross-sectional observational study. *HHS Public Access, author manuscript*. 2(11), 783-791.