

# Child development and home visits in early childhood: concept map

Desenvolvimento infantil e visita domiciliar na primeira infância: mapa conceitual

Desarrollo infantil y visita domiciliar en la primera infancia: mapa conceptual

Jeniffer Stephanie Marques Hilário<sup>1</sup>  <https://orcid.org/0000-0001-5541-6546>

Nayara Cristina Pereira Henrique<sup>1</sup>  <https://orcid.org/0000-0002-3866-6698>

Jaqueline Silva Santos<sup>2</sup>  <https://orcid.org/0000-0002-7543-5522>

Raquel Dully Andrade<sup>3</sup>  <https://orcid.org/0000-0002-1515-098X>

Lislaine Aparecida Fraccolli<sup>4</sup>  <https://orcid.org/0000-0002-0936-4877>

Débora Falleiros de Mello<sup>1</sup>  <https://orcid.org/0000-0001-5359-9780>

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## Corresponding author

Jeniffer Stephanie Marques Hilário  
E-mail: [jsmhilario@outlook.com](mailto:jsmhilario@outlook.com)

## Associate Editor (Peer review process):

Ariane Ferreira Machado Avelar  
(<https://orcid.org/0000-0001-7479-8121>)  
Escola Paulista de Enfermagem, Universidade Federal de São Paulo, São Paulo, SP, Brazil

## Abstract

**Objective:** To identify and analyze the scientific evidence on home visits (HV) to children under six years of age, from the perspective of promoting health and early childhood development.

**Methods:** This is an integrative literature review, in the Latin American and Caribbean Literature in Health Sciences, Cumulative Index to Nursing and Allied Health Literature, Scopus, Web of Science, PubMed and PsycINFO databases. Quantitative, qualitative and mixed method original scientific studies, published between 2016 and 2019, in Portuguese and English, central focus of HV in early childhood, were included, and review studies, theses, dissertations, books and book chapters, abstracts and editorials were excluded published. Data analysis based on the concept map strategy in a spider's web, with an integrative synthesis of 19 selected studies.

**Results:** Scientific evidence shows the importance of the HV strategy in early childhood, with characteristics of the actions offered in this approach. The contents and approaches of HV were identified as creating favorable conditions to portray themes, situations and needs of early childhood, essential to health vitality and encourage good development in the first years of life.

**Conclusion:** The integrative synthesis identified that HV is a valuable strategy for early childhood, indicating the benefits to child development and their caregivers to promote health and prevent injuries. The conceptual map developed suggests a range of relevant elements that qualify HV in early childhood with contributions to comprehensive child health care and good parenting practices.

## Resumo

**Objetivo:** Identificar e analisar as evidências científicas sobre visita domiciliar (VD) à crianças menores de seis anos de idade, na perspectiva da promoção da saúde e do desenvolvimento na primeira infância.

**Métodos:** Revisão integrativa da literatura, nas bases de dados Literatura Latino-Americana e do Caribe em Ciências da Saúde, Cumulative Index to Nursing and Allied Health Literature, Scopus, Web of Science, PubMed e PsycINFO. Foram incluídos estudos científicos originais quantitativos, qualitativos e método misto, publicados entre 2016 e 2019, idiomas português e inglês, foco central de VD na primeira infância, e excluídos estudos de revisão, teses, dissertações, livros e capítulos de livros, resumos e editoriais publicados. Análise dos dados pautada na estratégia do mapa conceitual em teia de aranha, com síntese integrativa de 19 estudos selecionados.

**Resultados:** As evidências científicas mostram a importância da estratégia de VD na primeira infância, com características das ações oferecidas nessa abordagem. Os conteúdos e abordagens das VD foram

<sup>1</sup>Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP, Brazil.

<sup>2</sup>Secretaria de Estado da Saúde de Minas Gerais, Superintendência Regional de Saúde de Passos, Passos, MG, Brazil.

<sup>3</sup>Universidade do Estado de Minas Gerais, Passos, MG, Brazil.

<sup>4</sup>Nursing School, Universidade de São Paulo, São Paulo, SP, Brazil.

**Conflicts of interest:** this article is part of a master's thesis entitled "A visita domiciliar na primeira infância: mapa conceitual", presented to the Graduate Program in Public Health Nursing, Universidade de São Paulo at Escola de Enfermagem de Ribeirão Preto, SP, Brazil.

identificados como criadores de condições propícias para retratar temas, situações e necessidades da primeira infância, essenciais à vitalidade da saúde e estímulo ao bom desenvolvimento nos primeiros anos de vida.

**Conclusão:** A síntese integrativa identificou que a VD é uma valiosa estratégia para a primeira infância, indicando os benefícios ao desenvolvimento da criança e de seus cuidadores, para promover saúde e prevenir agravos. O Mapa Conceitual elaborado sugere uma gama de elementos relevantes que qualifica a VD na primeira infância com contribuições à atenção integral à saúde da criança e às boas práticas parentais.

## Resumen

**Objetivo:** Identificar y analizar las evidencias científicas sobre la visita domiciliaria (VD) a los niños menores de seis años de edad, en la perspectiva de la promoción de la salud y del desarrollo en la primera infancia.

**Métodos:** Revisión integradora de la literatura en las bases de datos Literatura Latino-Americana e do Caribe em Ciências da Saúde, Cumulative Index to Nursing and Allied Health Literature, Scopus, Web of Science, PubMed y PsycINFO. Se incluyeron estudios científicos originales, cuantitativos, cualitativos y método mixto, publicados entre 2016 y 2019, idiomas portugués e inglés, enfoque central de VD en la primera infancia, y excluidos estudios de revisión, tesis, disertaciones, libros y capítulos de libros, resúmenes y editoriales publicados. Análisis de los datos orientado en la estrategia del mapa conceptual de telaraña, con síntesis integrativos de 19 estudios seleccionados.

**Resultados:** Las evidencias científicas muestran la importancia de la estrategia de VD en la primera infancia, con características de las acciones que se ofrecen en ese enfoque. Los contenidos y enfoques de las VD fueron identificados como los creadores de condiciones adecuadas para retratar temas, situaciones y necesidades de la primera infancia, esenciales para la vitalidad de la salud y el estímulo al buen desarrollo en los primeros años de vida.

**Conclusión:** La síntesis integrativa identificó que la VD es una estrategia valiosa para la primera infancia, indicando los beneficios para el desarrollo del niño y de sus cuidadores, para promover la salud y prevenir agravamientos. El Mapa Conceptual elaborado sugiere una gama de elementos relevantes que califica a VD en la primera infancia con contribuciones a la atención integral a la salud del niño y a las buenas prácticas parentales.

## Introduction

The first six years, called early childhood, are relevant to human health and development, with scientific evidence showing impacts of early events on the configuration of brain functions and development.<sup>(1)</sup> Adverse conditions in the environment, in family or institutional contexts, can lead to damage to human development.<sup>(2)</sup>

Interventions in favor of healthy early childhood growth and development are important for their far-reaching health, development, learning, and autonomy benefits.<sup>(2)</sup> In this process, parental caregivers need support to build home environments capable of providing care and protection, especially in early childhood.<sup>(1)</sup>

In this context, public policies focused on early childhood that have the intervention of home visits (HV) stand out. The approach with parental caregivers from HV allows knowing and intervening in the family environment, with a view to enhancing positive effects on child development (CH).<sup>(3)</sup>

There are different strategies that use interventions based on HV for full development in early childhood, and one of them is the Nurse-Family Partnership, in the United States of America, with a focus on CH and HV performed by nurses.<sup>(4)</sup> In Brazil, a strategy focused on early childhood is the

Happy Child Program, which periodically advocates HV by a trained professional, with actions to support pregnant women and families.<sup>(5)</sup>

This research is based on the assumption that HV as a strategy positively influences early childhood development and that studies on this topic indicate relevant scientific evidence, composing a conceptual map from the perspective of promoting integral child health and parenthood. Thus, the objective was to identify and analyze the scientific evidence on HV for children under six years of age, from the perspective of health promotion and early childhood development.

## Methods

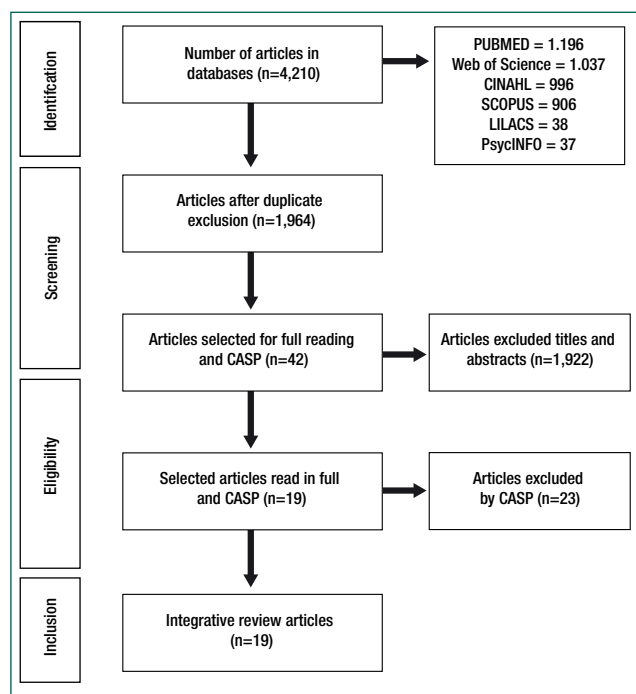
This is an integrative literature review (ILR). To formulate the research question, the PICo strategy was used.<sup>(6)</sup> The guiding question was: What is the scientific knowledge about home visits for children from zero to six years of age incomplete from the perspective of promoting health and child development in early childhood?

Data production was performed by searching the following databases: Latin American and Caribbean Literature on Health Sciences (LILACS), PubMed, SCOPUS, PsycINFO and Web of Science. The de-

scriptors were child, early childhood, home visit and health promotion. The combination of Boolean operators with the “AND” connector (restrictive combination) was performed to compose the crossing of searches between the PICO strategy elements and indexed descriptors.

The inclusion criteria were scientific studies in Portuguese and English, between 2016 and 2019, original quantitative, qualitative and mixed-method studies, focusing on HV in early childhood. Exclusion criteria were review studies, duplications, theses, dissertations, books and book chapters, abstracts published in event proceedings and journal editorials.

In the search process, the PRISMA recommendations were used.<sup>(7)</sup> Figure 1 presents a flowchart that expresses the selection of studies.



**Figure 1.** PRISMA flowchart of searches and selection of scientific studies

Out of 4,210 studies in the scientific literature searches, 2,246 duplicates were excluded from the EndNote bibliographic reference manager, version X9®, leaving 1,964 studies. 1,922 studies were excluded by titles and abstracts for not meeting the guiding question and inclusion criteria. The remaining 42 studies were fully assessed, using the adapt-

ed instrument Critical Appraisal Skills Program (CASP).<sup>(8)</sup> (Annex 1). Among the existing tools, this instrument was chosen due to its objectivity and easy understanding to assess scientific quality. Thus, 23 studies were excluded by applying the CASP instrument. From the analysis of the studies that met all the checklist items, 19 articles were selected to compose this research. In the data analysis, the spider web concept map strategy was used,<sup>(9)</sup> which allowed a synthesis of the main results seized in the analysis of the included articles.

## Results

Of the 19 selected studies, 14 were published in 2018 and 2019 and five in 2016 and 2017. There was an increase in the number of studies on HV in early childhood from 2018, suggesting more dissemination of this approach. In the areas of journals, 17 studies are linked to health, one to economics and one to psychology. Of the 17 studies published in health journals, seven were in pediatrics, six in general health and four in maternal and child health. As for the country where the investigation was carried out, seven were in the US, two in Australia, two in Ireland, two in India, one in Africa, one in Norway, one in Sweden, one in Vietnam, one in Canada and one in several countries, including Brazil. Of the 19 studies, in 11 the HV intervention was performed by nurses and in eight studies, in addition to this professional, the intervention was also performed by other professionals. Pregnancy stage was included in seven studies. In 15 studies, the age of children ranged from 12 to 24 months. Chart 1 presents the main characteristics of the studies included in the review.

The results were organized in order to translate a synthesis of the main aspects identified by the HV intervention, composing two themes: Child development benefits and Parental care benefits.

### Child development benefits

This theme brings the aspects related to HV benefits for the promotion of children’s development, with peculiarities about language, motor develop-

**Chart 1.** Description of publications regarding authorship, country, year of publication, central objective, age group, study design, main results and frequency of home visits

Authors	Country	Year	Central objective	Age group	Study design	Main results	Frequency of home visits
ANDREW et al. <sup>(10)</sup>	India	2019	Assess the effect of home visits on child development in urban slums.	Child from ten to 20 months old	Randomized cluster-controlled study	Improvements in cognitive development, receptive language, expressive language and motor and in the quality of the home stimulation environment.	One-hour weekly home visits for 18 months.
BICH; LONG; HOA <sup>(11)</sup>	Vietnam	2019	Assess an educational intervention for the father's involvement to support women in practices of early and exclusive breastfeeding.	From third trimester of pregnancy to one year of age	Quasi-experimental study	After one year of intervention, the father's involvement in supporting women was associated with exclusive breastfeeding. There was a greater probability of starting breastfeeding early and exclusive breastfeeding at one, four and six months of life, compared to the control group.	Home visits focused on the father, in the last gestational trimester, first week, sixth week and at three months and 15 days of life.
DODGE et al. <sup>(12)</sup>	USA	2019	Test the implementation and impact of a community agency's Family Connects program.	From birth to six months of age	Randomized clinical trial	Further investigation of child protection services in situations of maltreatment and number of sustained connections with the community, improvement in maternal mental health, parental behavior, childcare consultations and postpartum maternal care.	One home visit in the maternity ward and three after birth, prioritizing six, 12 and 24 months of age.
GOLDFELD et al. <sup>(13)</sup>	Australia	2019	Test whether the Right <sup>®</sup> home program presents results related to parenting and home environment, to predict beneficial trajectories for child development.	From pregnancy to 24 months of age	Randomized controlled study	More safety in parenting and less hostility, increased parental involvement and the variety of daily stimulation with the child. The program has the possibility of replication at scale.	Three prenatal visits; one in the first week; weekly until sixth week; fortnightly from three to six months; monthly for up to 12 months and bimonthly for up to two years, totaling 25 visits by nurses (60 to 90 minutes each).
KEMP et al. <sup>(14)</sup>	Australia	2019	Assess the Right <sup>®</sup> home program implementation according to retention and adherence to schedule.	From pregnancy to 24 months of age	Exploratory factor analysis and a qualitative evaluation	Family compliance was higher in the intervention group, with benefits due to the participant-professional relationship, with content and flexibility of visits consistent with the objectives of each family, and content, and retention than usually reported in other home visiting research. Program compliance may have resulted from program design (visit schedule, dose, content and delivery flexibility) that was consistent with family aims.	Three visits in prenatal care; one in the first week; weekly until the sixth week; fortnightly three to six months; months and bimonthly up to two years.
BARBOZA et al. <sup>(15)</sup>	Sweden	2018	Investigate the content of meetings between families and professionals during home visits.	From zero to four years of age	Qualitative content analysis	There were three categories of contents on child's health, care and development. The model was stable with strengthening roles and relationships in the family unit and support in the broader external context.	Parental caregivers with a first child received six visits for 15 months.
CHAIYACHA et al. <sup>(16)</sup>	USA	2018	Examine the effects of a state-wide home visits program.	From birth to five years of age	Cross-sectional, longitudinal study	Reduced probability of 22% of maltreatment by the child protection service for families who received home visits, with a tendency to decrease the removal of the child from the family.	On average, two visits per month until the child turns five years old.
CHANANI et al. <sup>(17)</sup>	India	2018	Examine factors associated with exclusive breastfeeding practices among children living in informal urban settlements.	From birth to three years of age.	Cross-sectional study	Mothers participating in the nutrition program or group counseling sessions were more likely to be exclusively breastfed. Pre-dairy feeding in infants aged three to five months was associated with lower chances of exclusive breastfeeding.	Monthly visits from pregnancy to the child is six months old.
GREVE et al. <sup>(18)</sup>	Norway	2018	Analyze the intervention feasibility and acceptability with mothers at risk of postpartum depression and assess a clinical trial protocol.	One month to nine months old.	Qualitative study	The Newborn Behavioral Observation System was feasible and acceptable by parental caregivers and health professionals. There was high maternal sensitivity during mother-infant interaction and most babies presented good regulatory capacity.	Weekly visits during the baby's first month.
KNIERIM et al. <sup>(19)</sup>	USA	2018	Explore participants' perceptions about the facilitating characteristics and challenges of intervention in childhood obesity.	From three to six years of age	Qualitative study (action research)	Participation with greater responsibility and inclusion of family members. Logistical and cultural challenges can reduce the scope of the program, through difficulties in scheduling visits, need for group sessions and additional staff to supervise children.	16 visits of 90 minutes each, distributed in children's age group.
LEER; LOPEZ-BOO <sup>(20)</sup>	Peru Ecuador Nicaragua Brazil Jamaica Panama Bolivia	2018	Assess visit content, coaching strategy and quality of relationship with families.	From eight months to two years of age	Randomized controlled study	Strong relationship between visitors and families and active participation in game-based learning activities introduced by the visitor. Weaknesses suggested the need for review of topics, more demonstration of activities and dialogue.	Five to seven visits to each family in each country.
MARSHALL et al. <sup>(21)</sup>	USA	2018	Examine families' perceptions of services and support provided.	From birth to 24 months of age	Qualitative study with content analysis	Expansion of access to basic needs (housing, transportation, food coupons, Special Supplementary Nutrition Program for Women, Babies and Children), health and child development and provision of emotional support.	Monthly, fortnightly and biannual visits of 60 to 90 minutes each, ranging from seven to ten visits.

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Continuation.

Authors	Country	Year	Central objective	Age group	Study design	Main results	Frequency of home visits
NYGREN et al. <sup>(22)</sup>	USA	2018	Identify and analyze the performance of visitors during home visits and how long they use on specific topics.	From pregnancy to 12 months of age	Randomized controlled study	More discussed contents involved child development, physical care and parental caregiver-child interaction. Families who had more parental topics had less stress. Vulnerable situations required a greater number of visits and showed greater reductions in attitudes about severe punishments throughout the study.	Visits in the first year of life, about three per month, totaling 28 visits.
ROCKERS et al. <sup>(23)</sup>	Zambia (Africa)	2018	Describe the results of a two-year follow-up of the original study cohort.	From six to 12 months of age	Randomized cluster-controlled study	Reduction of short stature and positive impact on children's language. There was no significant impact on motor skills, adaptive behavior and socioemotional development.	Fortnightly visits from six to 12 months.
CHARTIER et al. <sup>(24)</sup>	Canada	2017	Examine child abuse and development in children eligible for families first home visiting.	From birth to three years old	Retrospective cross-sectional study	Substantially lower rates of children requiring social protection and fewer hospitalizations for ill-treatment injuries by the third birthday. No evidence was found that the program improved child development scores when entering school.	From once a week to once a month, with about one to two hours per visit.
DOYLE et al. <sup>(25)</sup>	Ireland	2017	Identify evidence on early training, parenting skills and experiences in disadvantaged Irish families.	From pregnancy to 18 months of age	Randomized controlled study	Dimensions of parenthood included 38 measures to improve deficits in parental skills in a relatively short period of time, particularly the appropriate care for children and the quality of the home environment.	Monthly visits from prenatal care to children's entry into school, totaling 29 home visits.
THORLAND et al. <sup>(26)</sup>	USA	2017	Assess breastfeeding and vaccination during participation in the program, contrasting with demographically comparable reference groups.	Six to 24 months of age	Cross-sectional study	There was an effect of maintaining breastfeeding at six and 12 months, but less likely to breastfeed exclusively at six months, prone to complete immunization at six, 18 and 24 months of age. Exclusive breastfeeding at six months is below the reference sample and requires future improvements.	Home visits at six, 12, 18 and 24 months after the child's birth, totaling ten visits.
O'SULLIVAN et al. <sup>(27)</sup>	Ireland	2016	Investigate the impact of the Preparing for Life program on food intake and the mediating role of diet on cognitive functioning.	From pregnancy to five years old	Randomized clinical trial	Positive effects for protein food recommendations at 24 and 36 months, and all food groups at 24 months. There were no effects on the recommendations of grains, dairy products, fruits, vegetables, fatty and sugary foods in most of the models analyzed. There was an effect of intervention on cognitive functioning, mediated by protein consumption at 36 months.	Fortnightly visits, totaling 51 visits.
OXFORD et al. <sup>(28)</sup>	USA	2016	Describe the Promoting First Relationships program for families with children with reports of ill-treatment.	Ten to 24 months of age	Randomized controlled study	Parental caregivers showed more sensitivity to children's emotional and social needs. The intervention suggests support to increase parental sensitivity and prevent the removal of children from their families.	For ten weeks, ten visits were made to each family, linked to telephone calls.

ment, growth, behaviors and healthy habits, especially eating habits.

Regarding the impact on children's language, in a study, children obtained better scores in language and communication scores.<sup>(13)</sup> Another research that assessed children's language, motor and cognitive development, with the same number of visits, found improvement for boys and not for girls.<sup>(10)</sup> In language development, the HV approach included encouraging reading and/or looking at books together with the children, naming objects, songs, dances and games, reinforcing activities appropriate to their age.<sup>(20)</sup>

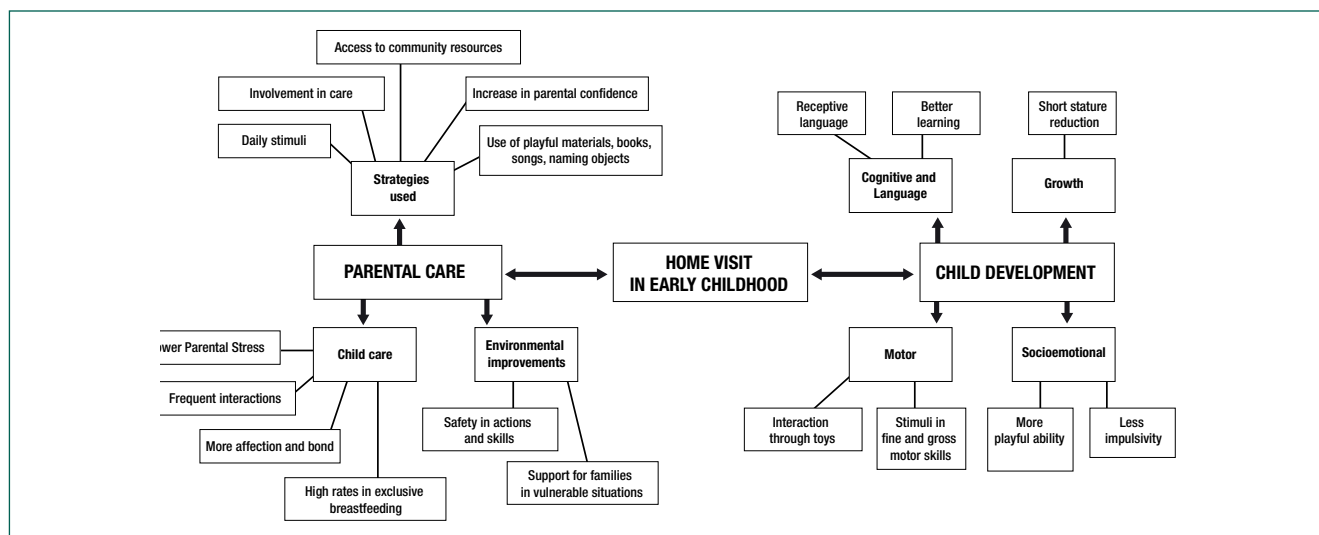
In the motor and neurocognitive domains, the children who participated in the intervention achieved a higher score at 12 months of age, compared to the control group.<sup>(23)</sup> Another study points out that HV directly had an impact on the fine and gross motor domain and positive results in cognitive development.<sup>(10)</sup> Other research found that newborns who received HV had good regulatory capacity.<sup>(18)</sup>

A study pointed out a positive impact on the significant reduction in short stature of African children.<sup>(23)</sup>

Regarding the promotion of healthy eating habits, the Preparing For Life program had a positive impact on feeding, and parental caregivers had greater compliance with dietary recommendations at 24 and 36 months of age of their children.<sup>(27)</sup>

One of the studies that emphasized the importance of exclusive breastfeeding directly impacted the reduction of diarrhea and the adequate reach of children's weight/length, informing caregivers of the risks of pre-dairy supplementation.<sup>(17)</sup> Another research identified an early onset and good rates of exclusive breastfeeding at one, four and six months of life for children.<sup>(11)</sup> Nurse-Family Partnership participants were more likely to breastfeed their children and persisted with breastfeeding.<sup>(26)</sup> The immunization of children followed up in HM was updated at six, 18 and 24 months of age.<sup>(26)</sup>





**Figure 2.** Conceptual map of positive elements in early childhood health and development through home visits

A study on obesity prevention, involving the family in care, found a decrease in body mass index in children over the recommended weight for age.<sup>(19)</sup>

### Parental care benefits

This theme addresses the influence of HV on parental care and its particularities in the daily interaction of early childhood. Preventive interventions pointed to improvements in the responsive care of parental caregivers, enhancing sensitivity, understanding of child behavior and involvement in child rearing.<sup>(18,28)</sup>

The Nurse Home Visiting for Families program focused on parenting behaviors, showing less hostility and more involvement in child care, suggesting a safer home environment.<sup>(13)</sup> The Maternal, Infant and Early Childhood Home Visiting program promoted increased parental confidence and reduced stress.<sup>(10)</sup>

The follow-up of families contributed to prevent ruptures in the relationship between parental caregivers and children, with more knowledge about child development, resulting in a progressive effect beyond the follow-up period studied.<sup>(28)</sup>

Positive experiences in the relationship between parental caregivers and children were found with the increase in the frequency of stimulating activities, such as playing hide-and-seek, singing and storytelling.<sup>(25)</sup> In another study, parental caregivers used more playful materials.<sup>(10)</sup>

The improvement of maternal skills was investigated regarding coping and problem solving, and

HV allowed for the acquisition of more knowledge about child, maternal and family health, development and well-being.<sup>(16)</sup>

Regarding studies in families with a history of child abuse, the HV strategy made it possible to reduce the rates of these diseases in children.<sup>(12,17)</sup> In the Family Connects program, mistreatment has reduced substantially in the first 24 months of children’s lives.<sup>(12)</sup> Another study showed a significant decrease in child abuse in vulnerable families, emphasizing the importance of HV to prevent these childhood problems and prevent child abuse.<sup>(16)</sup>

Another outcome found was the decrease in hospitalizations for injuries related to abuse, in which children followed by Families First Home Visiting had a lower occurrence of injuries and hospitalizations.<sup>(24)</sup>

In situations of vulnerability, the higher number of HV contributed to decrease the use of corporal punishment for children, compared to families with fewer visits.<sup>(22)</sup>

Health promotion and the readiness of parental caregivers contributed to strengthening family bonds and community resources.<sup>(21)</sup> Another study showed that the visitors knew how to deal with the vulnerabilities that the families presented and, continuously, sought to strengthen them in promoting a protective and supportive environment for child development.<sup>(15)</sup>

From the results, a conceptual map was elaborated to expose the connection of ideas and concepts, presented in Figure 2.

## Discussion

This integrative review identified the characteristics and synthesized scientific evidence from primary studies on the HV strategy in early childhood. There is an emphasis on child development, parenting practices and the frequency of meetings with families.

Scientific evidence indicates that children followed up with HV more easily reached cognitive, behavioral, socio-emotional and physical growth dimensions, results corroborated by other research.<sup>(29)</sup>

In parenting practices, interventions in HV show that, when there is a concentration on promoting parenting, there is an improvement in parental knowledge about children's needs, increasing sensitivity and involvement in child care. HV is seen as a support for parent-child relationships and a strengthening stimulus for involvement in child development and well-being, using meetings with families at home.<sup>(30)</sup> Flexibility in the implementation and delivery of visits is recommended, according to the family culture.<sup>(30)</sup>

In one of the studies, differences in cognitive, motor and receptive language development emerged, more in boys than in girls.<sup>(10)</sup> This study from India emphasizes that the local culture is one of valuing male sons and that caring for daughters can be neglected, suggesting a factor of difference in benefits.<sup>(10)</sup> In this context, it is important to expand research to more scientific evidence.

This research identified positive results of HV with vulnerable families.<sup>(15,21,22)</sup> HV was also identified as support received by the families and directed them to community resources according to their needs and particularities.<sup>(21)</sup> HV has mechanisms that favor solutions to adverse situations in families, as an important public health strategy for family strengthening and connection to health, education and social protection services.<sup>(31)</sup>

Establishing trust between home visitors, families and the community is considered essential in HV programs for articulation with social resources.<sup>(32)</sup> Working at home has the potential to improve the care of children and families, allowing them to know the socio-economic and cultural conditions and develop solutions.<sup>(33)</sup>

Although HV programs are among the most widespread interventions to support families, there is a paucity of research that thoroughly investigates actual conditions and contexts. The challenges of HV in supporting parenting and promoting child development are in force, considering public health policies and programs, such as Family Health Strategy in Brazil, and they need to turn to solving mismatches between the health needs of children and what is offered by services, organizational barriers to access, predominance of curative practices, verticalization in the organization of actions and gaps in adequate communication between professionals and users.<sup>(34)</sup> The role of nurses is relevant and needs to encompass knowledge and clinical practice for the development of parenting in early childhood care.<sup>(35)</sup>

In the present study, the limitations refer to procedures for the use of Boolean operators "AND" and not "OR" in searches, which retrieved more than a thousand studies per database, but precluding a careful analysis.

## Conclusion

Scientific evidence indicates the importance of the HV strategy for children under six years of age, with a conceptual map expressing a range of elements that qualify HRV in early childhood, with contributions to comprehensive child health care and good parenting practices. The contents and approaches of HV can be understood as creating favorable conditions to portray themes, situations and needs of early childhood with parental caregivers, essential to the vitality of health and encouragement to good development. The integrative synthesis is relevant for health, early childhood education and social protection managers, and reaffirms that HV is a strategy for professional performance in early childhood, to increase health promotion and disease prevention in the field of Primary Health Care.

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**Annex 1. Adapted instrument from CASP for assessment of studies\***

Study code: \_\_\_\_\_

Questions	Considerations	Answers
1) Objective is clear?	- Objective relevance	( ) Yes ( ) No ( ) Can't tell
2) Is the methodology adequate?	- If the research interpreted the actions and/or experiences of research participants	( ) Yes ( ) No ( ) Can't tell
3) Were the theoretical-methodological procedures presented and discussed?	- If the researcher justified the research design	( ) Yes ( ) No ( ) Can't tell
4) Is the study sample suitable for the research?	- If the researcher explained how participants were selected	( ) Yes ( ) No ( ) Can't tell
5) Is data collection well detailed?	- If it is clear how the data was collected - If the data form is clear	( ) Yes ( ) No ( ) Can't tell
6) Is the relationship between researcher and participants adequate?	If the researcher has critically examined their own role, potential bias and influence during (a) formulating the research questions and (b) data collection, including sample recruitment and location choice	( ) Yes ( ) No ( ) Can't tell
7) Are ethical issues appropriate?	- If there was enough detail on how the survey was explained to the participants - If approval by the Institutional Review Board was requested	( ) Yes ( ) No ( ) Can't tell
8) Was data analysis rigorous? Have there been statistical tests in quantitative studies?	- If there was a detailed description of the analysis - If they have enough data and if they were presented in support of the results	( ) Yes ( ) No ( ) Can't tell
9) Were the results clearly presented and discussed?	- If the findings are explicit - If the researcher has discussed the credibility of their findings (e.g., triangulation, respondent validation, more than one analyst) - If the findings were discussed in relation to the original research question	( ) Yes ( ) No ( ) Can't tell
10) What is the research's value?	- If the research brought contributions, limitations, indicates new research...	( ) Yes ( ) No ( ) Can't tell

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