ABSTRACT

Objective: to analyze the scientific knowledge produced about the Child's Card/Child Health Handbook as a tool for monitoring children's health. Methodology: integrative review which aims to answer the following research question << Which scientific knowledge produced about the Child's Card/Child Health Handbook as a tool for child health surveillance? >> Articles were selected in the databases LILACS, MEDLINE and SCIELO virtual library. The data were categorized and assessed, considering the evidence level, according to the instrument developed for the study. Results: 10 articles were selected, which resulted in two themes: 1) Incompleteness of the recorded data on the card/handbook and 2) Guidelines offered to families on the card/handbook. Conclusion: the results of the analyzed studies showed that the book hasn’t been used by professionals and families for the monitoring of child health, in view of the unsatisfactory quality of made records and little involvement and participation of the family in this process. Descriptors: Child health; Growth and Development; Personal Health Records.

RESUMO

Objetivo: analisar o conhecimento científico produzido sobre o Cartão da Criança/Caderneta de Saúde da Criança como instrumento de vigilância da saúde infantil. Metodologia: revisão integrativa que visa responder a seguinte questão de pesquisa << Qual o conhecimento científico produzido sobre o Cartão da Criança/Caderneta de Saúde da Criança como instrumento para vigilância da saúde infantil? >> Os artigos foram selecionados nas bases de dados LILACS, MEDLINE e na biblioteca virtual SCIELO. Os dados foram categorizados e avaliados, considerando seu nível de evidência, segundo instrumento elaborado para o estudo. Resultados: foram selecionados 10 artigos, cuja análise resultou em duas temáticas: 1) Incompletude dos dados registrados no cartão/caderneta e, 2) Orientações oferecidas às famílias sobre o cartão/caderneta. Conclusão: os resultados dos estudos analisados evidenciaram que a caderneta não tem sido utilizada pelos profissionais e famílias para a vigilância da saúde infantil, tendo em vista a qualidade insatisfatória dos registros realizados e o pouco envolvimento e participação da família neste processo. Descritores: Saúde da criança; Crescimento e Desenvolvimento; Registros de Saúde Pessoal.

RESUMEN

Objetivo: Analizar el conocimiento científico producido sobre el Cartón/Libreta de Salud Infantil como un instrumento de vigilancia de la salud infantil. Metodología: revisión integradora que pretende responder a la siguiente cuestión de investigación << Cual es el conocimiento científico producido sobre el cartón/libreta de salud infantil como una herramienta para la vigilancia de la salud infantil? >> Los artículos fueron seleccionados en las bases de datos LILACS, MEDLINE y en la biblioteca virtual SCIELO. Los datos fueron clasificados y evaluados, teniendo en cuenta su nivel de evidencia, conforme el instrumento desarrollado para el estudio. Resultados: fueron seleccionados 10 artículos, cuya análisis resultó en dos temas: 1) Datos incompletos registrados en el tarjeta/libreta y 2) Orientaciones ofrecidas a las familias sobre la tarjeta/libreta. Conclusión: los resultados de los estudios realizados mostraron la libreta no ha sido utilizada por los profesionales y las familias para la vigilancia de la salud infantil, teniendo en cuenta la calidad insatisfactoria de los registros realizados y poco compromiso y participación de la familia en este proceso. Descriptores: Salud Infantil; Crecimiento y Desarrollo; Registros Personales de Salud.
INTRODUCTION

In Brazil, the monitoring and child health records were made in the Child's Card (CC), which contained only the chart to monitor the growth and vaccination schedule for children from zero to five years of age. Over the years, this instrument has suffered several changes, setting up what is known today, the Child Health Handbook (CSC).

Established by the Health Ministry (MS), in 2005, the CSC has information about pregnancy, childbirth and the peripuerium, healthy nutrition, hygiene, cephalic perimeter chart, information on accident prevention, prophylaxis of vitamin A iron deficiency and observations about oral health, visual and auditory.

In 2007, the new version of the CSC was presented as a result of the alteration and adoption of new growth curves of the World Health Organization in the previous year. In this version, were inserted graphics of weight x age and height x age, information about the civil registration of birth, parents and child rights, the first days of life of the newborn and more detailed tips on development, feeding, breastfeeding and weaning.

The handbook was revised again in 2009 and were added the basic guide to the monitoring of children with diagnoses of Down syndrome and autism, tables of Body Mass Index (BMI) and blood pressure care. In addition, the CSC become differentiated by sex and the accompanying track was extended until 10 years of age.

The CSC is destined to all children born in Brazil and is delivered to families still on motherhood, being them responsible in taking the document whenever the child needs health care. In that way, parents in possession of the instrument may monitor the health of their children (BRAZIL, 2005). It is important to emphasize that the use of CSC involves the family, professionals in the health team and other services, that meet the child, like nurseries and preschools, aiming at the integral monitoring of child health.

The CSC is an instrument that should be used in all child care, because it is an important document for the monitoring their health care, since the records are performed appropriately, from birth until the age of 10. Thus, the child health booklet should be seen as a document, which collects and produces information about the health of the child.

In this sense, it is necessary to analyze the scientific knowledge produced about the child’s Card/Child Health Handbook as a tool for monitoring children's health.

METHOD

The study is characterized as an Integrative Review, whose purpose is to obtain a broad understanding about a particular subject, based on previous studies, following a systematic method for obtaining search results.

Once set the theme, was drafted the following guiding question: which scientific knowledge produced about the Child's Card/Child Health Handbook as a tool for the monitoring of child health?

For publication selection, were adopted the following inclusion criteria: scientific articles, published in Portuguese, English and Spanish languages, which were complete, so that it could be made to read the content in its entirety online. Dissertations and theses were excluded. The study period was not stipulated, in view of the shortage of production on the theme.

The text search was held in the databases of Latin American Literature and Caribbean Health Sciences (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE), and virtual library Scientific Electronic Library Online (SciELO), with the keywords “growth and development”, “personal health records”, “immunization”, “primary health care”, “health promotion” and “child development”, which were crossed with the “child” keyword. The search was conducted in the period from July to November 2012. The intersection of the keywords totaled an amount of 92 texts, of which, after full reading, only 10 articles met the criteria for inclusion and responded to the proposed objectives.

Then, in the last step of the integrative review, was held the organization and analysis of published knowledge, considering the evidence level, according to the developed instrument for the study and the integrative review objectives. To give visibility to the main trends of the studies, was built a synoptic table with articles included in the review, followed by the presentation of two themes: incompleteness of recorded data in CC/CSC and guidance offered to families about the CC/CSC. Finally, the discussion was held on the basis of the results and the relevant literature.

RESULTS AND DISCUSSION

The studies were characterized according to authorship, year of publication, objectives and main results, as shown in Figure 1.
<table>
<thead>
<tr>
<th>Autor/ano Author/year</th>
<th>Objetivo do estudo Objective study</th>
<th>Principais resultados Mains results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santos SK, Gunga AJLA, Gamba CM, Machado FG, Filho JMLM, Moreira NLM. (2000)</td>
<td>Analyze and compare the primary care provided to mother and child population and contribute to the evaluation of the integral assistance to this group</td>
<td>The analysis has identified four groups of children at risk of having their CSC badly satisfied: those aged over 2 months; those whose mothers had six years or less of study; those whose mothers did not receive explanations about the CSC in maternity and not accompanied by general medical practitioners.</td>
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<tr>
<td>Alves CRL, Lasmar MLBF, Goulart LMHF, Alvim CG, Maciel GVR, Viana MRA, et al. (2009)</td>
<td>Analyze the factors associated with the quality of the padding of the child health handbook</td>
<td>97.1% of health services in the metropolitan region of Recife have card for record growth data, within the ratio was 80.4%. In relation to the monitoring of growth, 54.1% of the children were weighed and only 16.2% were measured (length). Only 18.2% of families received information about the growth of their children. Children who had the card, 38% had no or only one registration point of weight.</td>
</tr>
<tr>
<td>Lemaire JP, Chevallier B, Bonnefoi MC, de, et al. (2009)</td>
<td>Evaluate the structural and procedural aspects of surveillance of the growth in 120 public health units of Pernambuco</td>
<td>229 children information were collected. Almost all had the card, although in 30% of these cards there was no weight record. About immunization, 93.6% of children were with updated vaccination.</td>
</tr>
<tr>
<td>Dommergues JP, Vieira GO, Vieira TO, Costa MCO, Netto PVS, Cabral VA. (2005)</td>
<td>Evaluate the fill of data about the Card with an emphasis on the monitoring of growth and development in children under one year in Feira de Santana, Bahia</td>
<td>Of 2319 mothers of children under 1 year studied, 95.5% had the card. The Apgar index was at 28.4% of the cards. About the growth and development curves, 39.6% and 77.9% respectively were not fulfilled. Children of mothers who don't work outside the home and with monthly income less than two minimum wages, present significant chances of having the weight noted on the card. Primiparity and maternal schooling greater than fundamental basic education was associated with greater likelihood of annotation on the development curve. Reside in the area of community health agents and the age less than six months were as protective factors for completing the development curve.</td>
</tr>
<tr>
<td>Carvalho MF, Lira PIC de, Romani SAM, Santos IS, Veras AMCA, Filho MB. (2008)</td>
<td>Analyzing the action of growth monitoring of children under one year, in health units of Pernambuco State, Brazil</td>
<td>816 children were studied and 120 health units. About the services structure, 15.8% of the units did not have balances or child card and 75.4% did not have rules for monitoring of growth and development. About the infant monitoring, 53.1% were weighed and 21% measured. The guidance given to mothers about the CD accomplishment was deficient.</td>
</tr>
<tr>
<td>Frota MA, Pordeus AMJ, Forte LB, Vieira LJES. (2007)</td>
<td>Check the factors related to the anthropometric through weight chart of Child's Card</td>
<td>Deficit weight registry exists on the child's card graph. The factors that interfere in the filling are the lack of time during the consultations and the oblivion of the card of the family. There was a lack of guidance to parents on the interpretation of the growth chart.</td>
</tr>
<tr>
<td>Costa GD da, Cotta RMM, Reis JR, Ferreira MLSM, Reis RS, Franceschini SCC. (2011)</td>
<td>Analyze the health care of the child by the Family Health Program of the municipality of Teixeiras, MG</td>
<td>Attention to child health in the scenario of the PSF was considered fragmented. The physical facilities, the quality of care in the control of diarrhea and respiratory infections were classified as insufficient. The monitoring of growth and development received an intermediate classification.</td>
</tr>
<tr>
<td>Goulart LMHF, Alves CRL, Viana MRA, Moulin ZS, Carmo GAA do, Costa JGD da, et al. (2008)</td>
<td>Evaluate the fill of data about pregnancy, childbirth and newborn in Child Health Handbook and the perception of moms about the function of this instrument in Belo Horizonte, MG</td>
<td>797 handbooks were analyzed. The start of prenatal was no fill in 40% of the type of labor at 15% of CSC, gestational age at 24% and the 5 minute Apgar score in 23% of cases. Birth weight, length and cephalic perimeter were not informed on 9, 10 and 15% of handbooks, respectively. The guidance area to take the neonate to the basic unit on the fifth day of life was not completed in 75% of handbooks. Only 33% of mothers have received explanations about CSC in the maternity ward. For 313 mothers handbook is related to the monitoring of growth and development of your child.</td>
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<tr>
<td>Sardinha LMV, Pereira MG. (2011)</td>
<td>Investigate if children under five years of age had the Child's Card and if the growth chart, was duly completed in accordance with the criteria established by the Health Ministry</td>
<td>The sample was composed of 3629 children, and 99.3% had the card. Approximately one fifth of the cards featured the growth curve properly punctuated. Children cards with 15 days of life, only 41.6% had the marking of the weight on the graph.</td>
</tr>
<tr>
<td>Vincellet C, Tabone MD, Bonnefoi MC, Chevallier B, Lemaire JP, Dommergues JP. (2003)</td>
<td>Evaluate the information present in the Child Health Handbook in France</td>
<td>The sample was composed by 1685 children, divided into two groups, Group1 (G1) with ages of 12-18 months and Group2 (G2) aged 42-54 months. The Apgar index in the 5th minute was registered in 96% of handbooks. In 99% of handbooks of G1, the weight and stature were recorded, while in G2, the weight and stature were recorded on 74% and 69% respectively. The weight curves, height and head circumference were noted in respectively 64%, 62%, 51% of handbooks in G1 and the weight was recorded in only 22% of handbooks of G2. The immunization record has been found in 68% of children of G1 and 50% of children of G2.</td>
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![Figure 1. Summary of analyzed articles, according to authorship, year of publication, the study's objective and main results.](image-url)
In relation to the methodological approach, quantitative studies of transverse type predominated (08). It was found that some research used more than a technique for data collection, enabling the completion of the information. Most of the studies were carried out in the context of primary health care.

All articles have addressed aspects of the fill of the CC/CSC, five have portrayed the lack of guidance to parents from health professionals regarding the data present in that instrument and identified factors that interfere in the filling of handbook by professionals.

- Recorded data incompleteness in CC/CSC

Since the creation of instrument for monitoring of children’s growth and development, it has been observed fill difficulties.5

This reality seems to have suffered a slight modification, since the current studies suggest improvements in the index of the weight and height fill at CC/CSC. However, these records are not transferred to the graphics, as evidence the research conducted in Pernambuco, Belo Horizonte and Brasilia. 6–9

Realizes that the professionals have begun to value the information records, but still not use the graphics fully.

Child growth evaluation is an important strategy to know and monitor the health of the child and must be performed by means of measurement of height and weight and subsequent periodic record on appropriate chart measures forming a trace.10 Growth monitoring is recommended by MS as a central axis of all actions geared to children and should be developed for all health services. In addition, this monitoring enables to evaluate the child’s progress, identifying the groups at risk for appropriate interventions to reduce child morbidity and mortality.2

Besides the graphics, it is noticed incompleteness of other data present in CC/CSC. Research show that even with a manual of MS, informing about the correct use of the instrument by the professionals, the filling in the cities of Belo Horizonte and Teixeiras-MG, Feira de Santana-BA, Teresópolis-RJ, Fortaleza CE, Recife PE and Brasilia-DF, is deficient.6–9,11–14

In France, research pointed similar findings to those found in Brazilian reality in relation to incomplete filling of some data from the CSC, such as the cephalic perimeter, hospitalization and surgery.15

On the other hand, some aspects of the monitoring of child health have received more attention of the professionals as for its records, vaccination is one of them. Four research showed that the situation of the child immunization was on time and the records of the information were contained in the instrument.3,8,12,15 In addition of the immunization, data with better filling refers to the identification of child, type of birth, birth weight and cephalic perimeter (PC), namely information related to child birth, with the exception of the Apgar index, which sets as one of the worst fill items, as well as the prophylactic iron, 1st week of integral health, pregnancy data and childbirth, neuropsychomotor development (DNPM) and admissions and hospitalizations.8,11,13

The worse fill index items deserve more attention of professionals, since these data are configured as essential sources for early detection of certain diseases. Among these aggravations, iron deficiency anemia is a serious public health problem, reverberating in all age groups, but children of 6 to 24 months are among the most vulnerable groups to this deficiency, due to high iron needs for its growth.16–7 Given this, among the basic actions for the prevention of anemia, stands out the drug supplementation. In the handbook there is space for the record this information, however this item is not being filled properly, putting in doubt if the kids are really getting iron prophylactic medication.8

The first week of integral health is a great relevance moment in health care of women and children, whose record of actions is not being valued by professionals.8,11

According to the Commitment Schedule to the integral health of children and reducing child mortality, the guidelines on the first week of integral health must be carried out in maternity wards and the basic health units are responsible to execute their actions, which include neonatal screening, immunization against hepatitis B and tuberculosis, breastfeeding evaluation and the puerperium aiming to reduce maternal and neonatal mortality.2 For this purpose is vital that the professionals meet these data and orient families about these first actions, so the future professionals, that meet the child can continue the monitoring.

The handbook has a surveillance instrument of development, which enables the assessment of the child by the professionals and assists parents to recognize their role in the stimulation of the development of the child. However the Brazilian studies point out
that the development data are not being populated properly in the handbook.\textsuperscript{7-8,13} A research conducted in France showed that the index of child development filling in the handbook was very good.\textsuperscript{15}

The development is one of the axes of care for the maintenance and promotion of child health, because the development process has its foundation during the period of childhood. Therefore, the child development deserves attention from health professionals, since the monitoring of the child by various health professionals allows early diagnosis of developmental delays or changes in the areas: motor; language; cognitive and personal/social.\textsuperscript{10-18} So, the good child's development depends largely on early childhood care, such as nutrition, stimulation, attention, and others. These precautions are carried out by family supported by health professionals.

Two other items with the worst rates of filling are the data about pregnancy and childbirth. The maternal health condition interferes directly in the child health still intra-uterine, so the monitoring of women since the beginning of the pregnancy and the appropriate number of queries are essential to evaluate the conditions of maternal and fetal health. The CSC contains spaces for filling in data about the blood group, Rh factor, type of birth, attainment of serologies for detection of syphilis, HIV, hepatitis B, toxoplasmosis, and others.\textsuperscript{8,11}

Although the Apgar index is considered an important indicator of risk for perinatal morbidity and mortality, the filled also has not been adequate. Among the reviewed studies, only the survey conducted in France showed completion of the score values Apgar, in the first and fifth minute, in almost all of French handbooks.\textsuperscript{15}

Incomplete filling in CSC of some aspects, involving both the conditions of health of mothers as children, reveals a disengagement of the professionals with the monitoring of child health.\textsuperscript{14} The great demand in services and the oblivion of the card by the mothers are singled out by professionals as one of the factors that interfere in the records of the CSC.\textsuperscript{14}

Another element, which draws attention on the results of the analyzed studies, is that filling the handbook decreases, as the age of the child advances.\textsuperscript{9,15} The differentiation of the minimum calendar queries for the monitoring of child health from 0 to 6 years by MS can be one of the factors that contribute to this situation, since this calendar foresees a larger number of inquiries in the early years of the child's life.\textsuperscript{10} The child, in the first two years of life, presents fast growth and development, so the monitoring should be more frequent and continuous staff attention and resolution.

In General, the studies examined precario handbook utilization, stressed with regard to the filling of all items.

- **Family guidance offered about CC/CSC**

The Child Health Handbook is configured as an instrument capable of integrating various actions related to child health and must be embedded assistance practices of professionals of different areas of health care.\textsuperscript{8} At query time, the professional has to conduct activities such as data logging in the CC/CSC and guidance to parents about the health of children and the use of the handbook. However, according to the analyzed studies in this literature review, these actions are not being developed effectively.

The first information about child health are produced in the birth of children hospital. However the research's reveal flaws in the data records of birth and offered guidelines to parents on maternity.\textsuperscript{8,11} The guide parents exercises about the information in the handbook is a fundamental practice in health promotion, since the professional can establish a dialogue with the mother about how she can, during the care of day-by-day with the child, participate and encourage their growth and development.\textsuperscript{10}

The absence of guidelines to parents about the CC/CSC does not occur only in maternity wards, as reveal the studies carried out in different cities. The results of these researches show that a small portion of mothers was informed about aspects of the growth of their children as weight, height and weight chart situation, during the consultations held on the basic health units.\textsuperscript{6,8,12} The results show that many mothers are unable to comprehend some items present in CC/CSC, as the graphics.\textsuperscript{12,19}

Studies show that, for some professionals, the CC/CSC's is a source of registration and query for professional and, to explain the growth charts to parents, takes the time of the query and, therefore, it is more important to inform them about the conduct and treatment of diseases.\textsuperscript{14}

In child care, the professionals must perform actions directed to the promotion of health and prevention of diseases in the context of health surveillance, among them, follow the CD and make autonomous family to exercise the care and monitoring of the
process of CD of children. 20 In this sense, the educative actions should permeate all times assistance geared towards the child, enabling the family to acquire knowledge, attitudes and skills for decision-making in search of better health and quality of life of their children.21

The shortfall in filling handbooks about the health conditions of children and the lack of guidance to parents, in the various levels of health care, reveal the unpreparedness of professionals in relation to preventive practices and health promotion.8

A few years ago, the MS has been encouraging professionals to dialogue with parents about the significant events of the health of the child, reinforcing the role of these workers as educators and promoters of child health.1 To this end, should stimulate the participation of all family child care process, involving and offering information about the care and health problems, in addition to include it in the speeches.5

The guidance offered to parents, as well as the CSC full records reflect the quality of the assistance provided to the child. On the other hand, no appreciation of the CC/CSC by professionals, which assist the child, can result in inadequate guidelines and records, in addition to not involve the family in the use of this instrument of surveillance of the child health.11

The misuse of the instrument has consequences for the child, because it shows that their health is not being seen from a full way. In addition, its proper use is a right of the child population, in addition to being a health document, which should be used by health care professionals of all areas.8

This study analyzed what has been produced on the Child's Card/Child Health Handbook as a tool for monitoring children's health. It was noted that are still few publications on this instrument and most of them give emphasis to its use and fill, considering that this information is important for the continued assistance provided to the child population at health services.

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Corresponding Address
Fabiane Blanco da Silva
Universidade Federal de Mato Grosso
Programa de Pós-Graduação em Enfermagem
Rua Estevão de Mendonça, 1134
Bairro Quilombo
CEP: 78043-405 – Cuiabá (MT), Brazil