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RESEARCH

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# MAPPING THE USE OF THE CHILD HEALTH HANDBOOK BY PARENTS AND PROFESSIONALS: A DESCRIPTIVE STUDY

Mapeamento do uso da caderneta de saúde da criança por pais e profissionais: um estudo descritivo

Mapeo del uso del manual de salud infantil por padres y profesionales: un estudio descriptivo

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### **ABSTRACT**

**Objective:** To identify parents' knowledge about the Child Health Handbook, map the completion of the booklet by professionals and correlate the completion of the booklet with the guidance of parents by health professionals. **Methods:** descriptive quantitative research, conducted in a university hospital, through the application of a form with 22 parents or guardians and analysis through tables, graphs, descriptive and inferential statistics. **Results:** (77.3%) of respondents claimed not to receive guidance on the Passbook, the majority of the handbooks had no record in the Body Mass Index item as much as most completed in the basic calendar vaccine record item and correlations were not significant, presenting independence in the majority. **Conclusion:** there was a need for guidance from family members as well as training of professionals working with the child population and there was no dependence between most of the correlated variables in this study.

**Descriptors:** Child health, Growth and development, Personal health records, Professional-family relations, Nursing.

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#### **RESUMO**

Objetivo: Identificar o conhecimento dos pais acerca da Caderneta de Saúde da Criança, mapear o preenchimento da Caderneta pelos profissionais e correlacionar o preenchimento da caderneta com a orientação dos pais pelos profissionais de saúde. Métodos: pesquisa quantitativa descritiva, realizada num hospital universitário, através da aplicação de formulário com 22 pais ou responsáveis e análise através de tabelas, gráficos, estatística descritiva e inferencial. Resultados: (77,3%) dos entrevistados alegaram não ter recebido orientação sobre a Caderneta, a maioria das cadernetas não apresentava registro no item de Índice de Massa Corporal tanto como a maioria apresentava preenchimento completo no item de registro de vacinas do calendário básico e as correlações não foram significativas, apresentando independência na maioria. Conclusão: evidenciou-se uma necessidade de orientação dos familiares tanto como capacitação dos profissionais que trabalham com a população infantil e não se verificou dependência entre a maioria das variáveis correlacionadas neste estudo.

**Descritores:** Saúde da criança, Crescimento e desenvolvimento, Registros de saúde pessoal, Relações profissional-família, Enfermagem.

#### **RESUMEN**

Objetivo: Identificar el conocimiento de los padres sobre el Manual de Salud Infantil, mapear la finalización del folleto por profesionales y correlacionar la finalización del folleto con la orientación de los padres por parte de profesionales de la salud. Métodos: investigación cuantitativa descriptiva, realizada en un hospital universitario, mediante la aplicación de un formulario con 22 padres o tutores y análisis a través de tablas, gráficos, estadísticas descriptivas e inferenciales. Resultados: El (77.3%) de los encuestados afirmaron no haber recibido orientación sobre el Manual, la mayoría de los manuales no tenían registros en el ítem del Índice de Masa Corporal tanto como la mayoría había completado en el ítem y las correlaciones del registro básico de la vacuna del calendario no fueron significativas, presentando independencia en la mayoría. Conclusión: era necesaria la orientación de los miembros de la familia, así como la capacitación de profesionales que trabajan con la población infantil y no hubo dependencia entre la mayoría de las variables correlacionadas en este estudio.

**Descriptores:** Salud infantil, Crecimiento y desarrollo, Registros personales de salud, Relaciones profesional-familiares, Enfermería.

## INTRODUCTION

The Child Health Handbook is an instrument of great importance for monitoring the health, growth, and development of each child.<sup>1</sup> It was implemented by the Brazilian Ministry of Health in 2005, replacing the Child Card, to promote surveillance of the child's comprehensive health, since the Card only covered the vaccination schedule and the growth chart, intended for children from zero to five years old.<sup>2</sup>

The Child Health Handbook is a right of every child born in Brazilian territory and must be delivered to the parents while still in the maternity ward. It must be completed properly by health professionals and carried by parents in any health care. It is important that all institutions that live with the child population, use this instrument to monitor the child's health, as the Handbook provides a great knowledge of their health history.<sup>3</sup>

Currently, the Handbook is intended for children from

zero to nine years old and is in its 11th issue, comprising 90 pages in its totality. Its initial portion consists of guidelines for the parents or caregivers responsible for the child, and contains information on: the rights of the parents and the child, care for the newborn, breastfeeding, milking, healthy eating, growth and development, vaccination, oral, eye and hearing health, danger signs to identify possible diseases and accident prevention. From page 37 onwards, there is the portion focused on the records of health professionals, containing: Data on pregnancy, childbirth, and the puerperium, data on the newborn, instrument for development surveillance, special situations, child growth surveillance, among other data indispensable for child monitoring.<sup>1</sup>

Both recording and monitoring of the Handbook are essential as they make it possible to observe any growth and development deficit, enabling early interventions and reducing future damage.<sup>3</sup>

So, the justification and relevance of this study is found in the recognition that because it is the child's right and an important instrument for the surveillance and promotion of their health, the Handbook, and its use must be known and valued by managers, professionals and also by family members.<sup>4,5</sup>

Studies show that the participation of parents when filling out the Child Health Handbook increases their level of adherence in the care of the child who is in development.<sup>5-7</sup>

Nevertheless, the problem of this study focuses on the observation that this instrument is underused in the practice of professionals and also little known and explored by parents, which is also pointed out in national surveys that explored the use of the Handbook.<sup>4,8</sup> Hence, the hypothesis is that there is a probable correlation between the guidance of parents by health professionals and the completion of items in the Child Health Handbook by them.

This article targets to identify the parents' understanding concerning the Child Health Handbook. Furthermore, mapping the filling out procedure of the Handbook items by health professionals and correlate it with the guidance provided by health professionals to the children's parents.

### **METHODS**

This is a descriptive study with a quantitative approach,<sup>9</sup> through the survey investigation strategy, intending to make generalizations from a sample of the studied population.<sup>10</sup> STROBE (strengthening the reporting of observational studies in epidemiology) methodological frameworks were adopted.

Data collection took place in the pediatric ward and the pediatric ambulatory of a university hospital located in the north of the *Rio de Janeiro* city. As research participants, parents or guardians of children from zero to three years of age who were hospitalized in the pediatric ward or had

an appointment in the pediatric ambulatory, whose Child Health Handbook was available for consultation, were included. The choice for this age group was due to the necessary valuation of periodic monitoring of child growth and development in very early childhood, which is an ideal window for stimuli and educational interventions with the family. The option for collection in this hospitalization scenario was due to the understanding that the Child Health Handbook needs to be more valued in specialized care spaces and not only by primary care teams.

Data collection occurred after the approach of parents or guardians in the pediatric ward or the waiting room of the clinic, when the purpose of the study was explained, and the Informed Consent Form (ICF) was read together with the participant. After signing the ICF, the form was applied, which contains the characterization of the interviewee, the characterization of the child, questions concerning the Child Health Handbook and the consultation of the data recorded in the Handbook. This consultation was carried out by the researchers and sought to map if there were records of professionals in the sections of the Handbook to observe the use. The quality of the records was not assessed in this research, but whether the fields were complete or incomplete, or whether there were no records. Data collection extended from July 2018 to May 2019, the closure being limited by the collection difficulties in the age group previously established by the research.

The sampling criteria were random, through the convenience sample, according to the availability and convenience of the participants. <sup>10</sup> After the collection, the data were analyzed through descriptive statistics by frequency distribution and formulation of tables by the Microsoft Office Word 2007 program. The R software version 3.5.2 was also used to create charts, contingency tables and implement the Chi-Square Test of Independence, with a significance level of 0.05.

The variables analyzed concerning the parents' responses were: if they read the Handbook, if they were instructed regarding the Handbook, which professional guided them, if they understood the content after guidance and if they see the professionals using it. Observing the items filling out procedure in the Handbook by health professionals, the variables were as follows: Development surveillance from 0 - 12 months, Development surveillance from 12 months - 3 years old, Record sheet from 0 - 3 years old, Head circumference from 0 - 2 years old, Weight from 0 - 2 years old, Weight from 2 - 5 years old, Length from 0 - 2 years old, Body Mass Index from 0 - 2 years old, Recording of basic calendar vaccines. For the correlation, the variable named "Interviewees who were instructed regarding the Handbook" was used with all the mapped items described previously, with a significance level of 0.05 being adopted.

This research is originated from one of the objectives of the Institutional research project named "Child development in the health-disease process context -

subsidies for the nursing care of children and their families", in compliance with the Resolution of the National Health Council No. 466/2012 the research was submitted to the Ethics Committee under the *Certificado de Apresentação para Apreciação Ética* (*CAAE*) [Certificate of Presentation for Ethical Appreciation] No. 66 2305 17.3.0000.5285, was approved on June 6th, 2017, with Legal Opinion No. 2.102.707. After its approval, data collection began. The participant's anonymity was guaranteed as described in the ICF, as well as its risks, benefits, doubts and the right to leave

# **RESULTS**

Concerning the 22 interviewees, most were female (90.9%), with 19 mothers (86.4%) in total. The age ranged from 16 to 40 years old, with a prevalence in the age group from 25 to 33 years old (50%). Most of the interviewees lived in the *Rio de Janeiro* city, *Rio de Janeiro* State (77.3%), with complete high school level (59.1%), single marital status (63.6%). Regarding the occupation, both self-employed workers and those who declared themselves to be housekeepers (40.9%) prevailed. The children's age ranged from one month to three years old, with a prevalence of children in the age group from seven to 12 months (31.8%).

Table 1 shows the interviewees' answers regarding the questions referring to the Child Health Handbook. As described in the table, the majority of interviewees claimed to have read the Child Health Handbook (72.7%), however (77.3%) claimed to have received no guidance regarding the Handbook. Considering the five interviewees (22.7%) who were instructed, only one (25%) was instructed by a nurse, and four (75%) by a physician. (60%) of the interviewees who were instructed, stated that they understood the contents of the Handbook after the orientation. Most interviewees claimed that professionals always use the Child Health Handbook (45.5%).

 $\begin{tabular}{ll} \textbf{Table I - Distribution of the interviewees' answers related to the Child Health Handbook.} \end{tabular}$ 

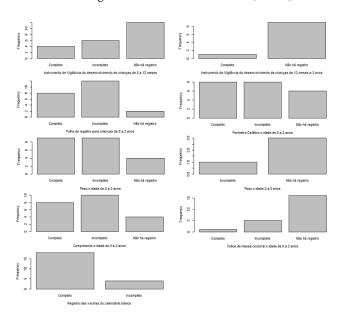
Variável	Frequência (n)	Percentagem (%)
Leram a Caderneta		
Sim	(16)	(72,7)
Não	(seis)	(27,3)
Total	(22)	(100,0)
Receberam orientação quanto a Caderneta		
Sim	(cinco)	(22,7)
Não	(17)	(77,3)
Total	(22)	(100,0)
Profissional que orientou		
Enfermeiro	(um)	(25,0)
Médico	(quatro)	(75,0)
Total	(cinco)	(100,0)
Entenderam o conteúdo da Caderneta após a orientação		
Sim	(três)	(60,0)
Parcialmente	(um)	(20,0)
Não	(um)	(20,0)
Total	(cinco)	(100,0)
Veem os profissionais utilizando a Caderneta		
Sempre	(10)	(45,5)
Às vezes	(nove)	(40,9)
Nunca	(Três)	(13,6)
Total	(22)	(100,0)

Table 2 shows the result of the Chi-Square Test of Independence between the variables of the items related to filling out the Child Health Handbook and the variable "Interviewees who were instructed regarding the Handbook". The contingency table uses two qualitative variables to verify their relationship. As the table shows, only the correlation of the items "Development surveillance from 12 months – three years old" and "Weight from two-five years old" were dependent on the variable "Interviewees who were instructed regarding the Handbook".

**Table 2 -** The Chi-Square Test of Independence between filling out the items in the Child Health Handbook and interviewees who were instructed regarding the Handbook.

Preenchimento por item da Caderneta de Saúde da Criança	P-valor do <i>Teste</i> Chi-Square de Independência entre os Itens da Caderneta x "Entrevistados que receberam orientação sobre a Caderneta"	Relação entre Itens da Caderneta x "Entrevistados que receberam orientação sobre a Caderneta"
Vigilância do desenvolvimento 0 -12 m	0.1375	Independência
Vigilância do desenvolvimento 12 m-3 a	0.03501	Dependência
Folha de Registro 0 - 3 anos	0.7236	Independência
Perímetro Cefálico 0 - 2 anos	0.05992	Independência
Peso 0 - 2 anos	0.1174	Independência
Peso 2 - 5 anos	0.0455	Dependência
Comprimento 0 - 2 anos	0.3307	Independência
Índice de Massa Corporal 0 - 2 anos	0.8343	Independência
Registro de vacinas do calendário básico	0.9046	Independência

Figure 1 shows the frequency of filling each item in the Handbook, separated as follows: complete, incomplete or there is no record. In most of the appraised Handbooks, there was no record in the items: "Instrument for monitoring the development of children from zero to 12 months" (54.5%), "Instrument for monitoring the development of children from 12 months to three years old" (90%), "Weight x age from two to five years old" (75%) and "Body mass index x age from zero to two years old" (68.2%), with emphasis on Body Mass Index (BMI), which presented 16 Handbooks with no completion. The completion was mostly incomplete in the following items: "Record sheet for children aged from zero to three years old" (54.5%) and "Length x age from zero to two years old" (45.5%). Conclusively, most of them were filled out, just the item "Recording of basic calendar vaccines" (81.8%).



**Figure 1 -** Charts addressing the completion of each item in the Handbook separated as follows: complete, incomplete and there is no record.

#### DISCUSSION

Herein, it is observed that approximately (86%) of the interviewees were given by mothers, which can also be seen in other studies that addressed the same topic. <sup>6,7,11</sup> The figure of the woman still carries a sociocultural view of the role to care as a natural female assignment. <sup>12</sup> Health professionals relate child care directly to the maternal figure and not to the family. <sup>4</sup>

The item named "development surveillance" is a field of pronounced importance in child care, as it allows the promotion of the child's health, while allowing the early identification of changes in the development of the cognitive, motor, social and language areas. This follow-up item has unfortunately been neglected by health professionals, which can be observed as a result of this study, and in other studies that point out that filling this field is unsatisfactory. 5,6,7,14

Along with the development surveillance items, record sheet, head circumference, weight, length and BMI have shown unsatisfactory completion in this study, the vaccine record field was completely filled in (81.8%) of the Handbooks, in line with other studies, which ranged from (94%) to (96.6%).<sup>5-7</sup> This reality is related to the large investment in vaccination campaigns that have occurred over 40 years on a national scale through the National Immunization Program.<sup>7,15</sup>

Filling out the Handbook is an obligation of the health professional, therefore, the precarious recording in the handbooks is related to the lack of recognition of the importance of this instrument.<sup>6</sup> Therefore, training is extremely important for these professionals,<sup>7</sup> because if the Handbook is out used in the best way, it can improve the quality of care provided to children.<sup>4,6</sup>

Here, it is clear that only (22.7%) of the interviewees received guidance from a health professional about the Handbook. This lack of guidance directly affects the knowledge, interest and feeling of importance of those responsible for the content of the Handbook. Guiding family members on the Child Health Handbook is extremely important, as it encourages family participation and enhances this care.<sup>4-6</sup>

The family's understanding of the Child Health Handbook corroborates the valuation of the Handbook and the consequent demand for health professionals to fill it out, which ends up helping the work of these professionals.<sup>4</sup> Therefore, the unsatisfactory completion of the items in the Health Handbook may also be related to the lack of family guidance by health professionals. Nonetheless, this study had limitations, among them: the low amount of hospitalization of children in the second half of 2018, children who did not have the Child Health Handbook and guardians who did not take the Handbook to the hospital, situations that made it difficult to reach sample. Another limitation in the design was the failure to assess the quality of the professionals' records. Such limitations can be remedied in the next design and continuity of research to deepen the theme, expanding collection scenarios.

Despite the aforesaid, this study brings contributions by pointing out the need for guidance to parents and guardians regarding the use of the Handbook and its filing out procedure by health professionals, reinforcing the importance of professional training for health education actions even in the space of specialized child health care.

## CONCLUSIONS

Data provided enough information to infer that family members need support in regard to the subject, so that the family is empowered and can actively participate of child care, making them able to identify abnormalities in the child's health and also in the collection of data by health professionals.

In addition to guidance for family members, it is of pronounced importance to invest in the training of professionals who provide care services to children, which can generate a better quality of this service with professionals able to meet the demands at different levels of care, integrating care and education processes, even in the face of hospitalization.

Although there are studies that demonstrate a relationship between filling out the Handbook and the family member's understanding, the results of the dependency correlation evaluating the relationship between filling out the Child Health Handbook with parents who were instructed in this study were not statistically significant, taking into account the small sample of this research.

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