Non-attendance in maternal-child health services: an integrative literature review

Comportamento faltoso em serviços de saúde materno-infantil: revisão integrativa da literatura

ABSTRACT

Objective: to identify scientific evidence about the reasons for not attending appointments at maternal and child health services.

Method: integrative review conducted at the bases CINAHL, BDENF, Scopus, Web of Science, PubMed, EMBASE, Science Direct and VHL databases, without limitation of the year of publication, following the PRISMA tool. The population was defined as patients who missed scheduled appointments. Results: 308 studies were identified, 63 were selected for full reading and three for the final sample. The main reasons related to defaulting behavior involved socioeconomic conditions, geographic accessibility and users' understanding of the importance of health commitment, all situations that can favor an unfavorable outcome for the binomial. Conclusion: it was concluded that the scarcity of articles on the topic justifies further studies aimed at deepening the difficulties encountered by families, in order to devise strategies that help to minimize the harmful effects of lack of follow-up.

Descriptors: Maternal-Child Health Services; No-Show Patients; Secondary Care.

RESUMO

Objetivo: identificar evidências científicas acerca dos motivos de não comparecimento em consultas nos serviços de saúde materno-infantil. Método: revisão integrativa conduzida nas bases CINAHL, BDENF, Scopus, Web of Science, PubMed, EMBASE, Science Direct e BVS, sem limitação do ano de publicação, seguindo a ferramenta PRISMA. Definiu-se como população os pacientes faltosos nas consultas agendadas. Resultados: identificaram-se 308 estudos, destes selecionaram-se 63 para a leitura na íntegra e três para amostra final. Os principais motivos relacionados ao comportamento faltoso, envolveram condições socioeconômicas, acessibilidade geográfica e a compreensão dos usuários quanto à importância do comprometimento com a saúde, todas situações que podem favorecer um desfecho desfavorável ao binômio. Conclusão: concluiu-se que a escassez de artigos acerca do tema justifica a realização de novos estudos voltados ao aprofundamento acerca das dificuldades encontradas pelas famílias, a fim de traçar estratégias que auxiliem a minimizar os efeitos deletérios da falta de acompanhamento.

Descritores: Serviços de Saúde Materno-Infantil; Pacientes não Comparecem; Atenção Secundária à Saúde.

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Received: 08/17/2020. Approved: 03/31/2021. Published: 06/17/2021.
INTRODUCTION

Globally, nations are mobilizing to seek improvements in maternal-child health care and agreeing on actions and goals that can reduce mortality in this group\(^1\)\(^-\)\(^2\). To this end, maternal-child health services have emerged around the globe, leading to a series of programs aimed at meeting the demands of mother and child\(^3\)\(^-\)\(^8\).

Programs created in different countries range from family planning to childcare with the purpose of monitoring child growth and development. For such actions to run smoothly, nurses and other health professionals are mobilized in their units of action to serve the population in agreement with the current policies. However, the effectiveness of these services intrinsically depends on the active participation of mothers and infants, who need to attend appointments at health care centers\(^1\)\(^-\)\(^2\),\(^9\)\(^-\)\(^10\).

Failure to attend scheduled appointments at doctors’ offices has been shown to be a frequent behavior. A Brazilian study carried out in a specialty outpatient clinic revealed that the highest numbers of absenteeism, of up to 32%, come from high-risk users\(^1\)\(^1\). Failure to attend appointments causes major logistical problems within the service, as it generates gaps in scheduling, which wastes the labor already hired for the service. Absence without prior notice to the service provider also leads to the creation or increase of a waiting list of users who need a vacancy to enter the maternal-child health care system\(^1\)\(^1\)\(^-\)\(^2\),\(^9\)\(^-\)\(^11\).

Therefore, it is essential to consolidate access to fairer and scientifically grounded education and public health policies that allow the population to understand the role of maternal-child health services in society and, thus, encourage users to actively participate in programs aimed at reducing maternal-child mortality\(^1\)\(^4\).

Understanding the reasons for missed appointments in maternal-child health services can help these services create strategies to reduce biases that interfere with attendance, thus promoting adherence to follow-up and, consequently, reducing avoidable deaths and unfavorable outcomes\(^2\)\(^,\)\(^9\)\(^-\)\(^11\),\(^15\).

Considering that the knowledge of absenteeism of women and infants in health services is linked to public policy planning and the organization of health services, this study sought to identify the reasons for non-attendance in maternal and child health services. The results can contribute to the improvement of health promotion measures for the group and to the construction of scientific evidence that supports the management of the care provided by nurses.

In light of the above, the objective was to identify scientific evidence on the reasons for non-attendance in maternal-child health service appointments.

METHOD

This integrative literature review was conducted in six stages: identification of the problem with formulation of the guiding question, search in the literature according to the inclusion and exclusion criteria, data collection, critical analysis of all studies included in the research, discussion of the results and presentation of the integrative review\(^1\)\(^6\). The recommendations contained in the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) checklist were used to ensure the methodological quality of the study during the development of this manuscript\(^1\)\(^7\).

The acronym PICO (P: Population, I: Phenomenon of interest and Co: Context) aided in formulating the guiding question of this study\(^1\)\(^8\). The population of this research was defined as patients who did not attend appointments. The phenomenon of defined interest was the reasons for not attending. The context of analysis was represented by the maternal-child health services. This process led to the following guiding question: What are the reasons for non-attendance in maternal-child health services?

As an inclusion criterion, original research articles were chosen, with no established limits for publication date or languages, given the scarcity of studies on the topic of interest. All studies that did not respond to the objective of this study were excluded.

Data were collected in the first half of 2020, through the Portal de Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), through access by the federated academic community of the Universidade Estadual de Maringá. The sources of information included in this study were CINAHL, BDENF, Scopus, Web of Science, EMBASE, Science Direct, VHL and PubMed. To establish the exact descriptors needed to extract the articles, a search was carried out in Medical Subject Headings (MeSH) and Health Sciences Descriptors (DeCS), in addition to articles on the theme in search of keywords.

After pre-reading the articles on the theme, the following controlled descriptors were chosen: Maternal-Child Health Services/Serviços de Saúde Materno-Infantil and No-Show Patient/Pacientes não Comparecem, in addition to the uncontrolled descriptor Patient Non-Attendance/Não comparecimento do paciente. For each database, a search strategy with controlled and uncontrolled descriptors was developed with the help of a librarian, such that the established acronym PI Co was contemplated. Table 1 shows an example of the search strategy used in this study.

The database searches were independently carried out by two reviewers, seeking to include and exclude primary studies based on the previously established criteria.

After identifying the primary studies in the information bases, all articles were analyzed through reflection on the objective and pre-established eligibility and exclusion criteria.
Evidence from syntheses of cohort or case-control studies. Evidence obtained from meta-synthesis or study. Evidence from descriptive or qualitative studies. Evidence from expert opinion.

The articles selected for the final sample were denominated with the letter “A” for “article”, followed by an ordinal number. All articles that made up the final sample were analyzed by three reviewers to expand the discussion, reflect on the theme and assess the article according to the level of evidence\(^\text{[21]}\), as shown in Table 2.

<table>
<thead>
<tr>
<th>Database</th>
<th>Set of terms</th>
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<tr>
<td>CINAHL</td>
<td>(Maternal-Child Health Services OR Health Service, Maternal-Child OR Maternal Child Health Services OR Maternal-Child Health Service OR Service, Maternal-Child Health OR Services, Maternal-Child Health OR Health Services, Maternal Child OR Servicios de Salud Materno-Infantil) AND (No-Show Patients OR No Show Patients OR No-Show Patient OR Patient, No-Show OR Patients, No-Show OR Patient Non-Attendance OR Non-Attendance, Patient OR Patient Non Attendance OR Patient No-Show OR No-Show, Patient OR No-Show, Patient OR Patient No Show OR Pacientes não Comparecentes OR Pacientes Ausentes OR Pacientes Faltantes OR Pacientes que não Comparecem OR Pacientes no Presentados)</td>
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</table>

The articles selected for the final sample were denominated with the letter “A” for “article”, followed by an ordinal number. All articles that made up the final sample were analyzed by three reviewers to expand the discussion, reflect on the theme and assess the article according to the level of evidence\(^\text{[21]}\), as shown in Table 2.

<table>
<thead>
<tr>
<th>Levels of evidence</th>
<th>Description of levels of evidence.</th>
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<tbody>
<tr>
<td>I</td>
<td>Evidence from syntheses of cohort or case-control studies.</td>
</tr>
<tr>
<td>II</td>
<td>Evidence derived from a single cohort or case-control study.</td>
</tr>
<tr>
<td>III</td>
<td>Evidence obtained from meta-synthesis or synthesis of descriptive studies.</td>
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<tr>
<td>IV</td>
<td>Evidence from descriptive or qualitative studies.</td>
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<tr>
<td>V</td>
<td>Evidence from expert opinion.</td>
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</table>

Source: Developed based on the recommendation by Ribeiro et al\(^\text{[22]}\). Maringá, PR, 2020.

After reading and rigorous evaluation according to the criteria already mentioned, the articles were classified according to the five levels of evidence to analyze the methodological characteristics of the final sample.

Initially, 308 studies were identified and their titles and abstracts were carefully read. Of these, 63 were selected for full reading, three were excluded for analyzing only geographic information, 11 were excluded for describing only the factors associated with prenatal adherence and 46 were excluded for only describing health services without reporting the reasons for non-attendance.

After reading, four articles were selected; however, one was excluded for being a duplicate that was not initially identified due to the language difference. Therefore, the final sample was composed of three scientific articles. It should be noted that the references of the articles in the sample were read, but no other articles were found that answered the guiding question. To facilitate visualization of the methodological path and selection of studies, a flowchart was made based on the recommendations contained in PRISMA\(^\text{[17]}\), as shown in Figure 1.

**RESULTS**

The results of this review showed that all selected articles were published in international journals and in the English language. The locations in which the studies were conducted were India\(^\text{[22]}\), Australia\(^\text{[23]}\) and England\(^\text{[24]}\), that is, one in Asia, another in Oceania and another in Europe. As for the design of the studies found, two were qualitative and one presented a mixed methods approach.
Table 3 shows the characteristics of the articles selected for this review according to author, year of publication, source of information, research design and results associated with reasons for non-attendance in maternal-child health services.

**DISCUSSION**

In view of the findings of the conducted review, there was limited production on the central theme of the study and, therefore, limited production that focused on the established objective. Even without defining the data collection period, only three articles were identified that discussed issues related to non-attendance in health services. In order to better understand the findings and discuss them properly, they were divided into the following four categories: Access to health services and their impact on non-monitoring of infant health, Socioeconomic conditions and misconduct, Communication failures as an inherent factor in appointment absences, and Self-perceived health as a health strategy. These results are presented and discussed below.

**Access to health services and their impact on non-monitoring of infant health**

In the three articles discussed in the synoptic table, we found that geographic distance, time to travel to services and the need to travel to get care are factors that impact appointment absence for infant monitoring. Access to health services is defined as the user’s ability to use the service in search of a resolution to their problem. It is directly related to geographic location, the days on which the service is provided, the possibility of performing it outside of regular hours, in addition to not having a prior appointment. Accessibility, on the other hand, is related to health services adjusting their resources to the needs of the population in the

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**Source:** Adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analysis.

**Figure 1.** PRISMA flowchart of articles in the integrative literature review.
Table 3. Distribution of selected articles according to identification, authors, year of publication, place of research, database from which the articles were obtained, title of the manuscripts, design and main results found regarding non-attendance to maternal-child health service.

<table>
<thead>
<tr>
<th>ID</th>
<th>Year</th>
<th>Location</th>
<th>Source</th>
<th>Reference</th>
<th>Method</th>
<th>Reasons for non-attendance</th>
<th>NI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>2013</td>
<td>India</td>
<td>BVS</td>
<td>Mahapatro M. Equity in utilization of health care services: Perspective of pregnant women in southern Odisha, India. Indian J Med Res 2015, 142: 183-189.</td>
<td>Participatory and qualitative study carried out in an Indian village due to the high rates of infant and maternal mortality. The researcher performed site recognition with health professionals for the functional mapping of health service resources. Focus group sessions were held and 120 women were interviewed, as well as key informants and health professionals.</td>
<td>Financial conditions. Geographic accessibility. Lack of transportation. Family situations. Lack of awareness of the importance of caring for one's own health. Caste system (hindering access to information and health).</td>
<td>IV</td>
</tr>
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process of seeking and obtaining care. In fact, it results from a combination of several extrinsic and intrinsic factors that can facilitate or hinder the start and continuity of medical assistance\(^{(25)}\).

Furthermore, it is worth mentioning that, although the understanding of accessibility contemplates metric distance, the spatial distribution of resources has been considered a prominent element in access to health services\(^{(26)}\). Therefore, this factor is intrinsically related to social inequalities and, consequently, to socioeconomic conditions\(^{(26-27)}\), reflected in an absent population in terms of monitoring infant health.

Studies that aim to measure accessibility to services based on the demand of the health unit by the proportion of the population show that there is a disparity between what is recommended and what can be met, often due to the lack of service structure and even the local transport network. In many situations, residents have to travel long distances to obtain assistance in health services, which corroborates the non-attendance of routine appointments\(^{(28)}\).

The fact that users have to travel long distances to access health services in certain situations, often due to the difficulty of living near a specialized institution, compromises and will negatively impact pediatric care, which is essential for adequate growth and development\(^{(29)}\).

### Socioeconomic conditions and non-attendance

As another determining factor in non-attendance, in articles A1 and A2, we found that socioeconomic conditions can be identified as determining factors for missed appointments\(^{(26-27,30)}\). A study carried out in the United Kingdom showed that patients who fail to attend scheduled appointments are more likely to be socially disadvantaged, which corroborates with the findings in A1 and A2, where low socioeconomic status and financial conditions directly influenced the monitoring process\(^{(27)}\).

Alternate means of consultation, due to the lack of time availability, added to the little flexibility of work contracts and the excess of domestic tasks, which are frequently observed in low-income groups, were also considered as obstacles to attendance to health services\(^{(31)}\).

A study carried out with low-income mothers showed that infant health is directly related and dependent on the health of the family. Women with pre-existing chronic conditions, with less than 12 years of schooling, living in poverty and belonging to minority racial and/or ethnic groups are fatally affected, and consequently, so are their children\(^{(32)}\).

It is essential to show that population dynamics is one of the precursors of low involvement in care. Patients who do not receive adequate treatment, as they do not attend scheduled

<table>
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<th>Method</th>
<th>Reasons for non-attendance</th>
<th>NI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3</td>
<td>2017</td>
<td>England</td>
<td>Web of Science</td>
<td>French LRM, Turner KM, Morley H, Sharp DJ, Goldsworthy L, Hamilton-Shield J. Characteristics of children who do not attend their hospital appointments, and GPs’ response: a mixed methods study in primary and secondary care. British Journal of General Practice 2017; e483-89</td>
<td>A mixed method study in primary and secondary care services, in which the non-attendance label in medical records was analyzed and interviews with 10 non-attendants were conducted on the process that follows non-attendance; the perceived meaning of non-attendance in relation to the child’s health and safety; the effectiveness of communication between primary and secondary care in relation to non-attendance and individual responsibilities in relation to non-attendance.</td>
<td>Being born to a black family.</td>
<td>IV</td>
</tr>
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| | | | | | | Having protective alert measures in hospital notes. | | |
| | | | | | | Lack of communication between primary and secondary care. | | |
| | | | | | | Receiving precarious care at home, confirmed by the health team. | | |

Table 3. Continuation.
appointments, are more likely to later require emergency services, thus leading to a significant burden on public health\textsuperscript{(26)}.

The non-attendance of users to scheduled appointments has clear financial implications for the health care system. It is, therefore, necessary to understand the importance of developing effective interventions that increase the engagement of patients or guardians, in the case of children and adolescents, with their own care\textsuperscript{(26)}.

Communication failures as an inherent factor in missed appointments

The non-notification of missed appointments is also a constant within services. Missed appointments are rarely noted in patients’ clinical records\textsuperscript{(24)}. This makes it difficult to monitor users and impossible to actively search for absentees, which can result in severe consequences to patient health, especially in the case of children\textsuperscript{(30)}.

Ineffective communication within services, between referral and counter-referral institutions, between professionals who provide care and also among users themselves widens the gap between care services and families, leading to the inadequate monitoring of infants, lack of necessary support and information to families and the health service’s loss of control of its own users\textsuperscript{(35)}.

Home visits by professionals who work directly in this care can minimize problems related to the lack of accessibility and time availability. In addition to carrying out the necessary monitoring, the health professional can get to know the family environment, identify weaknesses and potentialities that permeate the process and strengthen connections between the health team and family members\textsuperscript{(33)}.

Within the pediatric scenario, monitoring in the first years of life becomes extremely important since evidence shows that negative experiences at the beginning of life, such as not attending scheduled appointments, produce several repercussions on the individual’s health over time\textsuperscript{(34)}.

The active search for non-attending patients, especially high-risk infants, helps in the early identification of changes and difficulties experienced by family members, in addition to setting goals to ensure that monitoring becomes a constant in the infant’s life\textsuperscript{(35)}.

Although chronic health conditions are a cause for alarm when it comes to missed appointments\textsuperscript{(31)}, studies show that, regardless of morbidities, all those who miss appointments are more likely to have complex health problems and to be highly frequent users of emergency care\textsuperscript{(34)}.

Self-perceived health as a strategy for change

Ignorance of the risk factors and the importance of taking care of their own health and that of their child can generate feelings of insecurity for family members, as motherhood and child monitoring may have been idealized differently than the reality they have experienced. When faced with a different scenario, family caregivers, especially mothers, begin to experience feelings of frustration and fear, and it is then up to the health team to assist in providing basic family care guidelines, thus contributing to the development of autonomy and safety for babies and infants\textsuperscript{(33)}.

One way of minimizing the effects or transforming the reality of absentees would be to identify missed appointments as sentinel events, aiming at identifying the behavior of the non-attending population and readjusting the structure of health care services, which would provide insight into the needs of each patient and, thus, help prevent health problems and reduce subsequent hospital costs\textsuperscript{(34)}.

Monitoring and surveillance of infant growth and development are extremely important childcare strategies. Adequate and validated screening in accordance with local realities can minimize situations of risk and damage to the child’s health, in addition to helping detect possible changes that may happen during early childhood\textsuperscript{(39)}.

A study carried out in Brazil confirms that the main causes that hinder child health monitoring in the first years of life are the lack of mothers’ adherence to childcare appointments; the large number of areas uncovered by community health workers, which sometimes impairs an active search; the inadequate record of absences and missed appointments in the electronic medical record; and the fluctuations of families in the territory\textsuperscript{(31)}.

It is necessary to understand the reasons behind missed appointments, the related risks and the individual needs of each patient in order to readjust care and avoid future implications for quality of life\textsuperscript{(35)}.

The scarcity of articles covering the topic is a limitation, even though all the studies found were included, regardless of whether they are open access or restricted.

CONCLUSION

The study allowed the identification of several factors that influence the failure to attend maternal-child health service appointments, such as financial problems, low socioeconomic status, lack of transportation, difficulties in accessibility and lack of knowledge on the importance of health care.

Social issues were also identified, thus indicating a population that is more vulnerable to abandoning treatment or health monitoring and that should be considered a priority by health professionals. Home visits and health education activities, in addition to the joint monitoring of the social welfare service and referral and counter-referral service between the primary, secondary and tertiary sectors, can bridge the gap found in the study results and, thus, reduce
unfavorable outcomes resulting from the lack of maternal and child monitoring and follow-up.

The study offers contributions to the practice of nursing, mainly in the scope of primary and secondary care by providing insight into the reality that permeates absentees. In addition, the study's findings corroborate the need to conduct new research on the subject, especially with professionals who work directly in the area, in particular nurses, since as team leaders they have the tools and knowledge required for care management and consequent improvement of maternal and child care.

REFERENCES