Maternal death related to poor/non-assistance of prenatal care

Muerte materna relacionada a mala/no atención al prenatal

Morte materna relacionada a má/não assistência ao pré-natal

ABSTRACT

Introduction: Maternal death remains a health issue in many regions of the world, especially in the least developed regions. In 2015, the global maternal death rate was estimated to be 216 per 100,000 live births (LB), with variations ranging from 542 per 100,000 LB in Africa to 16 per 100,000 LB in Europe. Objective: to investigate in the scientific literature maternal death related to poor/non-prenatal care. Method: This is a bibliographic study, type integrative review. The search for articles was carried out; with timeless delimitation; in Portuguese, English and Spanish; available in full. On the following data platforms: BDENF, LILACS, MEDLINE/BVS, SciELO and Science Direct. The data were organized and presented in figures and tables. Results: Of the 1563 studies found, 14 were available at BDENF, 60 at LILACS, 909 at MEDLINE/BVS, 0 at SciELO and 16561 at Science direct; however, after reading, only those who met the inclusion and exclusion criteria described in the methodology remained, totaling 4 studies. After reading the selected studies, the articles were categorized into thematic clippings, classifying the knowledge produced on the topic. Conclusion: The developed integrative review made it possible to detect the impacts of poor / non-prenatal care on maternal death, and its importance for the quality of care provided to the patient.
DESCRIPTORS: Maternal Death, Prenatal Care, Delivery of Health Care.

RESUMEN

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RESUMO

Introdução: A morte materna continua sendo uma problemática de saúde em inúmeras regiões do mundo, especialmente nas menos desenvolvidas. No ano de 2015, estimou-se que a razão de morte materna global foi de 216 por 100 mil nascidos vivos (NV), ocorrendo variações como de 542 por 100 mil NV na África a 16 por 100 mil NV na Europa. Objetivo: averiguar na literatura cientifica a morte materna relacionada a má/não assistência ao pré-natal. Método: Trata-se de um estudo bibliográfico, tipo revisão integrativa. Realizou-se a busca por artigos; com delimitação atemporal; nos idiomas português, inglês e espanhol; disponíveis na íntegra. Nas seguintes plataformas de dados: BDENF, LILACS, MEDLINE/BVS, SciELO e Science direct. Os dados foram organizados e apresentados em figuras e tabelas. Resultados: Dos 1563 estudos encontrados, 14 estava disponível na BDENF, 60 na LILACS, 909 na MEDLINE/BVS, 0 na SciELO e 16561 na Science direct; contudo, após a leitura permaneceram apenas os que atendiam aos critérios para inclusão e exclusão descritos na metodologia, totalizando 4 estudos. Após a leitura dos estudos selecionados, os artigos foram categorizados em recortes temáticos, classificando o conhecimento produzido acerca do tema. Conclusão: A revisão integrativa elaborada possibilitou detectar os impactos da má/não assistência ao pré-natal na morte materna, e sua importância pra qualidade de atendimento prestado ao paciente.
DESCRITORES: Morte materna, Cuidado Pré-natal, Assistência em saúde.

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Carvalho Silva, A.C.; Santos, F.M.S.; Gaudêncio, J.F.F.S.; Honorio, M.L.T.; Rodrigues da Silva, L.S.;
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Ana Carolina de Carvalho Silva
Nurse (graduated) Faculty of Escada (FAESC). Escada, Pernambuco (PE), Brazil.
ORCID: 0000-0003-0076-6412

Fabiana Maria Sena Santos
Nurse (graduated) Faculty of Escada (FAESC). Escada, Pernambuco (PE), Brazil.
ORCID: 0000-0002-7384-9852

Jessica Fernanda Freire da Silva Gaudêncio
Nurse (graduated) University Center Maurício de Nassau (UNINASSAU). Recife, Pernambuco (PE), Brazil.
ORCID: 0000-0003-3542-4658

Maria Luciane Torres Honorio
Nurse (graduated) Faculty of Escada (FAESC). Escada, Pernambuco (PE), Brazil.
ORCID: 0000-0003-2110-0361

Liniker Scolfild Rodrigues da Silva
Sanitarian in residence modality by the Faculty of Medical Sciences (FCM) / University of Pernambuco (UPE). Specialist in Nursing Obstetrician in the residency modality by the Faculty of Nursing Nossa Senhora das Graças (FENSG) / UPE. Recife, Pernambuco (PE), Brazil.
ORCID: 0000-0003-3710-851X

INTRODUCTION

Maternal mortality, defined as death during pregnancy or within 42 days after the end of pregnancy, is a global public health problem. This is an important indicator for analyzing women's health, economic development and social inequalities in a population. Maternal death remains a health issue in many regions of the world, especially in the least developed regions. In 2015, it was estimated that the global maternal death rate was 216 per 100 thousand live births (LB), with variations ranging from 542 per 100 thousand LB in Africa to 16 per 100 thousand LB in Europe. [1, 2]

In Brazil, the reduction of maternal mortality is still seen with difficulty for health services and for society in general. The high rates identified characterize a major public health problem, affecting Brazilian regions in different ways, prevailing among women from the least favored social classes. It is also characterized as a serious violation of the human rights of women, since it is a preventable tragedy in 92% of cases and occurs largely in developing countries. [3]

Maternal and neonatal deaths occur mostly during the woman's hospitalization for childbirth and birth; around 15% of deaths are due to unsafe abortion; 51% of neonatal deaths occur in the first week of life and are mostly related to problems arising from childbirth; about 70% of women's deaths occur from direct obstetric causes. [4]

In underdeveloped countries, the main causes of maternal death are postpartum hemorrhages, hypertensive disorders, sepsis, obstructed births and complications related to unsafe abortion. One of the biggest challenges for policy development guidelines aimed at reducing maternal mortality is its real magnitude, masked by high levels of underreporting of deaths and/or underreporting of causes of death, especially in developing countries, where also happen about three quarters of all births on the planet. [5]

Therefore, this study aims to investigate in the scientific literature maternal death related to poor/non-assistance of prenatal care.

METHOD

It is an integrative review carried out with the following steps: elaboration of the guiding question and objective of the study; definition of inclusion and exclusion criteria for scientific productions; search for scientific studies in databases and virtual libraries; analysis and categorization of the productions found; results and discussion of the findings. [6]

To survey the guiding question, the PICo strategy was used (P: Maternal Death Index; I: Prenatal care; Co: Quality care). Thus, the following guiding question was defined [7] of the research: "What are the impacts of poor/non-assistance of prenatal care on maternal death?".

For the selection of articles, the following inclusion criteria were used: to be an original article, available in its entirety, with a timeless delimitation, published in Portuguese, English or Spanish, which would respond to the objective of the study and allow access through the Virtual Private Network (VPN) of the University of São Paulo (USP). Gray literatures, as well as repeated publications of studies in more than one database, articles that did not answer the guiding question of the study were excluded. Timeless study is justified because the female population has always suffered from the lack or deficiency of prenatal care.

Data collection took place during the month of January and until February 14th, 2021 in the following databases: Nursing database (BDENF); Latin American and Caribbean Literature on Health

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Sciences (LILACS); Medical Literature Analysis and Retrieval System Online via Virtual Health Library (MEDLINE/VHL), Science Direct and the Scientific Electronic Library Online (SciELO) virtual library.

Articles indexed from the Health Sciences Descriptors (DeCS) were searched: "Morte Materna", "Cuidado Pré-natal", "Assistência em Saúde" The respective terms from the Medical Subject Headings (MeSH) were used: "Maternal Death", "Prenatal Care", "Delivery of Health Care". The operationalization and the search strategy took place from the combination with the Boolean operator AND and OR, carrying out the search jointly and individually so that possible differences were corrected (Chart 1).

The selection of studies was based on the Preferred Reporting Items for Systematic Review and Meta-Analyze (PRISMA) [8], in order to assist in the development of articles. At first, duplicate studies were eliminated by reading titles and abstracts. Of these pre-selected, full reading was carried out, in order to verify those that meet the guiding question and the inclusion/exclusion criteria. The final sample was then constructed with studies relevant to the pre-established criteria (Figure 1).

After reading the selected articles, the studies were categorized, classifying the knowledge produced in levels of evidence according to Melnyk and Fineout-Overholt [9]: Level I - Systematic review, meta-analysis or clinical guidelines arising from systematic reviews of randomized controlled trials; Level II - Randomized controlled clinical trial; Level III - Well-designed clinical trials without randomization; Level IV - Well-designed cohort and case-control study; Level V - Systematic review of descriptive and qualitative studies; Level VI - Descriptive or qualitative study; and finally, Level VI - Opinion of authorities and/or expert committee opinion.

The corpus information was summarized using an instrument: identification of the original article; authorship of the article; year of publication; parents; methodological characteristics of the study; and study sample. The data were analyzed using the software Interface de R pour les Multidimensional Analyzes de Textes et de Questionnaires (IRAMUTEQ), version 7.0, which made it possible to analyze the Descending Hierarchical Classification (DHC).

Aiming at a better understanding and visualization of the main findings, the data were organized, presenting them in figures and tables, exposed in a descriptive way.

RESULTS

In table 1, the studies surveyed are displayed showing their titles, authors, years of publication, design, location and language. Where it can be seen that most studies were national (n=3), two published in Portuguese and one in English, in the last 2 years (n=3), and one article was international and published in English.

After reading the selected articles, the studies were categorized, classifying the knowledge produced on the theme, in levels of evidence, mostly Level IV - Well-designed cohort and case-control study. The main findings set out in the objectives and conclusions are directly associated with health services, especially those that provide prenatal care, as shown in table 2.

DISCUSSION

Prenatal care is essential for successful pregnancy, childbirth and postpartum. Patients need good monitoring, where their well-being and that of their baby are assessed, as well as food, weight control

Chart 1. Database search strategy, Recife, Pernambuco (PE), Brazil, 2021.

DATABASES	SEARCH TERMS	RESULTS
BDENF LILACS MEDLINE/BVS	Maternal death AND Prenatal Care AND Delivery of Health care	14 60 909
Science Direct SciELO	Maternal death AND Prenatal Care OR Delivery of Health care	16.561 0
Total		17544

Source: Own elaboration.

Figure 1: Flowchart of the selection process for primary studies adapted from PRISMA, Recife, Pernambuco (PE), Brazil, 2021.

Identification
Publications identified in the databases (n = 17.544)
BDENF – 14; LILACS – 60; MEDLINE/BVS – 90; Science Direct – 16561; SciELO – 0

Excluded for being duplicated (n = 16.500)

Selection
Tracked and eligible publications (n = 1.044)

Excluded after reading titles and abstracts (n = 744)

Elegibility
Primary studies eligible for evaluation (n = 300)

Excluded for not answering the research question (n = 296)

Inclusion
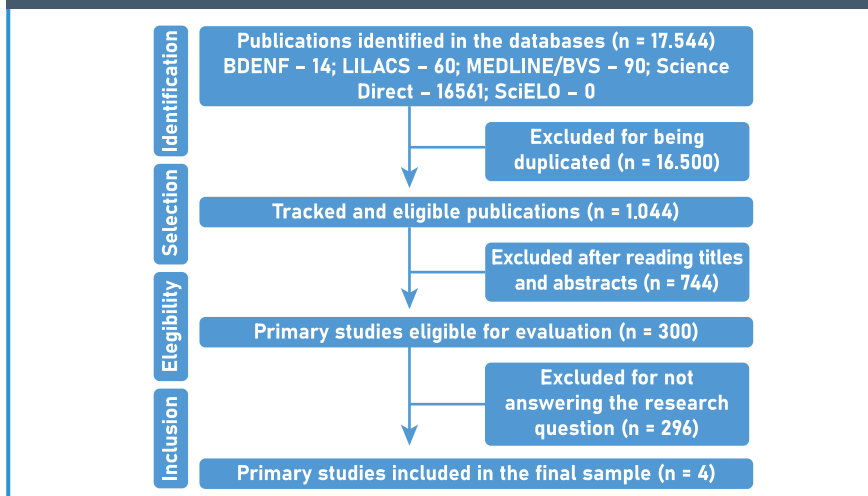Primary studies included in the final sample (n = 4)

Table 1: Results found in studies according to title, database, authors, year of publication, design, location and language. Recife, Pernambuco (PE), Brazil, 2021.

	TITLE/DATABASE	AUTHOR/YEAR	OUTLINE	LOCATION/LANGUAGE
1	Delays in obstetric care increase the risk of near-accident events of neonatal morbidity and death: a case-control study. / MEDLINE/VHL	Carvalho OMC, et al. (2020) [10]	Case control study	Brazil / English
2	Sociodemographic and care profile of maternal death in Recife, 2006-2017: a descriptive study. /LILACS	Carvalho PI, et al. (2020) [11]	Qualitative study	Brazil / Portuguese
3	Epidemiological research on maternal deaths and the achievement of the fifth millennium development goal. / BDENF	Fernandes BB, et al. (2015) [12]	Epidemiological, retrospective and cross-sectional study	Brazil / Portuguese
4	The Association of Inadequate and Intensive Prenatal Care with Maternal, Fetal and Infant Outcomes: A Population--Based Study in Manitoba, Canada/Science Direct	Heaman MI, et al. (2019) [13]	Retrospective cohort study	Canada /English

Source: Own elaboration.

Table 2: Main results obtained in the studies according to the levels of evidence, objectives and conclusions. Recife, Pernambuco (PE), Brazil, 2021.

	LEVEL OF EVIDENCE	OBJECTIVE	CONCLUSION
1	IV	To evaluate the association between delays in obstetric care and events of near-neonatal mortali-ty and death in a public reference maternity hospi-tal.	The delays in obstetric care associated with the presence of near miss and/or neonatal death included the absence or inadequacy of prenatal care, delayed access to health ser-vices due to lack of specialized services and inappropriate conduct with the patient.
2	VI	Describe sociodemographic and care characte-ris-tics of women who died of maternal causes in Recife, Pernambuco, Brazil.	The deaths occurred mainly in the puerperium and in black women; care failures were frequent; better sur-veillance and monitoring of health services is needed in the pregnancy-puerperal period, in Recife.
3	IV	Identify and describe the epidemiological cha-rac-teristics of maternal deaths that occurred between 2000 and 2012 in a referral hospital in the state of São Paulo, in order to contribute to the analysis of the fulfillment of the fifth Millennium Development Goal..	There is a need for investment in obstetric care to opti-mize the reduction of complications during pregnancy and the puerperal period, influencing the reduction of maternal mor-tality.
4	IV	Examine the association between the use of pre-natal care and maternal, fetal and infant outcomes in Manitoba.	Ensuring that women receive adequate antenatal care can improve pregnancy outcomes.

Source: Own elaboration.

and blood pressure. Quality prenatal care is the key to reducing maternal mortality in our country. Also, delivery should take place in a safe environment and performed by a trained team, always looking for the best for both the mother and her baby, so that she can have all the necessary support in cases of abnormalities. [14]

Some studies have observed that the majority of women undergo prenatal care in Family Health units and some of them are referred for high-risk prenatal care, however, they are not attended. Municipalities with high coverage in Primary Health Care provide prenatal care near the residence, even though home visits by health agents and blood pressure measurements were not observed in all women. Problems like these, in prenatal care, hinder early diagnosis and increase the chance of complications in pregnancy and childbirth to go unnoticed. National survey on childbirth and birth in Brazil found that, when referred to high-risk prenatal care, 11,5% of women found it difficult to provide care. [11, 15]

Most maternal deaths are preventable, as health care solutions exist to prevent or manage complications. It is the right of every woman to access prenatal care during pregnancy, skilled care throughout childbirth and care and support in the weeks after delivery. It is a fact that maternal

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and newborn health are closely linked. In 2015, it is estimated that approximately 2,7 million newborns died and another 2,6 million stillborn. It is of utmost importance that all births are attended by qualified health professionals, since proper treatment can make the difference between the life and death of the mother and the baby. [16]

A limitation for the study was the sample size and the availability of scientific articles to compare the results. Making it necessary to carry out more studies with a larger sample and allowing discussion about the implications related to the impacts of poor/non-assistance of prenatal care on maternal death.

CONCLUSION

The integrated integrative review made it possible to detect the impacts of poor/non-assistance of prenatal care on maternal death, and its importance for the quality of care provided to the patient. However, there is a scarcity of studies that give real importance to the implementation of quality prenatal care in health services, essential in prevention, health promotion, and permanent education.

Regarding the implications of this study for care practice, the results obtained instigate reflection and discussions as a relevant contribution of scientific knowledge in the field of health and nursing, for the management of the quality of patient care. ■

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