

Challenges of motherhood in the academic period: integrative review**Desafios da maternidade no período acadêmico: revisão integrativa****Desafíos de la maternidad en el periodo académico: revisión integradora**

 Jennefer Luana dos Santos Costa¹,  Marilene Loewen Wall²,  Tatiane Taiz da Paixão³
 Marcus Vinicius da Rocha Santos da Silva³

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Objective: to identify studies about the challenges of motherhood in the academic period.

Methods: integrative review, without time limits, in the Virtual Health Library, PubMed and Scientific Electronic Library Online databases, between February and March 2022. **Results:** six articles were selected that identified the challenges of motherhood in the academic period. Among the main units of meaning, the following stand out: lack of support from family and university, breastfeeding difficulties, economic difficulties and changes in the student's physical and emotional health. **Conclusion:** the studies showed that mothers in university face numerous challenges, and support from family members and universities is essential so that they can continue their studies.

Descriptors: Women; Students; Universities.

Objetivo: identificar as produções acerca dos desafios da maternidade no período acadêmico.

Método: revisão integrativa, sem delimitação de tempo, nas bases de dados Biblioteca Virtual de Saúde, PubMed e Scientific Eletronic Library Online, entre fevereiro e março de 2022.

Resultados: foram selecionados seis artigos que identificaram os desafios da maternidade no período acadêmico. Dentre as principais unidades de sentido destacam-se: falta de apoio da família e universidade, dificuldades para amamentação, dificuldades econômicas e alteração na saúde física e emocional da estudante. **Conclusão:** os estudos evidenciaram que as mães universitárias enfrentam inúmeros desafios, sendo imprescindível o apoio dos familiares e das universidades para que elas possam dar continuidade aos estudos.

Descritores: Mulheres; Estudantes; Universidade.

Objetivo: identificar las producciones sobre los desafíos de la maternidad en el período académico. **Método:** revisión integradora, sin delimitación de tiempo, en las bases de datos Biblioteca Virtual de Saúde, PubMed y Scientific Electronic Library Online, entre febrero y marzo de 2022. **Resultados:** fueron seleccionados seis artículos que identificaron los desafíos de la maternidad en el período académico. Entre las principales unidades de sentido destacan: falta de apoyo familiar y universitario, dificultades en la lactancia, dificultades económicas y cambios en la salud física y emocional de la estudiante. **Conclusión:** los estudios evidencian que las madres universitarias se enfrentan a numerosos desafíos, siendo imprescindible el apoyo de la familia y de la universidad para que puedan dar continuidad a los estudios.

Descriptores: Mujeres; Estudiantes; Universidades.

Corresponding Author: Tatiane Taiz da Paixão – tatiane-taiz@hotmail.com

1. Student in Nursing at the Universidade Federal do Paraná (UFPR), Curitiba/PR, Brazil.

2. Undergraduate Nursing Course at UFPR, Curitiba/PR, Brazil.

3. Graduate Program in Nursing at UFPR, Curitiba/PR, Brazil.

INTRODUCTION

Nowadays, women have free access to education, specifically higher education. However, for this to become a reality, an intense struggle was necessary to guarantee these rights, and it is important to emphasize the right to education. In this regard, it should be noted that access to education makes it possible for men and women to play their roles in society equally¹.

Faced with the expansion of the number of women in the university, the existence of the phenomenon of being a mother in university is identified. According to data from the Brazilian Institute of Geography and Statistics (IBGE), in 2010, 12.5% of women had completed higher education. In 2016, 8.81% of women were studying higher education and had children².

Motherhood is not only a biological event, but also a phenomenon of the cultural, social and affective context, being a complex experience in women's lives. Students who become mothers along their academic path experience several challenges in reconciling these two roles³, such as: physical and emotional exhaustion, not having a family support network that helps in caring for the child, and not having a university support network. Faced with these difficulties, their permanence in graduation is compromised⁴.

In the midst of so many changes that university mothers face with motherhood, family support is important for the student to remain in higher education. Another aspect that must be taken into account is the support of the university, which could make daycare centers available on the university *campus*, which would help to minimize, to a large extent, the problems faced by these mothers, as they have no one to leave their babies with while attending classes⁵. In this sense, this study aims to identify productions about the challenges of motherhood in the academic period.

METHODS

This is an integrative review, which allows the synthesis of multiple published studies, and enables general conclusions regarding a particular area of study. In itself, it provides the synthesis of knowledge and the incorporation of the applicability of results from significant studies in practice⁶.

The integrative review is composed by six steps. The first step consists of identifying the following guiding question: *What are the challenges of motherhood in the academic period?* To help in the elaboration of the question, the PICO strategy was used, in which P = population/university student, I=phenomenon of interest/maternity, Co = context/University⁷.

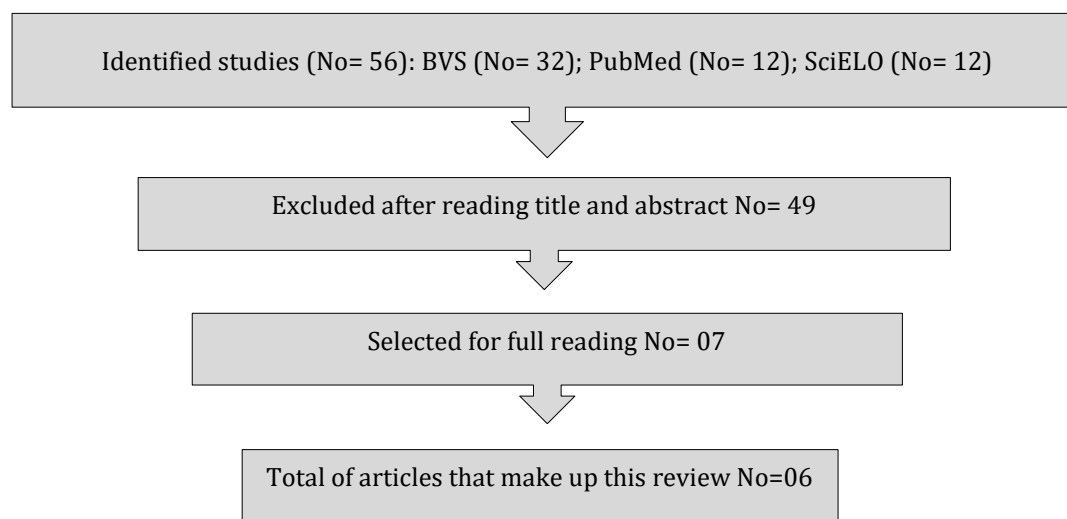
In the second stage, the criteria for study inclusion and exclusion were instituted. Inclusion criteria were: original articles, fully available online, with free access, in English, Spanish or Portuguese. No clipping was used for the selection of studies, as the theme is scarce. In view of this, it was decided to explore all available publications that met the research proposal. As exclusion criteria: review articles, opinion articles, theses, abstracts, dissertations and monographs.

The searches were carried out in the following databases: Virtual Health Library (VHL), PubMed and Scientific Electronic Library Online (SciELO), between February and March 2022. To prepare the searches, an initial consultation was carried out to Science Descriptors (DeCS) and Medical Subject Headings (MeSH) terms, forming the search keys, according to Chart 1, which used some descriptors and keywords relevant to the theme.

Chart 1. Database search strategy. Curitiba, PR, Brasil, 2022.

Databases	Search strategy
VHL	("estudiante-universitaria" OR "university-student" OR "maes-universitarias" OR "university-mothers" OR "madres-universitarias") AND ("maternidade" OR "maternity" OR "maternidad" OR "maes" OR "mother" OR "madre") AND ("universidades" OR "faculdades" OR "universidade" OR "universities" OR "university" OR "universidades" OR "facultades" OR "educacao superior" OR "ensino superior" OR "education, higher" OR "higher education" OR "instituicoes de ensino superior" OR "instituciones de ensenanza superior" OR "graduacao" OR "graduated" OR "graduacion")
PubMed	("University-student" OR "University-mothers" OR "Mother") AND ("Maternity") AND ("Pregnant Women" OR "Pregnant Woman") AND ("University" OR "Education, Higher" OR "Higher Education" Graduated")
SciELO	("Estudiante-universitaria" OR "University-student" OR "Estudiante universitaria" OR "Maes-universitarias" OR "University-mothers" OR "Madres-universitarias" OR "Maes" OR "Mother" OR "Madre") AND ("Maternidade" OR "Maternity" OR "Maternidad") AND ("Gestantes" OR "Gravidas" OR "Mulher Grávida" OR "Mulheres Gravidas" OR "Parturiente" OR "Parturientes" OR "Pregnant Women" OR "Pregnant Woman" OR "Mujeres Embarazadas" OR "Embarazadas" OR "Mujer Embarazada") AND ("Universidades" OR "Faculdades" OR "Universidade" OR "Universities" OR "University" OR "Universidades" OR "Facultades" OR "Educacao Superior" OR "Ensino Superior" OR "Education, Higher" OR "Higher Education" OR "Instituicoes de Ensino Superior" OR "Instituciones de Ensenanza Superior" OR "Graduacao" OR "Graduated" OR "Graduacion")

When applying the inclusion criteria, 56 studies were identified, from which the title and abstract were read. Then, duplicate studies and those that did not meet the objectives were excluded. Seven articles were included for analysis in full, of which one was excluded for not responding directly to the purpose of this investigation, as detailed in Figure 1.

Figure 1. Details of the steps for selecting articles. Curitiba, PR, Brasil, 2022.

In the third stage, the information to be extracted from the studies was defined. The extracted data were transcribed into an instrument constructed to meet the study's purpose, containing: title, author and year of publication, country, type of study, participants and main results. After the organization, in the fourth stage, the evaluation of the studies included in the integrative review was carried out. In the fifth and sixth stages, the discussion of the main results and the presentation of the knowledge review were carried out.

RESULTS

Six studies were included for the review, which were published in international and Brazilian journals. Regarding the year of publication, they varied between the years 2012 and 2019, with a greater number in the years 2012 and 2017. Regarding the methodological design of the studies, all were qualitative, in terms of origin, three were Brazilian and three were from other countries. The studies are presented in Chart 2.

Chart 2. Production about motherhood and integrative academic life. Curitiba, PR, Brasil, 2022.

Title	Author/Year	Country	Type of study/ Participants	Main results
Experiences of international students on gestation away from their country of origin	Melo, Francisca Mayra de Souza <i>et al.</i> 2018	Brazil	Qualitative Research / 11 international undergraduate students	<ul style="list-style-type: none"> - Lack of university support during graduation; - Lack of family support during graduation; - Economic difficulties.
The university young single mothers: support in the care of children	Mata, Rosa Maria Huerta. 2019	Mexico	Qualitative Research / 8 undergraduate students	<ul style="list-style-type: none"> - Lack of family support during graduation; - Lack of university support during graduation; - Economic difficulties.
Experience of mothers in agreement between breastfeeding and university studies	Soares, Lorena Sousa <i>et al.</i> 2017	Brazil	Qualitative Research / 8 undergraduate students	<ul style="list-style-type: none"> - Challenges to breastfeeding in the academic environment; - Lack of family support during breastfeeding; - Lack of university support for breastfeeding.
An exploratory thematic analysis of the breastfeeding experience of students at a Canadian university	West, Jenna Mackenzie <i>et al.</i> 2017	Canada	Qualitative Research / 8 undergraduate students who breastfed	<ul style="list-style-type: none"> - Challenges to breastfeeding in the academic environment. - Lack of university support during breastfeeding; - Change in the student's emotional health during graduation.
Quality of life of teenage mothers, university students	Aponte, María R. Estupiñán <i>et al.</i> 2012	Colombia	Qualitative Research / 34 undergraduate students	<ul style="list-style-type: none"> - Lack of family support during graduation; - Economic difficulties; - Lack of university support during graduation; - Change in the student's physical and emotional health during graduation.
Motherhood, work and academic, dealing with the need to leave their children	Menezes, Rafael de Souza <i>et al.</i> 2012	Brazil	Qualitative Research / 20 undergraduate students	<ul style="list-style-type: none"> - Economic difficulties; - Lack of university support during graduation; - Change in the student's emotional health during graduation.

DISCUSSION

After reading and analyzing the selected studies, it was possible to highlight the impacts of motherhood during the academic period, highlighting: lack of support from family and university, breastfeeding difficulties, economic difficulties, changes in the student's physical and emotional health⁸⁻¹³.

When analyzing the studies, it is clear that it is extremely important for university mothers to have access to a family support network^{8-10,12}. The lack of this directly impacts and determines the impossibility of university students to continue their academic activities, and not being able to reconcile motherhood and academic life¹⁴.

The family is the biggest support network for the care of children during graduation, as analyzed in the studies surveyed. This care can be carried out by their mothers, grandmothers, siblings, relatives, neighbors, friends and professors, in addition to the child's father. There is a diversity of figures in care, although in most cases this care is carried out by women.

The care for the children, in the vast majority, is centered exclusively on the mother. Two studies⁸⁻⁹ addressed the importance of sharing motherhood with the father, so that this mother can live more equally, especially when both are not married, which will consequently help the woman to continue in academic life.

The family support network for the care of the children of undergraduates allows them not to give up or postpone their insertion in the university. Although this support network does not exist to assist in the care of their children, which makes it very difficult for them to keep their education. Some women are financially able to enroll their children in day care centers or hire care professionals, while women who do not have these financial conditions end up dropping out.

Reconciling motherhood and academic life is an arduous task¹⁵. In this regard, research developed with the aim of identifying how university women deal with motherhood and career building during the graduation phase revealed that some university mothers consider giving up higher education due to the absence of a family support network and/or institutional¹⁶.

Corroborating this understanding, the investigation carried out in the city of João Pessoa, in the state of Paraíba, Brazil, showed that the support of the social support network, which includes family, friends, teachers and religion, proved to be essential for the permanence of mothers who were in university².

In addition to the lack of support to take care of the children during the school period, university mothers face financial difficulties, which makes academic life more challenging^{8-9,12-13}. Young mothers who do not have financial support from their families are obliged to look for some kind of work to guarantee the minimum maintenance of their needs. In addition, they use strategies at the institutional level, such as obtaining scholarships within the university.

Motherhood, work and training constitute a common dynamic nowadays, but this dynamic, mainly related to financial issues, brings an overload to these students, becoming a major obstacle to their academic development¹⁴.

Two articles¹⁰⁻¹¹ cite the difficulty in breastfeeding after returning to academic activities as another challenge faced by university students. Breastfeeding becomes difficult because universities do not have strategies with adequate times and places to provide breastfeeding or milk extraction on *campus*.

Some strategies are created by these mothers to try to maintain breastfeeding, such as: manual extraction, introduction of industrialized milk, insertion of complementary foods, strategies that, when properly employed, contribute to the maintenance of breast milk. Family support, mainly from the child's father, was also pointed out as a strategy that contributes to the maintenance of breastfeeding.

Despite adopting these strategies, many mothers reported that they were forced to stop exclusively breastfeeding due to the barriers they faced. Working mothers claimed that work and studies were the main reasons for difficulty in breastfeeding, which is consequently associated with early weaning.

Faced with the difficulties encountered by these mothers during graduation, all studies pointed to a lack of support from the university⁸⁻¹³. This lack of support was perceived by the mothers, who felt helpless in their search for a place and for professionals with whom they could leave their children. The allegation is that the existence of a day care center in the academic environment would help with the care that the children need.

Other studies¹⁰⁻¹¹ show that the lack of an adequate environment for breastfeeding within universities leads students to perform breastfeeding and breast milking in inappropriate places, such as university bathrooms. Most mothers agreed that, if there were breastfeeding support rooms in the academic environment, it would help in the continuity of breastfeeding and avoid early weaning.

In this regard, it is pointed out that the existence of day care centers or early childhood education units within higher education institutions can represent relevant support for a better compatibility between motherhood and academic life¹⁷.

Furthermore, an investigation carried out at the Universidade Federal do Amazonas showed that the difficulties faced in reconciling the role of mother and student can lead to missing classes, leaves of absence and even the possibility of dropping out of studies altogether¹⁸.

In three studies¹¹⁻¹³, it was observed that, after the student becomes a mother, her physical and emotional health may change. Some physical alterations evidenced were: hypoglycemia, anemia, gastritis, uterine infections, low immunity, headache and weight loss.

Given the many activities that these mothers develop, it is common for them to have difficulties eating and sleeping, which ends up harming their health.

In terms of emotional health, these mothers experience stress caused by their hectic routine, fear and guilt due to the absence and distance of their children, which they experience in order to study and work. Feelings of isolation and vulnerability were also reported by mothers who were forced to stop breastfeeding prematurely because they did not find suitable conditions for breastfeeding during graduation.

Regarding this theme, it is reiterated that pregnancy encompasses changes of a biological, psychological and social nature. This situation points to the need for these women to receive support from their family, friends, health professionals and higher education institutions, in order to reconcile motherhood and academic life effectively¹⁹.

CONCLUSION

The findings of this investigation show that women who are mothers and attend higher education face numerous challenges, and the support of family members (notably the father) and universities is essential for the academic trajectory to run smoothly.

The higher education institution should provide support through incentive and awareness projects so that these women feel better received. Furthermore, it is necessary to adopt specific policies to better serve mothers who start academic life, in order to welcome them in this space and reduce the chances of evasion.

As a limitation of this study, the reduced number of publications for the analysis is mentioned, considering it scarce. Furthermore, the development of further investigations on the subject is suggested, contemplating other approaches and methodologies, especially field research, with a view to obtaining new results.

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Jennefer Luana dos Santos Costa contributed to the conception data collection and analysis, writing and revision. **Marilene Loewen Wall** participated in the conception, writing and revision. **Tatiane Taiz da Paixão** and **Marcus Vinicius da Rocha Santos da Silva** collaborated in data collection and analysis, writing and revision.

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