



RESEARCH ARTICLE

PREGNANT WOMEN CHARACTERIZATION LINKED TO THE PREGNANCY CARE SUBJECT IN THE NURSING PROGRAM FROM THE HEALTH SCIENCES FACULTY CENTRAL UNIT VALLE DEL CAUCA (UCEVA)

\*María Eugenia Vélez Arias

Nurse, Specialist in Epidemiology, Master's In Education Sciences Full-time professor at Unidad Central del Valle del Cauca - UCEVA, Tuluá, Colombia

ARTICLE INFO

Article History:

Received 29<sup>th</sup> April, 2017  
Received in revised form  
18<sup>th</sup> May, 2017  
Accepted 24<sup>th</sup> June, 2017  
Published online 31<sup>st</sup> July, 2017

Key words:

Pregnant woman,  
Morbidity,  
Risk factors.

ABSTRACT

Maternal morbidity is an indicator related to the pregnant woman mortality and the epidemiological monitoring of Extreme Maternal Morbidity and studies related to their associated factors is one of the strategies implemented to improve maternal health and achieve a reduction in the maternal mortality rate. In the present study, we aimed to determine the prevalence of demographic, social, environmental and cultural factors associated with maternal morbidity in a group of pregnant women during an academic practice of UCEVA Nursing students. The Methodology applied during the academic practice of pregnant woman care subject in the nursing program in the Central Unit of the Valle del Cauca, Tuluá 2014, 11 pregnant women were included, they were given a structured survey based on the Familiogram, Ecomap, Apgar and NANDA instruments. Regarding the results, the pregnant women group, included in the study, consisted of pregnant women with an average age of 17 years old, with low level of education, between 1 and 2 socio-economic level, 55% of this group was multi-pregnancy, 73% started their prenatal control in the second quarter. In the family background, hypertension, diabetes and preeclampsia were found. The external factors found were marked, in strict order, by the presence of cats, mosquitoes, rodents and dogs. Within the recorded data, 27% of the patients presented pediculosis. The familiogram study showed that most of the families were large and single-parent family. The morbidity causes found were 55% urinary tract infections followed by vaginitis and gestational syphilis. According to the above, it is concluded that although the sample size is small, it was possible to demonstrate that it is necessary an early detection and preventive and intervention strategies about the factors associated with maternal morbidity according to our population.

Copyright©2017, María Eugenia Vélez Arias. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: María Eugenia Vélez Arias, 2017. "Pregnant women characterization linked to the pregnancy care subject in the nursing program from the health sciences faculty central unit valle del cauca (UCEVA)", *International Journal of Current Research*, 9, (07), 54940-54943.

INTRODUCTION

Maternal morbidity is an indicator related to pregnant women death and it is one of the options chosen to determine the quality of services in prenatal care. (Gil, Díaz, Rodríguez, 2014). Pregnancy at any age represents an important event in people's lives. It can bring biopsychosocial risk among others. The analysis gives the opportunity to identify the risks presented in pregnant women during pregnancy, delivery and the puerperium. (Nolazco, Rodríguez, 2014). According to the action plan to accelerate the reduction of maternal mortality and severe maternal morbidity in the world affirm that "In Latin America and the Caribbean, serious maternal morbidity has been studied less than maternal mortality. It is estimated that up to 20 cases of maternal morbidity occur for each recorded maternal death. From these cases, up to a quarter of

women could suffer serious and permanent sequelae. Maternal morbidity is concentrated in certain geographical areas and populations of some countries. So, there is a need to focus on regional and national initiatives to reduce it "(Washington D.C., 2012). In the Decennial Plan of Public Health 2012-2021 in Colombia; Within the 8 priority dimensions, the Sexuality Dimension is contemplated, Sexual and Reproductive Rights, which has established the following goals: By 2021, specifically in goal number 8, avoidable maternal mortality is less than 150 annual deaths in the country. In goal number 9, 95% of pregnant women have 4 or more prenatal controls in 94% of the territorial entities. In goal number 10, 80% of pregnant women start prenatal control before week 12 of gestational period. (Ministry of Health and Social Protection, Decennial Public Health Plan 2012-2021). In the Epidemiological monitoring protocol for Extreme Maternal Morbidity (MME), the MME VSP is one of the strategies of the Pan American Health Organization / World Health

\*Corresponding author: María Eugenia Vélez Arias,  
Epidemiological Monitoring Seventh Semester Nursing Students, Colombia.

Organization (PAHO / WHO) to improve maternal health and to achieve a three-quarters reduction in maternal mortality by 2015 as one of the Millennium Development Goals (MDGs, 2014)

In Colombia in 2012, 4692 cases were reported with extreme maternal morbidity, where the pathologies that affected the mothers were: Hypertensive syndromes and hemorrhage in the 2nd and 3rd trimesters. Here, the protocol emphasizes the need of preconceptional care, to avoid death in these cases (MME Surveillance Protocol, 2014). The Departmental Health Plan in Valle del Cauca from 2012 to 2015 affirms that maternal mortality between 2005 and 2011 has shown a trend towards a gradual and sustained reduction of the event, going from 62 cases reported in 2005 to 28 cases reported in 2011 for a final rate of 38.1 per one hundred thousand babies born alive (BA). There is a trend towards a decline that exceeds the achievement of the National target, decreasing the maternal mortality rate by 50% in regard to 2005, where the municipalities which presented maternal mortality in 2011 were Cali, Buenaventura, Tuluá, Bolívar, Buga, Guacarí, Palmira, Seville. (Departmental Health Plan, 2012-2015).

This is a descriptive research carried out to determine the demographic, social, environmental, and cultural factors that the study group, subject of study, has, during the pregnancy process in the academic practice with the pregnant women, where the care process was developed (PAE), to contribute to the study carried out in the health training practices, which look for improving monitoring from the Nursing discipline.

## Methodology

A cross-sectional descriptive study was carried out with a population of 11 pregnant women who were linked to a study in the nursing care subject in the nursing program from the health sciences faculty in the Central Unit in Valle del Cauca, Tuluá 2014. This Sample was taken for convenience, with prior informed consent. This project was approved by the ethics committee of the Health Sciences Faculty of the Central Unit in Valle del Cauca with minimum risk, according to the resolution 008430 of October 4, 1993, in Colombia. At first, a case study guide called happy, Save and No Risks pregnancy, elaborated by the teacher of the nursing care subject, was applied to each pregnant woman. Each group of students developed the Nursing care process (PAE, 2014) which allowed Assessment, Diagnosis, Planning, Execution and Evaluation, in its 5 stages, the pregnant women monitoring focused on the proposed objectives, from the nursing care subject, which manages the evaluation, intervention and follow-up processes of the pregnant women under in this study according to the concepts, principles and techniques of the subjects in this semester, such as: Nursing care of the pregnant women and newborn babies, pregnant women Promotion and Prevention care, Mental health, Nutrition during pregnancy, Epidemiological monitoring. The above by means of:

1. Applying the different methods and techniques of data collection.
2. Asking for the family background according to the Familiogram, Ecomap and Apgar tools.
3. Identifying the risks according to the valuation of altered domains according to NANDA. (NANDA, 2014)

4. Formulating the nursing diagnoses according to the detected health problems.
5. Planning the nursing actions which contribute to solve or reduce the health problems detected.
6. Performing follow-up and control to pregnant women under this study.
7. Assessing the expected results and activities developed.
8. Showing the analysis and results in light of the proposed objectives, principles and current standards.

Due to all the above, it was permitted to integrate the valuation according to the current legislation in conformity with the resolution number 000412 of 2000 (MPS).

Subsequently from the Epidemiological monitoring subject, students developed a survey designed according to the objectives of the study, described above, where information was collected to achieve the characterization of the pregnant women linked to the pregnant woman care subject. The information was typed in Excel and analyzed in SPSS version 20. The results are presented as follows: in standard measures and deviations, the quantitative and the qualitative variables will be presented in percentage.

## RESULTS

### Sociodemographic and Gynecobstetric Characteristics

**Age:** The ages ranged from 14 to 22 years, with a median of 17 years and found several modes of 14, 16, 17 and 18 years, and a standard deviation of 2.5 which indicates that the population is very young.

**Educational level:** 100% (n = 11) primary school, 28% (n = 7) technical career, 28% (n = 7) high school, 0% (n = 0) university studies.

**Marital status:** Most of the patients lived in free union with 55% (n = 6), and the single women with 45% (n = 5). There were no married women.

**Socio-economic level:** 55% (n = 6) of the pregnant women belong to level 1 and 45% to level 2 (n = 5).

**Housing:** 64% (n = 7) live in their own house and 36% (n = 4) live in a rented house.

**Health Regime:** 82% (n = 9) of the pregnant women belong to the subsidized regime and 18% (n = 2) belong to the contributory regime.

**Occupation:** 73% (n = 8) of the pregnant women are housewives, 18% (n = 2) are students and only 9% (n = 1) work as employees in a betting service.

**Number of pregnancies:** 55% (n = 6) of the pregnant women were multi-gestant, 45% (n = 5) was the first pregnancy. The median was 1 gestations and the mode of 1, it is described that 67% (n = 4) of the multi-gestants reported having had an abortion, of which 75% (n = 3) had vaginal delivery and 25% (n = 1) had a cesarean delivery, of which 75% (n = 3) was at term delivery and 25% (n = 1) post-term delivery. It is shown in Table 1.

**Control beginning:** 73% (n = 8) of the pregnant women began their prenatal care in the second trimester of pregnancy, 18% (n = 2) in the first trimester and 9% (n = 1) in the third trimester.

**Table 1. Pregnancy History of Pregnant Women**

PREGNANCY						
Pregnant woman number	Pregnancy number	Abortions	Child birth	Caesarean Operation	Birth to term	Birth to post-term
Pregnant Woman 1	1	0	0	0	0	0
Pregnant Woman 2	4	1	2	0	0	0
Pregnant Woman 3	3	1	1	0	1	0
Pregnant Woman 4	2	1	0	0	0	0
Pregnant Woman 5	1	0	0	0	0	0
Pregnant Woman 6	2	1	0	0	0	0
Pregnant Woman 7	1	0	0	0	0	0
Pregnant Woman 8	1	0	0	0	0	0
Pregnant Woman 9	1	0	0	0	0	0
Pregnant Woman 10	2	0	1	1	0	1
Pregnant Woman 11	1	0	0	0	0	0

Source: Interview

**Family background:** The highest percentages, presented in this pregnant women group background, are hypertension and diabetes with 36% (n = 4), followed by a background of preeclampsia with 27% (n = 3).

**Table 2. Family background**

Family Background	Factor With Risk		Factor Without Risk		Cumulative Percentage
	Absolute Frequency	Percentage	Absolute Frequency	Percentage	
Multiple pregnancies	1	9,1%	10	90,9%	100%
Preeclampsia	3	27%	8	73%	100%
Psychiatric disorder	1	9,1%	10	90,9	100%
Allergy	0	0%	11	100%	100%
High blood pressure	4	36%	7	64%	100%
Diabetes	4	36%	7	64%	100%
Cancer	2	20%	8	80%	100%

Source: Interview

**Immunization background:** 90.9% (n = 10) of the pregnant women in this study had a vaccination background with TD and 36% (n = 4) with an influenza vaccine.

**Hygienic habits:** when performing the evaluation, it is observed that although they refer that they have good hygienic habits, the 27% (n = 3) of the 11 pregnant women presented pediculosis.

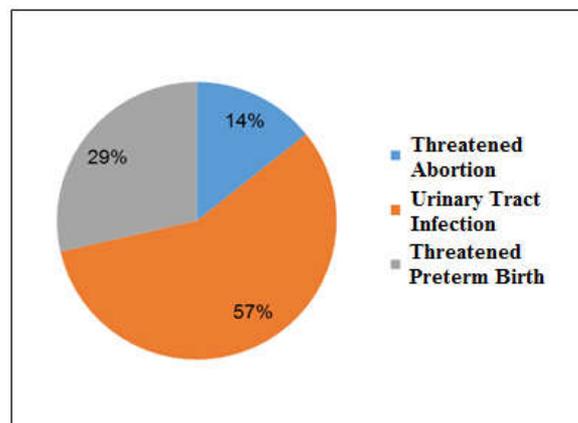
**External factors:** we found that 73% (n = 8) of the pregnant women have mosquitoes in their homes, in 36% of them (n = 4) have rodents (rats). Therefore, 36% of the cases, these pregnant women live with dogs and 90.1% of the cases, they live with cats.

**Family structure:** 64% (n = 7) belong to a large family, 18% (n = 2) to a single parent family, and 9% (n = 1) to a nuclear family and a single family respectively.

**Feelings During Pregnancy:** Pregnant women, who are part of the study, 73% (n = 8) have experienced feelings of fear, 55% feelings of joy, 36% feelings of sadness, anxiety and insecurity, 27% feelings of loneliness and 9.01% feelings of hatred.

**Hospitalization background in the current pregnancy:** From the 11 pregnant women, 64% (n = 7) were hospitalized for urinary tract infections, threatened preterm birth and threatened abortion, as shown in Figure 1.

**Main cause of maternal morbidity in the group of pregnant women studied:** The main causes of maternal morbidity presented in this study are the infectious diseases, among them, first, urinary tract infections constituted 55.5% (n = 5) of the cases; Second, vaginitis with 55.5% (n = 5), followed by gestational syphilis with 9.01% (n = 1) and 9.01% patients with anemia that can complicate pregnancy and childbirth.



Source: Interview

**Figure 1. Hospitalization Causes**

**The pregnant woman status in morbidity cases:** For infectious diseases such as UTI and vaginitis, there is a higher incidence in the group pregnant women from 16 to 17 years old with 55.5% (n = 5), followed by syphilis with an average of 22 years old with 9, 01% (n = 1), and for anemia the average age is 18 years with a percentage of 9.01% of the cases.

**According to altered domains during the application of the nursing care process NCP**

According to NANDA domain assessment, from the 13 domains, the only ones which were not evidenced in the assessment process were the domain 10 about vital principles, and domain 13 about growth and development. Once determining the altered domains in the present study, there were found, firstly, domain 8 about sexuality, with 88% (n = 9), followed by domain 1 about Health Promotion with 64% (n = 7), continuing with domains 2 about nutrition, domain 7 about role and relationships, and domain 9 about coping and tolerance to stress with 55.5% respectively. To each one of the pregnant women, according to what was found and the altered domains, some diagnoses were elaborated and the intervention plan was organized with its evaluation as referred at the beginning of this writing.

## DISCUSSION

The main causes of maternal morbidity, in the present study, were infectious diseases that have led to hospitalization, the responsible for the 55.5% of the cases, which correspond to the study of mortality, morbidity and maternal mortality carried out in Mexico with 50 % of infectious disease. It is the responsible of sepsis with 50% and corresponds, according to this study, to the World Health Organization (WHO) where sepsis is one of the main causes of maternal mortality. For infectious diseases such as UTI and vaginitis, pregnant women from 16 to 17 years old had a higher incidence, with 55.5% (n = 5), the age range of this study corresponds to Mexico's reported about morbidity and extreme maternal mortality; that

is because, in most cases, it occurred in the age range between 16 and 43 years old for maternal morbidity and, in our study, it is inside this range. The low level of schooling: 28% (n = 7) of pregnant women studied high school. The studied carried out in Mexico, exceeds 10% of high school studies. Likewise, according to the marital status in this study, it was evidenced that the 89% of the pregnant women were married and, in our study, just 55.5% of them.

### Recommendations

- In this study, the systematization of the rotating academic practice of the pregnant women care from the monitoring subject was constructed by contributing to increase the use of the PAE.
- To design an early detection and reporting cases during the practice with the pregnant woman, identifying maternal morbidity, risk factors, and proposing, according to that, preventive and intervention strategies.
- Systematize maternal records as they will be useful as a source of learning for health professionals.

### REFERENCES

GIL GONZÁLEZ. Idalmis, DÍAZ SANCHEZ Yaser, RODRÍGUEZ LÓPEZ F. 2014. MORBILIDAD materna extremadamente grave y calidad de los cuidados maternos en villa clara online citado el 6 junio de 2014. Recuperado en <http://www.medicentro.sld.cu/index.php/medicentro/article/view/1703/1352>

Lorena Nolasco Dra. María, Rodríguez Dra. Laura Yudit. 2006. Morbilidad materna en gestantes adolescentes online.

Citado 6 junio de 2014. Recuperado en [http://congreso.med.unne.edu.ar/revista/revista156/4\\_156.htm](http://congreso.med.unne.edu.ar/revista/revista156/4_156.htm)

MINISTERIO DE SALUD Y PORTECCION SOCIAL, resolución 000412 del 2000 norma técnica de detección de alteraciones en el embarazo.

Ministerio de salud y protección social, plan decena de salud pública 2012-2021 citado online 7 de julio 2014. Recuperado en [www.minsalud.gov.co](http://www.minsalud.gov.co)

NANDA DOMINIOS ALTERADOS, revisado en línea 15 de Julio 2014. Recuperado en <http://www.aibarra.org/neonatologia/capitulo7/>

Plan de acción para acelerar la reducción de la mortalidad materna y la morbilidad materna grave Washington, D.C. 2 de marzo de 2012 online citado [8 de Julio 2014]. Recuperado en [http://www.paho.org/col/index.php?option=com\\_content&view=article&id=1504:plan-de-accion-para-acelerar-la-reduccion-de-la-mortalidad-materna-y-la-morbilidad-materna-grave&catid=758&Itemid=551](http://www.paho.org/col/index.php?option=com_content&view=article&id=1504:plan-de-accion-para-acelerar-la-reduccion-de-la-mortalidad-materna-y-la-morbilidad-materna-grave&catid=758&Itemid=551)

Plan departamental de salud año 2012-2015. Recuperado en [http://salud.univalle.edu.co/pdf/procesos\\_de\\_interes/departamental/plan\\_departamental\\_de\\_salud\\_2012\\_2015.pdf](http://salud.univalle.edu.co/pdf/procesos_de_interes/departamental/plan_departamental_de_salud_2012_2015.pdf). pag 33y 34

PROCESO DE ATENCIÓN DE ENFERMERIA NANDA, NIC –NOC Revisado en Línea 15 de Julio 2014. Recuperado en <http://www.ucol.mx/docencia/facultades/enfermeria/archivos1/apuntes%20utiles/LB%20proceso%20enf%202112009%20NANDA%20NIC.pdf>

PROTOCOLO DE VIGILANCIA EN SALUD PUBLICA MORBILIDAD MATERNA EXTREMA, versión abril 2014 p. 3.

\*\*\*\*\*