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CARE OF THE NEWBORN

OF ADOLESCENT MOTHERS IN THE BASIC HOSPITAL OF CAYAMBE, 2020

CUIDADO DEL RECIÉN NACIDO DE MADRES ADOLESCENTES EN EL HOSPITAL BÁSICO DEL CAYAMBE, 2020

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ABSTRACT

This study was carried out in the pediatrics and neonatology service of the Basic Hospital of Cayambe, and it had the general objective of developing educational strategies for the proper care of newborns of adolescent mothers, to avoid poor care for their children. Through the development of the research, qualitative and quantitative modalities were used. To complement and have a broad context, research methods, techniques, and instruments were taken into account. For the compilation of information, we used the survey method, which was applied to adolescent mothers and made it possible to determine the level of knowledge and data regarding the subject of study. The research showed that there is a high percentage of unawareness on the part of the puerperal adolescents regarding the care of their children. This leads to poor quality of life or even endangering the life of their children by exposing them to different accidents, or diseases that may have been prevented by acquiring knowledge about newborn care. Given these results, we present a proposal to develop educational strategies for newborn care aimed at adolescent mothers to help them acquire knowledge bases for adequate care, thus ensuring an adequate quality of life for newborns.

Keywords: Newborn, newborn care, adolescent mothers.

RESUMEN

Este estudio se llevó a cabo en el servicio de pediatría y neonatología del Hospital Básico de Cayambe, y tuvo como objetivo general desarrollar estrategias educativas para el adecuado cuidado de los recién nacidos de madres adolescentes, para evitar el mal cuidado de sus hijos. A través del desarrollo de la investigación se utilizaron modalidades cualitativas y cuantitativas. Para complementar y tener un contexto amplio, se tomaron en cuenta métodos, técnicas e instrumentos de investigación. Para la recopilación de información se utilizó el método de encuesta, que se aplicó a madres adolescentes y permitió determinar el nivel de conocimientos y datos sobre el tema de estudio. La investigación mostró que existe un alto porcentaje de desconocimiento por parte de las adolescentes puérperas sobre el cuidado de sus hijos. Esto conduce a una mala calidad de vida o incluso a poner en peligro la vida de sus hijos al exponerlos a diferentes accidentes o enfermedades que pueden haberse prevenido adquiriendo conocimientos sobre el cuidado del recién nacido. Ante estos resultados, presentamos una propuesta para desarrollar estrategias educativas para el cuidado del recién nacido dirigidas a madres adolescentes que les ayuden a adquirir bases de conocimientos para una atención adecuada, asegurando así una adecuada calidad de vida para los recién nacidos.

Palabras clave: Recién nacido, cuidado del recién nacido, madres adolescentes.

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INTRODUCTION

The first month of life is the time of greatest risk of death, especially if there have been complications during delivery, if the newborn has congenital defects or if he has an infection (Águila Calero et al., 2017). About a third of those deaths occur during the first day and almost 75% only during the first week (Carlin & Moon, 2017).

The World Health Organization, in its report "Levels and Trends in Infant Mortality" indicates that despite the advance in the progress of child survival, 7000 newborns die every day and if current trends are maintained, 30 million newborns Newborns will die in their first 28 days of life between 2017 and 2030. This report emphasizes the importance of the first days of life for a newborn. In the countries that offer safe, affordable, and high-quality health services for all, women and children survive and thrive (OMS, 2018).

Objectives 4 and 6 of the National Development Plan for a Lifetime, Development Plan and Territorial Organization of the province of Pichincha (2015 - 2021), in addition to articles of the Constitution, Organic Health Law, Maternal and Neonatal Health Program, Plan of Action First 1000 days, which are related to the study by relevance, in the field of disease prevention, related to the care of newborns of adolescent mothers.

In the National Development Plan for a Lifetime of Ecuador, its fourth and sixth objectives state: "Guarantee integral child development to stimulate the capacities of boys and girls" and "Guarantee the right to health, education and integral care during the life cycle, under criteria of accessibility, quality, and territorial and cultural relevance". This objective is focused mainly on providing a dignified life to boys and girls. To achieve this, it is channeled into health, through prevention, promotion, and rehabilitation. Therefore it is important to provide adequate care for the newborns of adolescent mothers at the Basic Hospital of Cayambe.

In the Development and Territorial Planning Plan of the province of Pichincha (2015 - 2025), within the health component, in the birth and mortality rates, at the same time as there is a decrease in the general mortality rate, since the rates according to WHO standards are in a low range (<15 per thousand), which would represent a correlation with longer life expectancy in people. The infant mortality rate has increased, even above the percentage of national growth, which is a worrying aspect, when reviewing the Millennium Goals, the fourth is aimed at reducing infant mortality (Bonfim et al., 2020),(Ortega et al., 2018), (Abdulrahman & Salem, 2020) and the causes are related to poverty or poor quality of health services.

Considering that there is a reduction in maternal mortality, the province's rate is still far from the average of the so-called developed countries, which is 16, and warns of the greater risk that exists when mothers are adolescents. Cayambe has 15.70% of adolescent pregnancy, noting that the data released by the Ministry of Economic and Social Inclusion reveals that the determinants of adolescent pregnancy are poverty, gender violence, and low educational level. 74% of adolescent mothers in the country live in poverty and this will determine the vital development of the newborn, therefore of the mother and of the family nucleus itself. (Di Lucas et al., 2019).

Article 20 of the Constitution of the Republic of Ecuador (Ecuador, 2008), in the Childhood and Adolescence Code, recognizes that children and adolescents have the right to life from their conception. The State, society, and the family should ensure, by all means within their reach, their survival and development.

Guaranteeing the right to life of children and adolescents is a priority at the Basic Hospital of Cayambe. It is intended to improve the quality of life of both the adolescent mother and her newborn, contributing to their physical and psychological well-being, since ignorance and raising a newborn in its first days generates an experience that can be traumatic, therefore emphasis is placed on education as nursing with quality and warmth for the best care (Teruel et al., 2018), (Di Lucas et al., 2019), (Leyva-Vázquez et al., 2020).

(Leiva Parra et al., 2018) In his article "The newborn of an adolescent mother" in the city of Peru to determine the characteristics of the newborns of adolescent mothers in which there were 644 newborns; 89.5% of the mothers had prenatal control. 97.20% had a cephalic presentation at the time of delivery, 61.44% of the newborns of late adolescent mothers were born by cesarean section; with respect to the amniotic fluid, it was normal in 85.55% and in 14.44% the amniotic fluid was meconium (Cornelio et al., 2019). According to sex, they were mostly male (51.70%), 6.83% of newborns were preterm; 92.54% were at term and 0.31% were post-term. According to the pediatric diagnosis, 86.56% of the newborns of late adolescent mothers were adequate for gestational age, 96.89% had an APGAR at minute between 7 -10, and 99.22% an APGAR between 7-10 at 5 minutes.

At the National Institute of Perinatology of Mexico DF, a study was carried out on "Morbidity and mortality of the premature newborn son of an adolescent mother" (Muiños et al., 2015) to analyze the perinatal evolution of preterm pregnancies in adolescent mothers and analyze differences with the pregnancies of non-adolescent mothers. In

it, a total of 50 patients were studied, which were divided into two groups; 25 patients for group 1 (children of adolescent mothers) and 25 patients for group 2 (children of non-adolescent mothers) giving as results in the comparison of neonatal morbidity group 1 (76%) group 2 (38%), comparison of nutritional status group 1 (28%) group 2 (48%).

(Fonseca & Muisín 2017) mentions in his study "Educational guide for adolescent mothers, its influence on the care of the newborn at the Riobamba General Teaching Hospital" to increase the knowledge of adolescent mothers regarding the care of newborns. In the study, a survey of 10 questions as a sample was taken from 20 adolescent mothers who were asked several questions, among which their ignorance of basic newborn care was demonstrated 73%, ignorance of alarm signs 65%; ignorance of nutrition 55%; and emotions regarding the arrival of the newborn, happy 50% and worried 45% (Fonseca et al., 2020).

(Bermeo & Crespo, 2015) mentions in their study "Guide for the care of the newborn of adolescent mothers who give birth in the Hospital Vicente Corral Moscoso de Cuenca", its objective being to determine the knowledge that adolescent mothers have about the care of newborns. This was performed through a descriptive-cross-sectional quantitative study, and a survey of 35 closed multiple-choice questions was applied to 177 adolescent mothers that revealed the following data that helped to show results according to the Stones Scale, giving as results that more than half of adolescent surveyed mothers 63% have a low level of knowledge in the physical care of the newborn 53.10%, early stimulation 50.30% and warning signs 40%.

The care of the newborn is fundamentally the responsibility of the mother, for this reason, it is of vital importance to carry out activities that help her to understand the physiological phenomena that are represented in the child and to reinforce educational aspects concerning their growth and development. They must be carried out correctly, this will directly contribute to the development of the canton and the province, avoiding infant morbidity and mortality and generating a quality of life.

DEVELOPMENT

The modality of the investigation is mixed since it will be qualitative-quantitative; qualitative when describing the qualities of the phenomenon under study; and quantitative in the generation of research results(Vizuete et al., 2021), (Ricardo et al., 2020).

Quantitative: This modality was used, which with measurement instruments helped to investigate the current

situation of the problem, determine the risk factors, and application of educational strategies guided to adolescent mothers around the care of newborns in the Basic Hospital by Cayambe

Qualitative: This modality was used, since it collected various types of research carried out on the care of the newborn of adolescent mothers, with the support of photographs, observation files, an updated bibliography, it was revealed that there are deficiencies in the care provided by a teenager mother to a newborn.

The research was analytical, cross-sectional, and not experimental. It is cross-sectional since this research data is collected at a specific and analytical moment because the results will be analyzed through the surveys, as well as the observation record carried out.

Field research: This method helps with research, by conducting the survey and an observation sheet for adolescent mothers and by considering risk factors that may affect or endanger the health of newborns.

Descriptive Research: This research is descriptive in obtaining information on the care that adolescent mothers provide to newborns, in addition to describing the impact on the health of infants by not having proper management, mainly identifying the causes, such as, risk factors, as well as possible diseases that children can get.

Bibliographic research: Different sources of bibliographic research were used, books, magazines, articles, and the internet that helped to develop the theoretical framework, having different author criteria.

Procedure for data search and processing

Population: The population is a total of 20 people, among which we have adolescent mothers.

Sample: As the population of the present investigation is small, we will work with the total of the universe that is 20 people.

Information collection plan: For the collection of information to establish the current situation of the care of the newborn in adolescent mothers, techniques such as the survey has been used. In addition, all this is directed in the different research methods such as:

Theoretical methods

Analytical - synthetic: This method was used to analyze the information collected, as well as that obtained by the study population, and to establish educational strategies aimed at adolescent mothers regarding the care of the newborn, allowing us to create well-founded knowledge that would help puerperal women with the proper management of their infant, recognition of warning signs and risk factors, proposing a correct quality of life in the mother-child bond, and improving their health.

Inductive - Deductive: The general analysis of the research object began, with the possible complications that may occur in newborns due to the poor care of adolescent mothers towards them, determining the causes of the problem and the application of the solution by the educational strategy.

Historical - Logical: The collection of historical data on the subject was presented in the background of investigations, to recognize the shortcomings and corrections that have been taken in such studies.

Systemic method: This method was applied in the realization of the proposed objectives, with a logical and systematic order of the investigation, managing to determine the main causes of poor care of newborns by adolescent mothers.

Empirical Methods

Scientific Observation: The observation allowed to know the care that an adolescent mother provides to a newborn only with empirical knowledge collected during her pregnancy stage or at her early age, resulting in the triggers of poor care for the newborn.

Documentary Analysis: It was obtained through the collection of the bibliography, and data supplied by adolescent mothers where the lack of educational strategies guided to adequate care in newborns is evidenced, thus determining the need for intervention with educational strategies that prevent mismanagement of the puerperal towards an infant thus avoiding health problems.

Research techniques

The applied research instrument would be a survey combined with an observation sheet that will serve to detect the care that adolescent mothers have towards their newborns.

Survey: It served to assess the current situation regarding the care provided by an adolescent mother to her newborn, which was applied to them.

Results of the diagnosis of the current situation

To obtain a diagnosis of the current situation within this research, information has been collected by surveying adolescent mothers at the Basic Hospital of Cayambe. In addition, research techniques and instruments have been

used, which have allowed obtaining real data on this problem (Hernández et al., 2021), (Arias et al., 2021).

Diagnosis of problem characterization

To carry out the diagnosis, it has been essential to implement the survey guide, which has made it possible to establish specific data on the current situation of the research object.

Question 1.- Education level?

9% 4% 4% Complete elementary education Incomplete elementary education Complete secondary education Incomplete secondary education Incomplete secondary education

Figure 1. Education level.

According to the data in Figure 1, it was possible to show that most of the adolescent mothers lack a complete education, which implies a problem when providing the necessary care to the newborn. Due to their early age, they have not received enough information regarding this issue, being the empirical knowledge acquired during the pregnancy stage their only source of support, which represents a risk to the health of the child. (Wolff et al., 2009) states in his article "Postpartum depression in adolescent pregnancy", low education is one of the risk factors for the infant in its survival.

Question 2.- The support of your family members in your new maternal role is ...?:

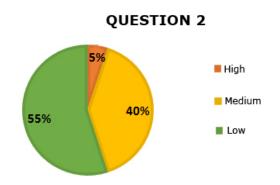


Figure 2. Support from their families in your new maternal role.

Based on the responses interpreted in Figure 2, with respect to this question, it can be determined that most adolescent mothers do not have the support of their relatives in the care of the newborn, which constitutes a serious problem for the mother and her child, since in this new stage the help of a family nucleus is essential, both physically and emotionally, and thus be able to bear the burden of the new responsibilities, which is why it is necessary to develop strategies that allow to strengthen knowledge about basic care of the newborn and thus not put their health at risk.

Question 3.- With the arrival of your newborn, do you experience emotions of ... ?:

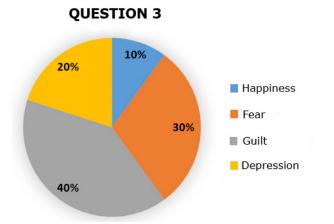


Figure 3. Emotions experienced with the arrival of the newborn.

An important aspect in the results shown in figure 3 is the evidence of immaturity on the part of adolescent mothers with their new maternal role since most of the respondents reflected a series of different emotions, among which guilt and depression stand out. Critical factors that influence the mismanagement of newborn care, given that at an early age they have to face various responsibilities. (Wolff et al., 2009) In his article "Postpartum Depression in Adolescent Pregnancy", he states that depression is associated with alterations in the mother-child bond, with less development and more problems in the child.

Question 4.- Are you taking care of the newborn all the time?

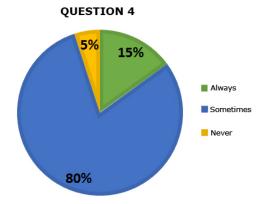


Figure 4. Frequency of newborn care.

Based on the responses in figure 4, it was possible to show the lack of commitment on the part of adolescent mothers with their new stage of life, since they do not dedicate the necessary attention to the newborn, thus generating a potential problem for the newborn. Since at this stage the infant's vulnerability is very high, being prone to contracting diseases, directly affecting their development, thus it is necessary to adopt strategies that allow caregivers to have adequate knowledge so that there is no negligence in the care of the baby.

Question 5.- At the time of your newborn's rest, do you lay him down...?

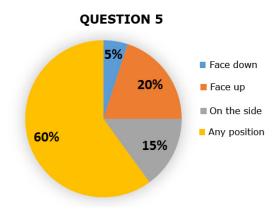


Figure 5. How you lay your newborn down at rest.

Of the total sample studied, Figure 5 shows that most adolescent mothers at the time of the newborn's rest, lay him down in any position, not taking into account the necessary precautions to avoid accidents. This is mostly due to the lack of experience and knowledge in the maternal role, putting health and life at risk with this type of practice, not knowing that in the first days of life most of the time the infant needs to sleep, which is why it was necessary to carry out educational strategies to improve the care provided by puerperal women to their children.

Question 6.- When your newborn cries, how do you act?

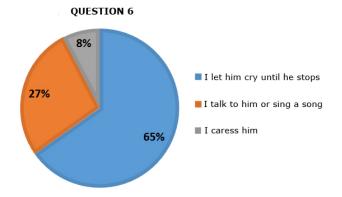


Figure 6. Adolescent mother's response when her newborn cries.

Of the total of the adolescent mothers surveyed, most of them state that they let him cry, which generates a problem for the newborn since the mother does not know the cause of the situation that afflicts her child. In addition to the fear and inexperience of this type of situation, therefore, does not know the proper way to act, creating a prolonged cry, generating a poor quality of life, and unrecognizing health problems in the infant. That is why strategies are necessary to avoid poor care of the infant.

Question 7.- To clean the genitals at each diaper change, you use...?:

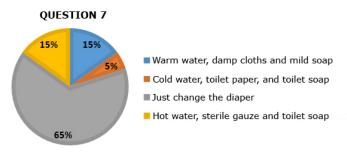


Figure 7. Method used to clean the genitals at each diaper change.

Of the total of the surveyed adolescent mothers, the majority refer that every time they change the diaper and

clean the newborn's genitals, they do not use adequate measures, which becomes a potential problem to generate diseases. Ignorance, inexperience, as well as the lack of educational programs that reinforce their empirical knowledge, creates a health problem for the newborn.

Question 8.- The umbilical cord cleaning is carried out:

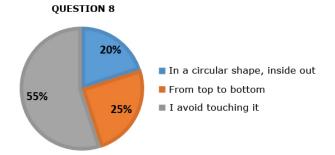


Figure 8. Umbilical cord cleaning.

According to the sample studied, adolescent mothers, reflect that the cleaning of the umbilical cord is not carried out properly, generating a potential problem to create diseases. Ignorance of basic care provided to a newborn, causes a poor quality of life in the child, as well as problems in the development of the infant since the empirical knowledge on the part of the puerperal women is not enough to provide adequate child care, it is necessary to create educational strategies.

Question 9.- When do you take gases out of your newborn?

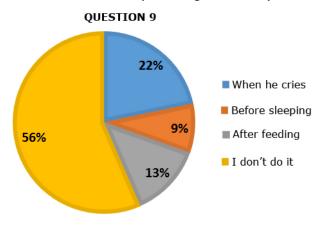


Figure 9. How often do you pass gas in your newborn.

There is a considerable number of respondents, who mostly do not remove gases. It is here that a problem is created for the newborn. This, along with the lack of adequate techniques to perform this action means that they do not know when to apply it. In addition to fear and inexperience to provide adequate care to the child, causes him to become irritable and crying, therefore creates a

poor quality of life, this method should be taught in educational programs guided to proper management of the infant.

Question 10.- When you feed your newborn, how do you do it?

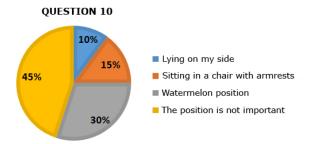


Figure 10. Method used to feed your newborn.

The results obtained in the research reflect that most adolescent mothers do not give the necessary importance to the position they take when feeding their newborn, generating a problem since nurturing the infant is essential for the development of the child because it is here where they receive their immunity to face diseases. The lack of knowledge about breastfeeding produces possible health problems, that is why it is essential to create educational strategies which will contribute to the caregivers having sufficient knowledge to care for their children. The WHO, in its article "Feeding the young child and the infant", mentions the optimal practices of the infant are the most effective interventions to improve the health of the childhood.

Question 11.- To maintain a suitable temperature of the newborn you ...?

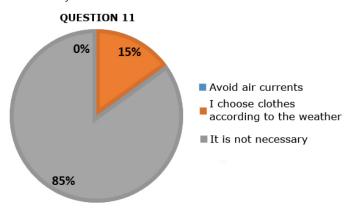


Figure 11. Method used to maintain a suitable temperature for your newborn.

According to the survey studied, the majority of adolescent mothers mention that it is not necessary to protect their newborns to maintain an adequate temperature, which is a problem since if they do not implement these

necessary measures for proper care of the infant, they will put health at risk, exposing them to respiratory and lung diseases (Fuloria & Aschner, 2017). It is for this reason that an educational program is necessary so that caregivers have clear knowledge.

Question 12.- When you are alone with your newborn...?

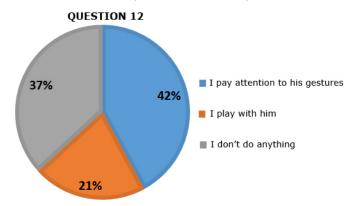


Figure 12. Activities when you are alone with the newborn.

According to the results of the research, the majority of adolescent mothers at the time of being alone with their newborn do not carry out activities of stimulation and recognition of their infant, this generates a problem since, due to ignorance, inexperience, fear, and new emotions for her, the caregiver creates a detachment in her bond with her child, which will subsequently generate a poor quality of life for the newborn. So it is essential to create guided educational strategies for young puerperal women so that there is a good relationship with their infants.

Summary of the main shortcomings detected

The tabulation of the surveys carried out with adolescent mothers, helped to find relevant information. 83% do not have a complete education, 95% do not have full support from their family, 90% have emotions of depression, fear, and depression regarding the arrival of their newborn, 80% do not pay the necessary attention to their infant, 60% do not take adequate measures at the time of sleep, 65% due to lack of knowledge cannot act against the crying of their newborn, 65% do not perform an adequate cleaning of the genitals at the time of the diaper change, 55% do not perform an adequate cleaning of the umbilical cord, 56% do not know when to remove the gases or do not do it, 45% do not perform an adequate position at the time of breastfeeding, 60% are unaware of thermoregulation measures, 42% avoid the mother-child bond.

The adolescent mothers of the Cayambe Basic Hospital do not have an adequate educational program, which is why they fully agree that having a clear knowledge of the newborn care environment is the best method of preventing problems and diseases to achieve their children an adequate quality of life.

CONCLUSIONS

The theoretical foundation was important to have a basis of the care that an adolescent mother performs for a newborn, taking into account the scientific basis in maternal care, at the same time it was possible to enrich the knowledge by supporting the approved clinical guidelines based on those approved by the Ministry of Public Health.

The diagnosis of the current situation of the adolescent mothers of the Basic Hospital of Cayambe was substantial for the structuring of the different strategies that led to the total or partial resolution of the problem, such as the lack of experience and knowledge based on care that requires a newborn, which was detected through a survey and observation files.

Through the proposal, the adolescent mothers of the Basic Hospital of Cayambe replaced their empirical knowledge about the care of the newborn, with theoretical and practical instruction which helped the puerperal woman to provide good care to the child, thus providing him with optimum quality of life.

BIBLIOGRAPHIC REFERENCES

- Abdulrahman, S. A., & Salem, A.-B. M. (2020). A efficient deep belief network for Detection of Corona Virus Disease COVID-19. *Fusion Pract. Appl.*
- Águila Calero, G., Díaz Quiñones, J., & Díaz Martínez, P. (2017). Adolescencia temprana y parentalidad. Fundamentos teóricos y metodológicos acerca de esta etapa y su manejo. *MediSur*, *15*(5), 694-700. http://scielo.sld.cu/scielo.php?pid=S1727-897X2017000500015&script=sci arttext&tIng=en
- Arias, E. B. N., Nuñez, B. M. G., Fernández, L. N., & Pupo, J. M. R. (2021). CRISP-DM y K-means neutrosofía en el análisis de factores de riesgo de pérdida de audición en niños. Revista Asociación Latinoamericana de Ciencias Neutrosóficas. ISSN 2574-1101(16), 73-81. http://fs.unm.edu/NCML2/index.php/112/article/download/151/487
- Bermeo, J., & Crespo, A. (2015). Guía para el cuidado del recién nacido de madres adolescentes que alumbran en el Hospital Vicente Corral Moscoso de Cuenca http://dspace.ucuenca.edu.ec/bitstream/123456789/24444/1/CUIDADO%20DEL%20 RECIEN%20NACIDO%20EN%20MADRES%20
 ADOLESCENTES%20.CUENCA.pdf.

- Bonfim, C. V. D., Silva, A., Oliveira, C. M., Vilela, M. B. R., & Freire, N. C. F. (2020). Spatial analysis of inequalities in fetal and infant mortality due to avoidable causes. *Rev Bras Enferm*, *73 Suppl 4*, e20190088. https://doi.org/10.1590/0034-7167-2019-0088
- Carlin, R. F., & Moon, R. Y. (2017). Risk Factors, Protective Factors, and Current Recommendations to Reduce Sudden Infant Death Syndrome: A Review. *JAMA Pediatr*, 171(2), 175-180. https://doi.org/10.1001/jamapediatrics.2016.3345
- Cornelio, O. M., Calderón, L. A., & Benítez, K. G. (2019). Sistema para en análisis de muestra de urocultivo a partir de la curva de crecimiento. *Texto Livre: Linguagem e Tecnologia*, 12(3). https://periodicos.ufmg.br/index.php/textolivre/article/download/16863/13624
- Di Lucas, M. A., Benítez, N. G., & Vázquez, M. Y. L. (2019). Ontología neutrosófica en la Web Semántica para disminuir la incertidumbre en la gestión de la información de los repositorios digitales. *Revista Asociación Latinoamericana de Ciencias Neutrosóficas. ISSN 2574-1101*, 9(5), 53-62. https://fs.unm.edu/NCML2/index.php/112/article/download/55/49
- Ecuador. (2008). *Constitución de la República del Ecuador* 2008 (Vol. 449). Asamblea Constituyente.
- Fonseca, B. B., Cornelio, O. M., & Pupo, I. P. (2020). Linguistic summarization of data in decision-making on performance evaluation. 2020 XLVI Latin American Computing Conference (CLEI),
- Fonseca, G. M., & Muisín, N. J. (2017). Guía educativa para madres adolescentes su influencia en los cuidados del recién nacido en el Hospital General Docente Riobamba http://dspace.uniandes.edu.ec/handle/123456789/6049
- Fuloria, M., & Aschner, J. L. (2017). Persistent pulmonary hypertension of the newborn. *Semin Fetal Neonatal Med*, 22(4), 220-226. https://doi.org/10.1016/j.siny.2017.03.004
- Hernández, N. B., Jara, J. I. E., Ortega, F. P., & Calixto, H. A. (2021). Propuesta de metodología para el análisis de la transparencia. *Revista Asociación Latinoamericana de Ciencias Neutrosóficas*. *ISSN 2574-1101* (16), 65-72. http://fs.unm.edu/NCML2/index.php/112/article/download/150/485
- Leiva Parra, E. J., Leiva Herrada, C. H., & Leiva Parra, D. E. (2018). El recién nacido de madre adolescente. Revista chilena de obstetricia y ginecología, 83(6), 559-566. https://scielo.conicyt.cl/scielo.php?pid=S0717-75262018000600559&script=sci arttext

- Leyva-Vázquez, M., Quiroz-Martínez, M. A., Portilla-Castell, Y., Hechavarría-Hernández, J. R., & González-Caballero, E. (2020). A new model for the selection of information technology project in a neutrosophic environment. *Neutrosophic Sets and Systems*, *32*(1), 344-360.
- Muiños, S. C., Medrano, E. Y., González, G. C., Maldonado, S. R., & Degollado, L. C. (2015). Morbimortalidad del recién nacido prematuro hijo de madre adolescente en la Unidad de Cuidados Intensivos Neonatales. *Perinatología y Reproducción Humana*, 29(2), 49-53. https://www.sciencedirect.com/science/article/pii/S0187533715000126
- OMS. (2018). Levels & Trends in Child Mortality (Commission on Social Determinants of Health, Issue.
- Ortega, R. G., Vázquez, M. L., Figueiredo, J. A. S., & Guijarro-Rodriguez, A. (2018). Sinos river basin social-environmental prospective assessment of water quality management using fuzzy cognitive maps and neutrosophic AHP-TOPSIS. *Neutrosophic Sets and Systems*, 23, 160-171. http://fs.unm.edu/NSS2/index.php/111/article/download/408/345
- Ricardo, J. E., Flores, D. F. C., Díaz, J. A. E., & Terue, K. P. (2020). An Exploration of Wisdom of Crowds using Neutrosophic Cognitive Maps [Article]. *Neutrosophic Sets and Systems*, 37, 8-15. https://doi.org/10.5281/zenodo.4121955
- Teruel, K. P., CedeñoCedeñ, J. C., Gavilanez, H. L., Diaz, C. B., & Vázquez, M. L. (2018). A framewor for selecting cloud computing services based on consensus under single valued neutrosophic numbers. *Neutrosophic Sets and Systems: An International Book Series in Information Science and Engineering, vol.* 22/2018, 22, 38
- Vizuete, E. G. V., Acosta, A. R. S., Hidalgo, M. V. A., & Valdés, M. M. (2021). Indeterminate Control Diagrams as Health Control Tools. *Neutrosophic Sets and Systems*, 44, 214-222.
- Wolff, C., Valenzuela, P., Esteffan, K., & Zapata, D. (2009). Depresión posparto en el embarazo adolescente: análisis del problema y sus consecuencias. *Revista chilena de obstetricia y ginecología*, 74(3), 151-158. https://scielo.conicyt.cl/scielo.php?pid=S0717-75262009000300004&script=sci-arttext