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RESEARCH ARTICLE

PARENTS' PERCEPTION OF THE IMPORTANCE OF VACCINATING INFANTS 0 TO 15 MONTHS IN A GOLD MINING REGION OF THE AMAZON

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Abstract

Vaccination is one of the most appropriate public health intervention measures, as an indisputable means of prevention, one of the last and extensive advances in health technology in recent decades. It is a major strategy to combat and control infectious diseases in the world. This study aims to analyze parents' perception of the importance of vaccinating children from 0 to 15 months in a gold mining region of the Amazon. The research was of the descriptive and exploratory type, with qualitative approach, carried out in an Edson Botelho Basic Health Unit in the city of Itaituba-Pará- Brazil. Parents who attended the health unit to have their children vaccinated participated in the survey, and the sample was saturated. The collection took place by means of a semi-structured interview form, consisting of two parts: the first consisting of personal data of the research subjects and the second consisting of open questions regarding the knowledge of the importance of vaccination and guidelines they receive in the vaccination room. The data analysis was by Bardin's analysis technique. The results of the survey pointed out: 15 mothers participated in the study and they consider the act of vaccinating very important, it was also evident that the children have some adverse events related to vaccination, however, the guidance of the nursing team is fundamental in the care of the vaccinated, and this reflected in the good evaluation of this team by the clients. It is concluded that mothers perceive vaccination as an important act, because they protect their children from many diseases, in addition, that in some vaccines the adverse effect is expected, however, this does not influence the practice of non-vaccination.

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Introduction:-

Vaccination is one of the most effective public health strategies, besides being economical, it is active to prevent diseases and increase quality of life, especially in more exposed individuals, with social vulnerability, especially related to poverty (Sato, 2015; Silva Junior, 2013).

In this way, they contribute directly to the minimization of child morbidity and mortality and this is configured on a global scale. Unquestionably, it is an advance in health-related medical technology in recent times, thus inferring numerous benefits for all who use it as an instrument of health and prevention (Lessa & Schramm, 2015; Martins, Lene, & Morales, 2018).

Immunisation is a preventive medical service for all children worldwide. Although immunization schedules are different in some countries, they all institute a series of standard vaccines for children to grow and develop in a healthy and appropriate way (Andre et al., 2011).

In Brazil, there is a main calendar of vaccines, of common entrance and totally free. In addition to the vaccination of habit in health services, the National Immunization Program (NIP) applies the tactic of national vaccination days to raise the vaccination coverage. Most goals related to vaccination in Brazil are achieved according to the NIP, although each vaccine and target audience has a different goal, giving the country worldwide recognition for vaccination actions, considered a measure of social scope (Domingues, Fantinato, Duarte, & Garcia, 2019; Temporão, 2003).

Despite all the benefits already evidenced by the literature, an abundant number of unvaccinated infants is still perceived. There is a gap between this possible practice and its authentic contributions to child survival. About three million boys and girls die each year throughout the world. And all of this is catalogued with the failures involved in the process of meeting the goals of the vaccination calendar recommended by the NIP (Aps et al., 2018; Barros, Santos, Bertolini, Pontes Netto, & Andrade, 2015).

In Brazil, there was a decrease in the number of deaths in children and this was possible due to the implementation of the NIP in the Family Health Strategy (FHS), which provided the implementation of preventive and educational actions that successively stimulate routine vaccination (Ministério da Saúde Brasil, 2012).

In this context, the nursing team is fundamental in the process of adherence of these parents to the vaccination schedule. In addition, it is known that nursing is the integral responsible for the vaccine sector, with the purpose of administration, evaluation of the vaccination scheme, and guidance of parents or guardians on the importance of childhood vaccination (Fossa, Protti, Rocha, Horibe, & Pedroso, 2015).

The nursing team establishes a huge contribution within this totality, contributing in an integral way to a complex assistance, exercising all the recommendations proposed by the Ministry of Health (MH) and the NIP related to child immunization. Despite all the encouragement from the related agencies, there is still an extensive void in the child's vaccination card, and the nursing professional is the main protagonist for the appropriate consummation of vaccination at the first age (Marchionatti, Dias, & Santos, 2003; Maria Aparecida Diniz Pereira & Barbosa, 2007).

Lately, both routine and specific vaccinations for children have proved essential in the fight against and control of immunopreventable diseases. However, there are still major barriers to be overcome in order to achieve the goals of vaccination coverage and its homogeneity in all Brazilian municipalities (Duarte, Oliveira, Guimarães, & Viegas, 2018; Viegas et al., 2019).

Millions of children die or suffer sequelae worldwide as a result of immunopreventable diseases, causing suffering to families and generating continuous and unnecessary expenses to the public coffers. All of this is synthesized as consequences of misinformation (wrong or insufficient information), myths, adverse effects, religious ideologies, lack of vaccines, etc. (Diez, Hayward, & VanDerKolk, 2017).

Faced with the facts, this study presents as a guiding research question: What is the parents' perception of the importance of adherence to the infant's vaccination calendar? In this sense, this research aimed to analyze the

perception of parents regarding the importance of vaccination of children 0 to 15 months in a gold mining region of the Amazon.

Methods:-

Field research, with a quanti-qualitative, exploratory and descriptive approach. The research was conducted at Edson Botelho's Basic Health Unit (BHU), a reference unit in the city of Itaituba, which is located in the southwestern region of Pará, in the northern region of Brazil, founded on December 15, 1856 emancipated on October 31, 1935, has a total area of 62040.1 km², altitude 15 m, population 97 493, estimate IBGE/2010.

The BHU of reference for vaccination care in the city was inaugurated on July 1, 2016, and has an estimated 18,240 consultations per year, including: medical appointments, prenatal appointments, nursing appointments, collection of foot test, service in the vaccination room, screening, verification of blood glucose and collection of Preventive Cervical Cancer Exam (PCCE).

Fifteen parents or guardians who were accompanying infants for vaccination were included in the survey. The sample was saturated, which according to Fontanella, Ricas, &Turato, (2008), consists of an instrument used to establish or close the sample size. The closure of the sample by theoretical saturation is defined as the suspension of the inclusion of new participants when the obtained data present, in the evaluation of the researcher, a certain redundancy or repetition.

For inclusion criteria: Parents or guardians who attend BHU to vaccinate infants, who were in the daily activities of the unit, over 18 years. For exclusion criteria: Parents/guardians of infants who sought the unit for other health programs.

The data collection was carried out in the morning and afternoon, in the months of November and December 2019 through a semi-structured interview, consisting of two parts: the first of socioeconomic data of the survey participants and the second of open questions regarding the perception of the importance of vaccination of infants between 0 to 15 months.

For the analysis of the data, it was carried out by the analysis of the content of Bardin, allowing the construction of categories for the formation of the corpus of analysis, allowing the manifestations of the subjects about their feelings.

According to Bardin, (2016) the first phase synthesizes into a stage of organization, which presents itself in a definite and precise way, but although malleable in all senses. The process involves choosing the documents that will be evaluated, formulating all the objectives, elaborating codes that will be based on the standard preparation of the content. The second phase focuses on the exploration of material and class design. The primary phase, therefore, is where a deep study is made of all the material. The third phase is contextualized in the treatment and results, in it happens the thickening of the information that stood out for the analysis of the facts, this moment of reflection and critical analysis.

At every stage of the research, ethical aspects were considered. Initially, the objectives and methodology were presented, guaranteeing freedom of participation, with the right to suspend or withdraw consent, without any prejudice. Subsequently, authorization was requested by signing the informed consent form for each participant. Anonymity was achieved by coding according to the order of entry into the study with pseudonyms. The interviews were conducted after signing the Informed Consent Term and carried out in compliance with Resolution No. 466/2012 of the National Health Council (Ministry of Health Brazil, 2012), with the approval of the Ethics Committee of the Centro Universitário da Metropolitana Amazônia with the number of opinions 3,669,667.

Results and Discussion:-

Fifteen parents were interviewed at BHU Edson Botelho, identified from P1 to P15. In relation to the degree of schooling it was verified that 10 (66.7%) participants have completed high school, 05 (33.3%) of the participants have completed higher education, 15 (100%) of the interviewees are female, 08 (53.3%) are single, 07 (46.7%) are married, over the fixed income 5 (33.3%) receive less than 1 wage, 06 (40%) receive 1 minimum wage and 04

(26.7%) receive between 1.5 and 3 minimum wages in relation to age it was identified that they were between 20 and 39 years.

All the mothers interviewed reported that immunisation of their children was important. It was noted that it is a positive result, as raising their awareness of the importance of the vaccination process helps in disease control. Their interpretation of their children's vaccination will influence the conduct of the child's health care. In order to organize the survey information, the parents' testimonies were described and divided into three categories:

Category 01: The importance and benefits of child vaccination

We observe the subjects' lines in the sections described below:

[...] "Yes, children are protected from disease." (P6)

[...] "Yes, healthier children." (P7)

[...] "Yes, disease immunization." (P15)

[...] "Yes, avoid the most serious contagion of diseases". (P1)

[...] "Yes, prevent disease." (P2, P3, P4, P5, P8, P9, P10, P11, P12, P13, P14).

It has been shown that parents recognize the importance of vaccination and see prevention as the main benefit for their children.

Similar to the results of Santos, Barreto, Silva, & Silva, (2011) who showed that mothers and caregivers perceive the vaccine as an essential factor for the prevention of diseases in their children, and also highlight the importance of raising parents' awareness of this reality, as they perceive positive results in the care of infants.

In a study on the knowledge of mothers regarding vaccines, it showed that 88.4% recognize the importance of vaccines in the health of the child, but reported not knowing which vaccines are being administered and for which diseases they will prevent, being evident the lack of nursing guidance in the vaccine room (Vanessa G. de Oliveira, Pedrosa, Monteiro, & Santos, 2010).

In a survey conducted in the southern region of Brazil, participants reported having some kind of information about childhood vaccination, making it clear that the goal of immunization is the prevention of diseases. In addition, they recognized that the deficiency of vaccination confers vulnerability to diseases (Andrade, Lorenzini, & Silva, 2014). These data check with those found in this research.

Corroborating Ferreira, Freitas, Viegas, & Oliveira, (2017) ensures that immunization is a proven act to control and abolish infectious diseases and is estimated to prevent between two and three million deaths per year, being the key strategy across the planet.

For Rosa, (2016) vaccination coverage is an important health indicator. Child health care is essential, as various illnesses can be prevented in childhood, thus achieving a better quality of life in the infant phase and beyond.

Vaccination is a health acquisition with excellent cost and effectiveness, producing amazing health impact, preventing millions of deaths per year and increasing life expectancy. As the number of vaccines available and their use by public health programs have increased, so has the abundance of people and groups who express concerns about the safety and accuracy of vaccine administration. Parents, caregivers, patients, and health professionals themselves are part of these groups (Mizuta, De Menezes Succi, Montalli, & De Menezes Succi, 2019).

Category 02: Post-vaccination reaction (which) and illness due to lack of vaccination

Reports from two participants respectively:

[...] "Yes", fever and pain, for lack of vaccine: "no" (P6)

[...] "Yes", only fever, as for illness due to lack of vaccine: "unknown". (P13, P11, P14, P9)

[...] "Yes," as for illness due to lack of vaccine: "I don't know". (P2, P4, P1)

[...] "No" as to illness for lack of vaccine: "no". (P5, P7, P10, P8, P3)

[...] "No" as to illness for lack of vaccine: "yes". (P12, P15).

It was clear from the parents' report that most of their children had some kind of post-vaccination reaction, among the most cited were fever and pain. Most mothers are unaware of any case of disease related to lack of vaccination, however, two mothers claimed to know children who fell ill due to lack of vaccination.

Despite the obvious importance in the eradication or control of different infectious diseases, vaccines are repeatedly related to questions and criticism about adverse effects. They have also remained entangled in some tragic events in the pharmaceutical industry. The largest of these occurred in 1955, after a defect in the production procedure of polio vaccine based on inactivated viruses. Other events were reported involving specific elements of BCG (Bacillus Calmette-Guérin), triple viral (measles, mumps and rubella), rotavirus, oral poliomyelitis, and cellular pertussis vaccines. Because of these episodes, efforts were invested to ensure maximum pledge in vaccine production and use and definitively solved problems such as those mentioned above (Aps et al., 2018; Piacentini & Contrera-Moreno, 2011).

The large presence of Post Vaccine Adverse Effects (PVAE), discovered in research by M. C. D. S. Santos, Netto, & Andrade, (2016) and also confirmed in other studies. It is noteworthy that in this age group (0 to 15 months) there is a maximum grouping of vaccines applied and the immune system is still immature, adding the perspective of infectious process, allergies and clinical adulterations that can be integrated to vaccination.

The most common systemic reactions are: fever greater than or equal to 38°C and susceptibility that occur in approximately 50% of the doses applied. Other milder systemic reactions include drowsiness, loss of appetite and vomiting, whose approximate constants are 33%, 20% and 7% of the applied doses, respectively. Constant inconsolable crying lasting three hours or more occurs more rarely in 1% of the doses applied and is usually associated with pain (Moura et al., 2015; Silva et al., 2016). These data corroborate data found in this study, in which fever was indicated as one of the main post vaccine adverse reactions.

Category 03: As for guidance and nursing attendance in the vaccination room

The subjects' lines were observed in the sections described below:

[...] "Yes, some can cause reactions and they guide us on, in the services I've already received I've always been well attended to. (P4)

[...] "sometimes yes, great." (P14)

[...] "Yes, the vaccine has no reaction, great." (P3)

[...] "Yes, I have to give a medication, when the reaction vaccine, the service is excellent". (P6)

[...] "Yes, making compress and giving a remedy, it's good, I've always been well taken care of and guided. (P2)

[...] "Yes, compresses, great." (P12)

[...] "Yes, make compresses with cold water, etc, very good". (P13)

[...] "Yes, how many reactions and compresses, great." (P5)

[...] "Yes, cold compress application, excellent." (P1)

[...] "Yes, cold compress, medication, great." (P8)

[...] "Yes, perform cold compress on site, good." (P11)

[...] "Yes, cold water compress, great." (P15)

[...] "Yes, make compress and give medicine for fever, great". (P9, P7, P10).

It was noticed in this study that nursing is responsible for the vaccination room, having great chances to intervene, not only in the immunobiological administration, but also in the evaluation of the vaccination scheme and orientation of parents or guardians about the importance of childhood vaccination.

In the study by Menor et al, (2016) the role of nursing and its importance in the technical supervision of vaccine rooms were addressed, in addition to its contribution in the organization of the service, continuing education of nursing staff and epidemiological surveillance.

For Matheus Adriano Divino Pereira et al, (2019) the nurse becomes an important character, performing nursing management in the production of care, directing the service to the achievement of expected results and impacting beneficially and satisfactorily on the quality of care provided. The management of both immunobiological care and guidance provided to parents and caregivers allows identifying how important nursing is in the context of vaccination.

According to Oliveira et al, (2018) through systematic supervision, the health professional can guide, support and assist the team by improving the performance of professionals and, consequently, making them more competent. However, to exercise supervision, in addition to the supervisors' knowledge about immunization, learning in the management area using specific tools for this purpose is relevant.

Corroborating Andrade et al, (2014) exposes that once the nursing group has maximum contact with the user, it is of main importance to emphasize that this team has power of intervention regarding health education when guiding mothers and/or caregivers for the seriousness of childhood vaccination. As a vaccinator, the nursing professional has the chance to act as an educator at the time of vaccination, communicating fundamental information related to the prevention of diseases, contributing so that families realize the value of immunization, defined as a method capable of avoiding diseases.

Conclusion:-

This research presents the parents' perception of the importance of children's vaccination in a Basic Health Unit of reference within the mining area of the city of Itaituba in the state of Pará-Brazil.

It was noticed that all the women interviewed were women (mothers), thus showing that the role of child care is still mostly of the mothers. The age of the interviews was between 20 and 39 years, most of them were in high school, single and survive with family income of one minimum wage.

It was identified that mothers care about adherence to the vaccination calendar and it was also perceived how serious it is to take their children to the vaccination room. They attribute an important role to nursing, because in addition to establishing a link with these professionals, they realize the importance of child care and management care in the vaccination room recommended by the Ministry of Health. Thus, they consider vaccination to be a complex assistance.

Furthermore, it was identified through this research that mothers perceive vaccination as an important attitude for the healthy development of their children, they know that adverse effects can occur and also what they can cause, however, this does not hinder compliance with the vaccination schedule, since nursing always advises on post-vaccination care and possible reactions. Thus, the importance of the nursing team's guidance to these parents is evident, and this influences the good assessment of the team by the clients.

In view of the above, it is clear that parents understand the importance of vaccination and that although the city is located in a mining area of the Amazon region, the nursing professionals who work in the care of the user who seeks the vaccination room are qualified and always offer a good service and good guidance for customers. Moreover, it is evident that there is no delay or lack of vaccines for children due to lack of human resources or material resources.

Compliance with Ethical Standards:

Funding:

This study has not received funding.

Conflict of Interest:

All the authors declare that they have no conflict of interest.

Ethical approval:

All procedures performed with the participants of this study were based on the principles of the resolution of the National Health Council of Brazil, 466/12. Thus, the anonymity, privacy and confidentiality of the participants were maintained. The research was approved by the Ethics and Research Committee of the Centro UniversitárioMetropolitano da Amazônia. Opinion Number3,669,667.

Informed consent:

Informed consent was obtained from all individual participants included in the study.

Data Availability Statement:

The original data data used to support the findings of this study are currently under embargo. Requests for data,

[6/12 months] after publication of this article, will be considered by the corresponding author.

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