

# Immunizations of Children from 0 to 2 Years: Knowledge of Caregivers and Actions of the Nurse in Family Health Strategy

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**Abstract— Objective:** To identify the main actions developed by nurses in the immunization process, the existence of the practice of care and education in health and describe the caregiver's knowledge about immunization of children under two years. **Methods:** Field research with prospective approach, descriptive objective, qualitative-quantitative approach and phenomenological epistemological assumption held with senior professional nurses and caregivers of children aged 0 to 2 years, two Health Units Family. He began collecting data after approval by the Ethics and Research Committee. Data collection was carried out between February and April 2016, lasting 65 days. We used two types of questionnaires, one for nurses, with open and closed questions, and another destined to caregivers, with closed questions. **Results:** Caregivers of children are mostly female. The age range is between those who had reached adulthood. There is a plurality of children within

most families. The level of education is low, but with a tendency to growth. Study involving nurses: mostly female, 7 (87,5%), predominantly aged between 30 and 40 years, 5 (62,5%), 10 to 15 years of professional experience, 4 (50%), and at least two employments, corresponding to 6 (75%) of the screened sample. **Conclusions:** There are aspects that need to be studied and thought throughout our society, opening banks to have more studies aimed at preventive practices with host and to improve the lives of nurses, helping them with findings that improve their health actions.

**Keywords—** Children. Caregiver. Nurse. Immunization. Knowledge.

## I. INTRODUCTION

The world population has a preventive resource of extreme importance to health, which is vaccination, as it provides protection against serious diseases, reducing the

circulation of infectious agents, acting as a shield for the community. Children are individuals who, from an immunological point of view, are more prone to acquire diseases, so their first five years should be met with immunization measures against immunopreventable pathologies (OLIVEIRA et al., 2010).

Santos et al. (2011) state that activities in the vaccination room should be carried out by trained persons. In addition, it is important to pass on the knowledge and guidance necessary for caregivers to realize the importance of immunization as a prophylactic measure of disease. The caregiver needs to feel informed and welcomed to develop the essential minimum of quality of life care for their children (TERTULIANO & STEIN, 2011).

The importance of a study aimed at education in immunization with the host is necessary to: guide caregivers, minimize vaccine shortages and distancing the caregiver with the health team, give subsidies to the educational actions in health and guide the nurse on the reception in his work process in the vaccine room. Therefore, the following questions are asked: what are the knowledge of caregivers and what are the main actions developed by the nurse and in this process?

This study aimed to identify the knowledge of the caregiver regarding the immunization of children under two years and the main actions developed by the nurse in the vaccination process, with detection of the practice of health care and education in two Family Health Units (FHU).

## II. METHODOLOGY

The present study is a field research, with a prospective focus, a descriptive objective, a qualitative approach and a phenomenological epistemological assumption, as a theoretical reference tool which was performed with caregivers of children aged 0 to 2 years and with professional nurses, graduates of two Family Health Units - FHU of the municipality of Porto Velho-RO, being: FHU Agenor de Carvalho and FHU Socialista.

The research was developed in order to ensure compliance with Resolution 466/12, referring to research involving human beings, started with the authorization of the Municipal Immunization Secretariat, approval of the CEP, by the Research Ethics Committee of the Federal University of Rondônia - UNIR, under the number of opinion 1,128,565, on June 1, 2015, signing the Term of Free and Informed Consent (TFIC) by the respondents and then the instruments for data collection were applied. Data collection started on February 22, 2016 and ended on April 27, 2016, with a duration of 65 days. All

questionnaires were retrieved and there was no sample loss.

The definition of the sample was based on the non-probabilistic form, which included 60 caregivers, selected from 0 to 2 years old children, 30 from FHU Agenor de Carvalho and 30 from FHU Socialista, who accepted to participate in the study and 8 nurses, 4 from FHU Agenor de Carvalho and 4 from the FHU Socialist, invited to participate in the research, acting and / or responsible for each of the vaccination rooms of the FHU researched.

During the research, researchers were informed about the purpose of the study and the free right to choose to participate, as well as the need to sign the informed consent form.

After the signing of the TFIC, the instruments of data collection were distributed to caregivers and nurses. The questionnaire of the caregivers contained 13 closed questions and the subjects surveyed responded when they took the children for vaccination. The nurses' questionnaire, with 11 argumentative questions, 4 closed and 11 open, were delivered at the beginning of the files and collected at the end.

The quantitative data were tabulated in Microsoft Excel 2010 and exposed through tables and graphs along with their arguments. For the content analysis of the open questions we used the content analysis method proposed by Martin Heidegger, the results were exposed, guaranteeing the confidentiality, by pseudonyms represented by names of plants of the Amazonian biodiversity and confronted with the pertinent scientific literature.

## III. RESULTS

### 3.1 Characterization of Caregivers in Socio-demographic Aspects

Regarding gender, it was observed that 58 (96.7%) female caregivers and 2 (3.3) male caregivers. In the age group, 28 (46.6%) aged 20 to 29 years, 17 (28.3%) between 30 and 39 years, 14 (23.3%) under 20 years, 1 (1.6%) between 40 to 49 years and 0 (0%) and over 50 years. Twenty-one (36.6%) were single, 20 (33.3%) were in a stable union, 16 (26.6%) married, 1 (1.6%) in legal separation and 1 (1.6%) widowed. We have 25 (41.6%) caregivers who have a child, 23 (38.3%) have two children, 7 (11.6%) have three children and 5 (8.3%) have four or more children. 35 (58.3%) had completed or incomplete high school, 17 (28.3%) reported having studied elementary or incomplete elementary education, 7 (11.6%) attended either complete or incomplete higher education and 1 (1.6%) have some type of postgraduate, master's and/or doctorate degree.

Table.1 - Sociodemographic characterization of caregivers attending FHU Agenor de Carvalho and FHU Socialista. Period from February to April 2016.

DATOS	VARIABLES	FHU AGENOR DE CARVALHO		FHU SOCIALISTA		TOTAL	
		Nº	%	Nº	%	Nº	%
GENRE	Male	1	1,6	1	1,6	2	3,3
	Female	29	48,3	23	48,3	58	96,7
AGE GROUP	Under 20 years old	7	11,6	7	11,6	14	23,3
	20 a 29 years old	10	16,6	18	30	28	46,6
	30 a 39 years old	12	20	5	8,3	17	28,3
	40 a 50 years old	1	1,6	0	0	1	1,6
	Over 50 years	0	0	0	0	0	0
MARITAL STATUS	Not married	10	16,6	12	20	22	36,7
	Married	8	13,3	8	13,3	16	26,6
	Stable union	11	18,3	9	15	20	33,3
	Legal Separation	0	0	1	1,6	1	1,6
	Widower	1	1,6	0	0	1	1,6
NUMBER OF CHILDREN	A son	8	13,3	17	28,3	25	41,6
	Two sons	17	28,3	6	10	23	32,3
	Three sons	3	5	4	6,6	7	11,6
	Four sons or more	2	3,3	3	5	5	8,3
EDUCATION	No schooling	0	0	0	0	0	0
	Element. School Completed or incomplete	9	15	8	13,3	17	28,3
	High School Completed or incomplete	17	28,3	18	30	35	58,3
	Higher Education Completed or incomplete	4	6,6	3	5	7	11,6
	Postgraduate, Master and Doctorate	0	0	1	1,6	1	1,6

Source: Araújo et al, 2016.

Legend: FHU = Family Health Unit

It was evidenced that there is predominance of the female sex, being 96.7% among the caregivers.

Increasing studies on infant vaccination are based on female samples, with statements from mothers, who predominantly participate in this process. The participation of the men-parents in the vaccination of their children is little found and their understanding of the issue is also scarce (BARBIERI, 2014; GUTIERREZ & MINAYO, 2010).

Regarding the caregiver's age, there were predominance of those who had reached the adult stage, with 28 (46.6%)

caregivers between 20 and 29 years old and 17 (28.3%) caregivers between 30 and 39 years old and 1 (1.6%) caregiver was between 40 and 50 years old.

Cavalcanti & Nascimento (2015) report that mothers who are of age are better able to develop the process of childhood vaccination due to the maturity they have already acquired, and that they are more likely to seek knowledge about prevention and health promotion measures, as is the case of childhood vaccination.

The extreme ages of the caregivers, such as younger age, and elderly people over 60 years of age are considered

risk factors for current vaccination, since several studies show that in these phases there is the highest level of forgetfulness (Cava- cal et al. 2015).

In relation to the marital status, 20 (33.3%) stated stable union and 16 (26.6%) were married, making a total of 36 (60%) caregivers, more than half of them researched, committed to their spouses and involved in family commitments.

This result is in line with other studies that also have a predominance of caregivers with partners in their sample, such as the authors Cavalcante et al. (2015), who obtained 74.62% of married caregivers, of the authors Yococura et al. (2013), which quantified 81.8% with colleagues.

Sixty-three caregivers, the largest portion of the sample, were 60 children, and 23 caregivers with two children (32.3%), 7 caregivers with three children (11, 6%), 5 caregivers with four or more children (8.3%), showing that the greater number of caregivers have already acquired some experience regarding the immunization of children under two years of age.

Carneiro et al. (2013) in analyzes of the results of their study, related the higher numbers of children to risk factors for vaccine delay. Another author says that associated with the greater number of children, there must be some unfavorable internal or external condition for the vaccine to be disregarded, otherwise it would not be a hindrance (CAVALCANTE et al., 2015).

The education level of the population studied is more concentrated between high school and elementary school. A total of 35 (58.3%) of those surveyed reached high school and 17 (28.3%), caregivers who only had complete

or incomplete elementary education, culminating in a low level of education.

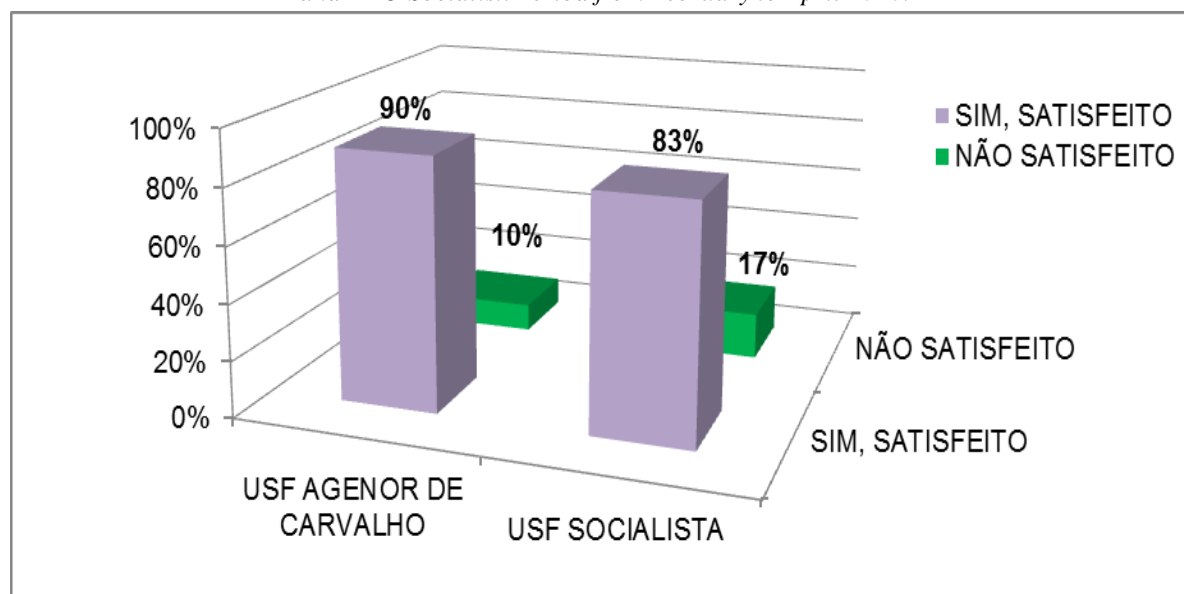
According to Silva & Borges (2011), the mothers' education influences how they receive information about their children's health and their time of study is of paramount importance in research that deals with the health of the child. knowledge will influence how they develop care for their children. In case of low schooling, there is no correct understanding of past information.

It is concluded in this research that female caregivers are the ones who are most involved in the life of these children. The risks of the caregivers' age range are diminished in the studied population, since they are not in the extreme ages, as in the case of adolescence and the elderly. The plurality of children found is a point to be considered positive or negative for the acquisition of knowledge in the vaccination process, but it depends very much on the personal situation and stimulus of each individual. Low schooling has shown that the population may have difficulty understanding past information, but they are beginning to diversify their intellects.

### 3.2 Satisfaction with the Service, Difficulties Generating Vaccine Delays and Facing the Vaccine Reactions

The 60 respondents were asked if they were satisfied with the FHU in which they vaccinated their children in order to know their feelings about the services offered. At FHU Agenor de Carvalho 27 (90%) are satisfied and 3 (10%) are dissatisfied. In the FHU Socialista, 25 (83%) are satisfied and 5 (17%) are dissatisfied, as shown below, in figure 01.

Graph 01 - Caregiver satisfaction with the Family Health Unit in which your child is vaccinated. FHU Agenor de Carvalho and FHU Socialista. Period from February to April 2016.



Source: Araújo et al, 2016.

Legend: USF = FHU and SATISTEITO = PLEASED

The results show that in both units the majority of caregivers are satisfied with the immunization services offered.

Massuia, Mendes & Cecílio (2010) stated that this concern is necessary due to the urgency to highlight the quality and efficiency of the public service provided, the host practice, because in unsatisfactory cases there is a probability of resurgence of cases of immunopreventable diseases, the satisfaction of the user would indicate ways of working to have the optimization of management in immunization services.

Of the 30 respondents from each FHU, 20 (67%) confirmed delaying the vaccines and 10 (33%) never delayed them, we found that, in total, 40 (67%) caregivers face some hindrances that lead to delays.

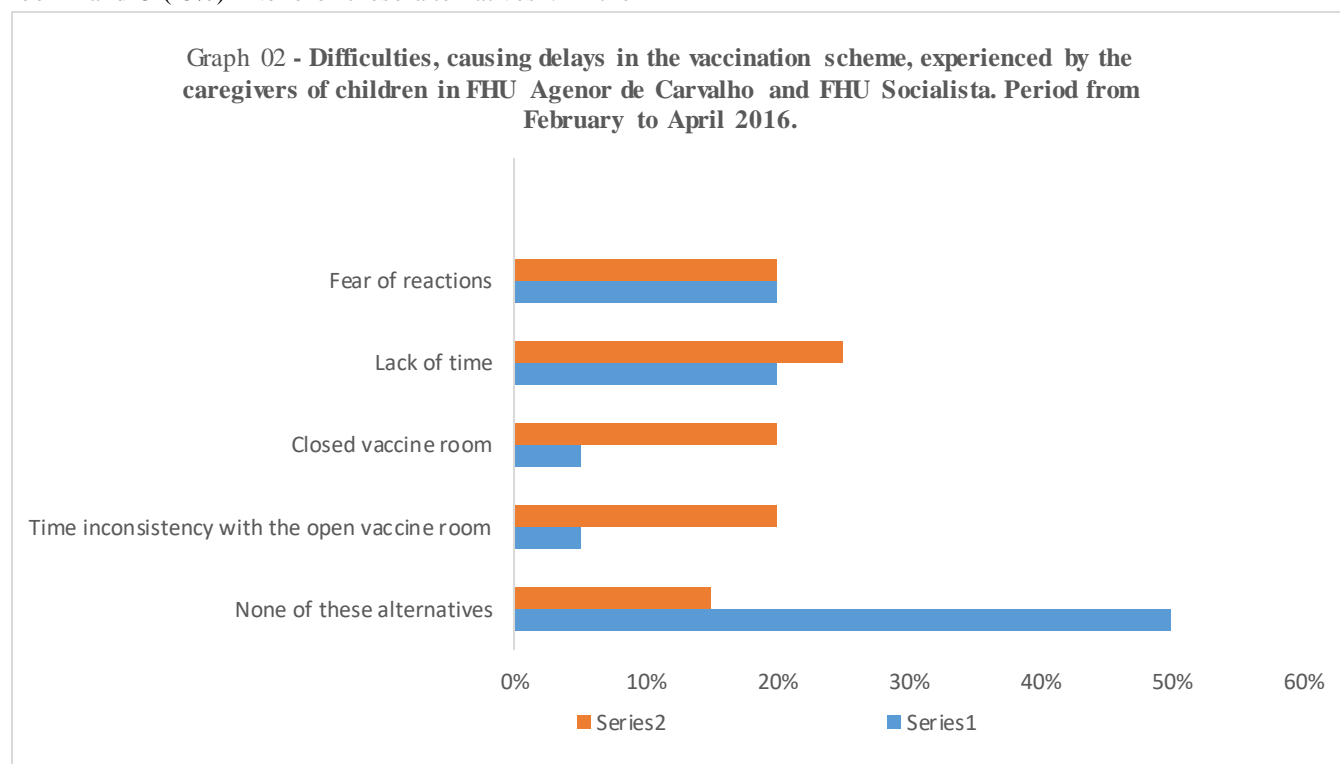
Of the difficulties that the caregivers face to vaccinate their children we have the quantification: in FHU Agenor de Carvalho 5 (25%) chose the "lack of time", 4 (20%) the "Fear of reactions", 4 (20%) a "Closed vaccine room", 4 (20%) "Time inconsistency with the open vaccine room" and 3 (15%) "None of these alternatives". In the

Socialist FHU 10 (50%) chose the option "None of the alternatives", 4 (20%) the "Fear of reactions", 4 (20%) "Lack of time", 1 (5%) closed vaccine "and 1 (5%) the" Incompatibility of time with the open vaccine room". (See Graph 02).

In the analysis of the data presented above we have: the lack of time with 5 (25%) surveyed at FHU Agenor de Carvalho and 4 (20%) surveyed were left with this option at FHU Socialista.

This result is in agreement with the study that reaffirms that the various commitments assumed by the parents are the detrimental factor of the memories of the doses scheduled in the child's vaccination schedule, citing the work day as one of the obstacles in vaccination (ANDRADE, LORENZINI & SILVA, 2013).

Vale et al. (2014) indicates that the difficulty in being away for a considerable time from their personal activities, or often domestic activities, is a factor that leads to the desistence of vaccination in a few days and the vaccine loss



Source: Araújo et al, 2016.

Legend: Série 2 = FHU Socialista.

Série 1 = FHU Agenor de Carvalho

The fear of the vaccine reactions obtained 4 (20%) choices in each FHU researched, being this a considerable percentage, since it totalizes 8 caregivers, out of 60 researched ones, who declare this reality. Despite this fear, 93% in the FHU Agenor de Carvalho and 90% in the FHU Socialist, declared to be knowledgeable of the post-vaccinal adverse events, with, which denotes an educational work on this subject. Fever was reported by 14 (47%) and 13 (43%) and pain by 4 (13%) and 6 (13%)

of the most frightening reactions in FHU Agenor de Carvalho and FHU Socialista.

Concern and fear about vaccine risks interfere with parents' vaccination decision (FIGUEIREDO et al., 2011). The presence of adverse reactions, which are greater than expected, are one of the causes of vaccine delays and abandonment of the vaccination program, so these problems can not be under complete occlusion from the perspective of health services so that strategies can be



created to combat the breaks for this reason (SILVA, 2014).

The frightening fame of the vaccines stems from its initial history of implantation, since these caused risks and required courage to be taken. Today, however, the vaccine is among the safest biological products and any adverse event occurring must be systematically reported in the National Post-Vaccine Adverse Event Surveillance System, to undergo investigations and clarifications, ensuring the population a service of quality (BRASIL, 2014; PIACENTINI & CONTRERA-MORENO, 2011).

This information needs to be passed on to mothers so that they become more reliable in immunization services. 3.3 Expectativas e Saberes dos Cuidadores para com a Vacinação

Caregivers were questioned about the importance of vaccination, most of the population surveyed, FHU Agenor de Carvalho and FHU Socialista, respectively (93% and 90%), acknowledged the importance of immunization for the health of their children.

In the studies of Cavalcante et al. (2015), a result compatible with current research was found, where 98.46% considered the vaccine to be important and about 1.54% did not consider it relevant. The researchers considered this outcome beneficial to prevent illness and death of the child.

Vaccination is currently considered of great importance for the individual and collective protection of children against immunoprevalent diseases, as it acts to interrupt the transmission and results in its control or even its eradication (SOUZA, VIGO & PALMEIRA, 2012).

This result is favorable since vaccination is seen by caregivers as a strategy of real importance for the health

of the children, so this will allow a better adhesion of the population to the vaccination scheme of children under two years.

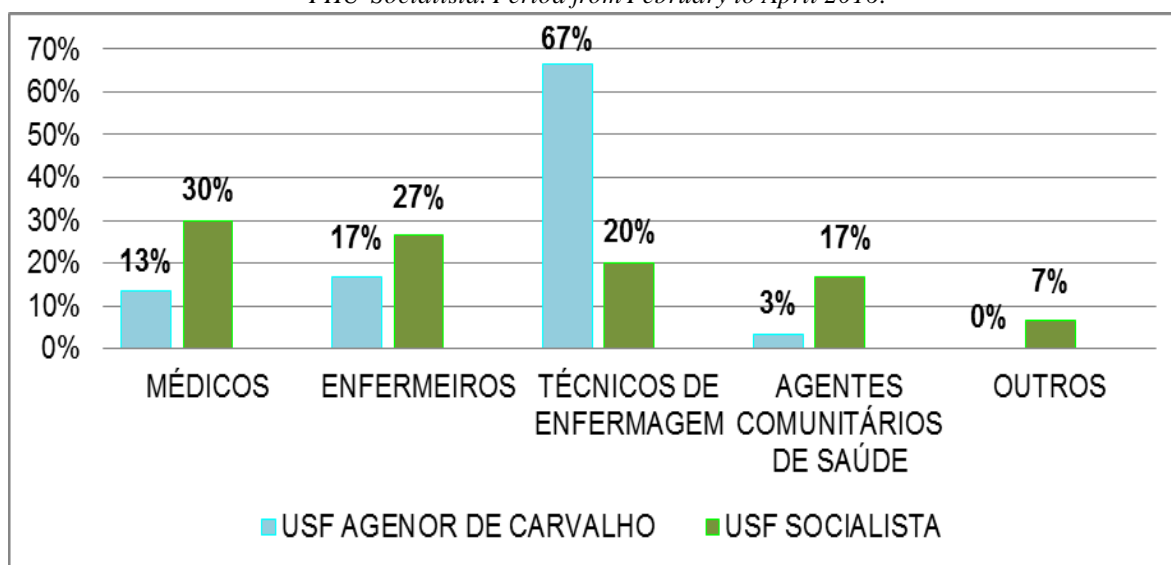
Caregivers were asked whether they were knowledgeable about the purpose of the vaccines administered to children. In FHU Agenor de Carvalho 28 (93%) and in the FHU Socialista, 20 (67%) surveyed know what the child immunization is for.

The results of a study have shown that a large proportion of the participants recognize the usefulness of immunization and label it as a strategy to protect children against various diseases, whose goal is focused on prevention and that lack of vaccination could make infants vulnerable to diseases (ANDRADE, LORENZINI & SILVA, 2013).

To this end, 25 (83%) caregivers received and in the FHU Socialista, 22 (73%) received guidance in the vaccine room, at FHU Agenor de Carvalho. It is well known that effective communication between mothers and health professionals promotes greater certainty that there is correct compliance with the childhood immunization schedule (ANDRADE, LORENZINI & SILVA, 2013).

Regarding which professional provides the most clarification to caregivers, we have the opinion of FHU Agenor de Carvalho, the nursing technicians with 67% of caregivers, nurses with 17%, physicians with 13%, Community Health Agents (ACS) with 3% and other professionals with 0%; in the FHU Socialist doctors were chosen by 30% of the sample, the nurses by 27%, the nursing technicians by 20%, the Community Health Agents - ACS by 17% and other professionals by 7% of the sample.

Graph 3 - Professional who provides more information about immunization to caregivers in FHU Agenor de Carvalho and FHU Socialista. Period from February to April 2016.



Source: Araújo et al., 2016.

It was noticed that the population studied is guided by several professionals, but there is still a greater prominence in the participation of the Technician in Nursing, with 67%, as the one that guides the population more.

Carvalho et al. (2015) argues that information pertaining to vaccination should be provided by the nurse and her team during the practice of vaccination and the visit of the puerpera to the health system. For this reason the team needs to be trained and prepared to teach, with health education methods, and clarify doubts, not forgetting to reinforce the importance of compliance with the vaccination schedule.

The nursing professional, as a vaccinator, is given another opportunity to develop as an educator while practicing his / her work activities, advising on the prevention of diseases and the importance of immunization in these cases to the diseases (ANDRADE, LORENZINI & SILVA, 2013).

### 3.4 Characterization of the Profile of Nurses that Work in Basic Health Units

Of the nurses studied, 7 (87.5%) are female and 1 (12.5%) are male; 5 (62.5%) aged 30 to 39 years, 2 (25%) between 40 and 50 years, 1 (12.5%) are over 50 years old and there are no professionals in the age group between 20 and 29 years ; 4 (50%) have 10 to 15 years of profession, 2 (25%) with 5 to 10 years, 1 (12.5%) with 15 to 25 years, 1 (12.5%) with more than 25 years and no participant has been active for less than 5 years; 6 (75%) have two jobs, 1 (12.5%) have three jobs, 1 (12.5%) have an employment relationship and there were no responses to the elective more than three jobs.

The nurse profile is mostly female, 7 (87.5%), with a predominant age group between 30 and 40 years, 5 (62.5%), 10 to 15 years of **professional experience, 4 (50%)**, and with at least two employment links, corresponding to 6 (75%) surveyed in the sample.

The study conducted by the Oswaldo Cruz Foundation (Fiocruz), on the initiative of the Federal Nursing Council - COFEN (2015) on the profile of nurses, shows that the nursing teams are formed by the female sex, **being composed of 84.6% women**. However, the study suggests that nursing is establishing an availability to masculinization, even though the present study still brings the predominance of women in the profession.

About the time of profession, according to Ramos et al. (2009), the higher the time spent in Family Health Nursing (ESF), there is a great possibility of acquiring experiences in the profession and forming links between the team and the user.

According to the present study in Rocha & Zeitoune (2007) on the profile of nurses of the Family Health Program - PSF in Florianópolis (PI), the predominant age

group of nurses was 31 to 40 years old and they pointed out that they have this reality because they are not adequately remunerated with their training and competence, they also affirm that the reality of working in more than one place is determined by the inadequate salary conditions of the professional and not by their spontaneous will.

Medeiros et al. (2010) found that although the accumulation of jobs leads to a wage increase, stress increases almost in the same proportion and this unfavorable condition interferes with the care provided and the health of the worker himself.

### 3.5 Effectiveness of Nursing Practice Guidelines in FHU and the Nursing Practice in the Immunization Process

The professional nurse is responsible for the supervision and monitoring of the immunization work, in addition to having the permanent education of the immunization team, this professional must guide and assist the population in safe conditions (BRASIL, 2014; TERTULIANO & STEIN, 2011).

The following nurses' reports reveal the importance of guiding immunizations:

"It will allow the user to recognize the importance of the vaccine [...] besides giving quality of life [...]. Orienting, reduces consultations due to illness" (Palmeirinha).

"Ensure that everyone is vaccinated, preferably in the correct age range. Since this practice decreases the rate of infant mortality and hospitalization" (Caapeba).

Much of this care that must be undertaken prior to and after vaccination can be done with clear, objective, succinct guidelines that contain the appropriate information to be truly understood (SANTOS et al., 2011).

Another important guideline on immunization is to:

"[...] demystify certain fears" (Castanheira).

By demystifying fears and erroneous empirical knowledge, the professional can not destroy the autonomy that users have to build their own health. However, he must listen attentively, acknowledge the other's knowledge, perceive his form of expression, welcome him and care for him with his attention focused on him (VASCONCELOS, GRILO & SOARES, 2009).

We questioned what educational strategies would work to keep caregivers oriented on the immunization process of children.

"Wheels of conversations and in the daily visits of the ACS" (Rubber tree).

Vasconcelos, Grilo & Soares, (2009) explains that in the wheels of conversation all the assembled members are invited to sit in a circle, then interaction dynamics are

developed, such as the presentation of each member, and activities on a particular theme they wish to teach to the target audience.

Another option of educational strategy would be an appeal to visual learning as reported below:

"The main strategy: to offer pupils and training to the ACS to explain the importance of vaccination, to train nurses and doctors of the changes in the schemes and more educational campaigns on TV and the internet" (Palmeirinha).

The ACS was incorporated into the Basic Health Team since the creation of the Family Health Program in 1994. This professional makes it possible to know the reality of the territory under his responsibility, therefore, the reality of the families (VASCONCELOS, GRILO & SOARES, 2009). taking advantage of this function of ACS would be a good educational strategy to incorporate activities that guide immunization, as pointed out by the researcher.

Regarding the nurse's response indicating the means of communication to inform, Araújo's study (2010) reports that there is a wide relationship between Communication and Health and that it is growing more and more each day, since communication has been used for the promotion of health, because in a mediated world, to use these means is fundamental plan and can be a good strategy of information to the Health Service.

The research pointed out that nurses think about the creation of educational strategies to keep caregivers informed, among which the ideas pointed out were: communication media and community health agents.

We question nurses about what immunization-related health education activities their staff performs within the FHU and / or campaigns:

"The main activity is during childcare consultations with evaluation of the vaccine booklet to assess delays in doses and activities performed by the ACS in the area. Discovery area does not exist many actions" (Palmeirinha).

Vasconcelos et al. (2012) points out that the moment of this consultation is an opportunity for the mother or caregiver to take her doubts, expose her difficulty of the day to day care of the baby, besides it is a great ally in the promotion of health and prevention of diseases.

Another strategy is groups as an educational medium that nurses claim to already utilize in the reality of their service.

"Groups of children, lecture on vaccination, supervision of CHAs in the area, as well as verification of the vaccination books" (Caapeba).

Campos et al. (2011) says that nursing consultations, medical consultations and groups are health services that favor the performance of all child care teams, in an

interim or joint manner, favoring the expansion and integrality of the service. We question nurses about what they understand immunization and if they practice it, they reported:

"It is measures and practices that must be developed with the population, aiming at adherence the vaccines advocated by MS. With actions of orientation empathy and mainly to develop in the user the responsibility and commitment [...]. Yes" (Palmeirinha).

"Immunization is a very important factor because it is through this action that a relationship of trust and commitment is built between the user and the healthcare team, that is where we have the opportunity to provide guidance on immunizations. Yes" (Vitória-Régia).

Nurses' reports on the host refer very much to the proper immunization guidelines. The study of Pereira & Barbosa (2007), whose theme is: nursing care in immunization: myths and truths; points out the nursing committed to all the actions of NIP implementation, being responsible, guiding and providing assistance with safety, responsibility and respect.

It was noticed, with most of the reports, that the nurses have the science that they must carry out the reception in the vaccine room, with the appropriate guidelines to their clients.

### **3.6 Motivation for the Development of Educational Strategies in Immunization**

Through the reports below we can see if nurses feel motivated or not to develop educational strategies in immunizations:

"Yes, always carrying out activities by the team to keep the children's vaccination updated" (Vitória-Régia).

The above speech shows that the reason the nurse is motivated is the very commitment required by his profession, which is to keep the vaccination of the children up to date, making him develop activities together with his team in this regard. For Robbins (2008), motivation is related to the existence of an interaction between some situation and the individual. Therefore, each person has a different reason to motivate himself.

"Motivated not, but we always have an obligation to encourage the parents to carry out the vaccination of the children and to guide the importance" (Babaçu-do-Amazonas).

"Service not motivated. I am motivated by the principles and responsibility I have with the children who consult with me" (Palmeirinha).

The professional dissatisfaction can reflect in their services, with apathy, indifference, lack of commitment,



irresponsibility, dehumanized relation with the clientele and lack of creativity (HORBACH & STEFANO, 2008).

It is generally concluded that nurses are dissatisfied with their work, but most perform their function in respect to the profession and the child.

### 3.7 Vaccine Delay and Its Determinants in Nurses' Perspective

Here are the reasons, in the opinion of the nurses for the vaccine delay.

"[...] ignorance, myths about the possibility of a vaccine to do harm," (Palmeirinha).

"Because they do not trust the vaccines and choose to postpone them or even eliminate them ... pure ignorance" (Burity).

Meeting the nurses' statements, the research by Tertuliano & Stein (2011) mentions the unstable family situation and the low level of schooling of the parents as a factor that can interfere in the vaccine delay in up to 25% of the cases.

A study carried out by França et al. (2009: 262) in campina grande-PB, says that: "the resistance of the parents was pointed out as the main barrier to the reach of vaccination coverage, which may be the result of beliefs, culture of the elderly and even the fear of vaccine reaction."

With the nursing professionals' science, observed in this study, about the factors that cause the vaccine delays, there is a greater chance to work the awareness of the caregivers regarding the correct fulfillment of the vaccination schedules and to plan strategies to take advantage of the vaccine opportunity.

## IV. FINAL CONSIDERATIONS

With regard to the development of immunization in the units surveyed, there was a growing progress in this area of preventive health, a satisfied population, knowledgeable about the process and the good it provides for its children, despite the delays and difficulties they face day to day. It was also noticed that the professional nurse is a subject who is trying to improve his health practices every day, because despite the dissatisfaction of the profession, they are more focused on giving their best thinking about the well-being of others. This study made clear some aspects that need to be studied and thought by the whole society of Porto Velho, opening up margins so that there are more studies that aim at preventive practices with reception and that improve the life of the nursing professionals, helping them with findings that would improve health actions.

## REFERENCES

- [1] ANDRADE, Deyse Rodrigues de Souza; LORENZINI, Elisiane; SILVA, Eveline Franco da. (2014). Knowledge of mothers about the schedule of vaccination and factors that lead to delayed childhood vaccination. *Cogitare enfermagem*, Rio Grande do Sul, v. 19, n. 1, Jan-Mar. Available at: <<http://revistas.ufpr.br/cogitare/article/viewFile/35964/22173>>. Accessed on: 11 May 2016.
- [2] ARAÚJO, Carolina Pires. (2010) Communication as a strategy for health promotion. Intercom - Brazilian Society of Interdisciplinary Communication Studies. XXXIII Brazilian Congress of Communication Sciences - Caxias do Sul, RS - 2-6 Sep. Available at: <http://www.intercom.org.br/papers/nacionais/2010/resumos/R5-0882-1.pdf> >. Accessed on May 10, 2016.
- [3] BARBIERI, Carolina Luísa Alves. (2014). Child Care and (non) vaccination in the context of Medium Laying Families in São Paulo / SP. 2014. 208 f. Thesis (Doctorate in science) - Faculty of Medicine of the University of São Paulo - São Paulo. Available at: <http://www.teses.usp.br/teses/disponiveis/5/5137/tde02122014-164155/en-br.php>. Accessed on: 11 May 2016.
- [4] BRAZIL, Ministry of Health. (2014). Manual of Norms and Procedures for Vaccination. 1st Edition. Brasília: Publisher Ministry of Health-MS.
- [5] BRAZIL, Ministry of Health. (2014). Manual of Epidemiological Surveillance of Adverse Events after Vaccination. 3rd Edition. Brasília: Publisher Ministry of Health-MS.
- [6] CAMPOS, Roseli Márcia Crozariol et al. (2011). Nursing consultation in childcare: the experience of nurses in family health strategy. *Revista Brasileira de Enfermagem*, v. 2, n. 45, n.3, p. 566-574, Jun. Available at: <<http://www.scielo.br/pdf/reeusp/v45n3/v45n3a03>>. Accessed on: May 10, 2016.
- [7] CARNEIRO, Samara guerra et al. (2013). Evaluation of Vaccination Coverage in children aged 2 months to 5 years in the Family Health Strategy. *Notebooks UNIFOA*, Rio de Janeiro, n. 22, Aug. Available at: <http://web.unifoa.edu.br/cadernos/edicao/22/63-72.pdf>>. Accessed on: 11 May 2016.
- [8] CARVALHO, Isabela Vitória Rodrigues Leal de et al. (2015). Knowledge of Mothers Regarding Vaccines Administered in the First Year of Life. *Brazilian Journal of Health Sciences*, Piauí, v. 19, n.3, p. 205-210. Available at: <http://periodicos.ufpb.br/ojs/index.php/rbcs/article/view/15885/15071>>. Accessed on: 11 May 2016.
- [9] CAVALCANTE, Anne Carolyny Moraes et al. (2015). The non-continuity of the vaccination scheme in children enrolled in Family Health Strategies units. *Revista de enfermagem - REVOL*, Recife, n. 9, s. 3,

- Apr. Available at: file:///C:/Users/francimar/Downloads/5286-70813-1-PB.pdf.  
Accessed on: 11 May 2016.
- [10] CAVALCANTI, Marília Abrantes Fernandes; BIRTH, Ellany Gurgel Cosme do. (2015). Aspects Interventions of the child, family and health services in child immunization. Journal of the Brazilian Society of Pediatric Nurses, Rio Grande do Norte, n.1, v. 15, p. 31 to 37, Jun. Available at: [http://www.sobep.org.br/revista/images/stories/pdf-revista/vol15-n1/vol\\_15\\_n\\_2-artigo-de-revisao-1.pdf](http://www.sobep.org.br/revista/images/stories/pdf-revista/vol15-n1/vol_15_n_2-artigo-de-revisao-1.pdf). Accessed on: 11 May 2016.
- [11] COFEN. (2015). Research - Nursing Profile. May. Available at: [http://www.cofen.gov.br/pesquisa-inedita-traca-perfil-da-enfermagem\\_31258.html](http://www.cofen.gov.br/pesquisa-inedita-traca-perfil-da-enfermagem_31258.html). Accessed on: May 27, 2016.
- [12] COESA, CONGRESS OF EDUCATION IN THE HEALTH OF THE AMAZON, (2014), 3, Pará. Report of experience on the vaccination situation of children in a neighborhood of Belém, Pará, 12-14 nov. 2014. Available at: <http://www.coesa.ufpa.br/arquivos/2014/expandidos/relatoexperiencia/REL266.pdf>. Accessed on: 11 May 2016.
- [13] FIGUEIREDO, Glória Lúcia Alves. (2011). Family experiences in the immunization of Brazilian children under two years old. Revista Latino-Americana de Enfermagem, São Paulo, n. 19, Jun. Available at: [http://www.scielo.br/pdf/rlae/v19n3/en\\_20.pdf](http://www.scielo.br/pdf/rlae/v19n3/en_20.pdf). Accessed on: 13 Apr. 2014.
- [14] FRANCA, Inácia Sátiro Xavier de et al. (2009). Vaccine coverage and infant mortality in Campina Grande, PB, Brazil. Revista Brasileira de Enfermagem, Brasília, v. 62, n. 2, p. 258-271, Apr. Available at: <http://www.scielo.br/pdf/reben/v62n2/a14v62n2.pdf>. Accessed on: May 10, 2016.
- [15] GUTIERREZ, Denise Machado Duran; MINAYO, Maria Cecília de Souza. (2010) Production of knowledge about health care within the family. Science & Collective Health, Rio de Janeiro, v. 15, suppl. 1, p. 1497-1508, Jun. Available at: <http://www.scielo.br/pdf/csc/v15s1/062.pdf>. Accessed on: 11 May 2016.
- [16] HORBUCH, A; STEFANO, S. R. (2008). Organizational motivation: a study in the Prudentópolis-PR hotels. Revista Eletrônica Lato Sensu, year 3, no. 1, mar.
- [17] MASSUIA, Dalva Rodrigues; MENDES, José Dinio Vaz. (2010). Satisfaction Survey of SUS Users. Coordinator of Disease Control/SES, São Paulo. Available at: [http://portal.saude.sp.gov.br/resources/ses/perfil/gestor/homepage/gais-informa/revista\\_satisfacao\\_sus.pdf](http://portal.saude.sp.gov.br/resources/ses/perfil/gestor/homepage/gais-informa/revista_satisfacao_sus.pdf). Accessed on: 20 May 2016.
- [18] MEDEIROS, Cássia Regina Gotler et al. (2010). The turnover of nurses and physicians: an impasse in the implementation of the Family Health Strategy. Science & Collective Health, Rio de Janeiro, v. 15, s. 1, p. 1521-1531, Jun. Available at: <http://www.scielo.br/pdf/csc/v15s1/064.pdf>. Access in: 4 april. 2016.
- [19] OLIVEIRA, Valéria Conceição. (2013). Nursing supervision in the vaccine room: the nurse's perception. Text Context Nursing, Florianópolis. Oct-Dec; 22 (4): 1015-2. Available at: <http://www.scielo.br/pdf/tce/v22n4/18.pdf>. Accessed on May 10, 2016.
- [20] PEREIRA, Maria Aparecida Diniz; BARBOSA, Sandra R. de Souza. (2007). Nursing care in immunization: the myths and the truth. Journal of Environment and Health, Minas Gerais, v.2, n.1, p. 76-88. Available at: [http://www.faculdadedofuturo.edu.br/revista/2007/pdfs/RMAS%202\(1\)%207688.pdf](http://www.faculdadedofuturo.edu.br/revista/2007/pdfs/RMAS%202(1)%207688.pdf). Access in: 4 april. 2016.
- [21] PIACENTINI, Sabrina; CONTRERA-MORENO, Luciana. (2011). Adverse events after vaccination in the municipality of Campo Grande (MS, Brazil). Science & Collective Health, Mato Grosso do Sul, v. 16, n.2, p. 531-536. Available at: <http://www.scielo.br/pdf/csc/v16n2/v16n2a16.pdf>. Accessed on: 22 May 2016.
- [22] RAMOS, Camilo Ferreira et al. (2010). Compliance with the schedule of vaccination of children in a family health unit. Pan-Amazonian Health Magazine, Ananindeua, v. 1, n. 2, p. 55-60, jun. Available at: [http://scielo.iec.pa.gov.br/pdf/rpas/v1n2/es\\_v1n2a06.pdf](http://scielo.iec.pa.gov.br/pdf/rpas/v1n2/es_v1n2a06.pdf). Accessed on: 12 Apr. 2014.
- [23] ROBBINS, S. P. (2008). Fundamentals of organizational behavior. São Paulo: Prentice Hall.
- [24] ROCHA, Jesanne Barguil Brasileiro; Zeitoune, Regina Célia. (2007). Profile of the nurses of the Family Health Program: a need to discuss professional practice. Journal of Nursing-UERJ, Rio de Janeiro, v. 15, n. 1, p. 46-52, Jan-Mar. Available at: <http://www.facenf.uerj.br/v15n1/v15n1a07.pdf>. Accessed on: 03 jun. 2016.
- [25] SANTOS, Leiliane Bezerra. et al. (2011). Mothers' perception of the importance of infant immunization. Rene Magazine. Fortaleza, v.12, n.3. Available at: <http://www.redalyc.org/articulo.oa?id=324027976024>. Accessed on: 04 Mar. 2014.

- [26] SILVA, Fernanda Dias da. (2014). Evaluation of Vaccination Coverage in the first year of life in Ceilândia-DF. 63 f. Monography (Nursing graduation) - University of Brasília - Faculty of Ceilandia. Brasília.
- [27] SILVA, Vanusa; BERGE, Georgia Cristian. (2011). Survey of the vaccination coverage of children from 0 to 1 year registered in a FHU of the city of Dourados / MS. Multidisciplinary Journal of the Faculty of Biological Sciences and Health of UNIGRAN, Mato Grosso do Sul, v. 5, n. 1. Available at: [http://www.unigran.br/interbio/paginas/ed\\_anteriores/vol5\\_num2/arquivos/artigo4.pdf](http://www.unigran.br/interbio/paginas/ed_anteriores/vol5_num2/arquivos/artigo4.pdf). Accessed on: 10 May 2016.
- [28] SOUSA, Catrine de Jesus, VIGO, Zaira de Lima; PALMEIRA, Cátia Suely. (2012). Understanding parents about the importance of childhood vaccination. Revista Enfermagem Contemporânea, Salvador, p. 44-58, Dec. Available at: <https://www5.bahiana.edu.br/index.php/enfermagem/article/view/39>. Accessed on: 11 May 2016.
- [29] TERTULIANO, Gisele Cristina; STEIN, Airton Tetelbom. (2011). Vaccine delay and its determinants: a study in the locality served by the Family Health Strategy. Science & Collective Health, Rio de Janeiro, v. 16, n. 2. Available at: <http://www.scielo.br/pdf/csc/v16n2/v16n2a15.pdf>. Accessed on: 26 Mar. 2014.
- [30] VASCONCELOS, Mara; GRILLO, Maria José; CABRAL, Sônia Maria. (2009). Module. 4: pedagogical practices in basic health care. Technologies to approach the individual, family and community. Belo Horizonte: Editora UFMG - Nescon UFMG. p. 70. Available at: <https://www.nescon.medicina.ufmg.br/biblioteca/imagem/1704.pdf>. Accessed on: May 10, 2016.
- [31] VASCONCELOS, Viviane Mamede et al. (2012). Nursing and health education: perceptions of mothers in family health strategy. Anna Nery School, Rio de Janeiro, v. 16, n. 2, p. 326-331, Jun. Available at: <http://www.scielo.br/pdf/ean/v16n2/17.pdf>. Accessed on: May 10, 2016.
- [32] YOKOKURA, Ana Valéria Carvalho Pires et al. (2006). Vaccination coverage and factors associated with incomplete basic vaccination schedule at 12 months of age, São Luís, Maranhão, Brazil. Public Health Report, Rio de Janeiro, v. 29, n. 3, p. 522-534, Mar. 2013. Available at: <http://www.scielosp.org/pdf/csp/v29n3/a10v29n3.pdf>. Accessed on: 10 Apr. 2014.