Abstract

Objective: The study aimed to identify the occupational hazards to which workers are exposed in nursing working in immunization room of the family health strategy of the municipality of Conde-Paraíba.

Methods: This was an exploratory study, descriptive and qualitative. The survey was conducted in basic health units of the municipality of Conde-PB, using a semi-structured interview script, as a tool for data collection, with objective and subjective questions that addressed the topic. Have been followed all ethical and legal precepts of research involving humans.

Results and discussion: Nursing workers working in immunization of the said rooms municipality do not have enough knowledge about the occupational hazards to which they are exposed in their work environment, use the individual protection equipment making them vulnerable to a variety of risk situations and contributing to the increase in the number of occupational accidents.

Conclusion: The present research demonstrated through the lines of the participants that they are exposed to various occupational hazards to act in vaccine, and that the recognition of these risks is necessary to the development of action for prevention, elimination or control of them. Permanent education is the primary tool for nursing workers acquire knowledge about occupational accidents, their causes and ways to avoid them, thus minimizing the risks that may exist in the workplace.
Introduction

The changes after health reform and consolidation of the single Health System, through its organizational principles, guidelines and management structure, demanded profound changes in organizational structure, health services and care to the population, leading to new forms of provision of health actions and services.

In this context, arose in 1994, the family health program (PSF), a priority strategy for the development and organization of primary health care, promoting a reorientation of the process of work with the aim of increasing the efficaciousness and meet the health needs of individuals and collectivities [1].

The main purpose of this program, today, consolidated as the family health strategy (ESF), is reorganizing the practice of health care in new conceptual bases, through prevention, promotion, maintenance and restoration of health, integral and continuous form. Thus, connected to the program of prevention and health promotion, the National Program of Immunizations (PNI) created in 1973, with the goal of controlling, eradicating and eliminating vaccine-preventable diseases, by offering vaccines vaccine calendar with quality and safety to all groups, trying to reach large vaccine covers homogenously in all locations of the country [2].

The actions of vaccination in the territory is a responsibility shared by all health team during your work process. Vaccination room’s activities are carried out by nursing staff, formed by the nurse and technician or nursing assistant, the nurse responsible for the coordination and supervision of the technical work carried out in the vaccination room and by continuing education process team [2].

The immunobiological administration must be involved in care and precautions, adopting appropriate procedures and safe before, during and after administration of the same, with the aim of avoiding risks to the user and to the employee. For this to occur as planned, the vaccination room activities must be performed by a trained and qualified nursing staff for the procedures for handling, storage, preparation, administration and disposal of waste resulting from vaccination activities [2].

Thus, the work with immunobiological requires knowledge and skills on the part of the professionals working in this sector; and that to perform this procedure safely it is necessary to have professional knowledge of the occupational hazards to which they are exposed and the biosecurity measures needed for the prevention of accidents.

Occupational diseases represent an increasing risk to health workers, mainly for nursing professionals, providing direct assistance to the patient and exercise activities involving the constant handling of needles, instruments, intravenous catheters and other materials used in the performance of procedures during nursing care. [3]

In this way, the nursing professionals who work in basic health units, specifically in the room of vaccine, are exposed to various occupational hazards that may contribute to the imbalance of your health.

In this context, the present study you’ve aimed to identify the occupational hazards to which workers are exposed nurses who work in the family health Strategy vaccines of the municipality of Conde-PB.

Method

The study was exploratory descriptive type, with a qualitative approach, which aims to provide a greater understanding for the researcher on the subject, in order that this can formulate more precise issues or develop hypotheses that can be researched by subsequent studies [4].

The survey was conducted in basic health units of the municipality of count-PB, situated in the metropolitan region of João Pessoa-PB/Brazil. Currently this municipality has nine Basic Health Units distributed between the Centre and the periphery of the city.

The study population was composed of nursing professionals who work in vaccine basic health units.
of the municipality of Conde-PB. The sample 05 03 02 and technical nurses, nursing auxiliaries.

Inclusion criteria were: male nurse, technician or nursing assistant, act in the living room of the vaccine referred to health units, present conditions of replying to questions and accept to participate in the study, through the signature of informed consent (TCLE), being excluded those who did not heed the above requirements.

As a tool for data collection was used a semi-structured interview with subjective matters, relating to occupational hazards to which workers are exposed nurses who work in vaccine of that municipality.

Initially, a previous contact with the subjects involved in the study, through informal dialogue in order to create a climate of cordiality and match schedules convenient for working professionals. The data were collected in May 2014, in place holder in UBS and individually, by the technique of interview, that were recorded, by the commitment of the professionals and transcribed in full by the researcher, so that the lines were recorded with accuracy and fidelity.

The analysis of the results has been performed using the technique of the collective subject discourse (DSC), conceptualized in a proposal of qualitative data tabulation and organization of verbal nature, obtained from statements, in order to analyze them and extract the thought of a group or collectivity as an individual speech [5].

The reports obtained in the interviews were analyzed in order to identify the key expressions, i.e., excerpts of the speech highlighted by the researcher that reveal their essence and content identification of ideas central to later formulate the unique synthesis originating in the speeches. The DSC’s have been discussed as relevant scientific literature. Each respondent was identified by the initial letters "and" followed by numbered according to the order of respondents in order to preserve the anonymity and guarantee the contract signed by the consent form.

The legal and ethical components were present in all stages of research, in accordance with resolution 466/12, the National Health Council (CNS), which provides guidance and regulatory norms for research involving human beings [6], the research was approved under the CEP Protocol No. 178/2014 CAAE: 27146914.8.000.5176.

Results and Discussion

In order to systematize the findings that emerged from the testimony of the collective subjects, they were organized into central ideas to keep a logical sequence of thought and, with it, would facilitate the understanding of the data collected.

Theme 1: Unveiling the occupational hazards

The vaccination room, despite being a place of health promotion, offers risks to nursing professionals, as a result of constant exposure to contaminated waste; the immunobiological, who bring in their composition certain classes of viruses and bacteria; and the organic fluids that can affect your health. To meet these risks and prevent them is key to the health of the worker.

Given its importance it is noticed that some nursing professionals who work in vaccines simply understand what are the occupational hazards in their working environment. The lines below show such expression.

**Occupational hazards are exposed to agents such as: chemicals, biological, viruses, bacteria that is found in its scope of work.**

**E8.**

**Are agents present in the working environment that cause risk to workers’ health be it physical or biological.**

**E5.**

Nursing professionals who work in the family health strategy are exposed to various occupational hazards. In addition to the biological risk raised mostly by accidents with sharp objects, material is
also frequent the ergonomic risk, not known by the participants, which are caused by repetitive physical activity, poor posture during the application of vaccines among others. Thus, it is important to know these risks in order to prevent them from adequately avoiding harms to worker's health [7].

Analyzing the collective subject discourse, it was possible to identify that the participants have identified on your desktop, only the biological risk, as the lines emerge:

**When we open the vials, for being too harsh, we run the risk of cutting yourself and come into direct contact with the virus.**

**My job keeps me exposed to blood and contaminated needles immunobiological.**

**Because this agent vaccine handling virus attenuated immunobiological, there's the matter of breaking the separating agent can get infected with blood if there is care or if you stick with needles.**

**Are the risks we take every day when handling sharps.**

**The occupational hazard is when we handle vaccines.**

The lack of awareness of occupational risks evidenced by health professionals increase the neglect with accidents at work. Thus, recognize the risks in the work environment is the basis for decisions regarding the prevention, elimination or control of those risks [7].

The occupational hazards that affect worker's health institutions come from physical, chemical, psychosocial factors, ergonomic and especially biological. Published studies on occupational hazards for workers of the family health strategy demonstrated the predominance of psychosocial and biological risks in basic health units [8].

Health professionals who work with administration of vaccines are exposed to occupational hazards ranging from the drilling risk with the handling of needles and vials, the risk due to the adoption of ergonomic postures for Administration of vaccines, to psychosocial risks, related to stress, mental overload, patients demand and the large number of immunobiological offered currently [8].

In General, health workers are vulnerable to several risks on your desktop, but the biological risk caused by accidents with sharp objects is the most reported and recognized by these professionals, seen performing invasive procedures of varying degrees of complexity during patient care. The handling of catheters, needles associated with their disposal inappropriate situations that expose the nursing workers to the risk of accidents with these materials, which increases the contact with blood and other biological materials and therefore its contamination [9].

In vaccines evaluated the occupational hazard of higher incidence was the biological. We also observed various risks exposure beyond the biological accidental due to handling of vials, the ergonomic cuts related to poor posture; the physical environment-related work, inappropriate for their locomotion, heat or cold.

The factors that contribute to the occurrence of these risks are the problems in lighting and air-conditioning of rooms, incorrect packaging of materials with sharp objects, physical facilities inadequate, poor logistics organization and excessive flow of patients.

The vast majority of occupational hazards are identified, as well as are predictable the health damages caused by them. In this way, one can draw a profile of the risks inherent in each type of occu-
Participation, in order to act effectively in the prevention and improvement of workers' health. In Brazil, the health system, has as objective the promotion and prevention of worker's health, through the development of monitoring of risks present in the environment, and working conditions of the harms to health. The worker must be recognized as such and should be considered its insertion in the production process, i.e. the possibility or how your work affects your health [10].

Theme 2: Using personal protective Equipment- EPI

The professionals who work in vaccines are able to recognize the occupational hazards to which they are exposed so they can use the standard precautions and adequately biosecurity aiming at the prevention of work-related diseases. The lack of knowledge about the risks existing in the vaccination room, the absence of permanent educational practices, lack of personal protection equipment, as well as the scant notion on Biosafety, are factors that increase the risks of accidents in the workplace [11].

From the central idea built through the collective subject discourse can be inferred that the room of vaccine use some standard precautions measures required during the administration of immunobiological. The procedure of washing my hands was cited by almost all survey respondents as the main measure of security during the administration of vaccines, as mentioned in these speeches:

I don't like wearing masks, are suffocated, use only the lab coat and wash my hands. E3.

Use gloves, masks, but not much use, not use the coat and hand-washing. E9.

Wherever possible we use preventive measures, not as we would like, we use only non-disposable coat and hand-washing. E10.

I usually wash my hands every procedure ... the other ones do not use, because we don't have that kind of obligation in the hospital. E4.

Handwashing is key to the prevention and control of infections. This simple Act prevents contamination during handling, preparation and administration of immunobiological. Thus, in the living room of vaccination, hand hygiene should be performed before and after the administration of each vaccine, handling of materials, of vaccines, serums and immunoglobulins and any activity performed on the vaccination room [2]. Cleaning is usually enough to remove the transient human microbiota, and recommended technique is simple hygiene with soap and water or synthetic detergents, under friction, to remove dirt, dead skin cells, residues of the metabolism of the substrate for micro-organisms, that sanitizing, when adopted by health professionals, gives a safety standard for most procedures [12].

The use of personal protective equipment such as gloves, hat and mask was cited by some of the participants as precautionary measures used in vaccines.

Other participants demonstrated misuse or resistance on the use of EPI's. The overload of work and self-confidence are the main factors related to the occurrence of these accidents. Although there is some knowledge by workers on the prevention of biological risk, low adherence to protection measures [13].

Thus, whereas the occupational hazards are present in different spaces of experience of nursing professionals, it is necessary to use safety measures during any procedure, regardless of the risks that may cause.
Theme 3: Permanent Education of the professionals of the vaccination room

When I addressed this issue, it was found that were offered some kind of training for professionals who work in vaccines, though these courses did not occur on a regular basis and were directed specifically to the immunobiological. Not been provided sufficient information relating to occupational hazards and biosecurity. The following reports express these situations:

*I attended a course and some training on vaccination they didn’t talk about risk.*

**E9.**

*Received training, but didn’t talk much about the occupational hazards, aimed at more vaccine.*

**E3.**

*I attended a basic course on vaccines, should have other more in-depth courses.*

**E6.**

The dynamics of the room of vaccine requires knowledge and practices that ensure the quality and effectiveness of immunization. For this process to occur without risk the immunization activities are conducted according to the established by the Ministry of health and biosecurity standards required, adopting appropriate procedures since his arrival to the sector until after the administration of immunobiological.

In this way, to guarantee the maximum safety in the procedure, prevention of infections in people served and staff professionals of vaccination, vaccination room's activities must be carried out by trained and qualified nursing staff for handling, conservation, administration, registration and disposal of immunobiological. Systematic updates on vaccination is a requirement to provide an effective service to eradicate and control the preventable diseases, thus it becomes imperative to train the professionals responsible for this demand in [12] health.

In this study, many nursing professionals reported that participated in training about immunization, but not focused on occupational hazards caused to workers of the vaccines.

The nurse is the most skilled professional to manage the Immunization Program and is responsible for supervising and monitoring the work carried out in the vaccination room and also the process of permanent education of the nursing staff [2]. In this way, the nursing staff that operates in vaccines should receive continuing education and constant due to the complexity and variety of existing, as well as immunobiological, to ensure safety and quality in the procedure performed.

**Conclusions**

This study was of great importance to have evidenced that the nursing professionals who work in the family health Strategy vaccines of the municipality of Conde-PB present fledgling knowledge concerning occupational hazards to which they are exposed in their work environment, making it important to the recognition of these risks to implement actions of prevention, elimination or control of them.

Within the framework of primary health care, the occupational hazards when perceived by professionals who work in vaccines are related mainly to the deficiency of resources for carrying out the work, the lack of knowledge of the professionals, to physical violence and moral and emotional wear and tear of the socio-economic and cultural context in which the job is located.

Despite the vaccine be room a clean, designed the exclusive administration of immunobiological, the same risks of various orders, which can endanger the health of nursing professionals. These risks are associated with constant exposure to contaminated waste; the immunobiological, handlings of needles and vials, discards beyond physical and ergonomic risks and accidents.
Knowledge of risk factors and the daily practice of continuing education on Biosafety recommendations, standards, work routines, enhancement of preventive actions, training programmers and courses to increase awareness and consequently reducing the risk of occupational accidents that exist in the workplace.

Important to mention that the study points to the need for permanent education in the training of professionals responsible for immunization, especially nursing professionals. It becomes essential the participation of workers in nursing courses and trainings about vaccines rooms, so that they can acquire knowledge of the immunobiological and also on the occupational hazards in that half, and so adopt biosecurity measures, including the junction of interdisciplinary educational and administrative actions associated with behavior and ethical attitudes of professionals involved in health care, a prerequisite for effective prevention of occupational accidents.

It is expected that this work will help to broaden the investigations into the living rooms of vaccines and the construction and implementation of important measures aimed at minimizing occupational hazards present in immunizations contributing for the reduction of occupational accidents.

References


