ORIGINAL ARTICLE

VACCINE DESCRIPTION OF NURSES IN PRIMARY HEALTH

CARACTERIZAÇÃO VACINAL DE ENFERMEIROS NA ATENÇÃO BÁSICA DE SAÚDE

Joyce Lane Braz Virgolino¹, Sérgio Ribeiro dos Santos², Silmery da Silva Brito³, Kátia Neyla de Freitas Macedo Costa⁴

ABSTRACT

Objective: to characterize the profile of nurse’s vaccine. Method: exploratory, descriptive study, a quantitative approach, performed with 53 nurses working in the Family Health Units Sanitary District III, João Pessoa / PB, Brazil. For data collection instrument was used on sociodemographic characteristics, professional and biosecurity about vaccination history. For data analysis we used descriptive statistics and the results discussed in the light of the literature and presented in figures and tables. The study was initiated after approval by the Research Ethics Committee under protocol 092/09. Results: of 53 nurses, 37 (70%) underwent basic vaccination in childhood, 50 (94%) underwent complete vaccine schedule and specific, after the beginning of life and 31 (58%) had serologic evidence of immunity to. Conclusion: it emphasizes the need for greater awareness among nurses, concerning immunization, in order to reduce the risks inherent in professional practice. Descriptors: Vaccination; Immunization Programs; Primary Health.

RESUMO

Objetivo: caracterizar o perfil vacinal dos enfermeiros. Método: estudo exploratório-descricativo, de abordagem quantitativa, realizado com 53 enfermeiros que atuam nas Unidades de Saúde da Família do Distrito Sanitário III, João Pessoa/PB, Brasil. Para a coleta de dados utilizou-se instrumento contendo dados sociodemográficos, profissionais e de biosegurança, acerca da história vacinal. Para a análise dos dados utilizou-se da estatística descritiva e os resultados discutidos à luz da literatura e apresentados em figuras e tabelas. O estudo iniciou-se após aprovação do Comitê de Ética em Pesquisa, sob protocolo 092/09. Resultados: do total de 53 enfermeiros, 37(70%) realizaram esquema básico de vacinação na infância; 50 (94%) realizaram esquema vacinal completo e específico, após iniciada a vida profissional e 31 (58%) realizaram sorologias para comprovação de imunidade. Conclusão: ressalta-se a necessidade de maior sensibilização dos enfermeiros, quanto à imunização, a fim de reduzir os riscos inerentes à prática profissional. Descriptors: Vacinação; Programas de Imunização; Atenção Primária de Saúde.

RESUMEN

Objetivo: caracterizar el perfil de la vacuna enfermeras. Método: estudio exploratorio, descriptivo y un enfoque cuantitativo, realizado con 53 enfermeros de las Unidades de Salud de la Familia del Distrito Sanitario III, João Pessoa / PB, Brasil. Por instrumento de recolección de datos se utilizó en las características sociodemográficas, profesionales y de bioseguridad sobre la historia de la vacunación. Para el análisis de los datos se utilizó estadística descriptiva y los resultados discutidos a la luz de la literatura y se presentan en las figuras y tablas. El estudio se inició con la aprobación del Comité Ético de Investigación bajo protocolo 092/09. Resultados: de los 53 enfermeros, 37 (70%) fueron sometidos a la vacunación básica en la infancia, 50 (94%) fueron sometidos a un programa de vacunación completa y específica, después del comienzo de la vida y 31 (58%) tenían evidencia serológica de inmunidad al. Conclusión: se hace hincapié en la necesidad de una mayor conciencia entre las enfermeras, en relación con la inmunización, a fin de reducir los riesgos inherentes a la práctica profesional. Descriptors: Vacunación, Programas de Vacunación, Salud Primaria.

¹Nurse, Nurse Specialist Labor. João Pessoa (PB), Brazil. E-mail: Joyce.lane@hotmail.com; ²Nurse, PhD in Sociology, Department of Clinical Nursing, Federal University of Paraíba/UFPB. João Pessoa (PB), Brazil. E-mail: srsantos207@gmail.com; ³RN, MS in Nursing, Graduate Program in Nursing/PPGEnf, Federal University of Paraíba/UFPB. João Pessoa (PB), Brazil. E-mail: silmery.ce@hotmail.com; ⁴Nurse, PhD in Nursing, Departamento of Clinical Nursing, Federal University of Paraíba/UFPB. João Pessoa (PB), Brazil. E-mail: katianeylasy@yahoo.com.br
INTRODUCTION

The health professionals are exposed to various occupational hazards, with the highest impact biological risk due to direct contact with patients and / or organic material potentially contaminated.  

A number of infectious and parasitic conditions, persistent or emerging, some compulsory notification in Brazil, expose health professionals at risk, the frequency being directly related to the epidemiology of conditions in the area of operation as HIV infection, viral hepatitis; Chagas disease, rubella, varicella, tuberculosis, Creutzfeldt-Jakob (prion), fevers, flu and other.  

The adoption by the Centers for Disease Control and Prevention (CDC) concepts such as universal precautions (PU) have been reformulated and are now termed standard precautions (PP), which aims to hinder microorganisms which patients can be carriers, and other professional treat patients. In addition, the Ministry of Labor and Employment (MTE) has established Standards Regulatory Bodies for implementation of measures to protect health and safety of workers, forcing employers to comply actions aimed at reducing occupational hazards and accidents at work.  

In this context, enter the personal protective equipment (PPE) (gloves, masks, caps, goggles, gowns, among others) in order to reduce the exposure of healthcare workers to blood and other body fluids, and specific care in handling and disposal of materials skin-piercing. Maintaining updated immunization status is one of the tools that should be employed in addition to the adoption of universal biosafety measures in situations of potential risk, since education is a key element in this process.  

In recent decades, among the greatest advances made in health care, immunization has been occupying a progressively increasing worldwide. The development of science, microbiology, pharmacology and immunology has been added to the epidemiology studies and sociology, which show the great impact that vaccines have represented for the present society, being a major factor in health promotion and prevention mainly illnesses. Not of Brazil, Immunization programs for disease transmission potential in professional practice have been developed. Publication by the Ministry of Labor and Employment, the Norm 32 (NR-32) in 2005, brings a significant advance in relation to the prevention of infectious diseases. This standard aims to:

establish the basic guidelines for the implementation of measures to protect the safety and health of workers in health-care settings, as well as those who exercise promotion activities and health care in general.

The NR-32 vaccination formalizes the set of actions for the health management of the work program of the Medical Control of Occupational Health (PCMSO). To facilitate and standardize the definition of vaccines indicated for the different occupational categories, the Brazilian Society of Immunizations (SBIm) established his calendar Occupational Vaccination. This considers the special risks for different diseases immune-preventable in relation to various areas of expertise professional.

When evaluating the professional category that is most at risk of contracting diseases, it is important to put the nursing staff is one of the most exposed to biological material. Given the above it is important to note that currently available data are for the professionals who work in hospital settings, in this way, there is a big gap in information related to Family Health Units belonging to the Primary Health

Considering this topic is extremely relevant, forward the prevention of health professionals to preventable diseases and observing the low awareness and adherence to free immunizations offered for specific protection, this study converges to the following question: Did the nurses of primary care is always being updated with your vaccine card to avoid vulnerability to certain infectious diseases?  

From the context discussed, this study aimed to describe the profile of the vaccine nurses.

METHOD

This study is part of the research << Biosafety: occupational risk faced by nurses working in primary health care >>. This is a study of descriptive and exploratory, quantitative approach, performed in the city of João Pessoa - Paraíba, Brazil, the Family Health Units (FHU), belonging to the Sanitary District III.

The study subjects were nurses who worked in the USF totaling 53 professionals. Regarding data collection, we used an instrument containing sociodemographic data, and biosafety professionals, about the vaccination history, held from January to March 2010. The quantitative analysis was performed with the aid of descriptive statistics and the results
discussed in the light of the literature and presented in figures and tables.

For this study were respected ethical aspects of research involving humans and only started with the assent of the Ethics Committee in Research of the Lauro Wanderley University Hospital of the Federal University of Paraíba, under protocol nº 092/09, as the observances contemplated in Resolution Nº 196/1996 of the National Health Council.¹¹

RESULTS

Of the 53 study subjects, 20 (38%) were aged between 41 and 50 years of age and 14 (26%) between 31 and 40 years. Regarding gender 53 (100%) are female, of which 38 (72%) are married. It was also observed that the predominant formation time was 21 years old, 23 (43%) and average 17.1 years. Of the participants, 35 (66%) denied having other employment. The prevailing salary range was between 5-8 minimum wages for 37 (70%) of nurses, however the vast majority 41 (77%) work 40 hours per week.

Regarding the performance of the basic vaccination in childhood, 37 (70%) of the nurses reported having completed the immunization schedule and only 7 (13%) did not complete of nurses. In relation to having or not the card childhood vaccination and / or vouchers, only 12 (23%) of the nurses had childhood immunization card and / or proof, but the vast majority 41 (77%) had not.

Figure 1. Distribution of nurses working in the Basic Health Sanitary District III, when asked about the completeness of the basic vaccination in childhood and still had childhood immunization card and / or vouchers. João Pessoa / PB, Brazil, 2010. (N = 53)

Figure 2 shows the schematics of vaccinations that were conducted by nurses who claimed to have conducted complete and specific immunization schedule after started professional life.

Figure 2. Distribution of nurses working in the Basic Health Sanitary District III second vaccination schemes that place after started his professional life. João Pessoa / PB, Brazil, 2010. (N = 50)

Among the 50 nurses who claimed to have conducted immunization schedule complete and specific, after the beginning of life, 36 (72%) were influenza, which is a single annual dose, 44 (88%) and hepatitis B, dT 14 (28%) BCG, 30 (60%) the MMR and only 07 (14%) yellow fever.
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Regarding the informations referents to the occurrence of infectious diseases, vaccine preventable, before and after the beginning of life, among the study subjects, 42 (79%) nurses were victims of vaccine-preventable diseases as a child, of these 28 (67%) had chickenpox and 08 (19%) rubella.

When asked for proof of identification immunization serology, 31 (58%) reported having performed serology, and only 22 (42%) said they had not done.

On the other hand, nurses who reported having performed serology, 08 (26%) underwent serologic testing for BCG and 19 (61%) for Hepatitis B. Of the 15 nurses who claimed to have conducted other serological tests, 09 (60%) had rubella, 02 (13%) hepatitis C, 04 (HIV) and 01 (7%) Allergens, cytomegalovirus and toxoplasmosis. Of survey participants, the vast majority, 41 (77%) had BCG vaccination scar and 12 (23%) reported not possess.

### DISCUSSION

From the data about the characterization of the participants noted the predominance of females in the labor process in nursing. These results are expected because, according to the Federal Board of Nursing, the profession in Brazil is made up 88.26% of women. 12

Regarding the training time, the result shows that have a history of professional experience.

Nurses, who reported having weekly hours over 40 hours per week, justify this journey, by having more than one job. Importantly, nursing is a profession that is often so poorly paid that many workers need to perform another activity in order to supplement the family income. One must consider that the workload ends by providing greater number of accidents at work and occupational diseases.

Regarding the data vaccine, when analyzing the vaccination status of professionals to the basic immunization, it is clear that the vast majority, 37 (70%) claimed to have performed basic childhood immunization schedule, contrary to previous studies. Regarding the vaccination card, important instrument for the purposes of monitoring and verification of dates, the vast majority, 41 (77%) did not have the card childhood, corroborating previous studies. This small slice that represents the professional card Childhood reflects the low coverage we had in the old country and the little importance that the population attributed to immunization of children. One can also see, the low value of the document vaccination in the life of these professionals, which might be reflected to their patients 15 It is important to note that only 02 (17%) who reported having the card showed the child.

Regarding the performance of complete and specific vaccination schedule, 50 (94%) of the nurses had done. Reducing morbidity and mortality from diseases preventable by immunization within the practice of health professionals is only possible if the coverage ratios are kept high and homogeneous. This result is important because the nursing staff is the one that is exposed to biological materials.

Importantly, this is true not only when assessing vaccine coverage in high-risk populations, such as health professionals, but also the general population. Order to achieve major success in controlling vaccine-preventable diseases is essential to achievement of vaccination coverage achieved by (PNI) in the last 10 years. Thus, since 1998, Brazil has managed to achieve all technically possible if the coverage ratios are kept high and homogeneous. This result is important because the nursing staff is the one that is exposed to biological materials.

On the other hand, specific protection to health professionals, immunization programs for disease transmission potential in professional practice has been developed. The NR-32 fixed the mandatory employer provide all immunizations recorded in the country that can, according to criteria exposure to risks, be given to the worker and established in PCMSO.

With regard to vaccination schedules made by the subjects after started professional life, was the biggest immunization coverage for...
the vaccine against hepatitis B, which shows that they are aware about its exposure to biological material, contrary to previous studies. Calls attention to the coverage of 72% for influenza, also disagreed with previous studies, vaccine introduced recently and offered free to all health professionals.

According to Table 1, the study subjects, 42 (79%) nurses were victims of vaccine-preventable diseases as a child, showing disagreement with the result shown in 37 (70%) claimed to have performed the basic vaccination scheme in childhood, where they assume that would prevent such diseases. One can then see that chickenpox were measles pathologies that most affected the subject, agreeing with previous findings, pathologies that less than two decades ago were very common in Brazil, especially in childhood.

However, the fact they have had chickenpox and hepatitis A can be explained, because according to SBIm, this vaccine is only available in private, not part of the basic vaccination. Have other diseases such as measles, rubella, mumps and pertussis are all preventable by vaccination and belong to the basic vaccination in childhood. On the other hand, the fact that they had such diseases is also justified because, according to the Ministry of Health, only in 1984, was initiated nationwide vaccination of children 0-4 years of age against polio, measles, diphtheria, pertussis and tetanus, and only in 1992 was established the MMR.

Importantly, only 3 (6%) of the subjects had not undergone complete layout and specific when started professional life, are vulnerable to such diseases. Therefore, these two (67%) contracted diseases that could be prevented if they had taken the vaccine. This may be justified because there in health organizations required to prove immunity to diseases.

These two nurses were affected by rubella, despite the availability of effective intervention and effective. This shows the carelessness of some professionals even having access to biopharmaceuticals in USF, not prevents, and may run the risk of developing congenital rubella syndrome (SRC), especially in the first 12-16 weeks of pregnancy, given the high number of female sex workers in childbearing sample. This vaccine should be administered to all who do not have proof of vaccination or prior infection, or the laboratory does not have antibodies. 21

Attention is drawn to the higher prevalence of diseases immunopreventable event during the period before the start of the professional life from childhood to adulthood. This low number of cases after the start of working life should be precisely the fact that these diseases have already occurred in childhood and individuals already have immunity to them, either through illness or vaccination, confirming other findings. 5

Nurses when asked about identification evidence of immunization serology, 31 (58%) reported having performed serology. This result can be explained considering that the institution does not have health systems evidence of immunity at the time of hiring. However, it is still quite significant as compared to other studies. 5, 15

According to NR32, the Health Ministry makes it mandatory for workers healthcare, high risk for HBV infection, the titre of anti-HBsAg, 30-60 days after the last dose of the vaccination (0, 30 and 180 days). The risk of acquisition of HBV, this may be minimized by pre-exposure preventive measures with immunization against hepatitis B. The vaccine efficacy has 90 to 95%, and is considered as one of the most important preventive measures to prevent this virus.24

CONCLUSION

The results demonstrated the high rate of coverage by these professionals, both during childhood and professional life, with performance of specific schemes, contributing to the reduction of morbidity and mortality from vaccine-preventable diseases in the practice of these health professionals. It became also evident vulnerability of some professionals working in health facilities of primary care for some diseases.

Considering that the ESF has a focus on care in the host, and in the bond resolution, it can be inferred that there is need to develop a policy based on the approach of biological risks in primary care and thus ensure the implementation of actions to promote health within the perspective of lifelong learning for the technical issue of performing various procedures in addition to the effective implementation of personal protective equipment, such as the use of biological and personal protective equipment and collective in all USF. Therefore, it is necessary that nurses have a greater awareness of biological hazards of the need for immunization, and especially regarding professional education permanently towards acquiring technical capability aimed at reducing the risks inherent in their practice.

REFERENCES

1. Wicker S, Rabenau HF, Gottschalk R, Doerr HW, Allwinn R. Seroprevalence of

ginal_12.htm


x.php//revista//article//view//2163

5. Pinto ACS, Almeida MI, Pinheiro PNC. Análise da susceptibilidade às doenças imunopreveníveis em Profissionais de saúde a partir do status vacinal. Rev Rene. 2011 Jan-


ginal_12.htm


32%20(ataulizada%202011).pdf

text&pid=S0021

/RES19696.htm


14. Secco IAO. Acidentes e cargas de trabalho dos trabalhadores de enfermagem de um hospital universitário do norte do Paraná [tese]. Ribeirão Preto: Programa de Pós-
Graduação em Enfermagem, Universidade de São Paulo; 2006.


s//Manuais//manu_proced_vac.pdf

ml//rr5011a1.htm

Virgolino JLB, Santos SR dos, Brito SS et al.


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Corresponding Address
Joyce Lane Braz Virgolino
Rua Luiz Alves Conserva, 205
Bairro Jardim São Paulo
CEP: 58051-090 –João Pessoa (PB), Brazil

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