Original Article

TEXTO & CONTEXTO ENFERMAGEM
TEXT & CONTEXT NURSING TEXTO & CONTEXTO ENFERMERÍA

ORGANIZATIONAL ASPECTS AND A SCHEDULE FOR ACCESS TO VACCINATION FROM USERS' PERSPECTIVE

Deborah Correia Duarte[1]
Selma Maria da Fonseca Viegas[1]
Thais de Fátima Silvério Augusto[1]
Valéria Conceição de Oliveira[1]
Jéssica Rauane Teixeira Martins[1]
Adriana Dutra Tholl[2]

[1]Universidade Federal de São João Del Rei, Campus Centro-Oeste. Divinópolis, Minas Gerais, Brasil.
[2]Universidade Federal de Santa Catarina, Departamento de Enfermagem. Florianópolis, Santa Catarina, Brasil.

ABSTRACT

Objective: to understand access to vaccination and its organizational aspects in the daily routine of Primary Health Care from users's point of view.
Method: a holistic-qualitative multiple case study based on Comprehensive Sociology of Everyday Life, with 74 users from four sanitary microregions of the West Minas Gerais Extended Health Region, Brazil. As evidence data sources, we used the open and intensive individual interview, guided by a semi-structured script and technical visit to the vaccine rooms. Data were collected between June 2016 and April 2017. Data analysis was based on thematic content analysis.
Results: proved to be obstacles that compromise access to immunization services such as: the establishment of specific days for the performance of certain vaccines; the opening hours of vaccine rooms; lack of immunobiological; lack of guidance on the part of health professionals. It was evidenced that direct contact and insertion of users in other actions and services of the unit favor access to vaccination. A schedule for better access was suggested by users, who recommended: the reorganization of the days and times available for vaccination; vaccine card computerization; implementation of dissemination strategies to expand search for immunization; vaccination room structural adequacy; expansion of human resources in health units.
Conclusion: it is emphasized the importance of services identifying their weaknesses and adopting strategies that enable user-centered care, promoting access to health services and, consequently, immunization.

DESCRIPTORS: Health services accessibility. Primary health care. Vaccination. Nursing. Immunization program.

HOW CITED: Duarte DC, Viegas SMF, Augusto TFS, Oliveira VC, Martins JRT, Tholl AD. Organizational aspects and a schedule for access to vaccination from users' perspective. Texto Contexto Enferm [Internet]. 2021 [cited YEAR MONTH DAY]; 30:e20190101. Available from: https://doi.org/10.1590/1980-265X-TCE-2019-0101

ASPECTOS ORGANIZACIONAIS E UMA AGENDA PARA O ACESSO À VACINAÇÃO SOB A ÓTICA DO USUÁRIO

RESUMO

Objetivo: compreender o acesso à vacinação e os seus aspectos organizacionais no cotidiano da Atenção Primária à Saúde sob a ótica do usuário.
Método: estudo de casos múltiplos holístico-qualitativo, fundamentado na Sociologia Compreensiva do Cotidiano, com 74 usuários de quatro microrregiões sanitárias da Região Ampliada Oeste de Minas Gerais, Brasil. Como fontes de evidências dos dados, utilizou-se a entrevista individual aberta e intensiva, guiada por roteiro semiestruturado e visita técnica às salas de vacina. A coleta ocorreu entre junho de 2016 e abril de 2017. A análise dos dados foi fundamentada na Análise de Conteúdo Temática.
Resultados: revelaram-se entraves que comprometem o acesso aos serviços de imunização como: o estabelecimento de dias específicos para a realização de determinadas vacinas; o horário de funcionamento das salas de vacinas; a falta do imunobiológico; a falta de orientações por parte dos profissionais de saúde. Evidenciou-se que o contato direto e a inserção do usuário em outras ações e serviços da unidade favorecem o acesso à vacinação. Uma agenda para o melhor acesso foi sugerida pelos usuários, que recomendaram: a reorganização dos dias e horários disponíveis para a vacinação; a informatização do cartão de vacina; a implementação de estratégias de divulgação para ampliar a busca pela imunização; a adequação estrutural da sala de vacinação; a ampliação de recursos humanos nas unidades de saúde.
Conclusão: ressalta-se a importância de os serviços identificarem suas fragilidades e adotarem estratégias que viabilizem uma atenção centrada no usuário, promovendo o acesso aos serviços de saúde e, consequentemente, à imunização.

DESCRITORES: Acesso aos serviços de saúde. Atenção primária à saúde. Vacinação. Enfermagem. Programas de imunização.

ASPECTOS ORGANIZATIVOS Y UNA AGENDA PARA EL ACCESO A LA VACUNACIÓN DESDE LA PERSPECTIVA DEL USUARIO

RESUMEN

Objetivo: comprender el acceso a la vacunación y sus aspectos organizativos en la rutina de la Atención Primaria de Salud desde la perspectiva del usuario.
Método: estudio de caso múltiple holístico-cualitativo, basado en Sociología Integral de la Vida Cotidiana, con 74 usuarios de cuatro microrregiones de salud en la Región Occidental Expandida de Minas Gerais, Brasil. Como fuente de evidencia de los datos se utilizó una entrevista individual abierta e intensiva, guiada por un guión semiestructurado y una visita técnica a las salas de vacunas. La recolección se llevó a cabo entre junio de 2016 y abril de 2017. El análisis de datos se basó en el análisis de contenido temático.
Resultados: se revelaron barreras que comprometen el acceso a los servicios de inmunización, tales como: el establecimiento de días específicos para la realización de determinadas vacunas; el horario de apertura de las salas de vacunación; la falta de inmunobiológicos; la falta de orientación por parte de los profesionales de la salud. Se evidenció que el contacto directo y la inserción del usuario en otras acciones y servicios de la unidad favorecen el acceso a la vacunación. Los usuarios sugirieron una agenda para un mejor acceso, quienes recomendaron: reorganizar los días y horarios disponibles para la vacunación; informatización de la cartilla de vacunas; la implementación de estrategias de difusión para ampliar la búsqueda de inmunización; la adecuación estructural de la sala de vacunación; la expansión de los recursos humanos en las unidades de salud.
Conclusión: se destaca la importancia de que los servicios identifiquen sus debilidades y adopten estrategias que permitan una atención centrada en el usuario, promoviendo el acceso a los servicios de salud y, en consecuencia, la inmunización.

DESCRIPTORES: Accesibilidad a los servicios de salud. Atención primaria de salud. Vacunación. Enfermería. Programas de inmunización.

INTRODUCTION

Immunization is a proven action to control and eliminate infectious diseases. It is estimated that more than 30 doses of vaccine are administered globally every second and no other health intervention reaches so many people or is able to prevent such a varied range of public health problems.[1]

Within the Scope of the Unified Health System (SUS – *Sistema Único de Saúde*), immunization services are strategically inserted in the routine actions of Primary Health Care units (PHC). In recent years, it is a fact that routine vaccination, as well as specific epidemiological surveillance actions, have been shown to be effective in the control, elimination and eradication of immunopreventable diseases.[2]

However, challenges still remain to be overcome. Among these challenges, we highlight the achievement of vaccination coverage goals and their homogeneity in all Brazilian cities. A study that aimed to describe the risk classification of immunopreventable diseases in Brazilian municipalities, based on indicators of vaccination coverage, showed that several municipalities did not achieve adequate coverage. Other municipalities presented a high proportion of abandonment of some vaccines, which carries a high risk of immunopreventable diseases.[3]

To maintain the success of the Brazilian National Immunization Program (PNI – *Programa Nacional de Imunização*), a wide extension of vaccination coverage is necessary, which requires adequate access for individuals to immunization services and the identification of factors that influence vaccination coverage.[4] However, the way to provide health and provide care based on the comprehensiveness of care to users is affected by obstacles resulting from the organizational model observed in PHC.[5]

A study conducted in a PHC unit in a municipality in the state of Rio Grande do Sul, Brazil, revealed that care practices adopted by nurses, such as the establishment of shifts for vaccination room operation, resulted in restriction of access, making user' right to this service impossible. Efforts should be made to maintain a constant evaluation of the organizational model developed by PHC so that the bureaucratic aspects and established norms do not compromise the imperative of PHC to be welcoming and resolutive [5].

Although universal access is a principle of SUS, the obstacles in organizational aspects indicate that care is centered on services' needs and not those of users, which limits the universalizing character of the system and causes situations of exclusion and inequality in access to health services. These obstacles compromise the maintenance of the success of PNI and, consequently, the control of immunopreventable diseases.

In this context, the question is: how does access to vaccination occur in the daily routine of PHC from users' perspective considering organizational aspects?

This study aimed to understand access to vaccination and its organizational aspects in the daily life of PHC from users' point of view.

METHOD

This is a holistic-qualitative multiple case study,[6] based on the theoretical framework of Comprehensive Sociology of Everyday Life.[7]

The study setting was the West Minas Gerais Extended Health Region, which consists of 54 municipalities grouped into six health microregions. However, through the criteria of data saturation by literal replication[6], four health microregions were included, since saturation in the fourth microregion surveyed was confirmed, leading to the closure of data collection.

In order to obtain representativeness of different realities and so that the results could have the capacity of generalization in qualitative research, in each microregion the municipalities were classified according to population size, ESF coverage, number of vaccination rooms and territorial

extension. The selected municipalities present divergent characteristics in relation to the selection criteria defined *a priori*, three of which are large, two medium-sized and two small. Two have 100% FHS population coverage and five have population FHS coverage smaller than 100%. The number of vaccination rooms ranged from two to 35 rooms, with variation in relation to territorial extension.

The number of cases considered necessary in multiple case studies should take into account a discretionary judgment, i.e. the number of complications will be conditional on the level of certainty that is intended to be obtained.[6] The logic of discretionary judgment, for the definition of the number of sufficient cases, is equivalent to the logic of caseless studies. These studies establish criteria to define a "significant effect" on experimental science. In clinical research, the researcher usually defines a significance level of "$p < 0.01$", but, depending on the circumstances, may choose to reach an even stricter level. Similarly, the designation of the number of replications in multiple case studies depends on the certainty that the researcher wishes to obtain about the results and the feeling about the strength and importance of rival explanations.[6]

In this study, this level was affirmed with data collection in the fourth microregion, totaling seven municipalities and 25 PHC units. This level was confirmed by data saturation by literal replication[7] and by the finding that the collected data were sufficient to meet the method and the proposed objective.

Case studies present the generalization capacity in relation to theoretical propositions. Therefore, its goal is to expand and generalize theories (analytical generalization).[6] Thus, the findings of this study have the potential to extend to similar situations, conferring the capacity of external generalization in qualitative research.

Participants were 74 users who attended one of the health units visited at data collection time for vaccination or for other care. These were approached while waiting for the service. It was adopted as inclusion criterion to be 18 years of age or older, and as an exclusion criterion to be a person unable, temporarily or permanently, to legally answer for their acts. Twenty-two approaches were performed, and eight users refused to participate in the research.

As evidence data sources, we used the open and intensive individual interview, guided by a semi-structured script, that approached users in view of their access to vaccination in PHC; the technical visit to the vaccine rooms, and field notes for technical visit data records and for operational research development notes. *A priori* was pre-tested for the interview script.

Data were collected between June 2016 and April 2017.The interviews were conducted by a researcher trained to mediate continuous interaction between the collected and in-depth data and the theoretical subject of the study. They had an average duration of ten minutes, with a significant variation in duration time. Participants were randomly selected, presenting different forms of argumentation and elaboration of their statements through peculiar experiences in relation to access to vaccination.

The interviews were conducted according to the availability of users in a private space in the health unit itself; were recorded in digital file and later transcribed literally, preserving information reliabilit. To maintain participants' and microregions' confidentiality and anonymity, alphanumeric codes symbolized by letter "I" (interviewee) followed by the interview number sequentially and one of the numbers 1, 2, 3 or 4, respective to the four sanitary microregions, were used.

Data analysis was based on thematic content analysis, performed according pre-analysis, which aimed to make operational and systematize the initial ideas; material exploitation, which consisted of data codification and categorization; treatment of results; inference and interpretation.[8] Analysis followed the analytical technique of cross-synthesis of cases, in line with the methodological framework holistic-qualitative multiple case study.[6] The analysis of each case was performed individually for the four sanitary microregions.

This research was approved by the Research Ethics Committee and is part of the Integrated Project "*PreveNIr: Avaliação da qualidade do PNI na região Ampliada de Saúde Oeste de Minas Gerais*", funded by Research Program for SUS. It was developed according to Resolution of the Brazilian National Health Council (*Conselho Nacional de Saúde*) 466 of December 12, 2012, following the guidelines and regulatory standards of research involving human beings.

RESULTS

Of the 74 participants in this study, 63 (85.1%) were female. The predominant age group was 26 to 33 years (32.4%). Most (85.1%) live in urban areas and are Catholic (78.4%). The technical visit to the vaccine rooms and the records in field notes (FN) allowed the apprehension of aspects related to location, organizational structure and resources, evidencing hinderers and facilitators of access by information, reception and physical structure.

Of the 25 PHC units visited, only one did not have a vaccination room. In this unit, vaccination is carried out only on Monday morning, and immunobiologicals are transported in thermal box. On the day of data collection, it was possible to verify that the vaccine box arrived at 8:00 a.m. and at 10 a.m., the doses of the yellow fever vaccine were over and many users waiting for vaccination were not contemplated. In one unit, the vaccination room had been deactivated for six months due to technical problems with the refrigerator and users were being referred and instructed to look for the health unit in the nearest neighborhood (FN).

Of the 23 operating rooms, it was identified that in 19 (82.6%) vaccination activity does not occur during the full period of operation of PHC units. It is noteworthy that a room works only in the afternoon shift. It was found that three rooms in the same city operate once a week until 6:30 pm, in line with the municipal project focused on workers' health. It was observed, in the bulletin board of four health units, reports determining specific days for the performance of vaccines against yellow fever, BCG and triple viral (FN).

With regard to the storage and conservation of immunobiologicals, only six vaccine rooms (26.1%) have a cold chamber. The other 17 (73.9%) use domestic refrigerators. It was observed in three rooms that the digital thermometers of refrigerators and thermal boxes assembled for daily consumption recorded temperatures below 2ºC. In a vaccination room, a measuring tape and scale were identified, indicating that this was not restricted to vaccination procedures (FN).

The opening hours of vaccination rooms often imply barriers to access to immunization services, especially for users inserted in the labor market and who have less time to seek health services.

For me, if it were seven exact hours... earlier, that I vaccinate and go to service without problems. [...] *have many people who work, or if the vaccine could be on Saturday, then it would be good for us who work. Or if the vaccine were up to six o'clock in the afternoon, it would be good for everyone* (I53-3).

Some health units generally establish specific days for the vaccination of some immunobiologicals, which are presented in multi-dose vials, restricting and hindering, even more, access to immunization services.

It seems that they have the right day to open the vaccine. There was the day of the vaccine [...] *I did not come on the right day because I did not know* (I20-2).

The structure, cleaning, disinfection, organization of the vaccination room as well as preparation for the procedure were pointed out as determining items in decision-making to vaccinate:

Look, I imagine it makes it difficult if the environment is not the right one. Because it has the cooling of the vaccine, which has to be adequate, if the station does not have the correct refrigerator,

the correct temperature, then will not help, because will not have validity the vaccine [...] *good, I think the government should pay more attention to the issue of structure. The exact structure, the exact environment, and a separate vaccine room* (I21-2).

Cleaning, hygiene, because it's a very serious thing, so you have to look at these details, not least because it makes you confident. So, if you see a disorganized and dirty place, you will not have the confidence to take your child there. [...] *material, for example, if it is disposable, if everything is right, I usually ask to also see the expiration date of the vaccines* (I27-1).

I understand I have access, is I see the handling of the drug, the disposable syringe, be all clear at the time we are inside (I20-2).

Lack of counseling and guidance on the part of health teams emerged as a factor associated with non-vaccination as evidenced:

Yeah, and I didn't know that adults have the right to be vaccinated. Every time I see or is for child or for pregnant or elderly, then I thought I had no right, good to know! (I18-2).

Makes this question of non-information regarding the vaccine difficult for me, because then you feel unsafe. You do not know what it is for (I35-2).

I did not know I had to take this vaccine, after old I thought I did not need to vaccinate [...]*. Because the little children you already take to vaccinate and they charge you, you have to bring to vaccinate and if sometimes you delay they will seek to know.* [...] *now, we older people also think it should be remembered, don't we? Needed to be remembered* (I61-4).

Lack of immunobiological, a factor that directly compromises access to vaccination, also causes discredit in the population in relation to the care provided:

Before it wasn't like that, you'd arrive, even if you took a line, had the vaccines, and today you're not having it (I2-1).

Had once I searched and did not have the vaccine for my little one. I came back later, then I had the vaccine. Missing vaccine harms, doesn't it? I think it should have when you searched and for everyone (I29-2).

I've had a three-time go to get vaccine and not have it (I52-3).

I came today and has no vaccine, has no. I'll be back tomorrow, but what if I don't already have it? (I71-4).

The insertion of individuals in other services and sectors of the uhealth number emerged as a facilitator of access to immunization, since it provided greater opportunities for guidance on vaccination, showing prenatal care and direct contact with the service as an opportune time to obtain this information:

I have the card they made when I got pregnant. So, we go to prenatal care and because of the pregnancy they got the card and got it up to time (I46-3).

Today I learned that there was going to be a vaccine, so I came here to take it. My nephew came by last week and told me he was going to have it today (I55-3).

Lack of equity in the face of barriers in the organizational dimension of access to vaccination is manifested:

When there is vaccine campaign, this post here does not open, then you have to look for other places, equal to the flu in this campaign on Saturday it did not open, then I had to go to other neighborhoods (I6-1).

In relation to a baby's first vaccines, hepatitis and BCG are having to be scheduled as well. Have to schedule in another unit, there does not give, have to come here [...]*. I live in a neighborhood far away from here. If you're going to come by bus, it has to be two buses, it's not easy, so transportation* (I7-1).

Given the reality experienced, the research participants present a schedule for better access to the vaccination room:

I never agreed to this to put day for each vaccine, I think it should be free, because maybe on Thursday do not give it to me and I just stop going vaccinate. [...] *I think it should be a more computerized thing,* [...] *instead of card, because paper is something that disappears whether you like it or not. Sometimes you forget somewhere, sometimes it tears. Anyway, I think if it were computerized, that vaccination is not, I think it would be ideal* (I8-1).

What may favor is to have more clarification on the subject, greater disclosure [...] *and do a health surveillance job, a more active work with people, going into people's homes, to be talking, carrying pamphlet. Is already a way to make the person search more for this feature, which is a right* [...]. *I think the time of the unit could be modified, be appropriate to the needs of people* (I22-2).

Here everything is mixed, vaccination, the one that makes the dressing, consultation, you do not even know who is vaccinating, who is in the dressing. You would have to have a specific room just for vaccination. [...] *if we had more professionals, we would be better assisted. Having few professionals, it is overloaded for them and is not assisting us well* (I51-3).

I think I could have vaccine more often, equal here is only once a week, it is only in the second that has vaccine. [...] *I think I could have the vaccine every day because there is always someone needing to vaccinate* (I54-3).

I think i had to have vaccination at lunchtime, didn't you? Or reserved a specific day of the month for people who cannot come to vaccinate. The schedule had to be more accessible to everyone (I69-4).

DISCUSSION

PHC, coordinator of health care and preferential gateway to the SUS, has the function of providing longitudinal and comprehensive care that meets the needs of the population, promoting facilitated and inclusive access through the adoption of work routines for user-centered care.[5] Nevertheless, in order to meet users' demands, health services, contradictorily, define ways of functioning, establishing, for instance, days and times for vaccination, dressings and other procedures.[9]

In the present study, it was observed the routine establishment of a single day of the week for the performance of the vaccine against yellow fever, triple viral and BCG, immunobiologicals that present in multidose vials. In such cases, care should be given to the validity of the vaccine after opening the vial, according to the manufacturer's guidelines and PNI standards. After the deadline, which, for these immunobiologicals, varies from 6 to 8 hours, vaccines should be discarded, which will lead to technical loss, i.e., loss of the remaining doses that were not applied because there is no demand. This type of loss is considered complex and hardly avoided.[10]

It is necessary to consider the possibility that the measures used to reduce vaccine losses, such as the reduced number of days for the performance of certain vaccines, and the refusal to administer immunization, which would require the opening of multidose vials, are contributing to the decrease in vaccination coverage.[11] The implementation of strategies to reduce vaccine losses of technical origin should be adopted with caution or in specific situations of immunobiological defueling, since the opportunity to immunize cannot be missed.

It is noteable that during the data collection period of this study, favorable conditions of yellow fever transmission were presented in Brazil and the occurrence of measles outbreaks in several European countries. Thus, the Ministry of Health, through Information Notes 02/2017[12] and 10/2017,[13] warned, respectively, about the need to intensify surveillance and prevention actions for yellow fever, with an increase in vaccine supply and that all Federated Units maintain active

epidemiological surveillance in the identification and follow-up of suspected cases of measles, maintaining high vaccination coverage and guidance to the population on the importance of updating the vaccine card.

Limited working hours configure a barrier and indicate that the call is centered on service's needs and not users'. To achieve the immunization policy, it is necessary a network of services increasingly close to users, meeting the demands of people's daily lives. In this study, the opening hours and the forms of organization of care in vaccine rooms emerged as factors that limit the use of immunization services, mainly due to the share of users inserted in the labor market, who, consequently, have less time to seek this care.

To focus on the daily life of the vaccination room, in the context studied, with its forms of work production in vaccination and expression of users, in front of this service, tells us that in the understanding of this phenomenon, the object is how the subject perceives it, interprets the world and expresses its experiences.[14] Health units that establish standards to meet vaccination, according to the needs of the services, approach what "can be modeled at will, but which, on the contrary, resists the rationalist injunction or at least relativizes it"[15] and induces to consider, relatively, the principle of access to the vaccine and the norms and guidelines of the PNI.

In a municipality participating in this study, it was possible to observe that, on one day of the week, all health units operated until 6:30 p.m. with the objective of assisting workers (FN).

The expansion of the opening hours of health services, especially at night, facilitates access for working users,[16] promoting immunization opportunities and increasing vaccination coverage among this public. On the other hand, if the hours of operation of the units do not meet users' needs, service satisfaction decreases by 46%, compromising the access and credibility of the population with PHC.[17]

It was identified that aspects related to the physical structure, cleanliness and organization of vaccination rooms are factors that influence decision-making to vaccinate. A study that evaluated the structure and process of 93 vaccine rooms in PHC units in the city of Fortaleza, Ceará, Brazil, identified the inadequacy of the general cleaning of the vaccination room and refrigerators, the insufficient quantity of vaccines, syringes and needles, and the recording of temperatures that differ to the recommended for the proper conservation of vaccines.[18]

Another study that evaluated the physical and structural conditions of 21 vaccination rooms in the health units of the city of Caxias, Maranhão, Brazil showed that, although all vaccination rooms are easily accessible to the public, 37.5% achieved a failure due to the inadequacy of essential items for the promotion of safety during the procedure, deficits of indispensable materials and lack of all immunobiologicals in 88% of the vaccination rooms surveyed.[19]

Lack of vaccines entails missed immunization opportunities, which may reflect the discredit of services by the population, impairing the scope and maintenance of vaccination coverage.[20]

This finding of lack of immunobiological was also found in a study conducted in Guatemala, where participants indicated that this is one of the reasons for the delayed vaccination situation[20]. Also, in a study that evaluated the quality of organization and functioning of vaccine rooms of a municipality in northern Minas Gerais, Brazil, there was an unavailability of some routine vaccines in 17 of the 18 rooms evaluated.[21]

These findings corroborate the results of the present study, showing that the impairment of immunization practices, because of the scarcity of immunobiologicals, is not only a problem in the region of Minas Gerais surveyed.

Lack of access to information can be determinant for the establishment of of a person's health habits, increasing the likelihood of non-smoking or delayed immunization of individuals.[22]

Contradictorily, the indication of the vaccine and the information about its benefits are strategies for greater immunization ideation. A study that aimed to estimate vaccination coverage against Hepatitis B in adolescents and identify the reasons for the non- vaccine adhering found that one of the main reasons cited by adolescents with a delayed vaccination schedule was lack of information and guidance on the need for a three-dose vaccine regimen. It is evident that lack of guidance by health professionals was strongly associated with non-adhering to the Hepatitis B vaccine.[23]

On the other hand, a study that aimed to discuss the actions developed by nurses for the control and eradication of immunopreventable diseases identified that the main actions developed involve updating the vaccine card, guiding users and referring to the vaccination room. The contents covered during the guidelines cover the importance of keeping the vaccination card up to date, specifying the types of vaccines and their importance. However, it is noteworthy that these guidelines are directed, fundamentally, to the mothers of children and pregnant women.[24]

There is, in the simple sense of access to information, on the relevance of the vaccine and the appropriate guidelines for the process of vaccinating, "a competition between archaic elements and technological development".[15:148] It is evidenced by the perspective of expanded understanding of the need for union between specialized knowledge and world knowledge: "ally against, make them be in synergy",[14:148] understanding and contaminating the way of being and thinking of users in the face of the need for vaccination.

Specific guidelines on the dates for the next vaccination and the number of doses required to ensure the immunogenicity of vaccines are information that directly influences the use of immunization services and is often performed inconsistently.[20] A study conducted in a low-income community in New York City revealed that the majority of vaccine doses against influenza in the season studied were administered in scheduled visits (80% of the first doses, 57% of the second doses). This vaccination schedule was pointed out by users as a practice that promoted access to vaccines.[25]

The present study demonstrated that direct contact and insertion of users in other actions and services of the health unit, such as prenatal consultation, favors access to vaccination. Such occasions are a moment with great potential to favor and expand the opportunities for orientation for vaccination, providing the referral of users who are not vaccinated or with incomplete schedules to the vaccination room. Therefore, it is essential that all members of the health team are involved and committed to vaccination.[26]

A survey conducted in Pakistan, which aimed to identify factors associated with arrears vaccination among children, found that children of mothers who did not have access to prenatal services were more likely to have a delayed vaccination status. It is evident that the immunization of children is not an isolated phenomenon, as it is associated with the previous and timely interaction of parents with the health system.[24]

Users recommended actions that could be adopted as strategies to promote the use of immunization services, thus suggesting a schedule for better access to the vaccination room. This schedule indicates the need to reorganize the days and times available for vaccination, increasing the accessibility of the population to the service; the computerization of the vaccine card; the implementation of specific dissemination strategies to increase awareness and, consequently, the search for immunization; the structural adequacy of the vaccination room and the expansion of human resources in health units in order to reduce the waiting time for vaccination.

Disseminating the importance of vaccination, extending the hours of care in health units[27] and disseminating events related to vaccination in public environments, schools and community centers[20] were also suggested strategies to promote the adoption of immunization actions by research participants conducted in Joinvile, Santa Catarina, Brazil and Guatemala.

The media is an important means of disseminating health information, having been described as the main tool for disseminating actions in vaccination. However, because it is passive, does not, in fact, intervene in people's health education. The importance of an active action of Community Health Workers (CHW) with the population[27] stands out. The research conducted in Joinvile, when analyzing the reasons for non-adoption of children to the vaccination campaign against influenza, identified that disclosure through CHW was ineffective.[27] Nurses may, in this case, be effective in their managerial competence.

Finally, considering the organizational aspects for access to vaccination implies, based on the Comprehensive Sociology of Daily Life, "uniting the opposites: operating knowledge and, at the same time, perceiving vital drive, knowing and being able to understand existence",[15:58] to meet users' needs and have the right to vaccinate.

This study presents as a limitation the intentional sampling, when selecting only one subgroup of the user population present in PHC units on the day of data collection. However, based on the information collected, intentional sampling can be considered representative in populations and similar conditions in multiple case studies with data saturation by literal replication.

CONCLUSION

In the present study, there were organizational obstacles that compromise the provision of an adequate vaccination service, as established by the PNI. These obstacles are configured in the establishment of specific days for the performance of certain vaccines; in the restricted opening hours of vaccination rooms; lack of immunobiological scans and lack of guidance and clarification by health professionals. It was evidenced that direct contact and insertion of users in other actions and services of the health unit favor access to vaccination.

The routine establishment of only one day of the week for the performance of vaccines presented in multi-dose vials, as a measure to reduce vaccine losses of technical origin, was not a strategy described in the literature consulted. Further research in this area is needed, as studies are incipient on optimized immunization measures and practices that present potential strategies to reduce technical losses, without compromising individuals' access to timely immunization.

Aiming at the wide dissemination of information related to immunization, we highlight the role of nurses, technical responsible for immunization activities in PHC, in continuing education actions for the nursing team and CHW, as well as guidance in relation to the activities to be developed by these professionals in the territory.

A schedule for the best access was recommended by users. They indicated the reorganization of days and times for vaccination, in line with population's needs; the computerization of the vaccine card; the implementation of specific dissemination strategies to expand the search for immunization; structural adequacy of the vaccination room; and expansion of human resources in health units.

Despite the entire political and institutional framework for SUS implementation and the realization of users' access to health services and actions, it was possible to confirm, in this study, that there are many barriers that need to be faced by public institutions to offer assistance to everyone in the vaccination room, in respect of the principles of universality, equity, and comprehensiveness. Therefore, the importance of health services identifying their weaknesses and seeking strategies and alternatives that enable user-centered care is emphasized, in order to promote the maintenance of adequate rates of vaccination coverage and, consequently, the success of PNI.

REFERENCES

1. Berkley S. Make vaccine coverage a key UN health indicator. Nature [Internet]. 2015 [cited 2017 Aug 22];526:165. Available from: https://doi.org/10.1038/526165a
2. Domingues CMAS, Teixeira AMS. Coberturas vacinais e doenças imunopreveníveis no Brasil no período 1982-2012: avanços e desafios do Programa Nacional de Imunizações. Epidemiol Serv Saúde [Internet]. 2013 [cited 2018 Feb 10];22(1):9-27. Available from: http://scielo.iec.gov.br/pdf/ess/v22n1/v22n1a02.pdf
3. Braz RM, Domingues CMAS, Teixeira MAS, Luna EJA. Classification of transmission risk of vaccine-preventable diseases based on vaccination indicators in Brazilian municipalities. Epidemiol Serv Saúde [Internet]. 2016 [cited 2018 Mar 27];25(4):745-54. Available from: http://www.scielo.br/pdf/ress/v25n4/en_2237-9622-ress-25-04-00745.pdf
4. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Programa Nacional de Imunizações: 40 anos. Brasília, DF(BR): Ministério da Saúde; 2013 [cited 2018 Feb 16]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/programa_nacional_imunizacoes_pni40.pdf
5. Alberti GF, Schimith MD, Budó MLD, Neves GL, Rosso LF. First-contact accessibility attribute in primary health care services and care practices: contributions to academic education for nurses. Texto Contexto Enferm. [Internet]. 2016 [cited 2019 Aug 27];25(3):e4400014. Available from: https://doi.org/10.1590/0104-07072016004400014.
6. Yin RK. Estudo de Caso: Planejamento e métodos. 5th ed. Porto Alegre, RS(BR): Bookman; 2015.
7. Maffesoli M. O conhecimento comum: introdução à sociologia compreensiva. Porto Alegre, RS(BR): Sulina; 2010.
8. Bardin L. Análise de conteúdo. São Paulo, SP(BR): Edições 70; 2011.
9. Bedin DM, Scarparo HBK, Martinez HA, Matos IB. Reflexões acerca da gestão em saúde em um município do sul do Brasil. Saude soc. [Internet]. 2014 [cited 2017 Oct 18];23(4):1397-1407. Available from: http://www.scielo.br/pdf/sausoc/v23n4/0104-1290-sausoc-23-4-1397.pdf
10. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Manual de Rede de Frio do Programa Nacional de Imunizações. Brasília, DF(BR): Ministério da Saúde; 2017. [cited 2019 Aug 21]. Available from: http://portalarquivos2.saude.gov.br/images/pdf/2017/dezembro/15/rede_frio_2017_web_vf.pdf
11. World Health Organization. Monitoring vaccine wastage at the country level: guidelines for programme managers. WHO Report n. WHO/V&B/03.18.WHO. Geneva (CH): World Health Organization; 2005. [cited 2019 Aug 24] Available from: https://apps.who.int/iris/bitstream/handle/10665/68463/who_vb_03.18.rev.1_eng.pdf
12. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Nota Informativa Nº 02/2017: Orientação para profissionais de saúde sobre Febre Amarela Silvestre. Brasília, DF(BR): Ministério da Saúde; 2017. [cited 2019 Aug 22] Available from: https://sbim.org.br/images/files/nota-informativa-n-02-2017-fa-final.pdf
13. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Nota Informativa Nº 10 de 2017: Informa sobre a ocorrência de surtos de sarampo em vários países eupopéus. Brasília, DF(BR): Ministério da Saúde; 2017 [Internet]. [cited 2019 Aug 22] Available from: https://sbim.org.br/images/files/nt-sarampo-170407.pdf
14. Maffesoli M. A terra fértil do cotidiano. Revista Famecos [Internet]. 2008 [cited 2017 June 12];15(36):05-09. Available from: https://doi.org/10.15448/1980-3729.2008.36.4409
15. Maffesoli M, Poe AE. Elogio da razão sensível. 4th ed. Petrópolis, RJ(BR): Vozes; 2008.

16. Paula CC, Silva CB, Tassinari TT, Padoin SMM. Factors that affect first contact access in the primary health care: integrative review. Rev Pesq Cuid Fundam [Internet]. 2016 [cited 2017 Dec 20];8(1):4056-78. Available from*:* http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/3918/pdf_1836

17. Protasio APL, Gomes LB, Machado LS, Valença AMG. Factors associated with user satisfaction regarding treatment offered in Brazilian primary health care. Cad Saúde Pública [Internet]. 2017 [cited 2017 Dec 13];33(2):e00184715. Available from: http://www.scielo.br/pdf/csp/v33n2/1678-4464-csp-33-02-e00184715.pdf

18. Galvão MFPS, Almeida PC, Lopes MSV, Coutinho JFV, Martins MC, Barbosa LP. Evaluation of vaccination rooms in primary health care units. Rev. Rene [Internet]. 2019 [cited 2019 Aug 28];20:e39648. Available from: https://doi.org/10.15253/2175-6783.20192039648

19. Gomes RNS, Portela NLC, Pedrosa AO, Cunha JDS, Monte LRS, Santos CNC. Physical and functional evaluation of vaccination rooms from the public municipal network of Caxias-MA. Rev Pesqui Cuid Fundam. 2016 [cited 2017 Oct 17];8(1):3793-802. Available from: https://doi.org/10.9789/2175-5361.2016.v8i1.3793-3802

20. Barrera L, Trumbo SP, Bravo-Alcántara P, Velandia-gonzález M, Danovaro-Holliday MC. From the parents' perspective: a user-satisfaction survey of immunization services in Guatemala. BMC Public Health [Internet]. 2014 [cited 2017 Nov 23];14:231. Available from: https://doi.org/10.1186/1471-2458-14-231

21. Siqueira LG, Martins AMEBL, Versiani CMC, Almeida LAV, Oliveira CS, Nascimento JE, et al. Assessment of the organization and operation of vaccine rooms in primary health care in Montes Claros, Minas Gerais, Brazil, 2015. Epidemiol Serv Saúde [Internet]. 2017 [cited 2018 Jul 23];26(3):557-68. Available from: http://www.scielo.br/pdf/ress/v26n3/en_2237-9622-ress-26-03-00557.pdf

22. Bugvi AS, Rahat R, Zakar R, Zakar MZ, Fischer F, Nasrullah M, et al. Factors associated with non-utilization of child immunization in Pakistan: evidence from the Demographic and Health Survey 2006-07. BMC Public Health [Internet]. 2014 [cited 2017 June 29];14(1):232. Available from: https://doi.org/10.1186/1471-2458-14-232

23. Francisco PMSB, Donalisio MR, Gabriel FJO, Barros MBA. Hepatitis B vaccination in adolescents living in Campinas, São Paulo, Brazil. Rev Bras Epidemiol [Internet]. 2015 [cited 2017 Jun 06];18(3):552-67. Available from: http://www.scielo.br/pdf/rbepid/v18n3/1415-790X-rbepid-18-03-00552.pdf

24. Tavares RE, Tocantins FR. Nursing actions in primary care and the control of diseases preventable through vaccines. Rev Bras Enferm [Internet]. 2015 [cited 2018 Feb 10];68(5):803-9. Available from: http://www.scielo.br/pdf/reben/v68n5/0034-7167-reben-68-05-0803.pdf

25. Hofstetter AM, Barrett A, Stockwell MS. Factors impacting influenza vaccination of urban low-income Latino children under nine years requiring two doses in the 2010–2011 season. J Community Health [Internet]. 2015 [cited 2017 July 06];40(2):227. Available from: http://pubmedcentralcanada.ca/pmcc/articles/PMC4314518/

26. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Manual de Normas e Procedimentos para Vacinação [Internet]. Brasília, DF (BR): Ministério da Saúde; 2014 [Internet]. [cited 2017 Aug 06] Available from: http://www.saude.pr.gov.Br/arquivos/file/-01vacina/manual_procedimentos_2014.Pdf

27. Siewert JSI, Clock D, Mergner PG, Rocha PFA, Rocha MDHA, Alvarez AM. Motives for non-adherence of children to the vaccination campaign against influenza. Cogitare Enferm [Internet]. 2018 [cited 2019 Aug 26];23(3):e53788 Available from: https://doi.org/10.5380/ce.v23i3.53788

NOTES

ORIGIN OF THE ARTICLE

Article extracted from the dissertation - Vaccination access in Everyday Life of primary health care of the Western Extended Health Region of Minas Gerais, from the user's standpoint, presented to the Graduate Program Academic Master in Nursing, *Universidade Federal de São João del-Rei*, in 2018.

AUTHORS' CONTRIBUTIONS

Study design: Duarte DC, Viegas SMF.
Data collect: Duarte DC.
Analysis and interpretation of data: Duarte DC, Viegas SMF, Augusto TFS.
Discussion of results: Duarte DC, Viegas SMF, Augusto TFS.
Writing and/or critical review of content: Duarte DC, Viegas SMF, Oliveira VC, Tholl AD, Martins JRT.
Final review and approval of the final version: Duarte DC, Viegas SMF, Oliveira VC, Tholl AD.

FUNDING INFORMATION

This study was financed by the SUS Research Program - Edital 14/2013.

APPROVAL OF ETHICS COMMITTEE IN RESEARCH

Approved by the Ethics Committee in Research with Human Beings of the Center-West Campus of *Universidade Federal de São João del-Rei*, Opinion 1,193,584 and CAAE 47997115.2.0000.5545.

CONFLICTS OF INTEREST

There is no conflict of interest.

HISTORY

Received: May 12, 2019.
Approved: September 10, 2019.

CORRESPONDING AUTHOR

Deborah Correia Duarte
deborah.ufsj@gmail.com