

THE USE OF INFORMATION SYSTEMS IN FAMILY HEALTH STRATEGIES: NURSES' PERCEPTIONS

Maria de Lourdes Custódio DUARTE^a, Janaina dos Reis TEDESCO^b,
Rodrigo Ritter PARCIANELLO^c

ABSTRACT

The study aimed to analyze the nurses' perception about the use of the Information System of Primary Care (ISPC) in the Family Health Strategy (FHS) in five cities in the South. Five nurses were interviewed and data were analyzed following the steps of thematic analysis, two categories emerge: possibilities of using the ISPC and challenges faced in everyday nurse using the ISPC. Stresses the importance of the Regional Health Coordination in organizing training and discussions on the ISPC, and assist municipalities in the effective implementation of this system in primary care, involving managers, employees and community. Greater involvement of these actors in the consolidation of ISPC facilitate and qualify the actions of the population health planning.

Descriptors: Family nursing. Family Health Program. Information systems. Health services.

RESUMO

O estudo objetivou analisar a percepção dos enfermeiros sobre o uso do Sistema de Informação da Atenção Básica (SIAB), na Estratégia Saúde da Família (ESF), em cinco municípios do sul do país. Foram entrevistados cinco enfermeiros, e os dados foram analisados seguindo os passos da análise temática, fazendo emergir duas categorias: possibilidades de uso do SIAB e desafios enfrentados no cotidiano dos enfermeiros com o uso do SIAB. Salienta-se a importância das Coordenadorias Regionais de Saúde na organização de capacitações e discussões sobre o SIAB, além de assessorar os municípios na implantação efetiva desse sistema na atenção básica, envolvendo gestores, trabalhadores e comunidade. Um maior envolvimento desses atores na consolidação do SIAB facilitaria e qualificaria as ações de planejamento em saúde da população.

Descritores: Enfermagem familiar. Programa Saúde da Família. Sistemas de informação. Serviços de saúde.

Título: O uso do sistema de informação na estratégia saúde da família: percepções dos enfermeiros

RESUMEN

El objetivo del estudio fue analizar la percepción de las enfermeras sobre el uso del Sistema de Información de Atención Primaria (ISPC) en la Estrategia de Salud de la Familia (ESF) en cinco ciudades en el Sur. Cinco enfermeras fueron entrevistadas y los datos fueron analizados siguiendo los pasos de análisis temático, surgen dos categorías: las posibilidades de utilizar el SIAB y desafíos que enfrenta en el diario de los enfermeros con el SIAB. Destaca la importancia de la Coordinación Regional de Salud en la formación de la organización y los debates sobre el SIAB, y ayudar a los municipios en la aplicación efectiva de este sistema en la atención primaria, la participación de gerentes, empleados y la comunidad. Una mayor participación de estos actores en la consolidación de facilitar la SIAB y calificar las acciones de la planificación de la salud de la población.

Descriptores: Enfermería de la familia. Programa de Salud Familiar. Sistemas de información. Servicios de salud.

Título: Uso del sistema de información en la estrategia de salud de la familia: percepciones de las enfermeras.

a Assistant Professor at Pampa Federal University (Unipampa). In course Phd by the Nursing Post Graduation Program (PPGENF) from Rio Grande do Sul Federal University School of Nursing (UFRGS), Porto Alegre, Rio Grande do Sul, Brazil.

b Nurse. Specialist on Work Management by the Public Health School, Porto Alegre, Rio Grande do Sul, Brazil.

c Brazilian Lutheran University Medical School (ULBRA) undergraduate, Porto Alegre, Rio Grande do Sul, Brazil

INTRODUCTION

Information System of Primary Care (ISPC) was created in 1998 by Primary Care/Health Care Department, along with IT Department and the Unified Health System (DUHS). This tool was developed as a support instrument to the family's health teams aiming to identify individual and collective problems regarding health conditions in a certain population, providing elements to analyze the situations faced, subsidizing researches on possible hospital referrals⁽¹⁾. It involves either information related to health/disease processes, as those regarding administrative features, all of them essential for decision-making⁽²⁾.

Thus, it was launched a new logic regarding production and information use in for health, as well as a faster and opportune use of information use and indicators' production able to cover the entire cycle of the organization of the health actions starting from problems' identification⁽³⁾. So, after ISPC implementation, data related to the families began to be officially recorded, what made it possible to estimate the average of population with family health coverage, in Brazil^(4,5).

ISPC, unlike other health information systems, is characterized as a territorial system. It means that it provides population indicators (morbidity, mortality, and services) from a certain coverage area, facilitating health diagnosis achievements, guiding health teams on their planning and evaluation of their actions in health⁽⁶⁾.

However, it is notable the difficulty Families Health Strategy (FHS) teams find to use information produced and recorded ISPC. It is Known that data input in their data base regarding subscribed families' information and the reports' filling, is part of these health services professionals daily work, and that non-fulfillment of such forms and reports may harm the evaluation of their activities, and might lead to the team's accreditation and transfers/funds suspension by the Health Ministry⁽⁷⁾. Thus, it is an assignment for all team members to ensure the quality of the activities' records in the national information systems in primary care, however reality has shown that, usually, nurses are the professionals responsible for the local system⁽²⁾.

The interest on developing the study and on debating the theme emerged throughout the work's

course among the FHS team, in which was observed the acknowledgement regarding ISPC and its use's possibilities, noticing neglect with the collected data as well as with its input into the system. Besides, it was noticed that many times, data input in the system happened in a mechanical way, without prior discussion in the team's meetings, considering that such data can provide important information for the working processes in health services.

It is assumed that non-recognition of ISPC importance to subsidize decision-making processes may induce to the process' non-recognition by managers and workers in the health system. The formal study is explained in this context, once we know that health information is a fundamental subsidy to the recognition of the health situation of a certain social group.

Based on this scenario, it is important to address nurses' perceptions about the use of ISPC, leading to professional reflections on the importance of this tool for the FHS management teams. Thus, it is assumed the importance of the nursing professional role for the ISPC use, having under view their status as nursing teams' coordinator and sometimes formally or informally, the status of FHS team manager.

So, it is questioned: What is the nurses' perception about the use of ISPC in the Health Family Strategy? From this point on, the current study general goal was analyzing the FHS nurse perceptions regarding ISPC, and, as the specific aim, identify opportunities and challenges in the use of this system by nurses in this services.

METHODOLOGY

Qualitative approach study with exploratory-descriptive features performed in five small counties of Serra's micro region in Rio Grande do Sul (RS), with similar characteristics, such as: German colonization and number of inhabitants, something around five thousand in each municipality.

Family Health nurses' entire teams, from five counties, were invited to take part in the experiment. There were six nurses, considering that one single city had two FHS teams subscribed. The sample's type was intentional, done by invitation, taking as inclusion criteria the minimum FHS hiring period of six months long and to be working during the data collection time.

The municipality with two nurses had one of them excluded, once he/she didn't attend the required hiring time. Thus, five nurses were interviewed and agreed on taking part in the experiment.

Data collection took place in November 2011, in a previously agreed timetable, by means of semi-structured and individual interviews with each nurse, consisting of three main questions: What is your perception about ISPC? How does ISPC is used throughout your working process? What are the challenges and possibilities of ISPC's daily base use?

Interviews were recorded then fully transcribed and analyzed. A total reading of these interviews was performed, using a thematic analysis approach for critical appraisal of the content, seeking the significant stretches to establish to the construction of the addressed themes in consulted articles, aiming to predetermine thematical axes related to the study's goal⁽⁸⁾. Following the steps of pre-analysis and material's exploration, it was possible to carry out the organization and repeat the research's corpus reading. Afterwards they proceeded with the treatment and with the outcomes' interpretation, described in units of context and record, which allowed clustering relevant categories, represented by two discussion's thematic axes, such as: possibilities of using ISPC and challenges faced on nurses' daily routine when using ISPC. Individuals who participated in the experiment were orderly numbered from 1 to 5, and were interviewed in such and identified by letter E.

The research was approved by the Federal University of Pampa (Unipampa) Ethics Committee by means of Protocol No. 047/2011, considering the ethical aspects involving human being in accordance to what was referred in Resolution 196/96 from the National Health Council⁽⁹⁾. Participants signed up the Informed Consent and Clarifying Form after being informed about the aims of the research.

PRESENTATION AND ANALYSIS OF RESULTS

Possibilities about the use of ISPC

In this category collected data are presented and they refer to the possibilities of using ISPC under nurses' perspective. So, for the interviewees, ISPC provides numberless possibilities of use in

everyday's work, such as: 1) Tool for data collection. 2) Control tool; 3) Information tool; 4) Instrument that helps in the local diagnosis.

Interviewees pointed ISPC as an extremely important system and that it turns it easier to FHS professionals to make population's data collection.

It is a very important document to collect family data. It must be well filled and the data well collected. (E1)

It demonstrates that interviewees understand ISPC's importance for their FHS daily working routine, envisioning it as a necessary instrument for gathering health information in the assisted community. Besides health information collecting it is necessary that professionals fill up the ISPC forms properly, otherwise information's quality can be quite compromised⁽¹⁰⁾.

ISPC also serves as an instrument of health in communities covered by FHS teams.

ISPC is a health controller regarding the community's used by the teams, it works pretty well, when used (E2).

Nurses emphasizes the importance on updating ISPC, otherwise information won't help the professionals during its use in favor of their attended community. Therefore, only with used information, professionals will be able to know which problems are actually prevalent among families and, thus, they can perform an action plans for health.

So, it is important to provide information from the systems, in an organized manner, and also with easy access to the professionals. Health Information Systems (HIS) became tools to support activities, decision making and knowledge acquisition, resulting in more qualified, creative, able to change reality and to improve the attendance of the health services⁽¹¹⁾.

Another possibility on using ISPC according to the nurses' perception is that it serves as an information instrument for basic attention care and that, after it enters the system it is sent to other instances, such as in the State and Federal levels.

I see ISPC as an information instrument. Every month we type in in the system the information, so that they can be passed to the state and federal level (E3).

And there we find then information on how many families there are in the county, how many people, how many diseases, what kind of disease has more percentage (E2).

It was understood the importance and possibilities of ISPC to provide health information of the area in which the FHS team is allocated, however, it is necessary that, besides data recording and entering, professional, themselves, must take advantage of the collected data when planning health actions.

In an experiment performed in Ribeirão Preto it was identified that FHS professional teams understand the propose of ISPC to produce information, however, its use seems limited to recording, not being used as a basic management instrument for planning and evaluating the actions⁽⁵⁾.

Often, the use of ISPC data ends up only generating monthly reports, which are not always used by the basic attention team itself⁽⁴⁾. Sometimes, this system is found as vertical and centralized, the place where teams gather the information, type it in and send it to the central level (Ministry of health), without making any data analysis^(12,13).

Interviewees have ISPC as an instrument that makes it possible to achieve a local diagnosis, making it easier for professionals knowing the community in which they operate, providing the identification of the families' health needs and qualifying the assistance provided to the population.

Through ISPC we have the advantage of knowing about pregnant women, knowing the pathologies and everybody's ages. It helps in the local diagnosis making us closer to the families (E5).

The questions of vaccines, too. We can see when it begins to decrease, among absentees (E3).

[...] the possibility of having the data from a determined disease, ye know, pregnant women, underweight children, in this sense (E4).

The set of discourses suggest that data collected through ISPC enable targeting FHS teams' work processes, as in the case of absentees, regarding vaccination and underweight children, showing the importance of ISPC to organize the service, throughout the identifications of the population's needs⁽⁵⁾. Thus, through identifying needs and families health conditions there is a possibility to create links between professionals and health users. Such partnership provides home care that goes beyond the actions taken during working time.

From community's needs displayed by ISPC, professionals can elaborate actions, as in the case

of active searches conducted through home visits. Therefore, ISPC is an useful instrument that helps identifying and evaluate the families, during the construction of health indicators, in the definition of priorities, on the work's organization, on local programming and targeting home visits^(10,12).

In order to formulate health policies and for a global view on the running projects' success, it is necessary to analyze and monitor population's health conditions, with a cast of indices that assess different dimensions of health/disease processes⁽¹⁴⁾.

Therefore, in this category it was possible to know the possibilities on using ISPC, in the interviewed nurses from five cities in Rio Grande do Sul, viewpoint. Such perception states that ISPC presents itself as an instrument for data collection, information and control, besides a tool that assists in local diagnosis, helping to identify community's health needs.

Nurses' daily life challenges when using ISPC

There are numberless possibilities on using ISPC in FHS nurses working daily routine, however some difficulties are faced by nurses related to ISPC, such as 1) Lack of training to work with ISPC. 2) Lack of support/advise to clarify doubts about ISPC. 3) Inner limitation of the system; 4) Lack of knowledge of other professionals regarding ISPC.

Lack of training to work with ISPC was stated as the main difficulty in the interviewed nurses' daily routine when they started working at FHS.

So far there has been no opportunity to take training on ISPC. I used the same graduation information. We learn in the everyday life.(E1)

(...) I sat down beside a technician nurse and she began to teach me, to show me how it works. I learned stirring in the same program (E2).

The set of discusses make it possible to understand that it was not offered to those interviewed ones any kind of capacity or training regarding ISPC. These Professionals seek different ways to understand the system, either through its own nursing graduation information, either through the help of more experienced FHS colleagues.

In this sense, a research conducted in São Paulo over a team of FHS identified that professionals had trouble regarding ISPC, once most of

them referred to lack of training as the main limiter. Other surveys also showed professionals' lack of training on ISPC among FHS teams^(5,10,13,14).

Workers must be trained to know the entire program: The correct forms filling procedures, how to search information about the community as well as production and analyzes of reports. The incipient presence of permanent education shows lack of professional qualifications polices throughout the studied counties, bringing consequences involving the quality of the collected information and its analysis.

There is a need of new investments regarding the maintenance of permanent training to the entire team, as much as for discussions and interpretations of the collected data, because the mere availability of ISPC data to the team is not enough to be used as information, on local programming⁽⁵⁾. Thus, the absence of specific training on forms filling and the use of printed ones, the reliability on the data and on the information's quality can be impaired, which could mean an important factor for the under-use of the system by these counties^(13,15).

Associated to lack of training, respondents also referred to lack of support/advise on clarifying doubts regarding ISPC.

You don't have the coordination's support. I called there and asked if I could bring my computer to learn see how to install and how to work (E3).

It is missing advice, with whom to share, or plan based on ISPC data (E1).

An interviewee was willing to take his computer to the coordination area, if necessary, in order to receive information about the system. Another one felt difficulty because he didn't have anybody to share his doubts with and elaborate plans based on ISPC data. So, it clarifies the professionals request for help towards the Regional Health Coordination (CRS), which should assist the counties in implementing ISPC.

It is known that administrative ability means trouble in smaller counties, but they may also have additional difficulties to allocate human and material resources to work with ISPC. In these small counties, people in charge for the system are mainly statutory staff and they perform many different tasks, so the support of CRS to enhance these human resources would help to optimize the use ISPC's data^(15,16).

ISPC's limitations, related to the program itself or, yet, to information that could be included

in the system were listed as difficulties verbalized by interviewed nurses.

I think that ISPC is very objective, it could have a bit more of things (E5).

ISPC is DOS and it is very hard to work with. It is outdated (E3).

These professionals show losses found in ISPC's softwares, for example, the small number of encoded diseases that may not help the real panorama of the described population⁽¹²⁾. So, the need to readapt the current ISPC collecting tool, to wider its use, speed up decision-making related to health education and promotion processes⁽¹⁷⁾.

A 2009 study recommends some changes in data sheets, what would improve the quality of the collected data⁽¹⁷⁾. In addition to that, ISPC is a national level system, which limits to focus on regional peculiarities, damaging important data input to the local planning⁽¹⁰⁾.

Nurses and health community gents are professionals that generally show greater involvement with ISPC. Other professionals are keeping a greater contact only by filling their sheets⁽⁵⁾ and others do not even know that ISPC exists, as seen in the next interviewee's discourse.

Doctors were not introduced to ISPC. So I entered the information in ISPC, because I knew the importance of it, but they didn't even know what it was for. (E1)

It is seen a lack of knowledge on the medical professionals' side regarding ISPC and its importance to basic attention. Thus, the use of ISPC seems to differ among professionals in the team⁽⁶⁾. Though, the low percentage of professionals trained on using ISPC, mainly doctors, could have raised the number of teams that just use the program for action planning. Associated to this, factors such as insertion of professionals, without appropriate profile, to work with basic attention may contribute to low reliability on system generated information⁽⁵⁾.

Findings of a study performed in 2010 showed that professionals of dentistry and medicine just use ISPC a little, and mainly use it to fill up their production data. However, the nursing professionals are those who use it as an instrument for analyzing epidemiological and health care situations, to diagnosis and action planning purposes⁽⁵⁾.

The set of discourses allow the identification of some factors that hamper the work of nurses with ISPC, such as lack of training, lack support/advice to clear some doubts about the tool, inner limitations of the system and lack of knowledge of other professionals regarding ISPC.

FINAL CONSIDERATIONS

The study aimed to analyze the nurses' perceptions about the use of ISPC in FHS, identifying possible opportunities and challenges in its use. It was evident that respondents understand the numerous possibilities of ISPC use, as well as its importance to subsidize their working processes. However they expressed the need of training to help them use the system properly. They stated that the acquired ISPC knowledge during graduation time was insufficient, but still, such knowledge has been setting the difference in their professional practice, considering the few updates on the subject.

Aiming to finish our study, we would like to highlight the importance of ISPC in providing better and more accurate decisions regarding health care. However, in order to use this current information, professionals need to know about the information system and how to use it. Following such a track it is important to give nurses autonomy, as literature stands out for, they are the most involved ones with ISPC.

It stresses the importance of Health Regional Coordination on organizing trainings and discussions about ISPC, besides assisting counties in effective deployment of this system in basic attention, involving managers, workers and the community. A greater involvement of these actors in ISPC's consolidation would facilitate and qualify the health's action plans in communities.

It is assumed that ISPC is a facilitator of the work process in FHS, however, to be used in its fullness, changes in the workers' training and support offered by the State and other spheres should happen in the country.

REFERENCES

- 1 Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Sistema de Informação da Atenção Básica - ISPC: indicadores 2003. Brasília (DF); 2004.
- 2 Siqueira EA. Sistema de Informação da Atenção Básica (ISPC): instrumento de diagnóstico e planejamento [monografia]. Barbacena: Núcleo de Estudos em Saúde Coletiva, Faculdade de Medicina, Universidade Federal de Minas Gerais, 2010.
- 3 Shimizu HE, Reis LS. As representações sociais dos trabalhadores sobre o Programa Saúde da Família. *Ciênc Saúde Colet.* 2011;16(8):3461-8.
- 4 Tillvitz LR, Souza RKT, Carvalho BG, Kasai MLHI, Nunes EFPA, Cordon Junior L. Uso do sistema de informações na vigilância dos óbitos pelas Equipes de Saúde da Família em Londrina, PR. *Cad Saúde Colet.* 2010;18(3):355-60.
- 5 Figueiredo LA, Pinto IC, Marciliano CSM, Souza MF, Guedes ABG. Análise da utilização do ISPC por quatro equipes da Estratégia Saúde da Família do município de Ribeirão Preto, SP. *Cad Saúde Colet.* 2010;18(3):418-23.
- 6 Marcolino JS, Scochi MJ. Informações em saúde: o uso do ISPC pelos profissionais das Equipes de Saúde da Família. *Rev Gaúcha Enferm.* 2010;31(2):314-20.
- 7 Ministério da Saúde (BR). Portaria nº 648, de 28 de março de 2006: aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica para o Programa Saúde da Família (PSF) e o Programa Agentes Comunitários de Saúde (PACS) [Internet]. Brasília (DF); 2006 [quoted 2011 aug 25]. Available in: <http://dtr2001.saude.gov.br/sas/PORTARIAS/Port2006/GM/GM-648.htm>.
- 8 Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 10ª ed. São Paulo: Hucitec; 2007.
- 9 Ministério da Saúde (BR), Conselho Nacional de Saúde. Resolução 196, de 10 de outubro de 1996: diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Brasília (DF); 1996.
- 10 Freitas FP, Pinto IC. Percepção da equipe de saúde da família sobre a utilização do Sistema de Informação da Atenção Básica (ISPC). *Rev Latino-Am Enfermagem.* 2005;13(4):547-54.
- 11 Benito GAV, Licheski AP. Sistemas de Informação apoiando a gestão do trabalho em saúde. *Rev Bras Enferm.* 2009;62(3):447-50.
- 12 Silva AS, Laprega MR. Avaliação crítica do Sistema de Informação da Atenção Básica (ISPC) e de sua

- implantação na região de Ribeirão Preto, São Paulo, Brasil. Cad Saúde Pública. 2005;21(6):1821-8.
- 13 Radigonda B, Conchon MF, Carvalho WO, Nunes FPA. Sistema de informação da atenção básica e sua utilização pela equipe de saúde da família: uma revisão integrativa. Espaço Saúde. 2010;12(1):38-47.
- 14 Maia LDG, Corrêa JPR, Lopes ACFMM, Rodrigues Neto JF. Utilização do Sistema de Informação da Atenção Básica (ISPC) para o planejamento das ações pelas equipes da Estratégia de Saúde da Família do município de Montes Claros (MG). Rev Baiana Saúde Pública. 2010;34(2):359-70.
- 15 Barbosa DCM, Forster AC. Sistemas de Informação em Saúde: a perspectiva e a avaliação dos profissionais envolvidos na Atenção Primária à Saúde de Ribeirão Preto, São Paulo. Cad Saúde Colet. 2010;18(3):424-33.
- 16 Colomé ICS, Lima MADS, Davis R. Visão de enfermeiras sobre as articulações das ações de saúde entre profissionais de equipes de saúde da família. Rev Esc Enferm USP. 2008;42(2):256-61.
- 17 Bittar TO, Meneghim MC, Mialhe FL, Pereira AC, Fornazari DH. O Sistema de Informação da Atenção Básica como ferramenta da gestão em saúde. RFO UPF. 2009;14(1):77-81.

**Author's address / Endereço do autor /
Dirección del autor**

Maria de Lourdes Custódio Duarte
Rua Gonçalves Ledo, 20, ap. 203, Partenon
90610-250, Porto Alegre, RS
E-mail: malulcd@yahoo.com.br

Received: 14.03.2012
Approved: 13.09.2012