

## PERFORMANCE OF HEALTH PROFESSIONALS FROM THE FAMILY FRONT OF THE RURAL WORKER EXPOSED TO PESTICIDES

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### ABSTRACT

Our objective was to become familiar with the work of the Family Health Strategy professionals in relation to rural workers exposed to pesticides. It was adopted a qualitative and descriptive research approach. The study was conducted with 15 health professionals from three groups of the Family Health Strategy. The data were produced through a semi-structured interview and submitted to thematic content analysis. It was identified that the professionals' action was restricted to aiding in users' acute problems. The healthcare provided for rural workers was based on healing attention, with emphasis on relieving signs and symptoms of intoxication. In the preventive scope, no flow of care was established, there were no planned and directed actions concerning the education and awareness of rural workers in relation to their exposure to pesticides. It is possible to conclude that rurality was not a considered factor in the planning of actions of the Family Health Strategy. For the renewal of the practice, it is suggested permanent education, through which health professionals may develop their theoretical knowledge towards a more effective practice.

**Keywords:** Nursing. Rural health. Agrochemicals. Family health.

### INTRODUCTION

The great folkwork and the exploitation of the environment mark historically the land structure of Brazil, to the detriment of family farming and sustainable incentive. The concentration of land and social inequalities between the countryside and the city indicate how the process of development of capitalism, in the Brazilian countryside, happened at the expense of the social exclusion of the vast majority of the population of the country<sup>(1)</sup>.

However, the resource-poor smallholders produce 70% of the food technology that underpins the Brazilian domestic market, due to large estates come back your production, generally, to monocultures as: soy, corn and sugar cane, which supply the foreign market<sup>(2)</sup>.

Despite a remarkable group build relevance to society, rural workers are exposed to adverse factors to your health and your job. Mentioning the unpredictable weather events that can compromise yields; price variation of products; difficulties in obtaining financing; work excessive hours; strenuous tasks; working conditions unhealthy and permanent

coexistence with the risks of illness or accidents, in particular in the management of implements and machines and the indiscriminate use of agrochemicals in unsafe and without the training required for your use<sup>(2-3)</sup>.

The Brazil, since 2008, is the largest consumer of agrochemicals in the world. The use of pesticides brings serious problems to the health of workers and of the whole population, in addition to causing damage to nature by degradation of non-renewable natural resources, imbalance and destruction of fauna and flora and pollution of water, soils and air<sup>(4)</sup>.

The pesticides, conflictivamente, rural worker's life. If they pose a risk to your health, on the other are seen as fundamental to agricultural production, whereas without them, given the absence of technical alternatives, you can't compete on the market, you don't sell the product of their own work and cannot survive. Hence the everyday strategies of these workers, their resistances and how to deal collectively with the sick<sup>(2)</sup>.

Study of integrative review showed the little protection as main potentiator of pesticide contamination by the rural worker. And, notes that

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the insufficient performance of health professionals in the education of these workers is in one of the main barriers for the control and monitoring of contamination<sup>(5)</sup>, therefore, shows the relevance of the expertise of health professionals with these workers be better clarified by scientific research.

In this context, the activities of health professionals of the basic attention, from the family health strategy team. These professionals, develop care and management practices to the populations of territories defined by which take responsibility, are able to consider the dynamism that exists in the territory in which they live these populations and impact on health status of individuals and collectivities<sup>(6)</sup>.

Thus, we highlight the importance of the role of the nurse as a member of this team and responsible for the actions of health promotion and protection from diseases, including those arising from work, within the framework of the family health strategy. Understand the relationship between work and health, especially with regard to the use of agrochemicals, it is important for the field of nursing in public health, especially with regard to the care to rural populations, as it enables the expansion of theoretical and practical knowledge in this field, culminating in improvements to the assistance to this population<sup>(7)</sup>.

Therefore, this research is relevant, since it may instigate the reorganization of the practices of health professionals working in rural areas, in search of improved assistance to farm workers exposed to pesticides. Thus, this study left the following research question: as the performance of the professionals of the family health strategy in the face of the rural worker exposed to pesticides? This study thus aimed to meet the performance of practitioners of strategy health care outside the rural worker exposed to pesticides.

## METHODOLOGY

Exploratory qualitative study, carried out with 15 professionals of the three strategies Family health, three nurses, three doctors, three nurses and six technician's community health Agents. The sets of three study teams Strategy health of a municipality with 6,597 inhabitants situated in the South of Brazil.

For the family health Strategy is required the existence of multidisciplinary team composed of, at least, general practitioner or family health specialist or family physician and community nurse practitioner

or specialist in family health, assist or technical nursing and community health Agents. Each multidisciplinary team should be responsible for no more than 4000 people, being relevant to consider in the definition of the exact number of people per team, the degree of vulnerability in each territory<sup>(6)</sup>.

As criteria for inclusion of participants, elected: be professional and be acting in strategy team family health of the municipality there are at least three months. And as a criterion for deletion, be on vacation or on leave of any kind during the period of data collection. As for community health Agents, these were selected by lottery, with at least one representative from each team, and watched the inclusion and exclusion criteria of the study.

The data were collected from February to August 2012, through semi-structured interview, in which was included the raising of socio-demographic data of the participant. The script that has guided the semi-structured interview approached the work of health professionals in a municipality with economy based on agriculture, rural work and the health-disease process in between, the use of pesticides, the identification of symptomatology related to the use of pesticides and the performance of these professionals on the harms the health of rural workers and the use of pesticides. The interviews occurred at the place of work of health professionals, previously agreed time with each.

Participants was requested permission to interview recording for the faithful reproduction of the same in the form of text, to be analyzed. In the results section, the strata were identified by the speech of the Professional category of participant (E = nurse, M = doctor, YOU = Architect and ACS = community health agent), followed by the number corresponding to the order of realization of interviews. Repeated readings of transcripts have enabled via content analysis<sup>8</sup>, identify the characteristics of the professionals and build two categories about the same in the context of rural worker – use of pesticides: Perceptions of professionals working with health workers in relation to the particularities of the territory; and difficulties and limitations in daily life the rural worker care exposed to the pesticide.

The survey obtained a favorable opinion by the Local Research Ethics Committee through the opinion 23081.017018/2011-54. The study complied with the formal requirements contained in the national and international regulatory standards for research involving human beings.

## RESULTS AND DISCUSSION

The survey of demographic data showed that the professionals interviewed were aged between 26 and 60 years, with an average of 34 years of age. Eleven were female and four male. As to the type of employment, 12 were gazette and three were hired. In relation to marital status, seven had partner, six were single and two were separated/divorced.

Thirteen participants resided in the municipality. The time of action on the family health Strategy of the municipality ranged from one to eight years. Regarding the education of community health Agents, all had high school and college graduates was in progress. As for other professionals, none had specific training to act on Strategy family health.

This data will meet from<sup>(9)</sup> study data, in which most professionals of the family health strategy was a resident in the municipality in which he acted, female and in public work scheme. However, diverged as to professional qualification, because in comparison study most professionals possess expertise and/or residence to perform in the family health strategy<sup>(9)</sup>.

### Perceptions of health professionals who work with the rural workers in relation to the particularities of the territory

The municipality where the research has agricultural-based economy. This means that, in addition to reside in the territory, many workers exercising their activities on the site. In the perception of health workers of the family health Strategy, that particularity influenced the demand profile of attendances and the illness in the territory attached. Health professionals related, mainly, the occurrence of cancer, depression and intoxication to the use of pesticides by farmers.

There's plenty of diseases from farm work, a lot of people with cancer that comes from the use of pesticides [...] mainly lung and stomach (ACS15).

[...] Cancer we have enough here and we have many mental health problems, and I think people relate more to the use of pesticides. [...] We have a lot of suicide here in the city [...] (E07).

[...] Depression associated with the use of the pesticide chronically, best cause-and-effect Association that has the long term [...] (M08).

{pesticide} is disease-causing Yes. [...]. Several even for people who report already intoxicated with it, even had people who have stopped working, because came

into contact with poison and nowadays is in health care. I think it hurts (ACS05).

With regard to the particularities of the territory, the results showed, first, the perception of professionals regarding the relationship between the work and the illness of the population assigned to units. As for the illness of farm workers as a result of the use of pesticides, health professionals stand out, based on your daily experiences, the cancer, the psychic illness (reflected in depression and suicide) and poisoning. These situations of illness are observed in random demand that no more family health strategies on a daily basis. Therefore, there is no evidentiary data of these diagnoses and the Association the use of pesticides.

The profile of illness of farm workers set up a clinical challenge that these tend to have relationship with other pathologies of origin. These, for the most part, are due to intoxication by pesticides, and are also associated with mild or serious accidents at work, the organization and the poor conditions of work in the field and eventual neurotic or psychotic structures that emerge or worsen due to the adverse conditions of farm work<sup>(2)</sup>.

Already with regard to cancer, study pointed out, one of the main types of cancer in rural areas, of cancerskin, breast and prostate. One of the diseased workers, it is estimated that more than 50% reported contact with pesticides<sup>(10)</sup>.

However, despite acknowledging this particularity of the territory, not influenced the planning of the actions of the professionals of the family health strategy:

I'm not going to tell you that we take this very account [...]. You can plan actions, but she doesn't think it's time to plan that this county is based on agriculture, despite my ESF be all she (E01).

[...] In fact, we never gave too much emphasis to this type of population. Then, there are things that we don't have what you answer, because it's really not done [...] (E07).

[...] The priority is for seniors, hypertensive, diabetic [...] bandages, screening, administration of medications (TE03).

None of the three health units had a service model that sought to link the illness of the worker to farm work. Family health strategies designed to meet the groups considered most vulnerable and spontaneous demand, which came into service in search for symptoms of diseases already installed.

Although health professionals recognize the implications of the work on the health of users, the planning of the actions in directing health care to local determinants of health and disease. Thus, the workers were met so punctual and symptomatic. This demonstrates weakness in assisting and weakening of certain instances of the single Health System.

The absence of health actions geared to meet the needs of rural workers (f)Hi observed in another study<sup>(11)</sup> where no professional of the family health strategy reported the existence of promotional activities aimed at health demands of this population, and the actions of assistance were not provided specifically to the worker rural, which received health care in a generic form.

The health system has as one of the challenges to guarantee adequately the right to health for the people of the country, and the family health strategy, configures itself as an important policy to contribute in this process<sup>(12)</sup>. Professionals in the family health Strategy can contribute in assisting to this specific population, since they can identify the spot the real needs of rural workers and, from this ID, run planning more assertive actions related to health promotion and, consequently, to decrease the risk of illness<sup>(13)</sup>.

Within the actions to be planned the House call, which enable the implementation of actions to promote of health and prevention directed to the reality experienced and the link between health staff and community. In addition, the educational activities that strengthen not only the rural worker and your family in the confrontation of difficult situations such as coexistence with pesticides on your property<sup>(12-13)</sup>.

#### **Difficulties and limitations in daily life the rural worker care exposed to pesticides**

After the description of the work context, practitioners have reported a number of problems and limitations with respect to assistance to the rural worker exposed to the pesticide. One such difficulty relates to the lack of information for workers about the effects of pesticides on your health, in addition to the difficulty in obtaining information from them as to intoxication.

{Workers say} "there, I'm bad," then you start talking {e} they say: "it's what I've been through such poison for something". [...] Maybe come to thinking it's something else and don't talk, then when you ask {answer}: "I spent poison in grape, spent on smoking poison" [...] (TE09).

They omit a lot of the information, for example when they arrive with a framework of intoxication, it is very difficult to them to bring the packaging of pesticides. [...]. Sometimes, they will bring the other day, and we don't know if it's that or if they were behind a pack to bring [...](M02).

Outstanding professionals, first, lack of workers as to the harmfulness of pesticides and the difficulties in obtaining information on the occasion of the intoxications. One can consider that these difficulties arising from users' vulnerability, caused by little information as to the risks to which they are exposed and the incipient preparation for self-care. These data differ from cross-sectional study, which showed that the majority of farmworkers surveyed knew the necessary protection measures for the management of pesticides and the symptoms of contamination<sup>(7)</sup>.

It is important to point out that there is evidence that the lack of adequate guidelines for handling of agrochemicals and low perception of risk are factors that increase the chance of illness, since the rural worker lives with a toxic product in its properties without having effective strategies to protect themselves<sup>(13)</sup>. Therefore, gaps in getting sufficient information and the establishment of adequate self-care are factors that increase the vulnerability of these subjects, contributing to the illness.

In addition, professionals have reported difficulties in establishing diagnosis in cases of poisoning, which limits the association between work and the paintings of illness of the users:

[...] Intoxication ... have Affairs. We talk with the doctors for them forward, but it's not close even the diagnosis [...] and have no tests also who's to say that really is it, so it won't close diagnosis of poisoning. The route to notify doctors that is the easier it is to crash, because everyone sees accident, an accident happens and not have people say it wasn't [...](E01).

[...] We can't make the Association. Sometimes, has diarrhea with vomiting, looks like an intestinal infection, a virus that causes weakness, body ache, pale [...]. Normally, we associate because it is the harvest time of smoke or planting [...](M08).

Most patients who come here is not acute, [...] is a chronic intoxication which would have to have another type of search to see which kind of product he is intoxicated. Must have a larger research and we have a hard time for this (M02).

Intoxication appears as one of the adverse impacts of pesticides on human health, for which there is insufficient reliable data that support a reliable relationship between poisoning and illness, and even

death of farm workers. Even being a compulsory notification event, it is estimated that only 20% of cases of poisoning are notified<sup>(14)</sup>.

Clinical research involving the worker's symptoms to the use of pesticides can from any professional who embrace and meets the rural worker. To do this, the service must create and maintain flow to meet this demand. However, the imprecision of the pesticide poisoning diagnosis is a challenge for health care professionals and shall be without prejudice to the notification system and the knowledge of the indicators of illness in this population.

A similar result was found in another national study, in which management professionals and public health service of a rural region mentioned the difficulties encountered for the diagnosis and, consequently, the notification of cases of poisoning pesticide-specific. For the authors, workers and managers know empirically the impact of pesticides on the health of the population, but there is the difficulty of visualize these impacts in epidemiological indicators, and therefore to plan actions from the local reality<sup>(15)</sup>.

The understanding about the specific effects of pesticides to health, epidemiological point of view becomes difficult because your use is varied, immeasurable levels and exposure time, unknown the toxicity of various mixes, besides the presence of numerous genetic and environmental risk factors and lifestyle<sup>(14)</sup>.

As a result, the professional actions become restricted, limited to the treatment of symptoms. In addition, the user loses contact with the unit after the immediate treatment, which prevents that there is monitoring the case. This shows that the pipes family health strategies tend to be immediate:

[...]. They {farmworkers} comes to the gas station usually with nausea, vomiting, nausea, then passes it to the doctor. The doctor meets and inner normally [...] and after hospitalization has no follow-up, never had so, only if the person keeps bad, then we make a visit [...] (TE14).

[...] The health professional to answer that now, there is that something to go after, to identify. [...] You will talk with the doctors they will say it is a lot of plug to suit, there's no way to give a warning maybe more. [...]. Then he {rural worker} going on here like any other service

[...] (E01). [...] Saline for rehydration that sometimes the person vomited quite [...]. It is a symptomatic treatment,

has nothing very specific. [...]. If they feel better soon after the first dose of saline, releases with guidance from not having the contact [...] (M08).

Patient that comes with symptoms, already suspecting that is by the use of pesticides, is always made good general guidance. [...]. Have specific times, more in the summer, some always come into contact with the hospital, with the CIT {Toxicological information center}, is usually the hospitalization, have to be for hydration, for observation (M13).

One of the factors that contribute to this profile of conduct is the high demand for medical care in health units, which leads the rural worker be serviced in the same service logic from other users. Add the difficulty of establishing association between symptomatology and use of pesticides, as previously mentioned.

To act in this context are necessary for structuring and encouraging the actions of workers ' health. Health professionals should be trained and sensitized to be attentive to the signs and symptoms of poisoning, as well as provides adequate service and register the cases in the information system of reportable diseases (Sinan) of the Ministry of health<sup>(14)</sup>.

Health services often are not able to respond to the problems that lie beyond the field of infection-contagious diseases, as occurs with the commitments from work. This is due to the fact that health professionals sometimes are not prepared for this demand.

This bias, cites the importance of workers ' health surveillance (VISA) which is a component of the national health surveillance System that aims to promote health and to reduce the morbidity and mortality of people with the integration of actions involved in diseases and their determinants arising from models of development and production processes. Each municipality, region and State compliance with its features, must seek the best way to establish their own strategies for surveillance<sup>(16)</sup>.

With regard, specifically, to rural workers and directed your family, professionals should consider the specificities related to the values and habits of life, influenced by the environment in which these people live<sup>(17)</sup> the data highlighted in this research points to the need to change the profile of care until then.

Finally, professionals have reported difficulties to establish preventive actions for rural workers about the pesticides, partly due to the fact that the use of these products is related to productivity and income generation in rural areas.

[...]. If the person is in trouble, {professionally} can even address, if it is a problem. But {not} specifically for this {prevention} ... unless by the agents. Now for the team, we will be there to make the visit, {if} is with such a problem. We're not going there just to make a guideline on pesticide (E12).

We have, at times, a bit of trouble {for prevention}, especially when it comes to pesticide to pass it to them why [...] working with pesticide depends on their income. Nowadays is being created a mentality that produces next to nothing without the use of pesticides [...] (ACS04).

[...]. It is difficult to ask them to cut the amount of venom. They also depend on that to survive [...] (ACS10).

The testimony of professional's lead to understanding that there is an organization of family health teams toward systematization of a preventive model of care. One of the elements referred to by the structuring of this caution, emerged the question of financial dependence of the rural workers in relation to pesticides, which makes the Elimination of risk. It is possible that, as a result of this, the professionals of this study reported difficulties for the establishment of preventive actions based on the relation health and work.

Although the pesticides they offer risk to human health are understood by the farmer as a key element for increasing productivity. Such relationship is perceived by the professionals of the family health strategy, making the guidelines as preventive care in the handling of these products are not carried out. Thus, it is considered that one of the main barriers faced by professionals of this study is to find effective strategies for mediation between the economic needs of workers and to guard your health.

It is known that pesticides emerge in agriculture with the purpose of generating productive results superior to those obtained without the aid of industrially synthesized methods to control, eliminate or extinction of pests. However, the results of the use of these compounds have your destructive side, to cause environmental damage and health of people, especially those who use pesticides almost daily during their labour activities<sup>(13)</sup>.

Accordingly, to ensure quality of life for the population in the field is important to have encouragement and creation of government programs that encourage sustainable production, innovation in agro-ecology, as well as the production of organic products, and also the dissemination of environmental

education with emphasis on small producers<sup>(10)</sup>.

Therefore, it should be remembered that the discussion about the pesticides is multi-disciplinary and intersectoral, and the health care professional, inserted into daily life assistance, need to plan actions and strategies aiming at the establishment of a continuous dialogue with rural workers, not towards the prohibition and, Yes, under the aspect of education and information, in order to minimize the damage to health.

In relation to the challenges, difficulties and loopholes that this study uncovered, authors point out that the nursing professional in particular, as a member of the health team, can make use of tools, guidance, and clarification of risks together with the workers rural areas, in order to guide them on occupational exposure, particularly the pesticide<sup>(7)</sup>.

For this, the nurse must be prepared to identify the signs and symptoms of major health disorders presented by this population, as well as the toxicity of the chemicals used, and apply strategies dialogical for greater adherence to actions of self-protection of these workers<sup>(7)</sup>. These strategies may include the appointment of nursing health education groups, the home visit by the Community Health Agent, preventive campaigns, the use of schools as places of dialogue and education, among other strategies, in accordance with the specifics of each reality.

Finally, we highlight that the Organization of work in health planning and evaluation of the actions, which must be programmed from epidemiological data, considering the needs of the users<sup>(19)</sup>. It is therefore essential that there is survey of the demands of the territory, Diagnostics, planning and involvement of professionals involved in the assistance. To do so, if you bet on permanent education, so that health workers if instrumentalism to the challenges of rural worker assistance.

## FINAL CONSIDERATIONS

This study showed that the rurality of the municipality was not considered factor for planning family health strategies directed to the rural workers, and this made the work of professionals if restricted to acute problems that not necessarily, were related to your work.

Under preventive there was no planned actions directed to education and awareness of rural workers, in order to minimize the damage to health caused by pesticides. For renewal of the practice, the permanent

education, whereby professionals can strengthen themselves and if theoretically exploit. Reaffirms, in this study, the health organization model is reflected in the specific demands of the population, culminating in decreased resolution. Scores as

limitation of the study the absence of other data collection instrument that allowed the triangulation of different sources of evidence, as reports of the teams of the family health Strategies and charts to bring information about the specifics of this study.

## ATUAÇÃO DOS PROFISSIONAIS DE SAÚDE DA FAMÍLIA FRENTE AO TRABALHADOR RURAL EXPOSTO A AGROTÓXICOS

### RESUMO

O objetivo foi conhecer a atuação dos profissionais de Estratégia Saúde da Família frente ao trabalhador rural exposto aos agrotóxicos. Foi adotado o delineamento qualitativo, descritivo. O estudo foi realizado com 15 profissionais de saúde de três Estratégias Saúde da Família. Os dados foram produzidos por meio de entrevista semiestruturada e submetidos à análise temática de conteúdo. Identificou-se que a atuação dos profissionais se restringia ao atendimento de problemas agudos dos usuários. O cuidado aos trabalhadores rurais era baseado na atenção curativista, com ênfase no alívio de sinais e sintomas de intoxicação. No âmbito preventivo, não se estabelecia fluxo de atendimento, não havendo ações planejadas e direcionadas à educação e sensibilização dos trabalhadores rurais em relação à exposição aos agrotóxicos. É possível concluir que a ruralidade não foi fator considerado no planejamento das ações nas Estratégias Saúde da Família. Para renovação da prática, sugere-se a educação permanente, por meio da qual os profissionais de saúde possam se instrumentalizar teoricamente, para uma prática mais efetiva.

**Palavras-chave:** Enfermagem. Saúde da População Rural. Agrotóxicos. Saúde da Família.

## ACTUACIÓN DE LOS PROFESIONALES DE SALUD DE LA FAMILIA FRENTE AL TRABAJADOR RURAL EXPUESTO A PLAGUICIDAS

### RESUMEN

El objetivo del estudio fue conocer la actuación de profesionales de la Estrategia Salud de la Familia frente al trabajador rural expuesto a plaguicidas. Fue adoptado el diseño cualitativo, descriptivo. El estudio fue realizado con 15 profesionales de salud de tres Estrategias Salud de la Familia. Los datos fueron producidos por medio de entrevistas semiestructuradas y sometidos al análisis temático de contenido. Se identificó que la actuación de los profesionales se restringía a la atención de problemas agudos de los usuarios. El cuidado a los trabajadores rurales era basado en la atención curativista, con énfasis en el alivio de las señales y los síntomas de intoxicación. En la parte preventiva, no se establecía flujo de atención, no ocurriendo acciones planificadas y dirigidas a la educación y sensibilización de los trabajadores rurales con relación a la exposición a los plaguicidas. Se puede concluir que la ruralidad no fue el factor considerado en la planificación de las acciones en las Estrategias Salud de la Familia. Para la renovación de la práctica se sugiere la educación permanente, volviendo posible que los profesionales de salud puedan instrumentalizarse teóricamente, para una práctica más eficaz.

**Palabras clave:** Enfermería. Salud de la Población Rural. Plaguicidas. Salud de la Familia.

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