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Levels of barriers and facilitators of environmental factors related to health: evaluation of farmers

Níveis de barreiras e de facilitadores de fatores ambientais relacionados à saúde: avaliação de agricultores

Niveles de trabes y facilidades de factores ambientales relacionados a la salud: evaluación de agricultores

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Abstract: Objective: to analyze how farmers evaluate the levels of barriers and facilitators of environmental factors related to health for the performance of their activities and participation. **Method:** this was a cross-sectional, quantitative study conducted with 255 farmers from two rural environments using an instrument based on the International Classification of Functioning, Disability and Health. Descriptive and inferential statistical analyses were performed. **Results:** regarding health services, the workers from the environment I showed higher levels of facilitators than barriers. The support and individual attitudes of health professionals were assessed as: substantial facilitators among farmers from the environment I; moderate facilitators among farmers from the environment II; and, as no barrier to the performance of activities and participation in both environments. **Conclusion:** the farmers' perceptions of barriers and facilitators of health services are due to: the geographic location of the FHS unit, the issue of bonding, and the changes caused by the aging process that can decrease performance at work and lead to a greater search for services.

Descriptors: Worker's health; Rural population; International classification of functionality, disability and health; Nursing

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Resumo: Objetivo: analisar como os agricultores avaliam os níveis de barreiras e de facilitadores de fatores ambientais relacionados à saúde para o desempenho de suas atividades e participação. **Método:** estudo quantitativo transversal, realizado com 255 agricultores de dois ambientes rurais por meio de um instrumento baseado na Classificação Internacional de Funcionalidade, Incapacidade e Saúde. Realizou-se análise estatística descritiva e inferencial. **Resultados:** quanto aos serviços de saúde, os trabalhadores do ambiente I evidenciaram maiores níveis de facilitadores do que barreiras. O apoio e as atitudes individuais de profissionais de saúde foram avaliados como: facilitadores consideráveis para os agricultores do ambiente I; moderados para os do II; e, como nenhuma barreira para o desempenho das atividades e participação nos dois ambientes. **Conclusão:** a percepção dos agricultores em relação a barreiras e facilitadores dos serviços de saúde perpassa: pela localização geográfica da unidade de ESF, pela questão do vínculo, pelas alterações decorrentes do processo de envelhecimento que podem diminuir o desempenho no trabalho e ocasionar uma busca maior na procura aos serviços.
Descritores: Saúde do trabalhador; População rural; Classificação internacional de funcionalidade, incapacidade e saúde; Enfermagem

Abstract: Objective: to analyze how farmers evaluate the levels of barriers and facilitators of environmental factors related to health for the performance of their activities and participation. **Method:** this was a cross-sectional, quantitative study conducted with 255 farmers from two rural environments using an instrument based on the International Classification of Functioning, Disability and Health. Descriptive and inferential statistical analyses were performed. **Results:** regarding health services, the workers from the environment I showed higher levels of facilitators than barriers. The support and individual attitudes of health professionals were assessed as: substantial facilitators among farmers from the environment I; moderate facilitators among farmers from the environment II; and, as no barrier to the performance of activities and participation in both environments. **Conclusion:** the farmers' perceptions of barriers and facilitators of health services are due to: the geographic location of the FHS unit, the issue of bonding, and the changes caused by the aging process that can decrease performance at work and lead to a greater search for services.
Descriptors: Worker's health; Rural population; International classification of functionality, disability and health; Nursing

Resumen: Objetivo: analizar como los agricultores evalúan los niveles de trabes y de facilidades en factores ambientales relacionados a la salud para el desempeño de sus actividades y participación. **Método:** estudio cuantitativo transversal, realizado con 255 agricultores de dos ambientes rurales, por medio de un instrumento basado en la Clasificación Internacional de Funcionalidad, Incapacidad y Salud. Se realizó análisis estadístico descriptivo e inferencial. **Resultados:** con relación a los servicios de salud, los trabajadores del ambiente I evidenciaron mayores niveles de facilidades que de trabes. El apoyo y las actitudes individuales de los profesionales de la salud se evaluaron como: facilidades considerables para los agricultores del ambiente I; moderados para los del II; y, con ninguno trabe para el desempeño de las actividades y participación en los dos ambientes. **Conclusión:** la percepción de los agricultores con relación a los trabes y facilidades de los servicios de salud pasa: por la ubicación geográfica de la unidad de ESF, por la cuestión del vínculo, por los cambios resultantes del proceso de envejecimiento, que pueden disminuir el desempeño en el trabajo y resultar en una búsqueda mayor a los servicios de salud.
Descriptores: Salud Laboral; Población rural; Clasificación internacional del funcionamiento, de la discapacidad y de la salud; Enfermería

Introduction

In Brazil, the farmer population is composed of 19 million people.[1] This implies that greater attention from government policies to farmers is needed in order to meet their health needs according to the environment in which they are inserted. In fact, one of the objectives of the National Policy on Worker Health concerns the guarantee of worker's health actions in all instances and points of the Health Care Network of the Unified Health System (SUS).[2]

Farmers work on different climatic conditions, with an intense work routine and a variety of tasks that can lead to physical exhaustion and, consequently, a decrease in functionality.[3-4] From this perspective, the International Classification of Functionality (ICF) stands out as an instrument for the nurses' work in the care of farmers that allows the identification of barriers and facilitators in their performance. Barriers limit the functionality and cause disability of a person, while facilitators improve functionality and reduce disability.[5]

According to the ICF, functionality encompasses all body functions, activities and participation and is prioritized as a component of health. The environment is considered either a barrier or a facilitator for performance. Activity can be defined as the realization of a task or action by a person, while participation is the involvement of that person in a situation of life. The environment is understood as the person's usual environment, including the social context, which takes into account environmental factors - aspects of the physical, social, and attitudinal world.[5]

The ICF classifies health services, support, and individual attitudes of health professionals as environmental factors. They constitute the physical environment (spaces such as the home and workplace) and the social environment (formal and informal social structures, services and rules of conduct or systems in the community or culture) in which people live and lead their lives; they can be considered as barriers or facilitators for the realization of activities and participation.[5]

Studies have shown many efforts in the area of worker's health to prevent disability and sustain work capacity. In the worker's health area, professional rehabilitation appears as the main point of the process to health promotion.[6-7] The use of the ICF allows to obtain more specific data about functionality in relation to the work environment and the realization of activities related to it.[8]

In this perspective, the ICF is seen as an important working tool for nurses to assess levels of barriers and facilitators of environmental factors related to health for the functionality of farm workers. This justifies the present study, as it represents a contribution to think about the health/work/environment relation, assisting in decision making and in the development of health strategies for this group of workers. Thus, the question was: how do farmers evaluate the levels of barriers and facilitators regarding environmental factors related to health for the realization of their activities and participation? Therefore, the objective was to analyze how farmers evaluate the levels of barriers and facilitators of environmental factors related to health for the realization of their activities and participation.

Method

This is a cross-sectional, quantitative study carried out in two rural environments in Rio Grande do Sul (RS). The environment I, located in the extreme south, has approximately 40 km^2 of rural area, is characterized as an island region, and has one Family Health Strategy (FHS) unit. The environment II, located on the western border, has a rural area of 5,713.6 km^2 distributed in five districts, and has five health units, one of which is characterized as a FHS unit.

The study population consisted of farm workers from these two rural environments. Sample calculation was made using the StatCalc tool from the Epi Info software, version 3.5.2, using the total number of inhabitants of the rural regions because the number of farmers is not

informed in the official sources such as the Brazilian Institute of Geography and Statistics (IBGE). The following parameters were used: unknown prevalence of the phenomena and 95% confidence level. A sample of 369 participants was obtained: approximately 179 in the Ilha dos Marinheiros and 190 in Uruguaiana. In order to reach as many farm workers as possible in the official agencies of the state and the municipality linked to the assistance to farmers, an intentional selection of participants was made through a non-probabilistic convenience sampling based on the presence and availability of workers at the moment of data collection.

The following inclusion criteria were established: farmers living in the mentioned environments; minimum age of 18 years; work in vegetable-fruit plantations; use of some type of health service. In turn, the exclusion criteria were: farm workers who did not perform agricultural activities during the period of data collection and who reported never having used health services.

After applying the inclusion and exclusion criteria, a sample of 255 farm workers, among 127 workers from environment I and 128 from environment II, were included. The workers' addresses/location were obtained from the official agencies of the state and municipality linked to assistance to farmers, such as the Union of Rural Workers, the Rio Grande Association of Technical Assistance and Rural Extension Enterprises (EMATER), the South Association of Credit and Rural Assistance (ASCAR), and the Municipal Secretary of Agriculture in Rio Grande and Uruguaiana. After that, a meticulous search – from house to house - for farm workers and their respective residences was made, as well as through indication of the interviewees.

Data were collected from March to October 2013 through individual interviews at the participants' homes using an instrument containing socioeconomic and demographic variables, aspects of the work process, and levels of barriers and facilitators of health services (e580 *), support (e355 *), and individual attitudes of health professionals (e450 *) according to the ICF.[5]

According to the ICF, health services correspond to: local and community-level services that aim to provide people with interventions for their well-being, financed with public or

private resources, with mechanisms of administrative and supervisory control, and with laws, standards and norms that regulate the available services. The support from health professionals correspond to: the practical support from care providers working in the context of the health system, such as nurses, physical therapists, physicians, among others. And the individual attitudes of health professionals are: the general or specific opinions and beliefs of health professionals about the individual that influence individual behaviors and actions.[5]

For this study, the levels (qualifiers) of barriers and facilitators according to the ICF were evaluated on a 5-point scale. For barriers, 0 indicates no barrier or a barrier of 0-4% in the worker's performance; 1 indicates a mild barrier or a barrier of 5-24% in the worker's performance; 2 indicates a moderate barrier or a barrier of 25-49% in performance; 3 indicates a severe barrier or a barrier of 50-95% in performance; and 4 indicates a complete barrier or a barrier of 96-100% in performance. As for facilitators, 0 indicates no facilitator or a facilitator of 0-4% in performance; 1 indicates a mild facilitator or a facilitator of 5-24% in performance; 2 indicates a moderate facilitator or a facilitator of 25-49% in performance; 3 indicates a substantial facilitator or a facilitator of 50-95% in performance; and 4 indicates a complete facilitator or a facilitator of 96-100% in performance.[5]

Statistical analysis was carried out in the Statistical Package for the Social Sciences (SPSS), version 20.0. Numerical variables were presented by means of measures of central tendency (median) and measures of dispersion (75^{th} percentile = P75). The Pearson - χ^2 chi-square test was used to analyse associations of nominal data, and the Spearman Rho correlation coefficient was used for the analysis of numerical data. The Mann-Whitney test was used to compare medians in the case of variables with two categories, and the Kruskal-Wallis test in the case of those with more than two categories, considering $p < 0.05$ as statistical significant. Levels of barriers and facilitators were checked based on the median, using the Kruskall-Wallis

test, and when the median presented the same value for the levels, the 75th percentile (P75) was observed.

In accordance with the recommendations of Resolution 466/2012 of the National Health Council regarding research with human beings, the study was evaluated and approved for implementation by the Ethics Committee of the Federal University of Rio Grande, under Opinion nº 026/13.

Results

Two hundred and fifty five (255) farmers were interviewed from the two rural environments. The socioeconomic and demographic profile of these farm workers and the differences between the two rural environments are present below.

Table 1 - Characterization of farmers from the two rural environments, according to socioeconomic and demographic variables. Rio Grande, RS, Brazil, 2013.

Variables	Rural Environment I n = 127	Rural Environment II n = 128	p-value
Sex			0.279§
Female	40.2 %	46.9%	
Male	59.8%	53.1%	
Age in full years	55‡	47‡	<0.001 |
Full years of schooling	4‡	8‡	<0.001 |
Monthly family income*	1500.00‡	1400.00‡	0.489 |
Time in years residing in this rural environment	52.50‡	13.50‡	<0.001 |

Time in years working in agriculture	41.50‡	15.00‡	<0.001 |
Daily hours dedicated to agricultural work	8‡	7‡	0.021 |

*Rural minimum wage in 2013 in Brazil (R$ 898.80). ‡ Median. § Chi-square test. | U-Mann-Whitney test.

According to Table 1, the majority of farmers were male in both rural environments. In the environment I, the farmers had a higher median age, and lower median schooling when compared to those in the environment II, and this difference was statistically significant. As for the time living in the rural environment, time working with agricultural activities, and daily hours dedicated to agriculture, the farmers from the environment I had higher medians than those from the environment II, also with statistical significance.

Table 2 shows the comparisons of the levels of barriers and facilitators of health services, support, and individual attitudes of health professionals between the two rural environments.

Table 2 - Median levels of barriers and facilitators of environmental factors related to health in the rural environments studied. Rio Grande, RS, Brazil, 2013.

	Rural Environment I Median	Rural Environment II Median	p-value*
Health Services (e580)			
Barrier	1	2	0.009
Facilitator	3	2	0.001
Support from health professionals (e355)			
Barrier	0	0	0.886
Facilitator	3	2	0.030
Individual attitudes of health professionals (e450)			
Barrier	0	0	0.344
Facilitator	3	2	0.031

*H of Kruskall-Wallis

According to Table 2, it was evident that farmers from the environment I identified the health services as a substantial facilitator (3) for their performance, while those from the environment II identified it as a moderate facilitator (2). Still on this environmental factor, farmers from the environment II also showed it as a moderate barrier (2), while farmers from the environment I mentioned it as a mild barrier (1) for their performance. These results were statistically significant.

With respect to the support from health professionals and the individual attitudes of these professionals, the farmers from the environment I identified them as a substantial facilitator (3) for their performance, while farmers from the environment II mentioned them as a moderate facilitator (2), with statistical significance. Although not statistically significant, it is noteworthy that the support from health professionals and the individual attitudes of these professionals were not considered barriers in any of the environments (Table 2).

Regarding the type of health service used, 47.2% of the farmers from the environment I and 48.4% from the environment II used only the SUS, through health units and hospitals, while 52.8% from the environment I and 51.6% from the environment II used the SUS and other health services, such as private clinics (clinics, hospitals) and health plans (complementary examinations, consultations, hospitals).

Table 3 shows that, based on the 75th percentile, the support from health professionals for farmers of the environment II who used the SUS and other health services corresponded to a complete facilitator (4) in their performance, while those who used only the SUS were viewed such support as a substantial facilitator (3). Regarding the individual attitudes of health professionals, the 75th percentile showed that farmers of the rural environment II who used only the SUS considered the professionals' attitudes as a moderate barrier for their performance (2), while those who used the SUS and other health services did not see any barriers (0) regarding

the professionals' attitudes for the performance of their activities and participation. These results were statistically significant.

Table 3 - Medians between levels of barriers and facilitators of environmental factors related to health and the type of health services used in the two rural environments studied. Rio Grande, RS, Brazil, 2013.

Variables	Rural Environment I			Rural Environment II		
	SUS	SUS and others	p-value	SUS	SUS and others	p-value
Health services e580						
Barrier	1	1	0.671	2.5	2.0	0.421
Facilitator	3	3	0.426	2.0	2.0	0.868
Support from health professionals e355						
Barrier	0	0	0.979	0	0	0.991
Facilitator	3	3	0.377	2 P75=3	2 P75=4	0.001
Individual attitudes of health professionals 450						
Barrier	0	0	0.105	2	0	0.005
Facilitator	3	3	0.286	0	2	0.264

According to Table 4, in environment I, the older the age of farmers, the lower were the levels of barriers regarding health services and support from health professionals. In contrast, the older the age of farmers, the higher were the levels of facilitators regarding these services and the support. With regard to monthly family income, it was verified that the higher the family income, the lower were the levels of barriers regarding health services and support from health professionals. These results were statistically significant.

Another significant result, according to Table 4, was the residence time in the rural environment I; the longer the residence time, the lower were the levels of barriers identified regarding health services and individual attitudes of health professionals. In contrast, the levels identified were higher in relation to the services as facilitators. Still in environment I, it was seen that the longer the time working in agriculture, the lower were the levels of barriers and the greater the levels of facilitators regarding health services. These results were statistically significant.

Table 4 - Correlation between barriers and facilitators of environmental factors related to health and health professionals and socioeconomic and demographic characteristics of farmers of the environment I. Rio Grande, RS, Brazil, 2013.

Variables	Health services (e580)		Support from of Health professionals (e355)		Individual attitudes of health professionals (e450)	
	Rho	p-value	Rho	p-value	Rho	p-value
Age						
Barrier	-0.281	0.001	-0.216	0.015	-0.157	0.079
Facilitator	0.269	0.015	0.181	0.042	0.136	0.129
Schooling						
Barrier	0.076	0.417	0.027	0.776	0.008	0.930
Facilitator	-0.029	0.753	0.006	0.947	-0.010	0.917
Monthly family income						
Barrier	-0.164	0.068	-0.202	0.024	-0.241	0.007
Facilitator	0.154	0.086	0.079	0.381	0.096	0.286
Residence time						
Barrier	-0.232	0.009	-0.163	0.071	-0.180	0.045
Facilitator	0.179	0.047	0.087	0.336	0.095	0.292

Time working in agriculture						
Barrier	-0.297	0.001	-0.164	0.071	-0.128	0.161
Facilitator	0.288	0.001	0.156	0.086	0.174	0.55
Daily working hours						
Barrier	-0.029	0.749	0.077	0.393	0.116	0.199
Facilitator	0.061	0.496	0.075	0.405	-0.087	0.337

In the environment II, according to Table 5, the results were statistically significant for the correlation between daily working hours in agriculture; the longer the daily working hours, the greater the were the levels of barriers regarding the support from health professionals and their individual attitudes.

Table 5 - Correlation between barriers and facilitators of environmental factors related to health and health professionals and socioeconomic and demographic characteristics of farmers of the environment II. Rio Grande, RS, Brazil, 2013.

Variables	Health services (e580)		Support from health professionals (e355)		Individual attitudes of health professionals (e450)	
	Rho	p-value	Rho	p-value	Rho	p-value
Age						
Barrier	-0.083	0.354	-0.056	0.532	-0.790	0.380
Facilitator	0.108	0.225	0.122	0.170	0.138	0.122
Schooling						
Barrier	0.030	0.759	0.034	0.723	0.024	0.807
Facilitator	-0.030	0.759	0.032	0.742	-0.020	0.833
Monthly family income						
Barrier	-0.052	0.570	-0.036	0.697	-0.024	0.795
Facilitator	0.007	0.942	0.060	0.514	-0.005	0.961
Residence time						
Barrier	0.113	0.212	0.000	0.999	-0.091	0.318

Facilitator	-0.081	0.371	0.004	0.967	0.040	0.659
Time working in agriculture						
Barrier	-0.054	0.550	-0.086	0.338	-0.038	0.670
Facilitator	0.022	0.803	0.123	0.172	0.107	0.235
Daily working hours						
Barrier	-0.027	0.768	0.205	0.022	0.316	<0.001
Facilitator	-0.134	0.134	-0.146	0.104	-0.137	0.127

Discussion

Farmers in the rural environments surveyed attributed different levels of barriers and facilitators to environmental factors related to health. Farmers from environment I showed that health services had higher levels of facilitators than barriers to their performance. On the other hand, farmers from the environment II showed moderate levels for both facilitators and barriers in this regard.

From the perspective of the ICF, health services, either financed and controlled by public or private agencies, should provide conditions for the well-being of individuals.[5] The results of the present study showed that health services are organized and have different logistic specificities in each of the environments surveyed, so that factors such as geographic location, distance, availability of transportation, access and type of services can contribute to this aspect being evaluated with different levels of barriers or facilitators by users.[9-10]

The extension of the rural area in km^2 of the environment I favors the access of the farmers to the FHS unit when compared to the environment II that present a greater territory. This feature may help explaining the identification of higher levels of facilitators than barriers to performance among farmers from the environment I and of moderate levels for both facilitators and barriers among farmers from the environment II.

It is possible to show in the literature that rural populations are farther from health services and, therefore, do not use these services frequently. This is due to lower availability of health services, especially in sparsely populated areas, difficult transportation, and the very work in agriculture that requires intense routines and prevent workers from interrupting their work due to financial losses.[9,11]

All farmers in both rural environments of this study used health services through the SUS. However, most of these farmers used the SUS and also other health services, indicating that they needed to seek complementary services such as the private network and health plans to meet their needs.

A study that outlined an overview of the access and use of health services in São Paulo found that there are inequalities in the coverage of private health plans, with greater coverage for urban than for rural areas.[12] These evidences constitute challenges for the consolidation of universal access to health and universal coverage proposed by the World Health Organization (WHO), as well as to health professionals, who are the central pillars for this consolidation.[13]

The factors support from health professionals and their individual attitudes indicated that the health professionals of the surveyed environments have been demonstrating adequate practical support for users of the health services. Individual attitudes, general or specific opinions and beliefs influenced individual behavior and actions of farmers towards their health care, facilitating their performance.[5]

It should be noted, however, that the factors support from health professionals and their individual attitudes, were evaluated differently by farmers from the rural environment II who used only the SUS in relation to those who used the SUS and other services. The geographic distance of the FHS units in the environment II may have influenced the farmers to see more barriers in relation to the support of the professionals and to visualize more facilitators when they use complementary services besides the SUS. A study carried out on access to a basic unit

of reference within the SUS showed that geographical barriers for appointment of consultations and for embracement were factors that hindered the access.[14]

There is an important distinction between the way health services are organized in public and private institutions in terms of access, infrastructure and resolution, and relationship between professionals and users.[15] Thus, when considering the ideal SUS versus the real SUS, it is identified that health professionals have superficial knowledge about principles and guidelines that govern such a system. The often reproduce a fragmented model with little resolution in their daily practices. This fact calls for the need for health professionals to become protagonists of good health practices, translating the principles and guidelines of SUS into their attitudes.[16]

It is inferred that when professionals approach users through dialogue, listening, and involvement, they recognize their health needs in a comprehensive way, considering biological, cultural and environmental aspects. This can facilitate the use of health services,[15] helping farmers to carry out their activities and participation effectively.

The socioeconomic and demographic characteristics of farmers in the two rural environments presented important correlations with the levels of barriers and facilitators of the environmental factors related to health analyzed in this study. In the I environment, the results on age corroborate findings in the literature, which shows that as age increases, the search for health services is also increases[17] and that the prevalence of these services is higher among elderly people and retirees.[18] Although the majority of farmers in both environments could not be identified as elderly, it can be inferred that farmers from the environment I may have used health services more often than farmers from the environment II due to the older age of the first, because they identify, as greater age detect higher levels of facilitators in health services and support from health professionals.

In relation to income, also in the environment I, the economic factor had an influence on the identification of greater/smaller barriers/facilitators. It should be noted that higher financial

income has already been identified as a factor strongly associated with better levels of health and a greater search for health services.[18] This may show that there are weaknesses in universal access and coverage in health, since the right to health for all individuals, without distinction of economic status, is expressed in the Constitution of the WHO.[19]

The residence time and the time working with agricultural stood out; in the environment I, the relationship between user and health service was optimized over time, since confidence is something that is gradually built up, allowing the user to be involved with the health system. Involvement is directly associated with longitudinality, comprising a long-lasting therapeutic relationship between users and health care professionals, enabling the continuity of health care and increasing patient compliance.[20]

In the environment II, the correlations allowed identifying that the more hours the farmers dedicated to daily work, the greater were the levels of barriers regarding support, relationships, and individual attitudes of health professionals. This result may be associated to the working hours of most health services, which can be considered an important environmental barrier, failing to meet the farmers' needs because of the incompatibility with the long journeys and the intense work routine in agriculture.[18]

This fact calls for greater attention from health policies, to direct access and coverage actions of for groups with specific characteristics such as rural workers. Health professionals need to have the ability to understand the context and the work processes in which these individuals are inserted.

The analysis of functionality through the levels of barriers and facilitators of environmental factors related to the workforce and health, according to farmers in rural environments, drives nursing care perspectives to these farmers, their families, and communities. Nurses and health teams will be able to develop care strategies and actions that minimize the levels of barriers and increase the levels of facilitators of these factors, favoring

the family/community work process and optimizing health services, and the support and individual attitudes of health professionals, taking into account the needs of farmers and benefiting the performance of their activities and participation and, consequently, their functionality and organic capacity.

Strategies and actions to minimize the levels of barriers and increase the levels of facilitators of environmental factors related to health, thus improving functionality, may be: rethinking the characteristics of the work process of health units in rural areas, the functioning of these units, and the development of training of health professionals, adding characteristics of the rural environment in these units and these professionals, which is fundamental for the promotion of the functionality and organic capacity of farmers.

Conclusion

Age, residence time in the rural environment, time working in agriculture, and daily hours dedicated to work were significantly different between the two rural environments studied. In the environment I, in relation to health services, the workers showed higher levels of facilitators than barriers. The support and individual attitudes of health professionals were assessed as: substantial facilitators for farmers of the environment I; moderate facilitators for farmers of the environment II; and, as no barrier to the performance of activities and participation in both environments.

The perception of farmers regarding barriers and facilitators of health services is due to: the geographic location of the FHS unit, because fewer barriers and more facilitators were identified according to the proximity of the unit; the issue of bonding, because longer the time in the environment implied lower levels of barriers and greater level of facilitators; changes in the aging process, which can decrease work performance and lead to a greater search for health

services because older people and workers with more working hours are linked to lower levels of barriers and greater levels of facilitators.

It is important to evaluate the levels of barriers and facilitators of environmental factors related to health in order to build strategies to optimize health services, the support and individual attitudes of health professionals, addressing the needs of farmers and benefiting the performance of their activities and participation. Nurses have a special role in identifying the levels of barriers and facilitators of such environmental factors related to health, and they can plan interventions, rely on an interdisciplinary team to modify such barriers and promote facilitators, so as to assist in the promotion of preventive actions from the perspective of farmers' health.

The limitations of the study include the difficulty access to rural environments and the lack of information about the number of farmers residing there, which prevented the randomization of the sample and, therefore, the generalization of the findings. On the other hand, these findings are relevant because there are no similar data with emphasis on the use of the ICF with farmers.

Further research is suggested to address the ICF's content regarding farmer's health, as well as to explore the types of barriers and facilitators for these farmers in order to record and communicate specific nursing information.

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