

# Factors that influence the quality of life of community health workers

Fatores que influenciam na qualidade de vida dos agentes comunitários de saúde

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Life quality; Primary care nursing; Community health nursing; Community health workers; Health evaluation

## Descritores

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## Abstract

**Objective:** To investigate the quality of life of community health workers and associate the results with socioeconomic variables.

**Methods:** Cross-sectional study conducted with 153 Community Health Workers of the Brazilian Northeast region active workers in December 2014. We used self-report instrument composed of sociodemographic profile and the 36-Item Short Form Health Survey (SF-36) questionnaire. To determine the domains of the SF-36, mean and standard deviation, the Mann-Whitney test was used, with a 0.05 significance level.

**Results:** Most agents were women (80.4%) aged 42 years ( $\pm 8.01$ ); 64.1% who worked in that position for at least 10 years. The Bodily Pain and General Health Perception domains were the most affected ones. In the first domain, the low rates of means were associated with women over forty years old, less than twelve years of study and more than ten years as a Community Health Worker. In the second domain, the lowest mean levels were associated with women living with more than four people in the household.

**Conclusion:** We detected a loss in quality of life of community health workers, demonstrating low means in the investigated areas, with lower scores for Pain and General Health Perceptions. Several socioeconomic factors interfere with the health and quality of life of workers, as being female, aged over 40, low education level, higher family composition and greater working time.

## Resumo

**Objetivo:** Investigar a qualidade de vida dos Agentes Comunitários de Saúde e associar os resultados às variáveis socioeconômicas.

**Métodos:** Estudo transversal realizado com 153 Agentes Comunitários de Saúde da Região Nordeste brasileira atuantes em dezembro de 2014. Utilizou-se instrumento autoaplicável composto pelo perfil sociodemográfico e o questionário 36-Item *Short Form Health Survey* (SF-36). Para determinar os domínios do SF-36, utilizaram-se média e desvio padrão e aplicou-se teste de Mann-Whitney, com nível de significância de 0,05.

**Resultados:** A maioria dos agentes eram mulheres (80,4%), com idade de 42 anos ( $\pm 8,01$ ); 64,1% trabalhavam na função há no mínimo 10 anos. Os domínios Dor e Estado Geral de Saúde foram os mais comprometidos. No primeiro domínio, os baixos índices das médias estavam associados a mulheres com mais de quarenta anos de idade, menos de doze anos de estudo e mais de dez anos de trabalho como Agente Comunitário de Saúde. No segundo menores índices foram associados também a mulheres, que moravam com mais de quatro pessoas no domicílio.

**Conclusão:** Detectou-se prejuízo na qualidade de vida dos Agentes Comunitários de Saúde, demonstrando baixas médias nos domínios investigados, com menores escores nos domínios Dor e Estado Geral de Saúde. Vários fatores socioeconômicos interferiram na saúde e qualidade de vida dos agentes, como sexo feminino, idade acima de 40 anos, baixa escolaridade, maior composição familiar e maior tempo de trabalho.

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**Conflict of interest:** there are no conflicts of interest to declare.

## Introduction

The Primary Health Care in Brazil is a proposal to approach the health care of the population in order to recognize the community's needs. To meet the principles of the current model, the organization of work should combine local demand with activities of health programs of Family Health Strategy teams, guided by the achievement of goals.<sup>(1)</sup>

Among professional in this area, the Community Health Worker is responsible for the link between health and community services. Its importance lies in the promotion of meetings between different realities, being directly exposed to the tensions and everyday conflicts that need to be handled.<sup>(2)</sup>

Several aspects of the health of Community Health Workers suffer negative influences. Excessive workload, exposure to the care of individuals, musculoskeletal pain, exposure to the sun, among others, generate unhealthy effects and hence affects quality of life of these professionals.<sup>(3)</sup>

According to the World Health Organization, quality of life *is the individuals perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.*<sup>(4)</sup>

Thus, knowing the quality of life of community health workers is essential, since it is crucial to seek improvements in health and working conditions of these professionals. The reflection of the positive and negative aspects related to the quality of life of community health workers may result in the revision or strengthening of satisfactory working conditions.

In this perspective, the workers need to be valued, knowing the risks, signs and symptoms that they have in working practices, in order to lead them in the development of their activities, contributing to improvements in health services.

Thus, we aimed to investigate the quality of life of community health workers and associate the results with socioeconomic variables.

## Methods

Cross-sectional quantitative study, conducted with the Community Health workers of a Northeast city of Brazil. The population consisted of 321 active workers in the period of data collection. The sample size was calculated using the formula for finite populations, considering a confidence level of 90% and a sample error of 5%. Thus 148 Community Health Workers participated in the study. In order to ensure greater representation, the sample size was increased to 153 Community Health Workers.

The sample was composed by convenience, according to the established eligibility criteria. Community Health Workers of both sexes, with at least one year working were included in the sample. Workers who were not present at their workplace at the time of data collection were excluded.

We used a self-report instrument composed of two parts: the first concerned the sociodemographic profile; the second was the multidimensional questionnaire 36-Item Short Form Health Survey (SF-36), which consisted of 36 items grouped in eight domains: Physical functioning, assessing whether there is limitation in performing all physical activities, such as dressing and walking; Physical role functioning, investigating problems with work or other daily activities; Bodily pain, which ascertains if there is the presence of pain and limitation; General Health perception, which assesses whether their health was excellent, very good, good, fair or poor; Vitality, which checks the feeling of vigor, energy, exhaustion or fatigue; Social role functioning, analyzing interference in social activities, caused by physical or emotional problems; Emotional role functioning that evaluates problems with work or daily activities as a result of emotional problems; and finally, Mental health domain, which checks feelings of calm, peace, happiness, nervousness and depression.<sup>(5)</sup>

We used the SF-36 as it is a widely used instrument in international literature and whose validation and cultural adaptation has been con-

ducted in Brazil in different areas of health. This instrument has a final score of zero to 100, obtained by calculating the Raw Scale, where zero corresponds to the worst General Health perception and 100 is the best health perception, that is, the lower the score, the greater the impairment of quality life of the assessed individual. Thus, in the present study, it was adopted that scores below 100 would be considered impaired quality of life. The answers were arranged in Likert scale format, in which, the only option should be marked.<sup>(5,6)</sup>

For qualification of fieldworkers, a 30-hour training on the use of the instrument was conducted. Therefore, data collection occurred in December 2014 in the Basic Health Units of the city. The recruitment of Community Health Workers occurred with an invitation by the nurse, to attend the Health Unit and, after the clarification of the objectives and methods of the research, those who agreed, signed the informed consent form and participated in the study.

To describe the domains of the SF-36, we used mean and standard deviation (mean  $\pm$  SD) and applied the Mann-Whitney test, using the Statistical Package for the Social Science® (SPSS) version 22.0, in the analysis of scores distribution in different domains of the SF-36 and socioeconomic factors. The significance level was 0.05.

The study was registered in *Plataforma Brasil* under the Certificate number for Ethics Assessment (CAAE) 31450714.8.0000.5087.

## Results

Most were female (80.4%), mean age 42 years (SD 8.01), 83% studied less than 12 years, 58.2% had monthly family income less than two minimum salaries (the minimum salary during the research was U\$322.78), 77.8% were single, 62.1% lived with up to four people and 64.1% worked as Community Health Worker for at least 10 years.

Among the domains of the scale, the most affected were Bodily pain and General Health perception, with mean of 52 and 56.1, respectively. The others, however, showed scores or quality of life impaired between 58.3 and 66 being considered low (Table 1).

**Table 1.** Distribution of quality of life domains

Domains	Mean	Median	Mode	Standard deviation
Physical functioning	64.2	65	100	25.4
Physical role functioning	59.3	75	100	35.0
Bodily pain	52.0	51	41	22.1
General health perceptions	56.1	57	52	21.0
Vitality	58.3	60	60	20.0
Social role functioning	65.0	62.5	62.5	23.0
Emotional role functioning	66.0	67	100	38.0
Mental health	62.0	60	44	20.2

The association between socioeconomic variables and scores of Physical functioning domain, which investigated the presence and extent of limitations related to the capacity and the physical activity of the Community Health Worker, showed that women (mean 61.94, SD 25.31;  $p=0.02$ ), are more than 40 years old (mean = 60.41, SD = 25.38;  $p=0.03$ ), living with more than four people (mean 58.79, SD 25.34;  $p=0.04$ ) and have worked for more than 10 years as Community Health Workers (mean 60.81, SD 24.62;  $p=0.02$ ) had mean low quality of life and significant association.

In the analysis of physical role functioning domain, the investigated limitations were on the type and amount of work and how these limitations hamper the activities of daily living. A significant association with lower mean quality of life among women (mean 55.93, SD 35.03;  $p=0.01$ ), residents with more than four people (mean 50.78, SD 34.92,  $p=0.01$ ) and with more than 10 years worked as Community Health Worker (mean 61.94, SD 25.31;  $p=0.02$ ).

Regarding the bodily pain domain, we identified pain intensity, extension or interference in this life activities. We observed very low levels of quality of life associated with women (mean 49.73, SD 21.66;  $p=0.03$ ), who were more than 40 years old

(mean 47.16, SD 21.41,  $p=0.003$ ), with less than 12 years of study (mean 50.43, SD 22.47;  $p=0.03$ ) and more than 10 years working (mean 49.07, SD 21.28;  $p=0.03$ ).

The domain General Health perception, we examined whether workers perceived their health status and their evolution compared to one year. They showed low means of quality of life among women (mean 54.21, SD 20.24;  $p=0.03$ ) and Community Health Workers living with more than four people (mean 49.19, SD 19.62;  $p=0.002$ ) with significant associations (Table 2).

In assessing the Vitality domain, the level of energy and fatigue was considered. No significant association between this domain with lower mean was found on quality of life among women (mean 55.56, SD 19.77,  $p<0.0001$ ), workers who were more than 40 years old (mean 54.47, SD 20.13,  $p=0.01$ ) and living with more than four people (mean 52.16, SD 21.23,  $p=0.004$ ).

In the Emotional role functioning domain, we investigated the involvement of workers in activities and self-care time. We found that lower mean quality of life was associated with workers who lived with more than four people (mean 57.39, SD 37.71;  $p=0.02$ ) and who had been working for over 10 years in this profession (mean 60.16; SD 39.80;  $p=0.01$ ).

As for the social role functioning domain, we analyzed the interaction of Community Health Workers with social activities. There was less mean quality of life associated with women (mean 63.14, SD 23.24;  $p=0.04$ ).

When checking the area of mental health, we found the presence of anxiety, depression, behavioral changes, lack of emotional and psychological well-being. An association was observed between this domain and education. Workers with up to 12 years of education had lower mean quality of life (mean 60.36, SD 19.89;  $p=0.05$ ) (Table 3).

**Table 2.** Association of socioeconomic factors in the domains of quality of life

Variables	Physical functioning		Physical role functioning		Bodily pain		General health perceptions	
	Mean (SD)	p-value	Mean (SD)	p-value	Mean (SD)	p-value	Mean (SD)	p-value
Gender								
Male	73.33(24.64)	0.02**	73.33(30.03)	0.01**	61.23(22.29)	0.03**	63.77 (21.47)	0.03**
Female	61.94(25.31)		55.93(35.03)		49.73(21.66)		54.21 (20.24)	
Age, years								
<40	69.01(25.04)	0.03**	62.46(36.47)	0.23	58.18(21.78)	0.003**	59.10 (20.28)	0.16
>40	60.41(25.38)		56.92(33.29)		47.13(21.41)		23.73 (20.85)	
Education, years								
≤12	63.85(24.83)	0.64	57.72(34.24)	0.14	50.43(22.47)	0.03**	55.88 (20.95)	0.93
>12	65.77(29.07)		67.31(36.58)		59.62(19.38)		57.08 (20.18)	
Family income, salary*								
≤2	62.75(24.09)	0.28	59.66(34.42)	0.93	53.02(21.51)	0.07	57.08 (19.33)	0.46
>2	66.16(27.43)		58.91(35.38)		50.55(23.19)		54.70 (22.70)	
Marital status								
Married	70(26.28)	0.125	67.94(34.44)	0.08	50.85(21.15)	0.67	60.12 (24.05)	0.26
Single	62.51(25.15)		56.83(34.54)		52.31(22.55)		52.31 (22.55)	
Family members, people								
≤4	64.46(25.18)	0.04**	64.58(33.70)	0.01**	54.40(22.78)	0.07	60.29 (20.41)	0.002**
>4	58.73(25.34)		50.78(34.92)		40.03(20.76)		49.19 (19.62)	
Working time as CHW, years								
≤10	70.18(20.19)	0.02	67.91(34.17)	0.01**	57.18(23.01)	0.03**	60.45 (19.90)	0.07
>10	60.81(24.62)		54.54(34.25)		49.01(34.25)		53.63 (20.93)	

\*Minimum salary of US\$322.78; \*\*  $p<0.05$ ; SD - standard-deviation

**Table 3.** Socioeconomic conditions in the domains analyzed

Variables	Vitality		Social role functioning		Emotional role functioning		Mental health	
	Mean (SD)	p-value	Mean (SD)	p-value	Mean (SD)	p-value	Mean (SD)	p-value
Gender								
Male	55.56(19.77)	<0.0001**	63.14(23.24)	0.04**	62.87(39.43)	0.09	60.99(19.88)	0.30
Female	69.67(17.41)		72.84(21.14)		78.70(28.44)		65.60(22.19)	
Age, years								
<40	63.68(19.04)	0.01**	63.66(23.37)	0.53	68.27(36.51)	0.58	61.76(20.75)	0.82
>40	54.47(20.13)		66.01(22.99)		64.18(39.19)		62.00(20.17)	
Education, years								
≤12	57.75(19.89)	0.64	63.61(23.83)	0.09	66.11(36.88)	0.96	60.36(19.89)	0.05**
>12	61.15(21.13)		72.02(17.77)		65.27(43.70)		69.38(21.34)	
Family income, salary*								
≤2	59.99(18.66)	0.16	66.37(23.38)	0.25	69.36(36.02)	0.23	62.85(20.65)	0.62
>2	56.02(21.84)		63.09(22.76)		61.26(40.34)		60.56(20.03)	
Marital status								
Married	58.24(20.40)	0.84	62.91(23.30)	0.71	64.59(39.35)	0.87	64.24(18.57)	0.40
Single	58.35(20.07)		65.59(23.11)		66.37(37.78)		61.23(20.86)	
Family members, people								
≤4	62.09(18.46)	0.004**	66.65(21.73)	0.18	71.21(37.36)	0.02**	63.37(20.74)	0.30
>4	52.16(21.23)		62.29(25.14)		57.39(37.71)		59.48(19.65)	
Working time as CHW, years								
≤10	62.73(18.40)	0.06	68.44(19.97)	0.19	76.32(32.31)	0.01**	64.18(20.17)	0.31
>10	55.86(20.64)		63.04(24.59)		60.16(39.80)		60.61(20.45)	

\*Minimum salary corresponds to US\$322.78; \*\* p<0.005; SD - standard deviation

## Discussion

Of all the domains analyzed, at least one socioeconomic variable was associated with lower scores of quality of life.

The socioeconomic profile of Community Health Workers of this study was similar to that found in other regions of Brazil<sup>(7-9)</sup> and countries, such as India<sup>(10)</sup> and Kenya,<sup>(11)</sup> being characterized by women, married, with over 12 years of education in young adult age group. These data reflect the participation of women in the labor market, allowing greater family income and women's social advancement and performance, instinctively, the caregiver role in society and community resistance to the Community Health Worker male, due to embarrassment of families in revealing specificities.<sup>(10)</sup>

Furthermore, this research reveals that the female associated with lower quality of life scores on the physical functioning, physical role functioning, bodily pain, vitality and Social role functioning, demonstrates women's vulnerability to occupational diseases, mainly to physical disorders that generate pain and compromise labor quality.<sup>(12)</sup>

The double shift female working hours requires the reconciliation of family care with the tasks of the

Community Health Workers, which often require long walks, lifting weights, sitting in the wrong position at home visits and constant responsibility to mediate conflicts between the community and health services, causing overload and the appearance of diseases.<sup>(12,13)</sup> In addition, it is believed that excess of activities accumulated by women associated with working time, favoring a lower job satisfaction can interfere with performance and career advancement as a community health worker.

Results showed that the Community Health Worker with more than 40 years had lower scores of quality of life in relation to the Physical functioning, Bodily pain and Vitality. It is known that the higher the age, the greater possibility for the emergence of musculoskeletal pain limiting physical mobility and willingness to daily activities.<sup>(14)</sup>

Brazilian study investigated the prevalence of musculoskeletal disorders and associated factors in 1,808 in health workers and showed that being a Community Health Worker has association with back and leg pain, due to great lengths of walks and wrong postures during home visits.<sup>(13)</sup> Therefore, the worker is exposed to long hours, impaired quality of life and work performance.<sup>(15)</sup>

Workers with education of 12 years or less were associated with lower quality of life scores in Bodily Pain and Mental Health. It is noteworthy that higher levels of education contributes to proper understanding of health concepts, allowing better work performance and providing mental health, as it allows greater understanding of oneself and the everyday.<sup>(16,17)</sup>

It was clarified that the workers living with more than four people was associated with lower quality of life in the Physical Functioning, Physical role functioning, General Health perception, Vitality and Emotional role functioning, showing that the largest number of people in the household enables household work overload, negatively influencing health.<sup>(18,19)</sup>

The exercise of Community Health Worker function for more than 10 years had lower scores of quality of life in the domains investigating physical functioning, physical role functioning, bodily pain and emotional role functioning. Thus, it is suggested that they are subjected to unfavorable working conditions, such as major goals to meet, living and working in the same place, allowing physical and emotional commitment of these workers.

A study conducted in Uganda, Africa, observed association between higher working time as unfavorable performance factor of their duties,<sup>(20)</sup> in contrast to a study in Kenya that showed the greatest experience of Community Health Workers associated with better work performance.<sup>(11)</sup>

Given the above, it is necessary to adopt institutional strategies to improve the quality of life of the participants. Thus, it is suggested: promoting physical activity in community areas in order to improve physical performance and reduce pain or fatigue; supporting or offering counseling to combat emotional stress at work; and enhancement of work processes with expansion of listening, exchange of information and recognition of the individuality of the community health worker.

In this scenario, the cross-sectional design was presented as a study limitation, since they are restricted to the identification of associations, not possible to determine cause and effect between variables, and does not allowing temporality analyzes between exposure and outcome. The evaluation was

made only by self-report and no other measure of reporting reliability.

Therefore, even with limitations already mentioned, the result of this research becomes relevant as it contributes to the knowledge of the factors involved in the quality of life of community health workers, supporting the development of appropriate public policies to the needs of these workers. Thus, it is recommended that further studies on this topic are developed in other regions with different socioeconomic and cultural conditions, so that we can build a more consistent picture of the reality of the community health worker, addressing other problematics and relativization.

## Conclusion

We detected a loss in quality of life of community health workers, demonstrating low means in the investigated domains, with lower scores for bodily pain and general health perception. Several socioeconomic factors interfered with the health and quality of life of the workers, such as being female, aged over 40 years, low education level, higher family composition and greater working time.

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## Collaborations

Santos FAAS, Sousa LP, Serra MAAO and Rocha FAC declare that contributed to the design, development of research, data interpretation, writing, relevant critical review of the intellectual content and final approval of the version to be published.

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