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Social Support patterns in Primary Health Care: differences between having physical diseases or mental disorders

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Abstract *The social support network is a health protective factor involving physical, mental and psychological aspects, providing a better quality of life, favoring better adaptation to adverse conditions, promoting resilience and mobilizing resources for a more effective coping with negative life events that can lead to illness. We aimed to analyze the association between physical diseases, common mental disorders and the social support network of patients serviced at primary care facilities in the cities of Rio de Janeiro and São Paulo through a cross-sectional study with 1,466 patients in the 18-65 years age group. We used the Social Network Index (SNI) to assess the support network through the categories of isolation and integration. The doctor/nurse completed the questionnaire to evaluate the physical disease diagnosis, while the Hospital Anxiety and Depression Scale was used to detect mental disorders. We found that the pattern of social support was different depending on the presence of physical diseases or mental disorders. Negative associations were found between diabetes and isolation; integration and anxiety; integration and depression. Positive associations were identified between isolation and anxiety and isolation and depression.*

Key words *Social support, Primary care, Mental health, Chronic diseases*

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Introduction

The development of interpersonal relationships occurs very early in the family life, gaining greater expression with the growth and development of subjects through school, social and professional environments. The support network is formed by the sum of subjects' interpersonal relationships developed during life and are significant and help them face difficult situations[1,2].

The support provided by this network is described in the literature as an important resource in coping with adverse life situations, by promoting resilience and enabling subjects in the use of psychological resources to overcome their emotional issues[3]. In addition, social support is associated with behaviors of adherence to health treatments and a feeling of stability and psychological well-being[4], which seem to reduce individual susceptibility to diseases[5-7], acting as a health protective factor[2,8,9]. International research[10] showed that network support was able to protect individuals from crises from various disease states, such as suicidal tendencies, alcoholism and sociophobia.

The support network also covers the field of Chronic Noncommunicable Diseases (CNCD), which are a serious current issue. Among CNCDs, we highlight coronary heart diseases, dyslipidemias, hypertension, overweight and diabetes mellitus. Their increase is mainly related to the aging of the Brazilian population[11], and factors such as social inequality and the continental size of the country hinder prevention and combat actions[12].

Research has shown that interventions that strengthen the support network provide a better quality of life and are also associated with better health conditions for the population[13,14]. In hypertensive patients, the positive influence of the support network favors coping with the limiting conditions imposed by the disease in relation to patients' relationships with work, family, friends and partners[15], promoting a better quality of life, both in the physical and psychological realms[15,16].

On the other hand, other studies[5,17,18] have shown that low social support may be an aggravating factor for the development of diabetes. People with a low perception of social support showed significantly lower glycemic control when submitted to stressful situations. Perceived support was also identified as an influencing factor on various behaviors[3], reducing the probability of the dysfunctional ones in daily life or during treatments[19].

A survey conducted in South Brazil[20] identified associations of overweight with isolation, stress and depression. For these patients, the support group was an important tool in the process of strengthening internal resources, developing relationships of friendship, promoting autonomy, improving self-image and self-esteem, acting in the fight against social isolation.

In Brazil, the sphere of people's health care that considers CNCDs is the Family Health Strategy (ESF), which was proposed by Primary Health Care (PHC). The ESF works on the social determinants of health through integrated actions to promote health, prevention of diseases, care, healing, rehabilitation and palliation of health conditions[12,21,22]. Some axes are in charge of directing PHC's action. Among the most important are reception and bond, which facilitate the care of patients and their families, as well as enable listening, build patient-staff trust and draw professionals closer, which favors guidance geared to comprehensiveness and problem-solving[23].

ESF professionals have identified that patients seek relief of complaints related to diffuse suffering and other emotional, psychological and social problems[9]. Mental health problems are common in PHC, and this is how people access the health system. In addition, it has been found that people with chronic diseases have higher rates of mental problems than the general population[24]. In England, 20 to 25% of consultations in the health system have only one reason for mental health complaints[9]. Mental health care in PHC has been satisfactory and more effective than the hospital-based care model[25,26].

Common Mental Disorders (CMD) indices are prevalent in the ESF context, ranging from 38 to 56%[27]. In the 1990s, a WHO multicenter study identified for Rio de Janeiro that 46% of users had CMD and 38% had at least one psychiatric diagnosis, the main ones of which were generalized anxiety disorder, depressive episode and somatization disorder[28-30]. In a survey conducted at the ESF, Tavares et al.[31] found that care rate of users with mental health complaints was 19.48%. Of these, 43% showed psychic suffering, 34.7% had severe mental disorder and 19.5% had mild/moderate common mental disorder.

A WHO survey for International Classification of Diseases (ICD-11)[32] in PHC evidenced a widespread GP support to the inclusion of the anxious depression category, which is very common in the context of PHC in the seven countries of the survey, showing that anxious-depres-

sive disorder is the most prevalent in PHC. A Brazilian multicenter study conducted in PHC[33] showed a prevalence of anxiety and depression in four Brazilian cities, respectively: Rio de Janeiro, 35.4% and 25.0%; São Paulo, 39.5% and 25.3%; Fortaleza, 43.0% and 31.0%; and Porto Alegre, 37.7% and 21.4%. In addition, sociodemographic indicators are relevant to the occurrence in such a clinical condition, with higher mental health issues in women, the unemployed and people with low schooling and income.

Evaluating the relationship between CMD and social functioning indicators such as feeling loved and having intimate friends, Costa and Ludermir[34] showed that these were related to low levels of anxiety, depression, somatization and lower effects of stress-producing life events. These authors explain the relationship between mental health and social support through two theories: the first one affirms that social support directly affects mental health, and the second indicates that individuals with a high level of social support face with greater positivity stressful situations if compared to others without this resource.

Actions that strengthen the support network are effective in caring for patients cared for in PHC. Support provided by health professionals through home visits is also relevant in this process as it enables the monitoring of the appropriate use of medications, acquisition of psychotropic prescription, provides support to and clarifies issues of family members, as well giving guidance as required later[26,35]. Such care improves the clinical picture and family relationships, as well as fosters integration and strengthening of the bond between patients and their families and the care team, choosing it as a source of support required to intervene in crisis situations[23,34].

This study aimed to identify associations between the social support network of subjects, measured through the categories of integration and isolation with physical diseases (having hypertension, diabetes or overweight) and mental disorders (having anxiety or depression) in the municipalities of São Paulo and Rio de Janeiro.

The source research was submitted to the Ethics Committee of the Institute of Social Medicine of the State University of Rio de Janeiro and to the Research Ethics Committees of the Municipal Secretariats of Rio de Janeiro and of São Paulo, and its realization is adequate for the human population.

Methods

This is a cross-sectional study on the associations between social support and physical and psychological illness in primary care, extracted from an intervention project. The database of the study "Evaluation of a model of mental health training in basic care: comprehensive care in the practice of matrixing"[36] funded by the CNPq was used as a source of information, here called the source research, whose objective was to evaluate the impact of mental health training on PHC care activities. The sample consisted of 1,466 patients attended in Primary Health Care services of the municipalities of Rio de Janeiro (N = 909) and São Paulo (N = 557) in 2009 and 2010. Patients aged 18-65 years attended by doctors and nurses, except pregnant women and patients with cognitive impairment were included. Data shown in the paper were analyzed in 2014 and 2015 and are part of the research carried out in the master's dissertation of the main author.

The tools used in the source research were: a general questionnaire, organized from the general questionnaire applied and validated in cross-sectional studies[27,28,30]. The tool collected data on the following aspects:

- Sociodemographic and economic aspects: income, education, religion, ethnicity, employment, among others.

- Social functioning indicators: participation in labor, religious, sports, artistic and social activities.

- Social support network variables: number of friends and relatives that can be counted on in difficult situations, participation in collective religious and leisure activities and in volunteer work and community group meetings.

The presence of anxiety and depression was measured by the *Hospital Anxiety and Depression Scale (HAD)* to gauge anxious and depressive syndromes, a scale translated and validated for Brazil by Botega[37]. The cutoff point 8/9 was an indicator of anxiety and depression. A patient score of 8/9 in both diagnoses, anxiety and depression would characterize the anxious-depressive disorder.

Finally, the Physician and Nursing questionnaire[36] was used as an indicator of the presence of hypertension, diabetes and overweight. Question 4 indicated whether or not patients had a physical disease, indicating the disease and five options of its severity (in remission, under control, mild case, moderate case and severe case). The questionnaire was answered at the end of each visit

by the professional who performed care (doctor or nurse).

Data were analyzed in the statistical program SPSS 17. The frequency distribution of each variable was initially observed. Then, the joint frequency distribution was performed, including relative frequencies (percentages) that were calculated in relation to the total number of participants. We also calculated the general prevalence of each variable, with its respective 95% confidence interval, including sociodemographic and economic data and type of diagnoses shown.

Bivariate analyses were performed using the chi-square, associating the variables isolation and integration to the outcomes: Hypertension, Diabetes, Overweight, Anxiety and Depression, assessing p-values. Subsequently, analyses were performed, where associations between each sociodemographic variable and "integration" (y/n), as well as "isolation" (y/n) were investigated, showing ORs and respective confidence intervals. In order to consider this same aspect in relation to health outcomes, analyses were also elaborated where associations between such outcomes and "isolation" (y/n) and "integration" (y/n) were evaluated, showing ORs and their respective confidence intervals, adjusted for sociodemographic variables that evidenced statistical significance (p-value < 10%) in the bivariate analysis.

Construction of variables

Sociodemographic variables

The following variables were selected for analysis: gender, marital status, age group (under 40 years and 40 years and over), educational level (under 4th grade and 4th grade and over) and per capita household income (under one minimum wage and one minimum wage and over). From the frequencies of responses to each variable, this study evidenced that this sample is very homogeneous. As a result, variables were sorted into categories in dichotomous fashion, which allowed a better intergroup differentiation and a clearer visualization of associations.

Support network variables

In order to construct the support network's variables, data were collected through the general questionnaire plus a block of questions about the support network developed for the Pró-Saúde study by Chor et al.[4] and adapted from the Berkman & Syme tool[38,39]. The Social Network Index (SNI) was used, a social integration indicator structured by Correia et al.[39] applied in other Brazilian studies[39,40]. This index is calculated from the sum of the variables: with a partner (no = 0, yes = 1); number of friends and close relatives (0-2 relatives and 0-2 close friends = 0, any other combination = 1), participation in religious services and activities (twice/month or more = 1, others = 0) and participation in group activities (no = 0, yes = 1).

The following categories were established to measure users' level of social integration: isolation (SNI = 0 or 1) and integration (SNI = 3 or 4), taking into account the studied population's lack of opportunities to participate in group activities and also considering the social vulnerability to which it is submitted. Following the pattern used in previous research[40], the score (SNI = 2) was not considered in any of the categories established because it is a group that is not very differentiated in the support network composition aspect, and can thus affect the proposed analyses.

Variables Diabetes, Hypertension and Overweight

For the construction of the variables having diabetes (yes or no), hypertension (yes or no) and overweight (yes or no), the answers to the questionnaire applied by the doctor or nurse were used.

Variables Anxiety and Depression

In order to specify the diagnosis of depression, anxiety and anxious-depressive disorder among the participants of the research, the Hospital Anxiety and Depression Scale (HAD)[38] was applied, from which variables having anxiety (yes or no), depression (yes or no) and anxious-depressive disorder (yes or no) were established.

The variables included in the statistical analysis were selected based on the literature on their existence or possible relationship with CNCDs, mental disorders and/or the support network.

Results

The sociodemographic profile evidenced a predominance of women (76.5%) and married people (62.5%); 49.5% of participants were aged 36-55 years and most (72.8%) reported being non-white. Schooling level was low and 33.6% studied until fourth grade; income was low, 38.7% of the sample had a monthly household income per capita of up to 1 minimum wage (Table 1).

Regarding the presence of physical diseases in the studied sample, professionals (physicians and

Table 1. Sociodemographic distribution of the sample. RJ and SP. 2010.

Sociodemographic distribution (n = 1466)	Total	
Gender (n = 1466)	**n**	**%**
Female	1121	76.5
Male	345	23.5
Level of schooling (n = 1466)		
Under 4th grade	493	33.6
4th grade and over	973	66.4
Monthly household income MW(n=1466)		
Under 1 minimum wage	568	38.7
1 minimum wage and over	898	61.3
Age group (n = 1466)		
18-35 years	442	30.2
36-55 years	726	49.5
56 years and over	298	20.3
Marital status (n = 1466)		
Married/common-law marriage	916	62.5
Other	550	37.5
Social support network SNIcat (n = 1466)		
Very Isolated	114	7.7
Isolated	376	25.6
Partially Integrated	520	35.4
Integrated	447	30.4

nurses) identified that 32.7% of the patients had hypertension, 8.9% had diabetes, and 2.9% of the sample were overweight. As for mental disorders, 36.9% of participants had anxiety, 25.1% depression and 18.4% of respondents had both.

The analyses of the associations controlled by the possible confounding variables were carried out separately for "integration" and "isolation", where the associations between each sociodemographic variable and "integration" (y/n), as well as "isolation" (y/n) were investigated, and ORs and their respective confidence intervals were shown.

The SNI found that 33.6% of the sample was classified as isolated (0-1 points), 35.7% partially integrated (2) and 30.5% were integrated (3-4). The associations between sociodemographic variables and isolation were statistically significant between gender (OR = 0.77; 95% CI 0.59-1.01), age (OR = 0.72; 95% CI 0.56-0.92) and marital status (OR = 0.10; 95% CI 0.08-0.13) (Table 2). The associations between integration and sociodemographic variables followed the same behavior (Table 3), and variables with statistically significant associations were gender (OR = 1.34; 95% CI 1.03-1.73), age (OR = 1.41; 95% CI 1.08-1.84) and marital status (OR = 7.21; 95% CI 5.26-9.88).

The associations between integration and diagnosis of physical disease were not statistically significant, as follows: integration with diabetes (OR = 1.26, 95% CI 0.86-1.84), hypertension (OR = 1.16; 95% CI 0.92-1.47) and overweight (OR = 1.00 95% CI 0.50-2.00). The analyses of the associations between integration and physical disease diagnoses adjusted for sociodemographic variables (gender, age ranges and marital status) followed the same behavior: diabetes (OR = 1.15, 95% CI 0.76-1.74), hypertension (OR = 1.05; 95% CI 0.80-1.38) and overweight (OR = 1.03 95% CI 0.49-2.17) (Table 4).

We detected a statistically significant negative association between isolation and diabetes (OR = 0.64, 95% CI 0.42-0.97). The other associations were also not significant in isolation with hypertension (OR = 0.82, CI 95% 0.65-1.04) and overweight (OR = 0.87; 95% CI 0.43-1.74). After adjusting this analysis for sociodemographic variables, this result of the association between isolation and diabetes was not significant (OR = 0.70, 95% CI 0.44-1.13) and the other associations remained without statistical significance (Table 5).

Associations between the indicators of the support network and mental disorders evidenced negative and statistically significant associations between integration and anxiety (OR = 0.61; 95% CI 0.48-0.77) and integration and depression (OR = 0.51; 95% CI 0.38-0.68). The association maintained its level of significance in the adjusted associations, as follows: integration and anxiety (OR = 0.54, 95% CI 0.42-0.72) and integration and depression (OR = 0.47; 95% CI % 0.35-0.64) (Table 4).

In relation to isolation, we found positive and statistically significant associations between isolation and anxiety (OR = 1.32, 95% CI 1.06-1.66) and isolation and depression (OR = 1.39, 95% CI, 1.08-1.77). The association pattern was maintained in the analyses adjusted for sociodemographic variables isolation and anxiety (OR = 1.58, 95% CI 1.21-2.05) and isolation and depression (OR = 1.53, 95% CI, 1.15-2.05) (Table 5).

In many cases, patients with mental disorders evidenced two diagnoses (anxiety and depression) concomitantly, so we chose to build another category by adding the two diagnoses called anxious-depressive disorder. As a result, we found statistically significant and negative associations

Table 2. Association between integration and the sociodemographic variables. RJ and SP. 2010.

Sociodemographic variables (n = 1466)	Integration (447)		OR	CI	P-value
	n	%		95%	
Gender					
Female *	325	29.2	**1.34**	**1.03 – 1.73**	**0.02**
Male	122	35.6			
Level of schooling					
Under 4th grade *	150	30.6	1.00	0.79 – 1.27	1.00
5th grade and over	297	30.7			
Monthly household income					
Under 1 minimum wage *	161	28.6	1.17	0.93 - 1.47	0.18
1 minimum wage and over	286	32.0			
Age group (n = 1466)					
18-35 years *	113	25.9	- &	**1.00**	**0.03**
36-55 years	238	30.0	1.41	**1.08 – 1.84**	**0.01**
56 years and over	96	32.2	1.36	**1.36 – 0.99**	**0.06**
Marital status (n = 1466)					
Married/common-law marriage&	395	43.3	**7.21**	**5.26 – 9.88**	**0.00**
Other	52	9.6			

& Category of reference of Odds ratio (OR).

Table 3. Association between isolation and sociodemographic variables. RJ and SP. 2010.

Sociodemographic variables (n = 1466)	Isolation (490)		OR	CI	P-value
	n	%		95%	
Gender					
Female	389	34.9	**0.77**	**0.59 – 1.01**	**0.06**
Male	101	29.4			
Level of schooling					
Under 4th grade	166	33.9	0.98	0.78 – 1.23	0.90
4th grade and over	324	33.5			
Monthly household income					
Under 1 minimum wage	199	35.3	0.88	0.70 – 1.10	0.28
1 minimum wage and over	291	32.6			
Age group (n = 1466)					
18-35 years	171	39.1	- &	**1.00**	**0.01**
36-55 years	228	31.6	0.72	**0.56 – 0.92**	**0.01**
56 years and over	91	30.5	0.68	**0.50 – 0.93**	**0.02**
Marital status (n = 1466)					
Married/common-law marriage	143	15.7	**0.10**	**0.08 – 0.13**	**0.00**
Other	347	63.8			

between integration and anxious-depressive disorder (OR = 0.45; 95% CI 0.32-0.63 and adjusted OR = 0.42; CI 95% 0.30-0.60) and positive associations between isolation and anxious-depressive disorder (OR = 1.57; 95% CI 1.19-2.06 and adjusted OR = 1.83, 95% CI 1.33-2.52).

Discussion

Among the results found in this study, an interesting phenomenon to be discussed concerns the different patterns of associations identified between the support network and the types of

Table 4. Association between integration and health diagnoses. RJ and SP. 2010.

Health outcomes (n = 1466)	Integration (447)		Crude OR	CI	P-value	Adjusted OR	CI	P-value
	n	%		95%			95%	
Hypertension								
Yes	158	35.3	1.16	0.92 – 1.47	0.19	1.05	0.80 – 1.38	0.70
No	289	64.7						
Diabetes								
Yes	46	10.3	1.26	0.86 – 1.84	0.22	1.15	0.76 – 1.74	0.49
No	401	89.7						
Overweight								
Yes	12	2.7	1.00	0.50 – 2.00	0.99	1.03	0.49 – 2.17	0.92
No	435	97.3						
Anxiety								
Yes	131	29.3	**0.61**	**0.48 – 0.77**	**0.00**	**0.54**	**0.42 – 0.70**	**0.00**
No	316	70.7						
Depression								
Yes	76	17.0	**0.51**	**0.38 – 0.68**	**0.00**	**0.47**	**0.35 – 0.64**	**0.00**
No	371	83.0						
Mixed disorder (Anx. and Dep.)								
Yes	50	11.2	**0,45**	**0.32 – 0.6**3	**0.00**	**0.42**	**0.30 – 0.60**	**0.00**
No	397	88.8						

* Adjusted for gender, age and marital status.

Table 5. Association between isolation and health diagnoses. RJ and SP. 2010.

Health outcomes (n = 1466)	Isolation (490)		Crude OR	CI	P-value	Adjusted OR	CI	P-value
	n	%		95%			95%	
Hypertension								
Yes	148	30.2	0.82	0.65 – 1.04	0.11	0.94	0.70 – 1.26	0.69
No	342	69.8						
Diabetes								
Yes	33	6.7	**0.64**	0.42 – 0.97	**0.03**	0.70	0.44 – 1.13	0.15
No	457	93.3						
Overweight								
Yes	12	2.4	0.87	0.43 – 1.74	0.70	0.81	0.37 – 1.80	0.61
No	478	97.6						
Anxiety								
Yes	203	41.4	**1.32**	**1.06 – 1.66**	**0.01**	**1.58**	**1.21 – 2.05**	**0.00**
No	287	58.6						
Depression								
Yes	143	29.2	**1.39**	**1.08 – 1.77**	**0.00**	**1.53**	**1.15 – 2.05**	**0.00**
No	347	70.8						
Mixed disorder (Anx. and Dep.)								
Yes	113	23.1	**1.57**	**1.19 – 2.06**	**0.00**	**1.83**	**1.33 – 2.52**	**0.00**
No	337	68.8						

* Adjusted for gender, age and marital status.

illness. Associations between integration and the presence of physical diseases were not significant. However, there was a significant and negative association between isolation and diabetes, that is, levels of isolation decrease as diabetes rates increase. It is important to note that diabetes carries a series of challenges regarding glycemic control, changing eating habits and care with factors that cause the disease to evolve. Among CNCDs, diabetes is the third disease with the highest loss of life years due to premature death[41], which increases the tension among diabetic patients, a possible explanation for the significant association between disease and isolation, even with the lower number of carriers when compared to hypertensive patients.

In a survey on life events that produced stress and quality of life, Portugal et al.[40] found a negative influence of health problems in the physical domain and in social relationships, with hospitalization and illness influencing social interaction.

Among correlations of support network indicators with CMDs, there were negative and significant associations between integration with anxiety, depression and anxious-depressive disorder. Integration acts as a protective agent of subjects against the occurrence of CMDs since the more integrated participants showed less anxiety and depression. Thus, this study allowed to statistically verify the potential of the support network used as an alternative care in the prevention and follow-up of patients with CMDs treated in PHC.

Positive and significant associations were found for isolation with anxiety, depression and anxious-depressive disorder, the association's direction cannot be stated due to the reverse causality in cross-sectional studies. This finding is a limitation of this study.

The agreement between family physicians from seven different countries[32] on the prevalence of the anxious-depressive disorder in PHC pointed out the relevance of discussing associations between this ailment and the SNI. Thus, this study showed that the associations of anxious-depressive disorder with integration and isolation were stronger than those found between anxiety and depression. In this case, ESF professionals must make use of resources with cost-effectiveness and effectiveness to act in this setting. Interactive groups are important in tackling isolation and improving social relationships and are an alternative care for patients[20].

Regarding the presence of physical diseases in the sample studied, we identified that 32.7% of the patients had hypertension, 8.9% diabetes and 2.9% were overweight. Regarding the occurrence of CMDs, we found that 36.9% of the participants evidenced anxiety, 25.1% depression and 18.4% both anxiety and depression. Such findings corroborate data described in the literature[28,30,32].

The sociodemographic profile of the sample studied evidenced a predominance of women (76.5%), which confirms findings from previous studies[29,30,33,36], showing the greater demand for health services by women. The National Household Sample Survey (PNAD)[42] confirms this result, claiming that 17% of women seek health services against 12% of men.

Other identified characteristics were predominance of married people (62.5%), age ranging from 36 to 55 years (49.5%) and most reported being non-white (72.8%) and sample schooling level was low, since 33.6% of the participants studied until fourth grade; these data reveal a situation of social vulnerability of these subjects, because it is an important indicator of this social condition. Considering that high schooling is associated with a greater use of psychological and subjective patterns in the interaction with other subjects, in interpersonal relationships and in the communication of physical and emotional suffering[28,30,31], it is suggested that the level of schooling found affects such factors.

The income level of the sample was low, with 38.7% having a per capita monthly household income of under one minimum wage. In this regard, a study conducted in Rio de Janeiro[43] detected significant correlations between poverty indicators and the six administrative regions with the worst health conditions. All health indicators were significantly correlated with all indicators of income inequality. An important association of unfavorable sociodemographic and economic variables occurred between these variables and the presence of CMDs. Gonçalves[33] emphasized that low income and low schooling are significantly associated with the presence of CMDs and females in the context of PHC, which is a characteristic result of the Brazilian setting[27,30,33]. It is worth emphasizing that the research was carried out in ESF facilities whose targeted audience was dwellers of favelas in both the city of Rio de Janeiro and São Paulo.

Poor public housing policies for the working classes is historical and still allows irregular occupation processes that are territories with many urban issues, such as the lack of basic sanitation – causing transmissible diseases such as dengue

– health problems arising from external causes such as violence, high levels of inequality and economic deprivation[44].

Despite social inclusion public policies, this population still suffers from deprivation of work, income, social security and health. Porto et al.[44] developed an intervention called emancipatory health promotion based on the recognition of human rights by this population and the recognition of the speeches of residents and workers of this territory as triggers of the social transformation process. This action can be a resource for ESF professionals who deal with diverse social demands in their daily practice.

Sociodemographic profile findings indicated the need for attention, analysis and intervention, since they were much lower than expected, considering that the research was carried out in the two largest Brazilian cities. The design adopted for the study is its main limitation because it is not able to determine the relation of causality. However, the results found allowed us to identify the differences between the pattern of associations and the different categories of illness (physical or mental). As already described by Gonçalves et al.[36], author of the paper that paved the way for publications of the source-research material, among the limitations of this study are the low recording level of physicians with regard to diagnosed physical diseases as discussed above.

The results of this research are relevant because they facilitate the comparison of the support network's behavior in both the CNCDs and CMDs. The quantitative methodology of this research helps us to observe empirically and numerically how interpersonal relationships and the existence of a support network, consisting of family, friends and neighbors can be a strategy and a resource to optimize care provided to the population in the PHC service provided to patients.

Conclusion

The contribution of this paper to research on the support network is to compare the composition of the support network of patients suffering from physical diseases and those with mental disorders. The negative association of isolation with diabetes has shown that isolation levels decrease as diabetes rates increase, thus showing that the support network approaches the more severe patients in the case of physical diseases. In the case of associations between CMDs and integration, the more integrated participants evidenced less anxiety and depression and mixed disorder, and the relevance of the network was shown for patients affected by these disorders. Therefore, the results obtained by this study increase the possibilities of analysis, discussion and further research on the support network.

In addition, we recommend that health professionals working in the ESF pay attention to family and social relationships of their patients, identifying the potential of this resource or lack thereof. We suggest developing actions that strengthen the support network, reinforce the importance of this resource for the patient and favor a better use of the support network, resulting in benefits to patients and their families. By stating the important role of social support, professionals must identify in their contexts how best to exploit the network's resource in favor of the care of their patients. Interactive groups consisting of patients and conducted by health professionals are also effective resources in PHC within the support network.

Collaborations

Author contributions are as follows: EIS Aragão contributed to design of this study, data analysis and manuscript development, including its structure, text revision, interpretation of results, and writing "discussion" and "conclusion" sections. MR Campos co-conceptualized the study, co-wrote the grant proposal to fund the study, served as the lead statistician, and contributed to the results and interpretation of findings. FB Portugal carried out statistical analysis, prepared data results and contributed to writing and manuscript revisions. DA Gonçalves co-conceptualized the study, co-formulated the research, led data collection in São Paulo, helped with data analysis, and contributed to manuscript writing and critical revision. JJ Mari contributed to the study on data collection in São Paulo, helped with data analysis and contributed to manuscript revision. SLCL Fortes conceptualized the original research, wrote the grant proposal to fund the study led data collection in Rio de Janeiro, designed this study, its data analysis, and wrote the first draft of the manuscript.

References

1. Faquinello P, Marcon SS, Waidmann MAP. A rede social como estratégia de apoio à saúde do hipertenso. *Rev. bras. enferm*. 2011; 64(5):849-856.
2. Faquinello P, Marcon SS. Amigos e vizinhos: uma rede de apoio ativa para adultos e idosos hipertensos**.** *Rev. esc. enferm. USP* 2011; 45(6):1345-1352.
3. Cohen S. Social Relationships and Health. *Am Psychol* 2004; 59(8):676-684.
4. Chor D. Griep RH, Lopes C, Faerstein E. Medidas de rede e apoio social no estudo pró-saúde: pré-testes e estudo piloto. *Cad Saude Publica* 2001; 17(4):887-896.
5. Torres MA, Abacaxi JA. Associação entre variáveis psicológicas e sociais, com a adesão em pessoas com diabetes tipo 2. *Terapia psicológica* 2010; 28(1):45-53.
6. Sharovsky LL, Romano BW. Depressive and anxiety symptoms in patients with Metabolic Syndrome**.** *Estud. psicol. (Campinas)* 2013; 30(4):603-608.
7. Lemos VA, Antunes HK, Baptista MN, Tufik S, Mello MT, Formigoni ML. Low family support perception: a 'social marker' of substance dependence? *Rev. Bras. Psiquiatr*. 2012; 34(1):52-59.
8. Fortmann AL, Gallo LC, Walker C, Philis-Tsimikas A. Support for disease management, depression, self-care, and clinical indicators among Hispanics with type 2 diabetes in San Diego County, United States of America. *Rev Panam Salud Publica* 2010; 28(3):230-234.
9. Campos RO, Gama CA, Ferrer AL, Santos DVD, Stefanello S, Trapé TL, Porto K. Saúde mental na atenção primária à saúde: estudo avaliativo em uma grande cidade brasileira. *Cien Saude Colet* 2011; 16(12):4643-4652.
10. Berkman LF, Glass T, Brissette I, Seeman TE. From social integration to health – Durkheim in the new Millennium. *Social Sci Med* 2000; 51(6):843-857.
11. Malfatti CRM, Assunção AN. Hipertensão arterial e diabetes na Estratégia de Saúde da Família: uma análise da frequência de acompanhamento pelas equipes de Saúde da Família. *Cien Saude Colet* 2011; 16(Supl. 1):1383-1388.
12. Mendes EV. O cuidado das condições crônicas na atenção primária à saúde: o imperativo da consolidação da estratégia da saúde da família. Brasília: Organização Pan-Americana da Saúde; 2012.
13. Griep RH, Chor D, Faerstein E, Lopes C. Apoio social: confiabilidade teste-reteste de escala no Estudo Pró-Saúde. *Cad Saude Publica* 2003; 19(2):625-634.
14. Alves MR, Vilela ABA, Souza AS, Silva DM, Meira ED, Aguiar ACSA. Rede de suporte social a pessoas idosas com sintomas depressivos em um município do nordeste brasileiro. *Rev. pesqui. cuid. fundam*. 2013; 5(2):3667-3676.
15. Fonseca FCA, Coelho RZ, Nicolato R, Malloy-Diniz LF, Silva-Filho HC. A influência de fatores emocionais sobre a hipertensão arterial. *J. bras. psiquiatr.* 2009; 58(2):128-134.
16. Faquinello P, Carreira L, Marcon SS. A Unidade Básica de Saúde e sua função na rede de apoio social ao hipertenso. *Texto contexto - enferm*. 2010; 19(4):736-744.
17. Gomes-Villas Boas LC, Foss MC, Freitas MCF, Pace AE. Relação entre apoio social, adesão aos tratamentos e controle metabólico de pessoas com diabetes mellitus. *Rev. Latino-Am. Enfermagem* 2012; 20(1):52-58.
18. Avila-Jimenez L, Cerón D, Ramos-Hérnandez RI, Velasquez L. Asociación del control glicémico con el apoyo familiar y el nivel de conocimientos en pacientes con diabetes tipo 2. *Rev. méd. Chile* 2013; 141(2):173-180.
19. Rigotto DM. *Evidências de validade entre suporte familiar, suporte social e autoconceito* [dissertação]. Itatiba: Universidade São Francisco; 2006.
20. Santos AL, Pasquali R, Marcon SS. Feelings and experiences of obese participants, in a support group: an exploratory study. *Online Braz J Nurs* (Online) [Internet]. 2012 Apr 18; [Cited 2013 May 10] 11(1). Available from: http://www.objnursing.uff.br/index.php/nursing/article/view/3251
21. Buss PM, Pellegrini F. Saúde e seus Determinantes Sociais. A. *Physis* 2007; 17(1):77-93.
22. Oliveira MAC, Pereira IC. Atributos essenciais da Atenção Primária e a Estratégia Saúde da Família. *Rev. bras. enferm*. 2013; 66(n. esp.):158-164.
23. Corrêa AA, Moreira-Almeida A, Menezes PR, Vallada H, Scazufca M. Investigating the role played by social support in the association between religiosity and mental health in low income older adults: results from the São Paulo Ageing & Health Study (SPAH). *Rev. Bras. Psiquiatr*. 2011; 33(2):157-164.
24. Helena E, Lasagno BGS, Vieira R. Prevalência de transtornos mentais não psicóticos e fatores associados em pessoas com hipertensão arterial sistêmica e/ou diabetes mellitus em Unidades de Saúde da Família em Blumenau, Santa Catarina. *Rev. Bras. Med. Fam. Com*. 2010; 5(17):42-47.
25. Souza AC, Rivera FJU. A inclusão das ações de saúde mental na atenção básica: ampliando possibilidades no campo da saúde mental. *Rev Tempus Actas Saúde Colet* 2010; 4(1):105-114.
26. Vecchia MD, Martins STF. Concepções dos cuidados em saúde mental por uma equipe de saúde da família, em perspectiva histórico-cultural. *Cien Saude Colet* 2009; 14(1):183-193.
27. Fortes S, Villano LAB, Campos MR. Nosological profile and prevalence of common mental disorders of patients seen at the Family Health Program (FHP) units in Petrópolis, Rio de Janeiro. *Rev. Bras. Psiquiatr*. 2008; 30(1):32-37.
28. Fortes S, Villano LA, Lopes C. Common mental Disorders and Social-Economic and demoghaphic Factors in Primary Care in Brazil. In: 10th International Congress of the International Federation of Psychiatric Epidemiology, 2004, Bristol, England. In: *Book of Abstracts - 10th International Federation of Psychiatric Epidemiology*, 2004. v. 1. p. 39-39.
29. Villano LA. *Problemas Psicológicos e Morbidade Psiquiátrica em Serviços de Saúde Não Psiquiátricos: O Ambulatório de Clínica Geral* [tese]. São Paulo: Universidade Federal de São Paulo; 1998.
30. Fortes S, Lopes CS, Villano LA, Campos MR, Gonçalves DA, Mari JJ. Common mental disorders in Petrópolis-RJ: a challenge to integrate mental health into primary care strategies. *Rev Bras Psiquiatr*. 2011; 33(2):150-156.
31. Tavares ALB, Souza AR, Pontes RJS. Estudo da demanda de saúde mental em Centro de Saúde da Família em Caucaia, Ceará, Brasil. *Rev Bras Med Fam Comunidade* 2013; 8(26):35-42.

32. Lam TP, Goldberg DP, Dowell AC, Fortes S, Mbatia JK, Minhas FA, Klinkman MS. Proposed new diagnoses of anxious depression and bodily stress syndrome in ICD-11-PHC: an international focus group study. *Family Practice* 2013; 30(1):76-87.
33. Gonçalves DA, Mari Jde J, Bower P, Gask L, Dowrick C, Tófoli LF, Campos M, Portugal FB, Ballester D, Fortes S. Brazilian multicentre study of common mental disorders in primary care: rates and related social and demographic factors. *Cad Saude Publica* 2014; 30(3):623-632.
34. Costa AG, Ludemir AB. Transtornos mentais comuns e apoio social: estudo em comunidade rural da Zona da Mata de Pernambuco, Brasil. *Cad Saude Publica* 2005; 21(1):73-79.
35. Modesto TN, Santos DN. Saúde mental na atenção básica. *Rev. Baiana Saúde Publica* 2007; 31(1):19-24.
36. Goncalves DA, Fortes S, Campos M, Ballester D, Portugal FB, Tófoli LF, Gask L, Mari J, Bower P. Evaluation of a mental health training intervention for multidisciplinary teams in primary care in Brazil: A pre- and posttest study. *Gen Hosp Psychiatry* 2013; 35(3):304-308.
37. Botega NJ, Bio MR, Zomignani MA, Garcia Júnior C, Pereira WAB.. Transtornos do Humor em Enfermaria de Clínica Médica e Validação da escala de medida (HAD) de Ansiedade e Depressão. *Rev Saude Publica* 1995; 29(5):355-363.
38. Berkman LF, Syme SL. Social networks, host resistance, and mortality: A nine-year follow-up of Alameda county residents. *Am J Epidemiol* 1979; 109(2):186-204.
39. Correia C, Fortes S, Lopes C, Campos MR. Specificity of consumption of antidepressants and benzodiazepines by women attending family health strategy units: A multicenter study. *Journal of Psychosomatic Research* 2013; 74:542.
40. Portugal FB, Campos MR, Gonçalves DA, Mari JJ, Gask L, Bower P, Dowrick C, Fortes S. Psychiatric morbidity and quality of life of primary care attenders in two cities in Brazil. *J. bras. psiquiatr.* 2014; 63(1):23-32.
41. Schramm JMA, Oliveira AF, Leite IC, Valente JG, Gadelha AMJ, Portela MC, Campos MR. Transição epidemiológica e o estudo de carga de doença no Brasil. *Cien Saude Colet* 2004; 9(4):897-908.
42. *Pesquisa Nacional de Amostra por Domicílio*. [acessado 2015 Nov 20]. Disponível em: http://tabnet.datasus.gov.br/cgi/idb2012/matriz.htm
43. Szwarcwald CL, Bastos FI, Esteves MAP, Andrade CLT, Paez MS, Medici EV, Derrico M. Desigualdade de renda e situação de saúde: o caso do Rio de Janeiro. *Cad Saude Publica* 1999; 15(1):15-28.
44. Porto MFS, Cunha MB, Pivetta F, Zancan L, Freitas JD. Saúde e ambiente na favela: reflexões para uma promoção emancipatória da saúde. *Serv. Soc. Soc.* 2015; 123:523-543.

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