

Relationship between social capital indicators and lifestyle in Brazilian adults

Asociación entre indicadores de capital social y estilo de vida en adultos brasileños

Associação entre indicadores de capital social e estilo de vida em adultos brasileiros

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Abstract

The present study examined the relationship between indicators of social capital and health-related behaviors. A cross-sectional study was conducted on a sample of 1,062 participants representative of the population aged 40 years or older from a city in Southern Brazil. The following indicators of social capital were examined: number of friends, number of people they could borrow money from when in need; extent of trust in community members; number of times members of the community help each other; community safety; and extent of membership in community activities. Also, an overall score of social capital including all indicators was calculated. A poor social capital was associated with insufficient leisure-time physical activity (OR = 1.70; 95%CI: 1.07-2.70), low consumption of fruits and vegetables (OR = 1.53; 95%CI: 1.05-2.24), and smoking (OR = 1.97; 95%CI: 1.21-3.21). No clear association was found between capital social and binge drinking. A score of social capital showed an inverse relationship with the number of prevalent risk behaviors ($p < 0.001$). These results reinforce that policies to promote health should consider social capital.

Social Capital; Life Style; Social Participation; Adult

Resumen

El objetivo del estudio fue investigar la relación entre indicadores de capital social y los comportamientos relacionados con la salud. Se realizó un estudio transversal con 1.062 personas representativas de la población de 40 años o más, de una ciudad del Sur del Brasil. Los indicadores de capital social fueron: número de amigos y personas que prestan dinero si fuera necesario, la confianza en la gente del barrio, la frecuencia con la que la gente del barrio se ayuda mutuamente, la seguridad del barrio y la participación comunitaria. También se construyó una puntuación del capital social en base a indicadores aislados de capital social. Un bajo capital social se asoció con la inactividad física en el tiempo libre (OR = 1,70; IC95%: 1,07-2,70), el consumo irregular de frutas y verduras (OR = 1,53; IC95%: 1,5-2,24), y el tabaquismo (OR = 1,97; IC95%: 1,21-3,21). No hubo una clara relación entre el capital social y el abuso de alcohol. La puntuación del capital social ha tenido una relación inversa con el número de conductas de riesgo ($p < 0,001$). Estos resultados refuerzan la importancia de considerar el capital social en las políticas de promoción de la salud.

Capital Social; Estilo de Vida; Participación Social; Adulto

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Introduction

Mortality and chronic noncommunicable disease rates are strongly associated with behavioral factors^{1,2,3}. Individual and social determinants of lifestyle have been extensively researched in recent years, however some of these determinants need to be further explored and more evidence produced to support health promotion interventions⁴.

It has recently been suggested that social capital is a health determinant^{5,6,7,8}. Social capital has been defined in a number of different ways with subtle differences^{9,10,11,12,13,14}. For the sake of comparison with previous epidemiological research, we considered that social capital is defined as features of social organization that involve mutual trust, norms of reciprocity, and social networks that enable people to act collectively, thereby more effectively pursuing a common purpose^{5,8,12}. Furthermore, social capital has been classified into four categories: structural (related to civic and political aspects); cognitive (perceptions and expectations about social behavior and community sense); formal (structured and/or legal organizations and/or processes); and informal (spontaneous interaction with members of the community, relatives, peers, and/or friends).

According to the report of the National Commission on Social Determinants of Health in Brazil¹⁵, the social capital consists of social and community networks and involves all the relations of solidarity and trust between individuals and groups. A low social capital results from social and economic inequities, and has shown a negative impact on the health status of communities with weaker social bonds; these communities have a low investment in human capital and social support networks, and less participation of the population in the definition of public policies. There is evidence that individuals with greater social capital tend to be more physically active^{16,17,18,19,20,21}, have better eating habits^{22,23} and lower frequency of smoking^{24,25,26,27,28,29}. However, the relationship between social capital and alcohol consumption is still uncertain; while the lack of institutional trust is associated with harmful alcohol intake³⁰, high social participation has also been linked to increased alcohol consumption²⁶.

Moreover, the mechanisms of the relationship between social capital and health behaviors are not fully understood. Kawachi & Berkman⁵ suggest three hypotheses: social capital promotes more rapid dissemination of information, increases the likelihood that healthy behaviors are adopted as standards, and exerts social control over unhealthy behaviors.

The relationship between social capital and various health indicators may vary according to local characteristics, including levels of violence, economic and social development and democratic tradition. Although most studies point to a positive relationship between social capital and self-perceived health, a study found that electoral participation and membership in community forums were inversely associated with self-perceived health in rural areas of Colombia³¹.

In this context, the general aim of this study was to improve understanding of the relationship between social capital indicators and lifestyle. Specifically this study tested the hypothesis that among individuals from a representative sample of the adult population in a mid-size city in Southern Brazil, those who perceive a better social capital in the community show healthier behaviors. This hypothesis is based on the assumption that better social organization, greater perceived support networks and greater security in the community, among other factors, can facilitate the adoption of behaviors considered positive for health. This study is relevant because it may produce evidence on lifestyle determinants and thus provide input for the development of sound policies to promote healthy behaviors.

Methods

Study population

The study participants were drawn from residents of the city of Cambé, Paraná State, Brazil, aged 40 years or older included in a larger cross-sectional study named VIGICARDIO (*Cardiovascular Diseases in Paraná State* – mortality, risk profile, drug therapy and complications). This age cutoff was chosen due to the higher prevalence of cardiovascular disease and their risk factors from age 40 and onwards³². Located in the South Region of Brazil, Cambé has a population of 96,735 inhabitants and a human development index of 0.793³³. Households were randomly selected from all census tracts, and people aged ≥ 40 years were identified and invited to participate in the study. The study sample was selected in age- and sex-strata from the distribution of census tracts in the urban area, where households were chosen randomly. All 86 urban census tracts in the city were included in the study. The sample size was calculated using Epi Info 3.5.1 software (Centers for Disease Control and Prevention, Atlanta, USA), considering an expected 50% prevalence of unhealthy behaviors and a 95% confidence interval (95%CI) of three percentage points; it resulted in a sample of 1,062 subjects. Based on the as-

sumption of up to 25% non-identification plus non-response, the final sample size was 1,339.

Only one resident per household was interviewed and interviews continued until the quota for gender-age categories was reached. When two or more residents in the same household met the inclusion criteria, the respondent was selected at random. Data was collected by trained interviewers during home visits from January to July 2011. Additional information about the selection and composition of the study sample is available in Souza et al.³⁴.

Of a total of 1,339 eligible respondents, 1,180 (88.1%) participated in the study. Among the 159 non-participants, 93 refused to participate and 66 were not located after three or more visits on different days and at different times. For the analysis of this study, we excluded respondents who did not answer one or more questions about indicators of social capital (n = 76), potential confounders (n = 38), and risk behaviors (n = 4). The final sample comprised 1,062 respondents.

The study was approved by the Ethics Research Committee at the Londrina State University.

Study variables

The survey instrument included information on many health and social domains, but in this study we used data only for social capital indicators (independent variables), health behaviors (dependent variables) and some socio-demographic variables (potential confounders).

• Health-related behaviors

The studied health-related behaviors were physical activity in leisure time, consumption of fruits and vegetables, smoking, and binge drinking. These behaviors were selected because they are well established cardiovascular risk factors and are part of the Brazilian Ministry of Health's National Policy of Health Promotion³⁵ which includes, among other priority objectives, the promotion of healthy eating and physical activity, and the prevention of tobacco use and binge drinking.

Information on physical activity leisure-time was obtained with the following question: "During a typical week, in your leisure time, what types of physical activities do you often engage in?". Study participants were also asked about the frequency (per day/week) and duration (minutes/day) of each activity. Walking, stretching, dancing, water aerobics, biking, and localized exercise training were considered activities of moderate intensity, while weight training, fitness training,

and sports were considered vigorous activities. This information was used to establish whether individuals met the current recommendations: at least 150 minutes of moderate-to-vigorous physical activity, or 60 minutes of vigorous physical activity per week^{36,37}.

Information on consumption of fruits and vegetables, smoking, and alcohol use was collected using the *Risk and Protective Factors Surveillance System for Chronic Non-Communicable Diseases Through Telephone Interview* (VIGITEL) questionnaire, a computer-assisted telephone survey instrument used by the Brazilian Ministry of Health in the Federal District and Brazilian state capitals³⁸.

Irregular consumption of fruits and/or vegetables was an indicator of unhealthy food behavior. It was assessed using two questions: "How many days of the week do you usually eat a fruit serving?" and "How many days of the week do you usually eat at least a serving of vegetables or legumes (e.g., lettuce, tomato, collard greens, chayote, eggplant, and zucchini), excluding potatoes, cassava or yam?". Those who responded < 5 days/week in any of the two questions were classified as irregular consumers of fruits and vegetables. Although this frequency is lower than that generally considered in dietary guidelines, it was used in a large telephone-based study conducted by the Brazilian Ministry of Health and, thus, it is adequate to place the present results within the context of this country.

Smoking was assessed with the following question: "Do you smoke?". Smokers were those who reported current smoking regardless of their smoking history and number of packs smoked per day.

Binge drinking was identified when the participant answered positively to the following question: "During the last 30 days, did you have four or more (for women)/five or more (for men) drinks containing any kind of alcohol on a single occasion?". A drink was defined as a can of beer, a glass of wine or a shot of *cachaça*, whisky or any other distilled alcoholic beverage.

• Social capital indicators

The following six indicators of social capital were examined: number of friends, number of people they could borrow money from when in need; extent of trust in community members; number of times members of the community help each other; community safety; and extent of membership in community or civic activities. The questions were drawn from the Brazilian version of the *Integrated Questionnaire for the Measurement of Social Capital* (QI-MSC)³⁹, and social capital

indicators were selected from previous studies^{17,18,20,21,40}. The selected indicators included various categories of social capital: cognitive (trust in community members, frequency of help and community safety), structural (participation in community activities), formal (also, participation in community activities) and informal (number of friends and number of people to borrow money from). Importantly, the indicators used are not sufficient to evaluate, in its entirety, the social capital construct.

- **Confounding variables**

Information was collected on potential confounders, e.g., sociodemographic factors and health conditions associated with health-related behaviors and with social capital. Specifically, data were obtained on the following variables: gender, age (40-49; 50-59; 60 years and more); education (none to four; five to eight; and nine years or more of schooling); socioeconomic condition (based on the Brazilian Criterion of Economic Classification⁴¹ and categorized as A and B [high]; and C, D, and E [low]); body mass index (BMI) (normal weight [$< 25\text{kg}/\text{m}^2$], overweight [$25\text{-}29.9\text{kg}/\text{m}^2$], and obese [$\geq 30\text{kg}/\text{m}^2$]); reported mobility limitation; reported chronic medical condition diagnosed by a doctor or other health professional (hypertension, diabetes, high cholesterol, angina, congestive heart failure, acute myocardial infarction, cerebrovascular disease, chronic renal failure or chronic lung disease); and self-perceived health (very good/good; fair/poor/very poor).

All data were obtained through a pretested questionnaire, except for BMI that was calculated from height and weight measurements taken with standard techniques.

Statistical analysis

The association between indicators of social capital and health-related behaviors was assessed by the odds ratio (OR) and its 95%CI obtained from logistic regression after adjusting for potential confounders.

Additionally, an overall score of social capital was calculated based on the responses obtained for each indicator. Thus, a score of 2 was given to those reporting four or more friends, 1 to those reporting one to three friends, and 0 for no friends. For the remaining indicators, a score of 1 was given for those who reported at least one person from whom they could borrow money in case of need, trust in community members, that members of the community always or almost always helped each other, that their community was safe

and that had been involved in community activities in the past 12 months. An overall score of social capital ranging from 0 to 7 was obtained by summing up individual scores of each indicator. Respondents were then categorized into three groups: higher social capital (6-7); intermediate social capital (4-5); and lower-poor social capital (0-4). Continuous scores were used to assess the dose-response relationship between the social capital score and risk behaviors, and a p-value for linear trend was estimated. Although this score was created as a simple way to summarize the main study associations, its psychometric properties were not analyzed; thus, it cannot be interpreted as a validated social capital assessment tool.

Statistical significance for the relationship between the social capital indicators and health-related behaviors was set at two-sided $p < 0.05$, while for the interaction of the social capital score with demographic and health variables it was set at $p < 0.10$. The analyses were performed using IBM SPSS version 19.0 (IBM Corp., Armonk, USA).

Results

In the study population, the largest group of individuals was of female gender, aged between 40 and 59, classified as medium or low economic level, had less than nine years of schooling, overweight or obese, did not present any functional limitation, reported at least one chronic disease and reported to be in good or very good health.

In total, 81.8% of the study participants did not meet the recommended levels of physical activity (83.4% of women; 79.9% of men), 62.9% showed irregular consumption of fruits and/or vegetables (52.3% of women and 75.9% of men), 20% were current smokers (15.2% of women and 25% of men), and 18% binge drinkers (7% of women and 30.9% of men). Sociodemographic and health status variables associated with these health-related behaviors are shown in Tables 1 (women) and Table 2 (men).

We found that a greater proportion of men than women had four or more friends and considered the community to have a low level of violence. The distribution of other social capital indicators showed no gender difference. As regards socioeconomic status, all indicators of social capital were better in people with higher status, except frequency of help which presented no difference (data not shown).

An association was found between insufficient leisure-time physical activity and some indicators of social capital (number of friends,

Table 1

Prevalence of health-related behaviors according to demographic and clinical variables among women (n = 574). Cambé, Paraná State, Brazil, 2011.

	Total	Insufficient leisure-time physical activity	Irregular consumption of fruits and/or vegetables	Smoking	Binge drinking
	n	%	%	%	%
Total	574	83.4	52.3	15.2	7.0
Age group (years)					
40-49	233	85.0	55.8	23.6	13.7
50-59	181	81.8	51.1	11.0	4.4
60 or more	160	83.1	48.4	7.5	0.0
Socioeconomic condition					
A-B (high)	195	77.9	39.8	14.3	6.6
C-D-E (low)	379	86.3	58.7	15.6	7.1
Education (years of schooling)					
9 or more	162	78.4	44.8	14.1	10.4
5-8	127	85.8	50.8	21.4	12.7
< 5	285	85.3	57.2	13.0	2.5
Body mass index					
Normal (< 25kg/m ²)	152	81.6	51.0	22.2	8.5
Overweight (25-29.9kg/m ²)	206	81.6	51.0	13.1	8.3
Obese (≥ 30kg/m ²)	216	86.6	54.4	12.1	4.7
Mobility limitation					
No	530	82.5	50.9	15.1	7.0
Yes	44	95.5	68.2	15.9	6.8
Reported chronic disease					
No	210	81.0	52.1	19.0	9.0
Yes	364	84.9	52.3	12.9	5.8
Self-perceived health					
Very good/Good	294	75.9	47.8	14.7	9.2
Fair/Poor/Very poor	280	91.4	59.6	15.7	4.6

frequency of help, participation in community activities. Also we observed an inverse dose-response relationship ($p < 0.001$) between the social capital score and physical inactivity ($p < 0.001$) (Table 3).

Irregular consumption of fruits and/or vegetables was associated with non-participation in community activities and with a lower social capital score ($p = 0.017$). Smoking was linked to the frequency with which members of the community help each other and with the social capital score ($p = 0.014$). In addition, the adjusted mean score of social capital was calculated for those who were never-, former- and current-smokers. A significantly lower mean score was found among current smokers compared to the other two categories (data not shown). Of all risk

behaviors examined, binge drinking was the variable that was least associated with indicators of social capital. Only the frequency of help was associated with alcohol use.

A regression analysis was performed to assess whether gender, age, socioeconomic condition, and education might modify the relationship between indicators of social capital and risk behaviors. No interaction effects were seen ($p > 0.10$), except for binge drinking and age ($p = 0.036$); the association between a lower score of social capital and higher frequency of binge drinking was only observed among younger participants (40-49 years old).

Finally, the higher the social capital score the lower the mean number of risk behaviors. Respondents with the highest score showed 1.51

Table 2

Prevalence of health-related behaviors according to demographic and clinical variables among men (n = 488). Cambé, Paraná State, Brazil, 2011

	Total	Insufficient leisure-time physical activity	Irregular consumption of fruits and/or vegetables	Smoking	Binge drinking
	n	%	%	%	%
Total	488	79.9	75.9	25.0	30.9
Age group (years)					
40-49	203	82.3	82.3	21.7	34.5
50-59	157	79.6	75.8	30.6	37.9
60 or more	128	76.6	64.8	23.4	17.2
Socioeconomic condition					
A-B (high)	213	77.9	69.0	15.0	30.5
C-D-E (low)	275	81.5	80.7	32.7	31.3
Education (years of schooling)					
9 or more	131	71.0	65.6	11.5	32.1
5-8	138	79.7	81.3	30.9	36.7
< 5	219	85.4	78.0	29.4	26.6
Body mass index					
Normal (< 25kg/m ²)	176	79.0	79.0	37.5	36.9
Overweight (25-29.9kg/m ²)	203	78.8	74.9	16.3	28.1
Obese (≥ 30kg/m ²)	109	83.5	71.6	21.1	26.6
Mobility limitation					
No	473	79.5	75.4	24.6	32.0
Yes	15	93.3	81.3	37.5	0.0
Reported chronic disease					
No	229	79.5	76.9	24.5	36.2
Yes	259	80.3	74.5	25.5	26.3
Self-perceived health					
Very good/Good	320	76.6	70.9	22.5	29.7
Fair/Poor/Very poor	168	86.3	84.5	29.8	33.3

risk behaviors, while those with the lowest scores had 2.10 behaviors (adjusted data) (Figure 1).

The results were rather similar after stratification by gender, though stronger associations were seen between social capital and smoking in men, and between social capital and irregular consumption of fruits and vegetables in women (data not shown).

Discussion

This cross-sectional population-based study aimed to examine the association between indicators of social capital and health-related behaviors. Overall, lower scores of social capital were associated with greater likelihood of insufficient

leisure-time physical activity, irregular consumption of fruits and/or vegetables, and smoking. The higher the score of social capital, the lower the mean number of prevalent risk behaviors.

Overall, the prevalence of the risk behaviors examined in this study was similar to that reported in other Brazilian studies, and the same was true for the differences found by demographic and health-related variables^{42,43,44,45,46,47}.

Although it is not yet fully understood how social capital may favor health-related behaviors, it is believed that they can promote information dissemination and increase social control over risk behaviors⁵. Furthermore, health-related behaviors can mediate the association between social capital and relevant health indicators, including self-rated health^{40,48}.

Table 3

Association between indicators of social capital and risk behaviors (OR and 95%CI), Cambé, Paraná State, Brazil, 2011. (N = 1,062).

	Insufficient leisure-time physical activity	Irregular consumption of fruits and/or vegetables	Smoking	Binge drinking
	OR (95%CI)	OR (95%CI)	OR (95%CI)	OR (95%CI)
Number of friends				
4 or more	1.00	1.00	1.00	1.00
1-3	1.11 (0.78-1.58)	1.26 (0.94-1.69)	1.31 (0.92-1.86)	0.85 (0.58-1.25)
None	2.45 (1.26-4.77)	1.18 (0.76-1.83)	1.41 (0.87-2.30)	0.94 (0.55-1.62)
p-value for linear trend	0.031	0.209	0.089	0.600
Number of people to borrow money from				
One or more	1.00	1.00	1.00	1.00
None	1.03 (0.71-1.50)	1.24 (0.91-1.68)	1.27 (0.89-1.80)	1.04 (0.70-1.54)
Trust in community members				
Yes	1.0	1.0	1.00	1.00
No	1.17 (0.84-1.62)	1.22 (0.93-1.61)	1.11 (0.80-1.55)	0.93 (0.66-1.32)
Frequency of help				
Always/Almost always	1.00	1.00	1.00	1.00
Sometimes/Rarely	1.46 (1.06-2.02)	1.15 (0.88-1.50)	1.71 (1.23-2.38)	1.62 (1.14-2.31)
Community safety				
Low level of violence	1.00	1.00	1.00	1.00
Medium/High level of violence	1.31 (0.90-1.91)	1.23 (0.92-1.65)	1.23 (0.88-1.73)	1.16 (0.79-1.70)
Participation in community activities				
Yes	1.00	1.00	1.00	1.00
No	1.47 (1.05-2.06)	1.43 (1.08-1.88)	1.27 (0.91-1.77)	1.14 (0.79-1.63)
Social capital score				
6-7 (higher)	1.00	1.00	1.00	1.00
4-5	1.13 (0.76-1.67)	0.98 (0.69-1.38)	1.88 (1.18-3.00)	1.06 (0.68-1.65)
0-4 (lower)	1.70 (1.07-2.70)	1.53 (1.05-2.24)	1.97 (1.21-3.21)	1.30 (0.81-2.10)
p-value for linear trend	0.002	0.017	0.014	0.257

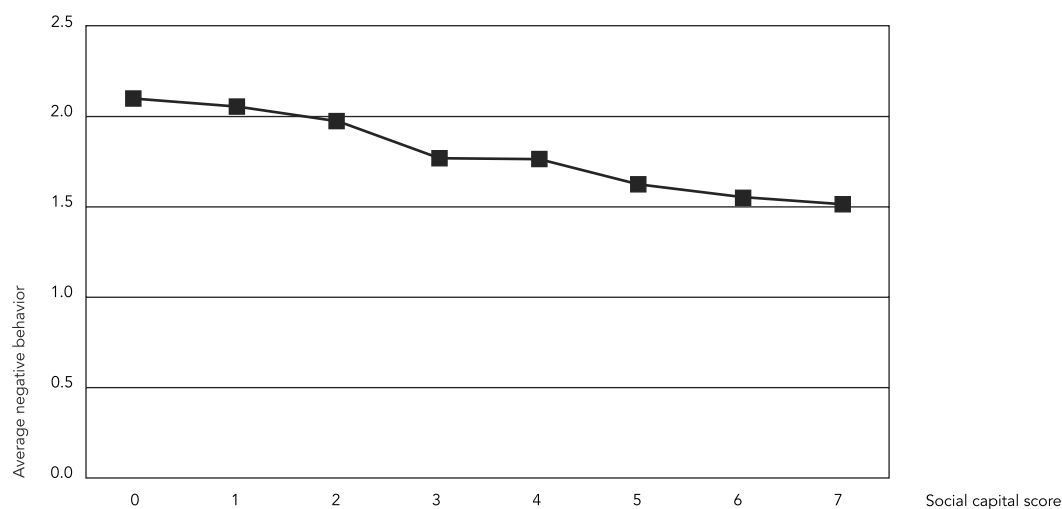
95%CI: 95% confidence interval – adjusted for gender, age group, socioeconomic condition, education, body mass index, mobility limitation, reported chronic condition, and self-perceived health; OR: odds ratio.

Frequency of help and participation in community activities were inversely associated with several unhealthy behaviors. In contrast, having a person to borrow money from when in need and trust in community members were more weakly associated with these behaviors. This is relevant because the relationship between indicators of social capital and lifestyle may vary with the context. In Japan perceptions and expectations of social behavior and community sense are more linked to the cognitive aspect of social capital and have shown to be more strongly associated with physical activity¹⁸, while in the

United States this same association was more evident with structural indicators of social capital (political and civic participation)⁴⁹. In our study both structural and cognitive aspects were similarly associated with physical inactivity, but they showed different associations with the rest of behaviors. The number of times members of the community help each other was also associated with smoking and binge drinking, whereas participation in community activities was associated with irregular consumption of fruits and/or vegetables.

Figure 1

Mean number of risk behaviors by social capital score (0-7) including the following behaviors: physical inactivity, irregular consumption of fruits and vegetables, binge drinking and smoking adjusted for confounders (N = 1,062). Cambé, Paraná State, Brazil, 2011.



Of all risk behaviors examined, physical inactivity was the most associated with indicators of social capital. There was a great difference in the prevalence of physical inactivity between those with four or more friends and those with no friends. This finding is consistent with the literature since lower social support has been identified as a major barrier to leisure-time physical activity⁵⁰. However, we chose to examine only physical activity at leisure time because public policies in Brazil focus on this dimension, given that household and work-related activity and the transportation to the workplace are more related to individual's needs than to the desire of achieving good health.

Community safety, which has been considered a major factor for promoting physical activity⁵¹, was only associated with leisure-time physical inactivity. Violence can have disruptive effects that create an atmosphere of social conflict and a culture of fear affecting community regulations that govern solidarity practices and relations¹².

Irregular consumption of fruits and/or vegetables was only associated with participation in community activities and the score of social capital. This may be partly explained by the existence of community-owned orchards run by local residents. By growing their own fruit and vegetables, they increase people's access to natural

products and encourage an active involvement in community activities and interpersonal trust. Further studies should assess the impact of these community initiatives on social capital and food consumption.

Smoking showed an inverse association with frequency of help and the social capital score. A study conducted in Chile found an inverse relationship between trust in community members and the prevalence of smoking, but it did not find smoking to be associated with trust in organizations, reciprocal relationships with community members, community integration, and social participation²⁹. The present study showed a higher social capital score among those who never smoked and former smokers compared to current smokers, suggesting that social capital may favor both smoking prevention and cessation. However, this needs to be interpreted with caution because current social capital may differ from social capital at the time the respondents quit smoking. A study with Finnish workers found that smokers who had higher social capital were more likely to quit smoking⁵².

Of note was that binge drinking was not associated with poorer social capital; it may be due to the fact that people tend to consume larger amounts of alcohol when socializing. Although alcohol intake is more frequent in younger adults

as a way of experimentation and socializing⁵³, it is also possible that those aged ≥ 40 years follow a similar pattern, i.e. drink more alcohol when socializing. Furthermore, the relationship between social capital and excessive alcohol weakened with age. We have no clear explanation for this finding, which should be replicated in future research.

Although there is no consensus on the best approach to assess social capital, we used the same indicators as in previous studies. Also, an overall score of social capital was constructed. The inverse dose-response relationship between the social capital score and the frequency of the studied risk behaviors suggests that there is a sort of synergistic effect of these social capital indicators.

The strengths of this study included a high response rate and the use of a representative sample from a city in a developing Latin American country where there are few studies on the relationship between indicators of social capital and health behaviors⁷. Several indicators of social capital were included so that major dimensions of this construct were assessed, and our analysis examined a number of risk behaviors. A limitation of this study is its cross-sectional design, which did not allow for causal inference. Some of these behaviors, such as physical activity, can be causally related to higher social capital; on the other hand, a Danish study developed a physi-

cal activity intervention to improve indicators of social capital in a local community and found a greater impact of team sports (soccer) than individual physical activities (running)⁵⁴. Thus, the direction of the associations between social capital and health behaviors requires further exploration in prospective studies. In addition, future research should assess if these associations vary with age. Finally, an additional limitation is that results of this study may not apply to individuals below the age of 40.

In conclusion, there is a moderate association between different indicators of social capital and health-related behaviors, evidencing a clear relationship with physical inactivity and a less strong association with irregular consumption of fruits and/or vegetables and smoking. Our results suggest that the degree and local characteristics of social capital should be considered in the development of health promotion policies. For example, the development, implementation and evaluation of health promotion interventions should have a higher participation and empowerment of the community, which agrees with the health promotion principles. Moreover, further research should have a longitudinal design and qualitative approaches to better understand how social capital can affect behaviors, and include interventions to promote social capital and evaluate its impact on lifestyle.

Resumo

O objetivo do estudo foi verificar a associação entre indicadores de capital social e comportamentos relacionados à saúde. Foi realizado um estudo transversal com uma amostra de 1.062 sujeitos representativos da população de 40 anos ou mais de um município da Região Sul do Brasil. Os indicadores de capital social foram: número de amigos, pessoas que emprestariam dinheiro em caso de necessidade, confiança nas pessoas do bairro, frequência com que as pessoas no bairro se ajudavam, segurança no bairro e participação comunitária. Foi ainda calculado um escore de capital social que considerou os indicadores isolados. Baixo capital social foi associado com inatividade física no lazer (OR = 1,70; IC95%: 1,07-2,70), consumo irregular de frutas e verduras (OR = 1,53; IC95%: 1,05-2,24) e tabagismo (OR = 1,97; IC95%: 1,21-3,21). Não foi encontrada associação clara do capital social com o consumo abusivo de álcool. O escore de capital social mostrou uma relação inversa com o número de comportamentos de risco ($p < 0,001$). Esses resultados reforçam a importância de se considerar o capital social nas políticas de promoção da saúde.

Capital Social; Estilo de Vida; Participação Social; Adulto

Contributors

M. R. Loch, R. K. T. Souza and A. E. Mesas participated in all stages of the study and revision of the article. D. Martinez-Gómez participated in the data analysis and revision of the article. F. Rodríguez-Artalejo was responsible for providing guidance for the entire article.

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