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Social Ties in Relation to Health Status of Low-Income Brazilian Women

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Abstract

Background: Social support resources are thought to buffer stressful life events and have been associated with numerous health outcomes in industrialized countries. Because the nature of supportive relationships varies by culture and social class, we studied the relationship of informal social support and networks to self-rated health among low-income women in northeastern Brazil.
Methods: Participants included 595 randomly sampled mothers from nine low-income communities in Teresina, Piauí, Brazil. Data on sociodemographic variables, social support, quality of the partner relationship, and self-rated health were collected cross-sectionally in 2002. Using multivariable logistic regression, we modeled the association between different aspects of social support and self-rated health.
Results: Poor or fair health was reported by 47% of participants. Women with poor partner relationships had an increased likelihood of poor or fair health (OR 1.7, 95% CI 1.1-2.7), as did those with no material support for food or money (OR 1.6, 95% CI 1.2, 2.0) and no support to resolve a conflict (OR 1.5, 95% CI 1.1, 2.1). Likewise, women with the lowest scores of the Medical Outcomes Study (MOS) social support survey were more likely than other women to report poor or fair health (OR 1.5, 95% CI 1.0, 2.1).
Conclusions: Poor quality of a partner relationship, lack of support to resolve a conflict, and lack of material support as well as such sociodemographic variables as low education, poor sanitation, and depressive symptomatology are associated with lower health status in a population of low-income women from northeastern Brazil.

Introduction

Social support and networks are associated with a variety of health outcomes, including cardiovascular disease (CVD), cancer, stroke, and all-cause mortality.[1–3] Although much of the original work in this area has focused on the elderly in industrialized countries, research on social networks and support is emerging in the developing world. In Brazil, maternal social support has been associated with child nutritional status.[4,5] Other studies in Brazil have found informal social support to be negatively correlated with domestic violence[6] and positively related to coping with job stress.[7] Likewise, satisfaction with family relations has been associated with older women's quality of life.[8]

Because supportive relationships and reciprocal obligations are socially constructed and culturally defined,[9] it is possible that roles and values of kinship relations vary by social class. The stress buffering hypothesis posits that social relations may be beneficial to health when an individual experiences stressful life events, for example, food and economic insecurities.[10,11] However, social networks can create obligations that become a source of stress as well as providing support.[12–14] For women living in poverty, the costs of social relationships are often greater than their advantages.[13] In contrast to women who are financially secure, it may be more difficult for poor women to extricate themselves from nonsupportive networks that are composed of friends, relatives, and neighbors who are also needy.[14] Conversely, social support may be critically important for women in situations where more formal sources of support are lacking. In a Jamaican study, the association between social support and health outcomes, such as blood pressure, appeared to be

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modified by socioeconomic status (SES).[15] As nearly a quarter of Brazilians from the northeast live on US$1.60 or less a day,[16] our study, which focuses on low-income women from this region, may offer unique insights into the role of support in this segment of the population. Willingness to seek and use social support differs by culture,[17] and depending on the culture, it appears that psychological distress and cortisol responses differ according to the type of support received.[18] We do not know of any prior empirical studies about the relationship of social networks and women's health in northeastern Brazil, the poorest region of the country, with a distinct culture and history. Thus, we study the relationship between different kinds of informal social supports and self-rated health among women from impoverished communities in this region. We hypothesized that low levels of social support would be associated with poorer perceived health status.

Materials and Methods

Study participants were 595 randomly sampled mothers over the age of 15 with children 6–24 months old from nine low-income neighborhoods in Teresina, Piauí, Brazil. Details have been published previously.[5] The nine communities corresponded to four geographic areas in Teresina that had similar household incomes and neighborhood resources. Two of the four geographic areas received services from the *Programa de Saúde da Familia* (Family Health Program) or were scheduled to receive the program in the near future.

To facilitate household location, we used maps of four areas drawn in AutoCAD (Autodesk, Inc., San Rafael, CA) supplied by the local sewage and water company, which were augmented by field staff as necessary. A community census consisting of approximately 8000 houses identified 1432 eligible households. With random sampling, roughly 150 homes were selected from each geographic area. Selected households were excluded if caregivers were absent from homes after the interviewer attempted five visits on different days and times.

Data collection was performed by 15 trained local female interviewers and a local study coordinator in 2002. The survey included items pertaining to household sanitation and SES/living conditions, marital status, race, educational attainment, social support, quality of partner relationship, and self-rated health. The study protocol was approved by the Human Subjects Committee at Harvard School of Public Health.

Dependent variable: Self-rated health

The dependent variable was a woman's response to the question: Would you say your health is excellent, good, fair, or poor? Consistent with previous analyses of this self-rated health measure, we categorized perceived overall health as fair or poor vs. excellent or good health (the reference category). This single question of global self-rated health is considered a robust, independent, and widely accepted measure of risk of morbidity and mortality, after controlling for other clinical or psychosocial risk factors.[19] There appears to be a dose-response relationship, in which each consecutive lower rating of self-reported health corresponds to an associated increase in morbidity and mortality.[19] In most studies, reporting poor health has been associated with odds ratios (ORs) for mortality ranging from 1.5 to 3.0, and it is related to a high number of doctor's visits.[19–21] Self-rated health has been adapted for research in less-developed countries and used in diverse populations.[22,23]

Independent variables: Social support and demographic characteristics

Maternal social support score was obtained from the Medical Outcomes Study (MOS) social support survey,[24] which is composed of four subdomains: tangible, affectionate, positive social interaction, and emotional/informational support. The MOS survey instrument consists of 20 items and yields a continuous score ranging from 0 (no support) to 100 points (the most support). Because we were interested in how low vs. high social support was related to health status, we dichotomized this measure into the highest quintile vs. the bottom four quintiles, corresponding to high and low support, respectively. Each subscale was dichotomized similarly. For the purposes of this study, we used a version of the MOS social support survey developed in Brazil and translated to Portuguese.[25] This instrument previously has demonstrated adequate validity[26] and test-retest reliability.[27]

We also adapted a measure of social networks, designed by Adams et al.[28] in a developing country setting. These survey items were translated and back-translated by fully bilingual Brazilian Portuguese and U.S. English native speakers. Discrepancies were reviewed by the principal investigator, by a local medical anthropologist, and by health professionals in Teresina, and the instruments were pilot tested in the community to assure they were appropriate for the culture and low literacy needs of the target population. This instrument contained four questions reflecting material, practical, relationship, and emotional support, respectively: Who helps you (and your husband) when you don't have money or need food or milk? When you are very busy, sick, or not at home, who helps you with household tasks—to clean, to care for the children, or cook? Who helps you when you have problems with your husband/children/friends/in-laws? For example, if you have a fight with someone? Who are the people closest to you who give you emotional support with whom you can express your worries/joys, to talk about personal things, to whom you can tell secrets?' To measure social networks, for each question, we counted the people women listed as available for help. A sensitivity analysis determined our cutoff points, and response categories for the material, practical, and relationship support questions were coded dichotomously as 0 or 1 or more people available. Emotional support responses were coded 1 or 2 or more because no mothers reported having no one for this type of support.

Conventional cutoffs or response distributions were used to code demographic variables. These variables included marital status (yes/no), presence of Family Health Program (yes/no), race (white vs. black or mixed race), and mother's education (0–3, 4–8, and 9–12 years). The MacArthur Relationship Questionnaire, adapted from the MacArthur Studies of Successful Aging,[29] was used to evaluate the woman's relationship with her partner. Women were only asked to answer the questions on the MacArthur Relationship Scale if they responded affirmatively that they were married or were in a relationship with a partner. Therefore the 89 women for whom we do not have data were not women who refused or

dropped out but rather those who were not asked to participate in this section of the questionnaire. Responses were recorded on six questions in a Likert format (never, rarely, sometimes, frequently, or always). The adapted questions were (1) How often does your (husband/companion) make you feel loved and cared for? (2) How often do you feel your (husband/companion) makes too many demands on you? (3) How often is your (husband/companion) willing to listen when you need to talk about your worries or problems? (4) How often is he critical of what you do? (5) How often can you count on your spouse to help with daily tasks like taking care of the house, taking care of the children, or helping you with household chores? (6) How often does your spouse give you advice or information about medical, financial, or family problems? Responses to these questions were averaged to create a scale ranging from 1 to 5. We created a dichotomous variable representing low and high relationship scores (<4 vs. ≥ 4).

The sanitation scale was a continuous variable. It included five items dichotomized as yes or no: use of a water filter, presence of garbage collection, presence of a sewage system or toilet with water but not connected to the sewage system, presence of a running water source in the house or yard, and possession of a refrigerator. Possession of all items resulted in a score of 5 and corresponded to high sanitation. Unanswered scale items resulted in 13 cases missing. A composite measure including SES and questions about living conditions was also created and modeled as a continuous variable. The scale included household income (3, $\geq$\$R360; 2, \$R180–<\$R360; 1, \$R90–<\$R180; 0, \$R0–<\$R90) (the minimum wage was \$R180 per month), with an exchange rate of approximately 2.5 Reals to the U.S. dollar; possession of electricity, a fan, a radio, or a television in the home (2, having all four; 1, having three; 0, having 0–2); type of house wall (2, brick; 1, finished mud house; 0, unfinished mud or plastic); type of house floor (2, ceramic, cement or a combination of cement and ceramic; 1, cement or both; 0, mud floor); and type of roof (1, brick or concrete; 0, thatched, paper, or plastic). A score of 10 represented high SES/living conditions, and 0 represented poor conditions.

The Center for Epidemiologic Studies of Depression Scale (CES-D)[30] was used as a measure of depressive symptomatology during the last week. The CES-D is a 20-item scale that is scored from 0 to 60. In our analysis, CES-D score was dichotomized with ≥ 16 corresponding to depressive symptomatology. After rigorous translation, back-translation, and field testing, it demonstrated a Cronbach's alpha coefficient of 0.82 in our sample.

Statistical analysis

Using SAS (Statistical Analyzing System, version 9.1, SAS Institute, Cary, NC), we examined the relationship of each independent variable to the outcome in a series of bivariate analyses. We conducted chi-square tests of association between categorical demographic and social support variables and self-rated health.

Demographic covariates included in the base multivariable models were maternal race and other indicators of social class, including educational attainment and household sanitation and SES/living conditions scales. Marital status was not used in our multivariable models, as it was not significantly associated with poor or fair self-rated health status in biviariate analyses. Because we were concerned that depressive symptoms may influence reports of both social support variables and self-rated health, we constructed models while both adjusting and not adjusting for depressive symptoms.

Social support measures were added separately into base multivariable models in order to examine if these factors were associated with self-rated health. Using proc genmod in SAS, multivariable logistic regression models also included interviewer as a random effect.

Results

Of the 732 families randomly selected, 613 participated. The final sample was limited to 595 households in which mothers were primary caregivers. Of the 119 households selected that did not participate, 67 families had left the neighborhood, and 45 could not be found or were out of town or the child or primary caregiver was not present at home after five repeated visits. There were only 6 refusals and 1 mother who could not concentrate on the survey. One participating mother did not answer the question about self-rated health, leaving our effective sample size at 594. Because only women who were currently in a partner relationship answered the McArthur Relationship Questionnaire, analyses that included this variable were restricted to 506 women.

The proportion of women reporting poor or fair self-related health was 47%. There were no significant racial differences in self-rated health (48% of black/mixed race women and 41% of white women, respectively, $p = 0.36$). Low educational attainment was related to poor/fair self-rated health ($p = 0.05$). Fifty-one percent of mothers with the lowest health ratings also had low partner relationship scores compared with 38% whose scores corresponded to a more positive relationship ($p < 0.01$). Similarly, roughly half of women scoring in the lowest four quintiles of social support reported poor/fair health compared with a lower proportion of women (range 36%–42%) scoring in the top quintile (overall, $p < 0.01$; tangible, $p = 0.04$; affective, $p = 0.14$, positive social interaction, $p < 0.001$; emotional/informational, $p = 0.04$). Finally, 54% of all women with high depressive symptoms reported poor/fair health compared with 38% of women with low depressive symptoms ($p < 0.01$) (Table 1).

Analyses adjusted for depressive symptoms

In multivariate analyses controlling for depressive symptoms (Table 2), women reporting poor partner relationships had approximately a 70% higher odds of reporting poor/fair health (OR 1.7, 95% CI 1.1-2.7). Women with no sources of material support for food or money had approximately 60% higher odds of reporting poor/fair self-rated health compared with women with more material support (OR 1.6, 95% CI 1.2-2.0). Similarly, mothers who reported no support to resolve conflict exhibited approximately 50% higher odds of reporting poor/fair health compared with women with at least one person available for this support (OR 1.5, 95% CI 1.1-2.1). On the MOS social support scale, women scoring in the lowest four quintiles had 50% higher odds of reporting poor/fair health compared with those within the highest quintile (OR 1.5, 95% CI 1.0-2.1). Among MOS subdomains, women reporting low levels of tangible support and positive social interaction displayed approximately 40% and 60% higher odds

Table 1. Association of Demographic and Psychosocial Variables with Women's Poor or Fair Self-Rated Health

	Self-rated health (all responses)[a]	*Poor or fair self-rated health*[b]	p *value*[c]
Demographic characteristics	*Overall mean (SD)*	*Mean (SD)*	
Sanitation scale[d]	3.5 (1.5)	3.2 (1.5)	<0.01
Socioeconomic status/living conditions scale[e]	6.2 (2.4)	6.0 (2.3)	0.05
	n *(%)*	n *(%)*	
Total	594 (100)	279 (47)	
Marital status			
Yes	493 (83.3)	233 (47.3)	0.74
No	99 (16.7)	45 (45.5)	
Race			
White	56 (9.6)	23 (41.1)	0.36
Mixed or black	530 (90.4)	252 (47.6)	
Mother's education (years)			
0–3	136 (22.9)	74 (54.4)	0.05
4–8	327 (55.1)	153 (46.8)	
9–12	130 (21.9)	51 (39.2)	
Family Health Program			
Yes	320 (54.1)	141 (44.1)	0.13
No	272 (45.9)	137 (50.4)	
Maternal psychosocial characteristics			
CES-D depressive symptoms			
Score <16	265 (44.6)	101 (38.1)	<0.01
Score ≥16	329 (55.4)	178 (54.1)	
Adam's support questionnaire			
Number of people to help with money, food, or milk			
None	90 (15.2)	49 (54.4)	0.12
One or more	504 (84.8)	230 (45.6)	
Number of people to help with domestic chores			
None	68 (11.4)	30 (44.1)	0.62
One or more	526 (88.6)	249 (47.3)	
Number of people to help resolve a fight/conflict			
None	189 (31.8)	99 (52.4)	0.07
One or more	405 (68.2)	180 (44.4)	
Number of people to provide emotional support			
One	391 (65.8)	186 (47.6)	0.68
Two or more	203 (34.2)	93 (45.8)	
MacArthur Relationship Questionnaire			
Quality of relationship with spouse or partner			
Poor relationship	356 (70.4)	183 (51.4)	<0.01
Good relationship	150 (29.6)	57 (38.0)	
Medical Outcomes Study (MOS) support scale			
MOS overall score			
Quintiles 1–4	475 (80.0)	236 (49.7)	<0.01
Quintile 5	119 (20.0)	43 (36.1)	
Tangible support			
Quintiles 1–4	450 (75.8)	222 (49.23)	0.04
Quntile 5	144 (24.2)	57 (39.6)	
Affective support			
Quintiles 1–4	406 (68.4)	199 (49.0)	0.14
Quintile 5	188 (31.6)	80 (42.6)	
Positive social interaction			
Quintiles 1–4	450 (75.8)	229 (50.9)	<0.01
Quintile 5	144 (24.2)	50 (34.7)	
Emotional/information			
Quintiles 1–4	452 (76.1)	223 (49.3)	0.04
Quintile 5	142 (23.9)	56 (39.4)	

[a]Sample size varied because of missing data from marital status, race, and mother's education (two, eight and one missing observations, respectively). There were no missing data for other variables.

[b]Poor/fair self-rated health is compared with good/excellent self-rated health.

[c]*p* value is for the Pearson chi-square test of independence.

[d]The sanitation scale is composed of using a water filter and having garbage collection, sewage system, water faucet on property, and refrigerator.

[e]The socioeconomic status/living conditions scale is composed of income (in four categories 0–<90, 90–<180, 180–<360, ≥360 Reals); household possessions (having electricity, radio, TV, and fan); type of floor (ceramic/part ceramic and cement, cement/part cement and part mud, or mud); type of walls (brick, refinished mud, or mud, plastic, or cardboard); type of roof (brick or concrete, thatched, cardboard or plastic).

Table 2. Odds Ratios (95% CI) for Associations between Demographic and Psychosocial Variables with Women's Poor/Fair Self-Rated Health

				Adams Social Support Questionnaire			
	Sociodemographic model Model 1[a] *OR (95% CI)*[b]	*MacArthur Relationship Questionnaire Model 2 OR (95% CI)*	MOS social support scale *Model 3 OR (95% CI)*	*Support for money, food, or milk Model 4 OR (95% CI)*	*Support for domestic chores Model 5 OR (95% CI)*	*Support to resolve a fight/conflict Model 6 OR (95% CI)*	*Emotional support Model 7 OR (95% CI)*
Race							
White	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mixed or black	1.33 (0.85-2.07)	1.67 (0.96-2.89)	1.33 (0.83-2.14)	1.32 (0.87-2.02)	1.30 (0.82-2.06)	1.39 (0.86-2.23)	1.33 (0.86-2.08)
Mother's education (years)							
0–3	1.49 (1.08-2.05)	1.73 (1.20-2.49)	1.49 (1.06-2.10)	1.47 (1.05-2.06)	1.48 (1.08-2.02)	1.45 (1.05-2.01)	1.47 (1.10-1.98)
4–8	1.22 (0.95-1.57)	1.46 (0.90-2.36)	1.20 (0.93-1.55)	1.22 (0.94-1.60)	1.21 (0.93-1.57)	1.21 (0.92-1.58)	1.22 (0.95-1.56)
9–12	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Family Health Program							
Yes	1.0	1.0	1.0	1.0	1.0	1.0	1.0
No	0.93 (0.63-1.38)	0.98 (0.55-1.74)	0.94 (0.63-1.40)	0.99 (0.58-1.70)	0.93 (0.63-1.37)	0.92 (0.63-1.36)	0.93 (0.63-1.37)
Sanitation scale	0.79 (0.66-0.94)	0.79 (0.65-0.94)	0.80 (0.67-0.95)	0.79 (0.66-0.94)	0.79 (0.66-0.94)	0.78 (0.65-0.94)	0.79 (0.66-0.94)
SES/living conditions scale	1.06 (0.97-1.16)	1.05 (0.97-1.14)	1.07 (0.97-1.17)	1.06 (0.96-1.16)	1.06 (0.97-1.16)	1.07 (0.97-1.17)	1.06 (0.97-1.16)
CES-D depressive symptoms							
Score <16	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Score ≥16	1.99 (1.66-2.39)	2.08 (1.72-2.50)	1.90 (1.57-2.30)	2.05 (1.70-2.46)	1.99 (1.66-2.39)	2.07 (1.75-2.45)	1.99 (1.66-1.44)
MacArthur Relationship Questionnaire							
Poor relationship		1.69 (1.07-2.68)	-	-	-	-	-
Good relationship		1.0	-	-	-	-	-
Medical Outcomes Study (MOS) support scale—overall score							
Quintiles 1-4			1.47 (1.02-2.14)	-	-	-	-
Quintile 5			1.0	-	-	-	-
Adam's support questionnaire							
Number of people to help with money, food, or milk							
None				1.56 (1.20-2.01)	-	-	-
One or more				1.0	-	-	-
Number of people to help with domestic chores							
None					0.81 (0.51-1.26)	-	-
One or more					1.0	-	-
Number of people to resolve a fight/conflict							
None						1.49 (1.08-2.05)	-
One or more						1.0	-
Number of people to provide emotional support							
One							1.06 (0.78-2.36)
Two or more							1.0

[a]Model 1 includes race; mother's education, Family Health Program, sanitation scale, living conditions/socioeconomic status, and depressive symptoms. Models 2–7 include all variables in model 1 plus one of the following others: the McArthur Relationship Questionnaire (model 2), the MOS social support scale (model 3), support through money, food, or milk (model 4), support for domestic chores (model 5), support to resolve a fight/conflict (model 6), emotional support (model 7).

[b]OR, odds ratio; CI, confidence interval. All models adjust for interviewer as a random effects.

of reporting poor/fair health than women in the highest quintiles of these scales, respectively (OR 1.4, 95% CI 1.1, 1.9; OR 1.6, 95% CI 1.1, 2.2, respectively) (data not shown). Women with a high CES-D score (≥16) had around a 2-fold increased odds (range OR 1.9–2.1, $p < 0.0001$) of poor/fair self-rated health for all models that included the social support variables separately (Table 2).

Analyses unadjusted for depressive symptoms

In multivariate analyses that did not control for depressive symptoms (data not shown), a poor partner relationship (OR 1.8, 95% CI 1.1-3.0), no material support for food or money (OR 1.4, 95% CI 1.1-1.8), and low support to resolve a conflict (OR 1.4, 95% CI 1.0, 1.8) were associated with increased odds of poor/fair self-rated health. Mothers in the lowest four quintiles of the MOS social support summary measure exhibited approximately 70% higher odds of reporting poor/fair health than mothers in the top quintile (OR 1.7, 95% CI 1.1, 2.4). Mothers with the lowest scores on each of the MOS subdomains—tangible support (OR 1.5, 95% CI 1.1-2.0), affectionate support (OR 1.3, 95% CI 1.0-1.8), positive social interaction (OR 1.7, 95% CI 1.2-2.4), and emotional support (OR 1.4, 95% CI 0.9-2.3)—had higher odds of poor/fair self-rated health than those scoring in the lowest four quintiles.

Discussion

Consistent with our hypotheses that low levels of social support would be associated with poorer perceived health status, we found that a less positive relationship with one's spouse or partner was significantly associated with poor or fair self-rated health, both with and without controlling for maternal depressive symptoms. A partner relationship, such as a marriage, may confer health-related benefits.[2,31] It has been hypothesized that such relationships may provide nurturing conditions and socialization through a spouse[32] as well as buffering stressful life events.[11] Some speculate that particularly in low resource settings, women benefit more from the financial resources associated with marriage than the social support that it offers.[32] A study of elderly people in southern Brazil showed that family income was important for self-rated health only in women and individual income was more important for men, which appeared to be explained by the fact that some women were financially dependent.[33] Findings from Sweden suggested that poor self-rated health was associated with domestic inequity and martial dissatisfaction among employed adult females.[34]

Ethnographic work from northeastern Brazil highlights that sharing economic resources is a morally binding expectation of a married man or a man who has sexual relations with a woman and is considered a demonstration of love.[35] For women lacking resources, having a sexual relationship with a man creates an avenue for building a network with the man's family, specifically his female relatives.[36] This implies that a partner relationship may impact women's health status through a number of pathways, possibly including access to material resources and other social support.

Similarly, we found that having no one available to help resolve a conflict was significantly associated with poor/fair self-rated health in models both controlling and not controlling for depressive symptoms. We are unaware of previous research that has examined this particular relationship, but research from Brazil shows intimate partner violence is related to low levels of social support,[6] self-reported health, and women's morbidity.[37] We speculate that some mothers in the current study who lacked network connections to obtain support to resolve a conflict may have experienced abuse from an intimate partner, which could contribute to poor or fair self-rated health status.

Our data also indicate an association between a woman's lack of social networks to provide material support for food or money and poor or fair self-rated health (regardless of adjustment for maternal depressive symptoms). This is consistent with existing literature from Europe indicating that self-perceived financial hardship and SES more generally are associated with low levels of self-rated health.[38–41]

A higher MOS overall score, reflecting all support domains, was inversely related to poor or fair self-rated health, both when controlling and not controlling for depressive symptoms. This association may be driven by the MOS subdomains that were most strongly and significantly associated with poor or fair self-rated health, that is, low levels of positive social interaction and tangible support. In a recent Brazilian intervention study, elder people shared their memories with youth during 4 months of social activities. Adolescents who did not receive support through these group interactions reported significantly poorer health status than those in the intervention group.[42]

Inconsistent with our findings, previous research indicates a relationship between emotional support and self-rated health. In Syria, Asfar et al.[43] found that social support, defined as having someone to share happiness and sorrow with, served as a strong predictor of high self-rated health for women. In a study of self-rated health in 22 European countries, emotional support, in particular, was a significant predictor of self-rated health for women in 11 European countries, but estimates were unrelated or did not reach statistical significance in the other 11.[44] Emotional support has been found to be associated with self-rated health for both sexes in the United States.[45] This suggests that the importance of emotional support may be culturally dependent.

Female gender, low education, and poverty have been associated with mental disorders in northeastern Brazil and several low and middle income countries.[46,47] The fact that our sample has many of these characteristics may explain the high prevalence (almost 50%) of depressive symptoms we observed. An association between depressive symptoms and low self-rated health as well as morbidity, such as substance disorders and medical conditions, is well documented.[48–50] Molarius and Janson,[50] using a Swedish cohort found overall eight times higher odds of poor or very poor self-rated health in respondents who indicated they suffered from depression. Our findings relating depressive symptoms to self-rated health are consistent with other prior research.[51–53] A strength of this study is that it investigates social support in a population of young and middle aged low-income Brazilian women. Our study provides an in-depth evaluation of different types of support that may be important in this context. The main limitation of our study is its cross-sectional design, prohibiting us from evaluating causality. The study may not be generalizable to men. Although self-rated health is well established as an indicator of health status, more research is needed to determine to what extent our results are relevant to specific kinds of morbidity and to mortality in this context.

Conclusions

Our study from northeastern Brazil indicates that low social support and networks may be associated with suboptimal self-rated health in a low-income setting. Poor or fair self-rated health was related to a woman having a poor quality relationship with her partner, having no one available to offer material support for food or money, and having no one available for support to resolve a conflict. In multivariable models both including and excluding maternal depressive symptoms, the overall MOS support score and the tangible support and positive social interaction subdomains were also associated with self-rated health. Our findings are consistent with prior evidence of a strong relationship between social support and mental health conditions, such as depressive symptoms.[10] Social support, particularly regarding the quality of a partner relationship, may be relevant to the health of low-income women in similar settings to that in northeastern Brazil.

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Disclosure Statement

The authors have no conflicts of interest to report.

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