

Gender-specific evaluation of coronary disease patients' self-esteem and social support

AVALIAÇÃO DO APOIO SOCIAL E DA AUTO-ESTIMA POR INDIVÍDUOS CORONARIOPATAS, SEGUNDO O SEXO

EVALUACIÓN DEL APOYO SOCIAL Y DE LA AUTOESTIMA ENTRE PACIENTES CON CORONARIOPATÍAS SEGÚN EL SEXO

Camila Donida Silvério¹, Rosana Aparecida Spadoti Dantas², Ariana Rodrigues Silva Carvalho³

ABSTRACT

The purpose of this descriptive study was to evaluate the social support and self-esteem of coronary disease patients hospitalized for the clinical treatment of this disease. The sample consisted of 80 patients, 49 men, 52 married, and with an average age of 52 years. Interviews took place from August 2005 to July 2006. The collected data were analyzed using descriptive analysis, and the measured social support and self-esteem were compared by the descriptive statistics, and the social support and self-esteem measures were compared using the Mann-Whitney test, according to patient gender. Internal consistency was verified, achieving values that indicate good internal consistency for both scales. The results showed high social support and self-esteem values in the studied group. No statistically significant differences were found between these values, according to patient gender. These variables have been pointed out as aspects that favor the rehabilitation process of heart disease patients after hospital discharge.

KEY WORDS

Coronary disease.
Heart diseases.
Self concept.
Social support.
Rehabilitation.

RESUMO

Este estudo descritivo teve como objetivo avaliar o apoio social e a auto-estima de pacientes coronariopatas internados para tratamento clínico dessa doença. Uma amostra de 80 pacientes, sendo 49 homens, 52 casados e com idade média de 52 anos, foram entrevistados de agosto de 2005 a junho de 2006. Os dados coletados foram analisados por estatística descritiva, e as medidas de apoio social e auto-estima foram comparadas pelo teste de Mann-Whitney, de acordo com o sexo. As consistências internas das escalas foram verificadas, obtendo-se valores que indicam boa consistência interna para ambas. Os resultados indicaram valores elevados de apoio social e auto-estima no grupo estudado. Não constatamos diferenças estatisticamente significantes entre estes valores, segundo o sexo dos pacientes. Essas variáveis têm sido apontadas como favorecedores no processo de reabilitação dos pacientes cardíacos após a alta.

DESCRIPTORIOS

Doença das coronárias.
Cardiopatias.
Auto-imagem.
Apoio social.
Reabilitação.

RESUMEN

Este estudio descriptivo tuvo como objetivo evaluar el apoyo social y la autoestima de pacientes con coronariopatía internados para tratamiento clínico de esa enfermedad. Se utilizó una muestra de 80 pacientes, siendo 49 hombres, 52 casados y con edad promedio de 52 años; fueron entrevistados de agosto 2.005 a junio 2.006. Los datos recolectados fueron analizados con la estadística descriptiva y las medidas de apoyo social y de autoestima fueron comparadas, según el sexo, por la prueba de Mann-Whitney. Las consistencias internas de las escalas fueron verificadas, obteniéndose valores que indican una buena consistencia interna para ambas. Los resultados indicaron valores elevados de apoyo social y autoestima en el grupo estudiado. No constatamos diferencias estadísticamente significativas entre esos valores, según el sexo de los pacientes. Esas variables han sido apuntadas como favorecedores en el proceso de rehabilitación de los pacientes cardíacos después del alta.

DESCRIPTORIOS

Enfermedad coronaria.
Cardiopatías.
Autoimagen.
Apoio social.
Rehabilitación.

¹ Undergraduate at Ribeirão Preto College of Nursing da University of São Paulo. Holder of a Scientific Initiation grant (PIBIC/USP - CNPq). Ribeirão Preto, SP, Brazil. ² Nurse. Associate Professor of the General and Specialized Nursing Department at Ribeirão Preto College of Nursing at University of São Paulo. Ribeirão Preto, SP, Brazil. rsdantas@eerp.usp.br ³ Nurse. Doctorate graduate in Fundamental Nursing at Ribeirão Preto College of Nursing da University of São Paulo. Assistant Professor at Universidade Estadual do Oeste do Paraná. Cascavel, PR, Brazil.

INTRODUCTION

Self-esteem and social support evaluation has been identified as an important aspect of nursing care delivery for coronary disease patients admitted to the hospital and treated as outpatients⁽¹⁻²⁾. However, gender differences and similarities that affect these patients when they go through various health issues, such as an ischemic coronary event, must be taken into account in this evaluation.

Women with coronary artery disease (CAD) present clinical, physical and social disadvantages in comparison to men, a fact that may influence recovery perception following cardiac⁽³⁾ events. Although this study refers to gender as a biological difference among cardiac disease patients, it is well known that social, psychological, cultural and biological factors contribute to the concept of gender, and these factors may influence behavior during the disease process and throughout its recovery⁽³⁾.

Social support is believed to be a potential helping factor for decreasing stress and triggering chronic patients' coping mechanisms, as in those with coronary disease. However, a lack of consistency and explicitness in building this concept has been a great issue when interpreting study results. Social support has been broadly defined as comprising different components, where the structural and functional components stand out⁽⁴⁾.

The structural component analyzes the integration versus the isolation level of a person in a social network. The functional component refers to the extent to which social relations may accomplish a range of functions. In literature, two functional support categories have prevailed: The instrumental or material and the emotional or esteem. The first category refers to the help available to assist a person to deal with or solve practical or routine operational situations, as in material or financial support or daily activities. Emotional or esteem support is related to the behavior contributing towards making a person feel taken care of, such as listening, being heard, and providing care or company. In addition, some studies include information support, which corresponds to the advice and information received that helps patients evaluate and deal with difficult and stressful situations⁽⁵⁻⁶⁾.

Controversial results have been acquired from studies relating social support and the patients' gender. For instance, a study analyzing post-myocardial infarction recovery and considering patients' gender demonstrated that women adapted better to the situation after the event, presenting with higher social support than men. These results led the authors to conclude that there is a relation between gender, social support and recovery after cardiac disease events⁽⁷⁾. In another study of patients hospitalized for cardiac surgery treatments, no differences in social support were noticed between men and women⁽²⁾. In addition, patients' age is a

factor that must be considered when analyzing this relationship. Generally, women who experience ischemic cardiac events are older than men who experience the same, which can indicate a worse social support situation, since it is highly likely that they are widows and may have no caregiver to help them deal with this new health situation⁽³⁾.

In addition to social support, patients' self-esteem has been considered a crucial factor in cardiac disease recovery. There are still scarce data in the literature to explain the differences and similarities between self-esteem and health related results, mainly regarding gender⁽⁸⁾. Cardiac disease patients' self-esteem has been studied extensively, covering many aspects, including quality of life. High self-esteem has been associated with low depression and tension levels, favoring social and physical recovery and high quality of life after cardiac disease events. In many cases, coronary artery disease patients need to change behaviors (quit smoking, stress management, change eating habits) and commit to new tasks (practice exercises and take medication). Self-esteem has been considered to be an influencing factor on behavior changes. Patients with low self-esteem would, most likely, have lower expectations towards their ability to promote and stick to the necessary changes for recovery⁽¹⁾.

High self-esteem has been associated with low depression and tension levels, favoring social and physical recovery and high quality of life after cardiac disease events.

Bearing the above in mind, this study evaluated coronary artery disease patients' social support and self-esteem who were admitted for diagnosis and/or clinical treatment, considering their gender. Hence, in this study, social support is considered as the evaluation of frequency and satisfaction mentioned by the patient regarding the emotional and material support received⁽⁵⁾. Self-esteem is considered as the evaluation of what patients usually believe about themselves, expressed

by approving or disapproving attitudes towards themselves⁽⁹⁾. According to what was exposed above, this evaluation can serve as a resource for nurses so that discharge and outpatient procedures may be better planned for ischemic cardiac disease patients with a view towards a favorable recovery.

OBJECTIVES

The proposed objectives of this study were to evaluate and compare coronary artery disease patients' social support and self-esteem, who were admitted for diagnosis and/or clinical treatment, according to their gender.

METHOD

Lineation, location and study population

It is an observational, cross-sectional analysis, performed in a teaching hospital located in the countryside of São Paulo, approved by the Research Ethics Committee of

the hospital under process No 3585/2005. The potential population for the study consisted of patients, of both genders, admitted for diagnosis and/or clinical treatment of coronary artery disease. Potential patients were invited to participate in the study, and the objectives of the study were presented. Upon agreement, they signed a Free and Informed Consent Form.

A convenience sample was composed of those patients that met the following inclusion criteria: admitted for diagnosis and/or clinical treatment of CAD; admitted in the period between August 2005 and June 2006; above 18 years old; had the ability to answer the questions posed by researchers; and agreed to take part in the study.

Data collection and measurement instruments

Data were collected through individual interviews and individual medical records search. In order to evaluate social support, the Portuguese⁽⁶⁾ version of *Social Support Inventory for People who are HIV Positive or Have Aids*⁽⁵⁾ scale was used. Approval was granted by the Brazilian author responsible for the Portuguese version⁽⁶⁾. The instrument, in both its original version and its version for Brazil, demonstrated construct and criteria validity for the populations studied⁽⁵⁻⁶⁾. The Portuguese version had previously been used with cardiac disease patients, and demonstrated high reliability in this population, with Cronbach alpha values ranging from 0.74 (instrumental support) to 0.88 (total)⁽²⁾. This scale covers two dimensions of social support, instrumental and emotional. The instrumental dimension was evaluated using 10 items, which assessed the individual's perception of the availability and satisfaction regarding the support received for: solving operational issues related to the health treatment, daily practical activities, and material and/or financial help. The emotional dimension was evaluated using 12 items, which assessed the individual's perception of the availability and satisfaction in regards to being heard, having care and information, company, and emotional support for their health conditions and treatment. Answers were given according to the five-point Likert scale which evaluated the frequency of support noticed (1=never to 5=always); the same was performed for satisfaction (1=very unsatisfied to 5=very satisfied). There is no single score for an instrument calculating four final scores, ranging from one to five, obtained by the average of points in the corresponding items: for frequency and satisfaction as instrumental support, and for frequency and satisfaction as emotional support. The higher the average, the higher the availability perception or higher the corresponding component⁽⁵⁻⁶⁾. In each sub-scale, participants can tell the researcher who their support sources are, considering the following options: husband/wife, family member living with the patient, family member not living with the patient, friends, boss/co-workers, neighbor, health professional, or others. Support sources are evaluated according to the frequency in the investigated group percentage⁽⁶⁾. In this study, this frequency was calculated considering the number of

patients per gender. At the end of the instrument, there was also an optional open question asking if the patient had received any other kind of support. This question aims at identifying other relevant support modalities for the patients, and it is present in the Portuguese version⁽⁶⁾. A reduced number of people answered this question, and among those that answered the question, the information complemented the aspects already mentioned in the previous items of the instrument, adding no relevant information.

Self-esteem was evaluated through the Portuguese version⁽⁹⁻¹⁰⁾ of the Rosenberg Self-esteem Scale. This scale is similar to the four-point Likert scale (1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree) and consists of 10 items. The scale permits a total score, ranging from 10 to 40, obtained from the sum of the points from each item, after the reversion of five items⁽¹⁾. High values indicate high self-esteem⁽⁹⁾.

In this study, the Cronbach alpha values above 0.70 were considered as appropriate to indicate the evaluation instrument's reliability regarding the internal consistency of items⁽¹¹⁾. Among male participants, values above 0.70 were obtained for social support sub-scales that investigate perception of emotional and instrumental support satisfaction, and of 0.60 to 0.66 for sub-scales that evaluate the perception of received support frequency and self-esteem levels. Among women, although fewer (n=31) than men (n=48), alpha values were not appropriate for social support sub-scales regarding the perception of emotional support satisfaction (0.66) and instrumental social support frequency (0.52).

In order to ensure the collecting instrument's comprehensiveness, a semantic analysis of the scale⁽¹²⁾ was performed. Three subjects, who were potential participants in the study, were interviewed regarding the comprehensiveness of items in the scale and were asked to make suggestions to make each item as clear as possible. This stage resulted in the maintenance of the scale from the adapted versions. Following this, a pilot test was performed with five participants that met the sample inclusion criteria, aimed at checking the appropriateness of the collecting instrument as a whole, including the social support and self-esteem evaluation scales. After the conclusion of the pilot test, alterations to the instrument were proven unnecessary, demonstrating that it was appropriate for data collection. As a consequence, these five subjects were included in the final sample of the study.

Data Analysis and processing

Data were processed using the *Statistical Package for Social Science* (SPSS) software version 15.0 and, afterwards, analyzed by descriptive statistics. With a view to identifying possible differences regarding self-esteem and social support in patients' gender, the Mann-Whitney test was performed. The significance value adopted was 0.05. For the analysis of social support and self-esteem measures and reliability, regarding the internal consistency of the instruments used, the values of Cronbach alpha were calculated.

RESULTS

79 patients that met the proposed inclusion criteria took part in the study. From this total, 48 (60.7%) were male and 31 (39.3%) female.

The socio-demographic features of the participants are found in Tables 1 and 2, as well as the results on gender variables association tests.

Table 1 - Descriptive Statistics of Variables: age, education, family income and association test results, according to gender - Ribeirão Preto, SP - 2005-2006

	Interval	Mean	Average (SD)	p
Age (years)				0.65
Men*	21-84	58.6	57.20 (12.0)	
Women**	21-81	55.4	56.30 (12.9)	
Education (years)				0.18
Men*	0 -15	4.0	6.31 (3.7)	
Women**	0 - 11	4.0	4.90 (3.1)	
Family income (R\$)				0.32
Men*	350 - 3,500	1,075.00	1,155.88 (726.94)	
Women**	350 - 2,000	800.00	947.22 (478.19)	

* n=48 ** n= 31 Mann-Whitney Test

In most cases for both genders, we found that the majority of participants were married/living with someone, liv-

ing with one to three people, or retired with no income-generating activity (Table 2).

Table 2 - Variables frequency: marital status, number of people living with the patient, participants' professional situation, according to gender - Ribeirão Preto, SP - 2005-2006

Variables	Male*	Female**
	N (%)	N (%)
Marital Status		
Single / widow / separated	15 (31.3)	12 (38.7)
Married / living with someone	33 (68.7)	19 (61.3)
Number of people living with the patient		
1 to 3 people	38 (79.2)	23 (74.2)
4 or more people	5 (10.4)	5 (16.1)
living alone	5 (10.4)	3 (9.7)
Professional situation		
Retired with no income-generating activity	21 (43.8)	13 (41.9)
Active	15 (31.3)	7 (22.6)
Others	6 (12.5)	1 (3.2)
Retired with an income-generating activity	4 (8.3)	2 (6.5)
Awaiting retirement	2 (4.2)	-
Housekeeping, no income-generating activity	-	8 (25.8)

* n=48 ** n= 31

Acute myocardial infarction (AMI) was the most frequent clinical event of CAD for both male and female subjects, affecting 62.5% of men and 48.4% of women. Among the subjects, 37 (77.1%) of the investigated men presented with associated diseases, a condition also occurring in 22 (71%) women; systemic arterial hypertension was the most predominant associated disease, affecting 33 (68.8%) men and 21 (67.7%) women. The average number of days admitted to the hospital, at the time of the interview, was 6.5 days for the male group (DP=5.3) and 8.8 days for the female group (DP=8.0).

Instrumental and emotional social support evaluation was obtained according to the subject's perception regarding the satisfaction frequency, using a scale with values ranging from one to five, with higher values indicating the best support evaluation as perceived by patients. Data from these social support and self-esteem measures and results from the association tests can be found in Table 3. No statistically significant differences were found between the groups regarding social support and self-esteem.

Table 3 - Descriptive statistics and internal consistency of instrumental and emotional (frequency and satisfaction) social support and self-esteem, according to gender - Ribeirão Preto, SP - 2005-2006

Scales	Men	Women	p
	Mean (SD)	Mean (SD)	
SSS* Instrumental			
Frequency	4.1 (0.9)	4.1 (0.8)	0.79
Satisfaction	4.5 (0.7)	4.3 (0.9)	0.20
SSS*Emotional			
Frequency	4.0 (0.9)	4.3 (0.8)	0.14
Satisfaction	4.2 (0.8)	4.4 (0.7)	0.46
RSES*	33.8 (3.9)	32.7 (5.0)	0.53

*Social Support Scale **Rosenberg Self-Esteem Scale

Regarding the social support, emotional and instrumental, perceived by participants, results are shown in Table 4. In order to standardize results, the percentage related to

the source *spouse* support was calculated as the other sources, over the total number of participants in each group, not considering the marital status variable.

Table 4 - Frequency of emotional and instrumental support sources mentioned by participants, according to gender - Ribeirão Preto, SP - 2005-2006

Support Source	SSS ^a Instrumental		SSS ^a Emotional	
	Men	Women	Men	Women
Spouse	37 (77.1%)	16 (51.6%)	35 (72.9%)	17 (54.8%)
Family member living with the patient	22 (45.8%)	18 (58.1%)	22 (45.8%)	16 (51.6%)
Family member not living with the patient	35 (72.9%)	20 (64.5%)	35 (72.9%)	21 (67.7%)
Friends	22 (45.8%)	11 (35.5%)	26 (54.2%)	17 (58.8%)
Boss/co-workers	5 (10.4%)	2 (6.5%)	6 (12.5%)	3 (9.7%)
Neighbors	18 (37.5%)	6 (19.4%)	17 (35.4%)	8 (25.8%)
Health professionals	4 (8.3%)	3 (9.7%)	17 (35.4%)	12 (38.7%)
Other people	1 (2.1%)	2 (6.5%)	7 (14.6%)	2 (6.5%)

^aSocial Support Scale (N=79)

We observed that both men and women mentioned relatively the same support sources in both support categories; differences were only noticed in the sources *health professional* and *others*. In the *others* category, participants mentioned as a support source people from religious institutions, for example.

The most frequently mentioned instrumental support sources by men were the wife, followed by family members not living with the patient. Women mentioned family members living with the patient, followed by family members not living with the patient. However, regarding emotional support sources, the wife and the family member not living with the patient were mentioned with the same frequency by men. Among women, they mentioned the family member living with them, followed by the spouse and friends, in the same proportion.

DISCUSSION

Participants' social support has demonstrated high levels of both emotional and instrumental dimensions for both

genders (Table 3). This result differs from some studies that state that men are more dependent than women and also that, due to their advanced age, women with coronary artery disease need more social support⁽³⁾. Men mentioned higher levels of support from wives, while women did not mention the same degree of support from their husbands⁽³⁾. In addition, women perceived that they have had lower social support until one year after AMI, compared to men who received less support with their home tasks and informal attention.

It is important to point out that differences among the social support evaluation instruments used here prevent an effective comparison of results. In the group from this study, there were no differences between gender regarding marital status; in other words, they were mostly either married or living within a consensual union. It is an important aspect to highlight, since the variable *marital status* could have been a confusing variable when analyzing social support according to gender. Some studies have suggested that there is a greater availability and satisfaction noticed for support, especially instrumental, by the people that have a companion⁽¹³⁻¹⁴⁾. The authors mention that the

subjects that are married or living with a significant other present higher support compared to those who are single, widowed or separated. Higher availability and satisfaction perceived regarding instrumental support seems to originate from the fact that this social condition implies a higher material and operational support for the treatment, which is made easier by sharing expenses and by the space proximity between the support provider and receiver. Other studies^(3,15) indicate that women tend to perceive lower informational and instrumental support than men, a fact that may be explained by the position and communication style assumed by them, actively or passively, to receive information about the disease, recovery and risk factors. Women receive less help with domestic tasks, and for married women, the work load may be a harmful factor to their health when they do not receive any help with these tasks. As a consequence, some authors have defended the idea that marriage seems to be a protecting factor for men, but not for women⁽¹⁵⁾. It is also important to remember that, usually, the results obtained point to a higher dependency of men compared to women recovering from ischemic cardiac events⁽⁶⁾.

Regarding the support source, women are believed to have a more deficient social support since, when they present with ischemic cardiac events, they are at a more advanced age, usually widows, with fewer possibilities of support sources. However, this variable was not observed in this study and we can point out that other studies have not presented conclusive results on this subject. For instance, researches have demonstrated that the older the subject, the higher the chances of presenting other associated diseases, thus experiencing higher levels of complications in recovering from an ischemic cardiac event and presenting more need for social support. Results indicated that older men report poorer social support; however, this was not true for older women, which was a surprising factor since older women tend to be widows and, as a consequence, need higher social support⁽¹⁵⁾.

Among cardiac disease patients, the fact that the heart is considered a noble organ centralizing life may justify the elevated support noticed by participants coming from their family members and friends. Protecting the sick from strong emotions, avoiding annoyance and minimizing inconveniences are usually attitudes adopted by family members⁽¹⁶⁾.

An interesting finding in this study regarding support sources was the elevated percentage of participants who mentioned family members not living with them. This fact may have occurred due to the range of subjects in this category, and considering that all interviewed subjects either living alone or those living with more than 4 people could mention this support source, considerably increasing this category. There were also subjects who mentioned spiritual support, a fact that may be related to the role that religion represents for society in general. Studies demonstrate that religion provides help with anxiety, which is intimately connected to the high mortality risk of cardiac disease patients⁽¹⁷⁾.

Elevated self-esteem of patients was demonstrated in this study (Table 3). Low self-esteem patients would, most likely, have lower expectation towards their performance for promoting and keeping to the necessary changes for recovery⁽¹⁾.

On a previous study, with a similar population performed at the same teaching hospital, the authors found that women presented with worse self-esteem, probably related to advanced age and low education level⁽¹⁾. Also, the cultural tendency pointed these older age women to domestic roles, as a good mother and wife, which may have influenced the self-evaluation of the group regarding self-esteem. In this study, although the female group presented worse self-esteem compared to the male group, there were no significant statistical differences among the measures.

We agree with other researchers on the existence of a direct relationship between social support and self-esteem, and that these are important variables to evaluate for nursing care delivery. Studies have shown that among chronic patients, as cardiac disease patients, those that present considerable social support and high self-esteem present less risk for developing depression throughout recovery^(4,18).

CONCLUSION AND PRACTICAL IMPLICATIONS FOR NURSING PRACTICE

Results demonstrated elevated social support, both instrumental and emotional, and elevated self-esteem among coronary disease patients admitted to a teaching hospital in the countryside of São Paulo, regardless of the subjects' gender.

Considering that social support and self-esteem have been facilitators for dealing with and recovering from cardiac diseases, we suggest that nurses should include social support and self-esteem evaluation in care delivery planning, focusing their attention on these psychosocial features.

Knowledge of cardiac disease patients' self-esteem can help nurses to plan more consistent ways of care delivery to these subjects, identifying the most vulnerable patients during the recovery period.

Some studies propose that health professionals can support the individuals who experienced the ischemic event with more flexible regimes during rehabilitation, adjusting them according to age and gender variables. In addition, they mention home care programs for rehabilitation, with self-help groups, telephone attendance, and support groups for the family and specific programs.

Currently, due to the health sector crisis, health professionals face many challenges that restrain their actions regarding caring for cardiac disease patients, making it far from the ideal that could have been performed with a view to better rehabilitation. However, evaluating strategies for social support and self-esteem that can contribute to establishing which subjects will present with higher difficul-

ties in rehabilitation may be left behind, since low or no support and low self-esteem may reflect the incapability for feelings for changing and keeping favorable behaviors to cardiovascular health, such as: exercising, quitting smoking and practicing appropriate eating habits.

According to the above, as the individual features of the subjects are known, according to gender and other variables, they can be fully attended to, focusing on their vulnerable aspects and aiming at their potentialities as a way to motivate changes that may positively influence their rehabilitation.

REFERENCES

- Vargas TVP, Dantas RAS, Gois CFL. A auto-estima de indivíduos que foram submetidos à cirurgia de revascularização do miocárdio. *Rev Esc Enferm USP*. 2005;39(1):20-7.
- Moraes TPR, Dantas RAS. Evaluation of social support among surgical cardiac patients: support for nursing care planning. *Rev Lat Am Enferm*. 2007;15(2):323-9.
- Kristofferson ML, Löfmark R, Carlsson M. Myocardial infarction: gender differences in coping and social support. *J Adv Nurs*. 2003;44(4):360-74.
- Underwood PW. Social support: the promise and the reality. In: Rice VH, editor. *Handbook of stress, coping and health. Implications for nursing, research, theory, and practice*. Thousand Oaks: Sage; 2000. p. 367-87.
- Renwick R, Holmes T. Description and validation of a measure of received support specific to HIV. *Psychol Rep*. 1999;84(2):663-73.
- Seidl EMF. Pessoas vivendo com HIV/Aids: configurando relações entre enfrentamento, apoio social e qualidade de vida [tese]. Brasília: Universidade de Brasília; 2001.
- Riegel B, Gocka MS. Gender differences in adjustment to acute myocardial infarction. *Heart Lung*. 1995;24(6):457-66.
- Nosek MA, Hughes RB, Swedlund N, Taylor HB, Swank P. Self-esteem and women with disabilities *Soc Sci Med*. 2003;56(8):1737-47.
- Rosenberg M. *Society and the adolescent self-image*. New Jersey: Princeton University Press; 1965.
- Dini GM. Adaptação cultural, validade e reprodutibilidade da versão brasileira da escala de auto-estima de Rosenberg [dissertação]. São Paulo: Universidade Federal de São Paulo; 2001.
- Fayers PM, Machin D. *Quality of life: assessment, analysis and interpretation*. 2nd ed. Chichester: John Wiley & Sons; 2007.
- Pasquali L. Teses referentes a constructo: teoria e modelo de construção. In: Pasquali L, organizador. *Instrumentos psicológicos: manual prático de elaboração*. Brasília: LabPAM/IBAPP; 1999. p. 37-71.
- Dantas RAS. Reabilitação após cirurgia de revascularização do miocárdio [tese]. Ribeirão Preto: Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo; 1999.
- Boutin-Foster C, Charlson ME. Getting to the heart of social support: a qualitative study on the mechanisms of action of social support among patients with coronary artery disease [abstract]. *J Clin Epidemiol*. 2002;55(6):629.
- Conn VS, Taylor SG, Abele PB. Myocardial infarction survivors: age and gender differences in physical health, psychosocial state and regimen adherence. *J Adv Nurs*. 1991;16(9):1026-34.
- Dantas RAS, Stuchi RAG, Rossi LA. A alta hospitalar para familiares de pacientes com doença arterial coronariana. *Rev Esc Enferm USP*. 2002;36(4):345-50.
- Hughes JW, Tomlinson A, Blumenthal JA, Davidson J, Sketch MH, Watkins LL. Social support and religiosity as coping strategies for anxiety in hospitalized cardiac patients. *Ann Behav Med*. 2004;28(3):179-85.
- Penninx BWJH, Tilburg TV, Kriegsman DMW, Boeke AJP, Deeg DJH, Eijk JTHM. Social network, social support, and loneliness in older persons with different chronic diseases. *J Aging Health*. 1999;11(2):151-68.