# More Spousal Support for Men Than for Women: A Comparison of Sources and Types of Support 

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#### Abstract

Types and sources of received support among 902 Costa Rican employees were examined; gender and age differences as well as associations with mental health were considered. Four types of support (advice giving, assistance, reassurance, and empathic listening) were measured as received from four sources, namely friends, family, spouses, and groups/organizations. Support types were not very distinct, therefore we aggregated sum scores across these variables. In contrast, sources were discriminant and had to be analyzed separately. An interaction between gender and age pointed to a larger discrepancy of received spousal support in middle-aged men and women than in younger ones. The older the women were, the less support they received from their spouses. In addition to this interaction, further gender differences emerged at the correlation level, where the association between spousal support and depression was significant for men only.


KEY WORDS: social support; women; spouses; work stress; depression; mental health.

The questions of who receives how much support and who benefits from it have been discussed for many years (e.g., Burleson, 2003; Wills \& Fegan, 2001). In the present article, more refined distinctions are being made that might help to shed some light on this issue.

Social support may be regarded as resources provided by others, as coping assistance or as an exchange of resources. It also refers to the function and quality of social relationships, including perceived availability of help or support actually received (Thoits, 1986, 1991). The most common distinction is the one between perceived available support and support received. Perceived support may pertain to anticipating help in time of need, and received support to actual help provided within a given time period. The former is often prospective; the latter is always retrospective. This is an essential distinction because these two constructs need not necessarily

[^0]have much in common. They can be closely related in some studies, but in others they may be unrelated, depending on wording and context (Newcomb, 1990). Expecting support in the future has been conceptualized as a stable personality trait (Sarason, Levine, Basham, \& Sarason, 1983) that is intertwined with optimism, whereas support received in the past is based on actual circumstances. In this article, only received support is addressed, as reported by the employees.

## Social Support Sources and Social Support Types

Several types of social support have been investigated, such as instrumental (e.g., assist with a problem), tangible (e.g., donate goods), informational (e.g., give advice), and emotional (e.g., give reassurance), among others (Burleson, 2003) There are a variety of support instruments, but only some of them refer to such conceptual distinctions. Most support instruments assess perceived available support in a global manner, whereas few make an attempt to assess received support in more detail (for an overview, see Cohen, Underwood, \& Gottlieb, 2000).

A well-known self-report measure that takes the necessary differentiation of received support into account is the UCLA Social Support Inventory (UCLA-SSI) by Dunkel-Schetter, Feinstein, and Call (1986), which stimulated studies such as the present one. It distinguishes types of support, such as information, advice, aid, assistance, and emotional support, from sources of support, such as friends, family, spouses, or professional groups and organizations. In a study on the multidimensional nature of received social support in gay men, Schwarzer, DunkelSchetter, and Kemeny (1994) used the UCLA-SSI to examine to which degree friends, family, partners, and organizations provided assistance, gave advice, were reassuring, or listened empathically. The previous study (a predecessor of the present one) dealt with a longitudinal sample of 587 gay men in Los Angeles whose mean age was 36.8 years ( $S D=6.8$ ), with a range from 22 to 58 years. It turned out that sources were more important than support types, that is, there was less discriminant validity among types than among sources. In that particular sample of gay men, most of the support came from friends, followed by primary partners, and the least support came from their families. As that was a unique sample, it is of interest to learn what the pattern of received support looks like in different samples using the same instrument, which is one of the research questions of the present study.

## Gender and Age Differences in Social Support Receipt

The need for support, its mobilization, perception, and receipt, differ systematically between populations. In addition to characteristics of life circumstances and stress situations, there are differences in gender, marital status, and age. Gender differences in social networks and social support have been discussed by various authors (cf. Glynn, Christenfeld, \& Gerin, 1999). Throughout the life cycle, women generally have more close friends than men do (Antonucci \& Akiyama, 1987). Commencing in childhood, girls tend to develop more intimate interpersonal relationships than boys do. Adult women still have a greater number of close relationships and also seemingly more extensive social networks than men do (Laireiter \& Baumann, 1992). Generally, people maintain social connections with numerous others throughout life. However, during later adulthood, rates of social interaction begin to decline.

Later-life relationships become fewer in number, but deeper in intensity and quality (Fredrickson \& Carstensen, 1998). In addition, women provide more emotional support to both men and women, and they get more help in return (Klauer \& Winkeler, 2002). Explanations for such discrepancies typically focus on gender differences in emotionality and emotional expressiveness (Burleson, 2003). Women emphasize intimacy and self-disclosure in their friendships, and they are generally more empathetic, expressive, and disclosing than men are. In short, women seem to devote more of themselves to their family and friends than men do. This may be why they often receive more support in return (Greenglass, 1982).

This higher social integration and support in women may buffer stress even if they receive less support from their husbands in return. Thus, although men and women both benefit from social support in times of crisis, they may do so to a different degree, and their sources may be different (Hobfoll, 1986). The question of how types and sources are related to gender and age has not been examined in much detail. Various studies have shown gender and age differences in some support types, but there is a lack of simultaneous analyses of types of received support and provider sources. Studies that merely distinguish family support from friend support are insufficient because family support is too broad a category in that it comprises support from intimate partners as well as from children and other relatives (for an overview of family and friend support in the elderly, see DuPertuis, Aldwin, \& Bossé, 2003).

When women receive less support from their spouses than men do from theirs, this is called the "support-gap hypothesis" (Belle, 1982; Cutrona, 1996). In the case of early marriage, only mixed evidence on this hypothesis emerged ( $\mathrm{Xu} \&$ Burleson, 2001). It was not confirmed for support receipt, but was for desired support, which means that women desire higher levels of support from their spouses than men do. It might be possible that a longer duration of marriage and the possibility of "marriage burn-out" leads to the support gap later on.

The support-gap hypothesis has been confirmed in a recent study on tumor surgery patients (Schulz \& Schwarzer, 2004). Men reported receiving more emotional support than women did. This remained stable across the entire stress episode of more than 6 months postsurgery. In contrast, women reported not only less received support, but also a decline; support reached its lowest level at the last measurement point in time, namely 6 months after surgery. Being a
female tumor patient and having a male caregiver was associated with less support receipt than was being a male tumor patient with a female caregiver (Schulz \& Schwarzer, 2004).

## Mental Health Outcomes of Social Support Receipt

Numerous studies have shown that social support is associated with mental health indicators. In a meta-analysis on social support and depression, 70 such studies were compiled, including 89 effect sizes based upon 26,619 participants (Schwarzer \& Leppin, 1992). Correlations ranged from -.66 to +.39 , with a weighted average of -.22 , which translates into a population effect size of almost one-half standard deviation. Various subanalyses revealed more refined evidence; for example, perceived support was more closely related to depression (-.30) than was received support (-.14). When we analyzed sources, the following rank order of correlations with depression resulted: -.42 for spouse support, -.26 for family support, -.26 for friend support, and -.17 for co-worker support, which suggests that support sources may be crucial for the prevention of depression.

Gender and age need to be considered when judging the possible effects of support on mental health indicators. In a recent study of the stress of migration (Knoll \& Schwarzer, 2002) it was found that young women reported receiving the highest level of social support, whereas middle-aged and older women indicated relatively low levels of support. Men of all ages reported similar levels of social support. Social support increased for both genders during the follow-up period. Received social support also predicted negative affect (depression and anxiety). Among women, those who reported the most social support (i.e., younger women) also had the lowest levels of negative affect and health complaints. Men reported comparatively low levels of negative affect, and men who were older than 45 years indicated strikingly low levels of health complaints. Analyses that predicted depression by gender, age, and social support showed that women who reported low social support had the highest depression levels, whereas social support received by men was unrelated to their depression or to their health complaints (Knoll \& Schwarzer, 2002).

A study of social interaction and adaptation revealed that, especially for older persons, reporting a stable intimate relationship is more closely associated with good mental health and high morale
rather than higher numbers of social interactions or higher socioeconomic status. Thus, even a comparatively small number of social ties can yield a high level of psychological well being if the sources are very satisfactory (Lowenthal \& Haven, 1998).

## Research Questions

Social support varies across types and sources. The first research question addresses the amount of variation that stems from the one or the other. This implies the question of the dimensionality of the support measure. It is assumed that variation from sources is stronger than variation from types, which could be reflected by the emergence of source dimensions instead of type dimensions.

The present analysis, based on a sample of employees in Costa Rica, was inspired by a previous study on gay men in Los Angeles (Schwarzer et al., 1994). The support these men received came mainly from friends, not from family, which seemed to be a unique result that may be valid only for such samples. It was hypothesized that spousal support would be dominant in the present sample, as opposed to support from others, due to social networks that are different from those of gay men. This is the second research question.

Third, the question was raised whether gender differences would emerge, which could not be examined in the earlier study. Men are supposed to receive more spousal support, whereas women are supposed to receive more support from friends (Burleson, 2003; Cutrona, 1996). We also examined whether gender differences would emerge for specific types of support (Xu \& Burleson, 2001).

Fourth, it is likely that support receipt might vary with age, as very young persons may be more dependent on their parents, whereas older people may be more independent or may no longer have any parents, and if they do, they might have to take care of them.

Fifth, gender differences may emerge when types or sources of received support are related to potential mental health criteria, such as emotions, quality of life, or depression. In men, it was expected that spousal support would be more closely related to these outcomes, as stated in the literature (Glynn et al., 1999), whereas in women, support from friends or family may be more closely associated with such mental health outcomes (Wills \& Fegan, 2001).

## METHOD

## Participants

The sample comprised Costa Rican working adults ( $N=902$ ), 515 men ( $57 \%$ ) and 387 women ( $43 \%$ ). Their average age was 30.7 years ( $S D=7.4$ ), with a range from 19 to 69 years. Married participants made up $48 \%$ of the sample, $47 \%$ were unmarried, and $5 \%$ were widowed or divorced. Almost all participants ( $95 \%$ ) reported that they were living with a steady partner. The majority of the participants ( $n=637,71 \%$ ) were labor operators, 161 ( $18 \%$ ) did clerical work, 39 (4\%) were supervisors, 34 (4\%) had a job classified as professional, and 31 (3\%) were managers. Three percent had no formal education, $49 \%$ had finished junior high school, $29 \%$ had finished secondary high school, and $19 \%$ had a college or university education. At follow-up 6 months later, 535 persons with similar demographics participated.

## Procedure

An invitation letter to participate in the study, conducted by the Freie Universität Berlin, Germany, was distributed among the employees of two Costa Rican companies, one of which manufactures textiles and the other vehicle tires. Approximately 1,500 questionnaires were distributed, with a response rate of $60 \%(N=902)$. Subsequently, several sessions took place at the companies to administer the questionnaires. Those who voluntarily agreed to participate filled out the questionnaire; the average completion time was 45 min . This procedure was replicated 6 months later during a second wave of measurements. Questionnaires were administered only to those who had completed the first one, which yielded a longitudinal sample of $n=535$ workers. Personal codes were used to ensure anonymity.

## Measures

The entire set of questionnaires included various instruments to assess stress, personal and social resources, coping, and health-related indicators. For the present analysis, the following instruments were selected.

## Received Support

An abbreviated 16 -item version of the UCLASSI (Dunkel-Schetter et al., 1986), adapted to

Spanish by the second author, was administered at Wave 1. Each item had to be answered for four sources of support separately, namely friends, family, partners, and groups (or organizations). The response range was from 1 (never) to 5 (very often). An example for reassurance is: "How often did the following persons encourage you and reestablish your self-esteem? (a) Your friends? (b) Your relatives? (c) Your (romantic) partner? (d) Groups or organizations?"

The 16 items were used as single items and, in addition, as the basis for eight sum scores. Four sum scores pertained to support type: Advice (Cronbach's $\alpha=.59$ ), Assistance ( $\alpha=.63$ ), Reassurance ( $\alpha=$ $.54)$, Listening ( $\alpha=.59$ ). The other four sum scores pertained to support source: Friend Support ( $\alpha=$ .88), Family Support ( $\alpha=.90$ ), Partner Support ( $\alpha=$ .92 ), and Group Support ( $\alpha=.91$ ). The internal consistencies of the support type sum scales are low, and those of the support source sum scales are high, which can be seen as one noteworthy result of this study. The support type sum scales consist of items that refer to four different sources. The sources are clearly different from each other, and their aggregation within one type of source (e.g., assistance from friends, family, partners, and groups) appears to be problematic. In contrast, aggregating types of support (within one single source, for example, spousal advice, spousal assistance, spousal reassurance, spousal listening), yields homogeneous sum scales.

Positive affect was assessed at Wave 2 by using the Positive and Negative Affect Schedule (PANAS), a 20 -item mood Scale by Watson, Clark, and Tellegen (1988). In the Costa Rican sample, high internal consistencies for the Spanish PANAS, adapted by the second author, were found (average alpha $=.87$ ).

Quality of life was measured at Wave 2 by the WHO Quality of Life Inventory (WHOQoL), which is a 26 -item scale developed by the Program on Mental Health of the World Health Organization (Power, Bullinger, Harper, \& WHO, 1999). In the Costa Rican sample, the WHOQoL, adapted by the second author, had Cronbach's alphas that ranged from . 70 to .79 . Subscale scores were used for physical and for psychological quality of life.

Depression was assessed at Wave 2 by the Hopkins Symptoms Checklist (HSCL), which was designed to assess various stress-related symptoms (Derogatis, Lipman, Rickels, Uhlenhuth, \& Covi, 1974). In the Costa Rican sample, the depression

Table I. Mean Levels and Standard Deviations (in Parentheses) of Received Support by Support Type and Provider Source $(N=902)$

|  | Friends | Family | Partner | Groups |
| :--- | :---: | :---: | :---: | :---: |
| Advice | $3.17(1.11)$ | $3.88(1.12)$ | $3.75(1.47)$ | $2.20(1.29)$ |
| Assistance | $2.98(1.16)$ | $3.78(1.16)$ | $3.71(1.48)$ | $2.12(1.24)$ |
| Reassurance | $3.19(1.18)$ | $3.94(1.15)$ | $3.85(1.46)$ | $2.18(1.31)$ |
| Listening | $3.18(1.12)$ | $3.96(1.10)$ | $3.89(1.43)$ | $2.18(1.27)$ |
| Total for sources | $3.13(.98)$ | $3.89(.99)$ | $3.80(1.31)$ | $2.17(1.13)$ |

subscale, adapted by the second author, had a Cronbach's alpha of .87 .

## RESULTS

## Received Support Type and Provider Source

Mean levels of received support were computed for each of the 16 items. Table I describes the results. All types of support are at a similar level, whereas source differences are substantial. Subsequent analyses were based on sum scores for either sources or types of support.

A within-subjects analysis of variance to compare the four types of support yielded a significant difference, $F(3,2703)=25.22, p<.001, \eta^{2}=.03$. Pairwise comparisons were also significant, except for the difference between reassurance and listening. The same procedure for the four sources of support yielded a significant difference, $F(3,2703)=645.69$, $p<.001, \eta^{2}=.42$. All pairwise comparisons were also significant. Whereas the first analysis accounted for only $3 \%$ of the variance, the second one ac-
counted for $42 \%$. Thus, differences in levels of support types can be regarded as negligible. In contrast, the provider sources make a difference.

These results suggest the existence of four source factors. To confirm this, a principal components analysis was computed on the 16 items. Four eigenvalues exceeded unity, and the four components accounted for $20.4 \%, 19.6 \%, 18.9 \%$, and $18.3 \%$ of the variance, respectively. As Table II shows, the Varimax-rotated pattern strongly suggests a meaningful solution with the four components that represent the support sources Partner, Organizations/Groups, Family, and Friends, in this order.

## Sources of Support: Gender and Age Comparisons

Because differences in types of support were negligible, all further computations were performed on sources of support by aggregating the four types within each source, that is, the sum score of spousal support was based on spousal advice, spousal assistance, spousal reassurance, and spousal listening. Gender differences for the four sources of support

Table II. Principal Components Analysis of the 16 Items (Varimax-Rotated)

| Received support | Factor 1: Partner | Factor 2: Groups | Factor 3: Relative | Factor 4: Friend |
| :---: | :---: | :---: | :---: | :---: |
| Advice by friends |  |  |  | . 80 |
| Advice by family |  |  | . 80 | . 21 |
| Advice by partner | . 90 |  |  |  |
| Advice by groups |  | . 86 |  |  |
| Assistance by friends |  |  | . 22 | . 80 |
| Assistance by family |  |  | . 82 | 25 |
| Assistance by partner | . 87 |  |  |  |
| Assistance by groups |  | . 86 |  |  |
| Reassurance by friends |  |  | . 25 | . 82 |
| Reassurance by family |  |  | . 85 | 20 |
| Reassurance by partner | . 90 |  |  |  |
| Reassurance by groups |  | . 88 |  |  |
| Listening by friends |  |  | . 23 | . 82 |
| Listening by family |  |  | . 82 | 23 |
| Listening by partner | . 89 |  |  |  |
| Listening by groups |  | . 83 |  |  |

Note. Coefficients below .20 were omitted.


Fig. 1. (a) Age effect for family support. (b) Gender by age interaction for spousal support.
were tested by analyses of variance. Women reported slightly more friend support than men did, $F(1,900)=11.3, p<.01, \eta^{2}=.01$. Men reported receipt of much more spousal support than women did, $F(1,900)=36.25, p<.001, \eta^{2}=.04$. In contrast, gender differences in family support and group support were not significant.

The above findings might suggest that men receive more spousal support in general. However, the reported gender differences need to be qualified by age because they might not remain valid across all age groups. Four age groups were established at 10 -year intervals: 142 ( $16 \%$ ) persons were 24 years or younger, 482 ( $53 \%$ ) were $25-34$ years, 226 ( $25 \%$ ) were $35-44$ years, and $52(6 \%)$ were 45 years or older.

To examine this issue further, a two-way MANOVA was computed with gender and age groups as between-subjects factors, and received friend support, family support, partner support, and group support as the four dependent variables. Persons without partners (5\%) were excluded, so the remaining sample consisted of 494 men and 363 women.

An interaction between gender and age was found, Wilks' lambda $=.96, F(12,2239)=2.63, p<$ .01. In addition, multivariate main effects emerged for gender, Wilks' lambda $=.96, F(4,846)=8.07$, $p<.001$, as well as for age groups, Wilks' lambda $=$ $.96, F(12,2239)=2.69, p<.001$.

Further univariate results yielded no significant effects for friend support and group support. For
family support, however, a significant age effect was found, $F(3,849)=3.23, p<.03, \eta^{2}=.01$. The older they were, the less support both men and women received from their family. Figure 1(a) displays the case of family support.

For spousal support, a significant gender effect was found, $F(1,849)=41.79, p<.001$, $\eta^{2}=.03$, and an interaction between gender and age, $F(3,849)=6.67, p<.001, \eta^{2}=.023$. Young men and women reported equal levels of spousal support, but, with increasing age, women reported continuously less support received from their partners. This interaction reflects a widening gap between men and women in terms of what they get from each other. Figure 1(b) displays the gender $\times$ age interaction for spousal support.

## Associations Between Received Support and Four Mental Health Variables Within Each Source of Support Provision

The final research question was whether social support was related to potential health outcome criteria 6 months later for the subsample of those who had participated in Wave $2(n=535)$. As Table III shows there were significant positive associations between support obtained from four sources and positive affect as well as physical and psychological quality of life assessments. Moreover, there were significant negative associations of the four support

Table III. Correlation Coefficients Between Received Overall Support (Sum Score of Advice Giving, Assistance, Reassurance, Listening) from Four Sources with Wave 2 Health Status 6 Months Later ( 320 Men, 215 Women)***

|  | Physical quality of life | Psychological quality of life | Positive affect | Depression |
| :---: | :---: | :---: | :---: | :---: |
| Friend support |  |  |  |  |
| Men | .16** | .19** | .18** | -.14* |
| Women | .15* | . 21 ** | . $28^{* *}$ | -. 06 |
| Family support |  |  |  |  |
| Men | .13* | . $20^{* *}$ | . 23 ** | -. 20 * |
| Women | . 05 | .17* | .17* | -. 09 |
| Partner support |  |  |  |  |
| Men | . 14 | . 23 ** | . 21 ** | $-.25 * *$ |
| Women | . 08 | . $18^{* *}$ | . 11 | -. 04 |
| Group support |  |  |  |  |
| Men | . 03 | . 07 | . 10 | -. 09 |
| Women | . 01 | . 05 | . 21 ** | . 00 |

*Correlation is significant at the .05 level (2-tailed).
${ }^{* *}$ Correlation is significant at the . 01 level (2-tailed).
*** Partner support analyzed only for the subgroup of individuals with a partner.
constructs with depression. From this it can be assumed that support receipt may have a beneficial effect on health, although causal conclusions cannot be drawn on the basis of these data.

Finally, it was asked whether gender differences may emerge when sources of received support were correlated with potential outcome criteria 6 months later. Table III displays the Pearson correlations between the four support scores with these four criteria within the subsamples of men $(n=320)$ and women ( $n=215$ ). Sum scores for friend support, family support, partner support, and group support were somewhat differently correlated with positive affect, depression, psychological and physical quality of life. However, when we tested for the significance of differences between these coefficients ( $Z$-test), only the difference between the partner support-depression correlation for men ( $r=-.25$ ) and women ( $r=$ -.04 ) appeared to be significant ( $p<.01$ ). Support by the intimate partner was negatively associated with depression only in men, whereas for women, there was no relationship between their depression levels and support from their male partner. In contrast, friend support and family support were negatively related to depression in women, which suggests that it is not their partners, but different individuals, whose support may protect women from depression.

## DISCUSSION

Types and sources of received support vary in several respects, but principal components analysis revealed only four source dimensions, whereas types
did not emerge as separate factors. This is in contrast to the earlier study on gay men (Schwarzer et al., 1994). The Costa Rican workers do not perceive types of support as being very distinct. There is a lack of discriminant validity between the four types of support: advice giving, assistance, reassurance, and empathic listening. In the present data set, one could collapse these four facets into one score without losing much information. The reason for this might lie in the high likelihood that the sample is heterogeneous in terms of critical life events or chronic stressors experienced during the 6 -month time period of the study. The sample was not defined by the common experience of one major stressor. In contrast, individuals who have experienced a certain type of event, such as burglary, accident, earthquake, or birth of a child, may be in need of a specific type of support that matches the particular situation at hand. For example, for tumor surgery patients, emotional support seems to be more relevant than any other type of support (Schulz \& Schwarzer, 2004).

Source of support appeared to be highly important. There is discriminant validity between the sources: friends, family, partner, and organizations/groups. Collapsing data from more than one source into a sum score would mask the effects that are unique to one particular source. It is recommended, therefore, that types and sources of support be assessed and that researchers decide only after preliminary analyses whether to aggregate data of either types or sources or both, depending on the degree of discriminant validity between them.

Spousal support was dominant in Costa Rican men and women, whereas in the sample of gay men,
most of the support came from friends, followed by primary partners, and the least support came from their families.

Moreover, the study shows that the well-known gender differences in social support research need to be qualified in terms of provider source. There were no gender differences in support when received from friends, family, or groups. But spousal support operated differently in men and women. Men received more support from women than women did from men. This effect was moderated by age. The older men and women were, the broader the gap between how much they received from each other. This can be regarded as an extension of the older support gap hypothesis (Belle, 1982; Cutrona, 1996; Xu \& Burleson, 2001) by adding a time dimension.

Women might be more sensitive to many kinds of social interaction than men are. As Hobfoll (1986) argued, men and women are assumed to have different socialization experiences with support. Whereas men are supposed to be more independent and selfreliant, women are supposed to seek support and to take advantage of it. Moreover, women seem to be particularly sensitive to relationship quality as a prerequisite of received support (Hagedoorn et al., 2000; Kuijer et al., 2000; Uno, Uchino, \& Smith, 2002). To benefit from support, the partner must be a positive source of social interaction.

That women receive less spousal support than men do, has been found also in other contexts (Glynn et al., 1999; Kunkel \& Burleson, 1999; Pasch \& Bradbury, 1998; Schulz \& Schwarzer, 2004). It could be that women do not benefit from support as much as men do, that men do not provide support as effectively as women do, or that men do not provide effective support in particular to women.

On the other hand, women seem to benefit more from other women (same-gender support; Uno et al., 2002), be it friends or family, whereas men seem to benefit emotionally from cross-sex support (Mickelson, Helgeson, \& Weiner, 1995). The present data cannot provide evidence on same-sex support. The categories friends, family, and groups may include mainly same-sex persons, but no exact quantities can be identified here. Thus, the main conclusion is that levels of spousal support depend on an interaction between gender and age. Future researchers should look in more detail into the gender composition of the other source categories.

However, our interpretations are limited in several ways. One limitation lies in the fact that the sample was not recruited in a homogeneous manner by
selecting only persons who shared the experience of one particular stressor. The issue of work stress was addressed, however, and it was assumed that all participants in the two factories had experienced some frequency and severity of daily job stress. This was also measured, but a detailed analysis of the stress-support-health relationship is beyond the scope of the present article. Another limitation is the crosssectional nature of the current analysis. Although outcomes were measured 6 months later than was social support, the analysis does not qualify as a longitudinal one and, therefore, should not be taken as evidence that amount of support predicted change in the current sample. Differences between age groups need not necessarily be interpreted as genuine differences due to age. They might as well be interpreted as cohort effects.

The fact that the data were collected in Costa Rica limits the generalizability. Of the respondents, $95 \%$ reported living with a steady partner, including the $48 \%$ who were married. This is probably different from other countries, but exact comparisons cannot be provided because these demographics should be constrained to factory workers within the given age range. It is also not known whether some of the participants were married to other participants, which otherwise would have allowed the study of a subgroup of couples.

Self-reports fail to capture fully the actual exchange of support behavior between spouses. Future researchers should also include observational methods to analyze what is going on in couples during times of stress and conflict (Pasch \& Bradbury, 1998; Pasch, Bradbury, \& Davila, 1997).

Another limitation is that the age factor could not be thoroughly investigated across the life span due to the relatively young age of the adult employees. Combined age and gender differences in social support are of particular interest in samples of the elderly, for example in elderly couples coping with critical life events such as surgery or chronic disease (Antonucci \& Akiyama, 1987; Schulz \& Schwarzer, 2004). Only $6 \%$ of our participants were older than 44 years. Future researchers should include a broader age range with sufficiently large cell sizes to test whether the gender by age interaction found here could be replicated across the life span.

Finally, nothing is known about the partner's own coping resources (Schröder, Schwarzer, \& Endler, 1997) and dyadic characteristics, such as length and quality of the relationship, marital history, conflicts, etc. Nevertheless, the data point
overwhelmingly to the importance of more detailed support measurement, including sources, as well as the explicit consideration of gender and age when it comes to levels of received support and the associations between support and health outcomes.

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## REFERENCES

Antonucci, T. C., \& Akiyama, H. (1987). An examination of sex differences in social support among older men and women. Sex Roles, 17, 737-749.
Belle, D. (1982). The stress of caring: Women as providers of social support. In L. Goldberger \& S. Breznitz (Eds.), Handbook of stress: Theoretical and clinical aspects (pp. 496-505). New York: Free Press.
Burleson, B. R. (2003). The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion, and interpersonal communication. Personal Relationships, 10, 1-23.
Cohen, S., Underwood, S., \& Gottlieb, B. (2000). Social support measures and intervention. New York: Oxford University Press.
Cutrona, C. E. (1996). Social support in couples. Thousand Oaks, CA: Sage.
Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., \& Covi, L. (1974). The Hopkins Symptoms Checklist (HSCL): A self-report inventory. Behavioral Science, 19, 1-15.
Dunkel-Schetter, C., Feinstein, L., \& Call, J. (1986). UCLA Social Support Inventory (UCLA-SSI). Unpublished psychometric instrument. Los Angeles: University of California.
DuPertuis, L. L., Aldwin, C. M., \& Bossé, R. (2003). Does the source of support matter for different health outcomes? Findings from the normative aging study. Retrieved January 31, 2003, from http://hcd.ucdavis.edu/faculty/aldwin/Support.pdf.
Fredrickson, B. L., \& Carstensen, L. L. (1998). Choosing social partners: How old age and anticipated endings make people more selective. In M. P. Lawton \& T. A. Salthouse (Eds.), Essential papers on the psychology of aging (pp. 511-538). New York: New York University Press.
Glynn, L. M., Christenfeld, N., \& Gerin, W. (1999). Gender, social support, and cardiovascular responses to stress. Psychosomatic Medicine, 61, 234-242.
Greenglass, E. R. (1982). A world of difference: Gender roles in perspective. Toronto: Wiley.
Hagedoorn, M., Kuijer, R. G., Buunk, B. P., De Jong, G. M., Wobbes, T., \& Sanderman, R. (2000). Marital satisfaction in
patients with cancer: Does support from intimate partners benefit those who need it the most? Health Psychology, 19, 274-282.
Hobfoll, S. E. (1986). Stress, social support, and women. Washington, DC: Hemisphere.
Klauer, T., \& Winkeler, M. (2002). Gender, mental health status, and social support during a stressful event. In G. Weidner, M. Kopp, \& M. Kristenson (Eds.), Heart disease: Environment, stress, and gender [NATO Science Series, Series I: Life and Behavioural Sciences, Vol. 327] (pp. 223-236). Amsterdam: IOS Press.
Knoll, N., \& Schwarzer, R. (2002). Gender and age differences in social support: A study of East German refugees. In G. Weidner, M. S. Kopp, \& M. Kristenson (Eds.), Heart disease: Environment, stress, and gender [NATO Science Series 1: Life and behavioural sciences, Vol. 327] (pp. 198-210). Amsterdam: IOS Press.
Kuijer, R. G., Ybema, J. F., Buunk, B. P., De Jong, G. M., Thijs-Boer, G., \& Sanderman, R. (2000). Active engagement, protective buffering, and overprotection: Three ways of giving support by intimate partners of patients with cancer. Journal of Social and Clinical Psychology, 19, 256-275.
Kunkel, A. W., \& Burleson, B. R. (1999). Assessing explanations for sex differences in emotional support: A test of the different cultures and skill specialization accounts. Human Communication Research, 25, 307-340.
Laireiter, A., \& Baumann, U. (1992). Network structures and support functions: Theoretical and empirical analyses. In H. O. F. Veiel \& U. Baumann (Eds.), The meaning and measurement of social support (pp. 33-55). Washington, DC: Hemisphere.
Lowenthal, M. F., \& Haven, C. (1998): Interaction and adaptation: Intimacy as a critical variable. In M. P. Lawton \& T. A. Salthouse (Eds.), Essential papers on the psychology of aging (pp. 445-462). New York: New York University Press.
Mickelson, K. D., Helgeson, V. S., \& Weiner, E. (1995). Gender effects on social support provision and receipt. Personal Relationships, 2, 211-224.
Newcomb, M. D. (1990). What structural equation modeling can tell us about social support. In B. R. Sarason, I. G. Sarason, \& G. R. Pierce (Eds.), Social support: An interactional view (pp. 26-63). New York: Wiley.
Pasch, L. A., \& Bradbury, T. N. (1998). Social support, conflict, and the development of marital dysfunction. Journal of Consulting and Clinical Psychology, 66, 219-230.
Pasch, L. A., Bradbury, T. N., \& Davila, J. (1997). Gender, negative affectivity, and observed social support behavior in marital interaction. Personal Relationships, 4, 361-378.
Power, M., Bullinger, M., Harper, A., \& World Health Organization Quality of Life Group, Switzerland. (1999). The World Health Organization WHOQOL-100: Tests of the universality of quality of life in 15 different cultural groups worldwide. Health Psychology, 18, 495-505.
Sarason, I. G., Levine, H. M., Basham, R. B., \& Sarason, B. R. (1983). Assessing social support: The Social Support Questionnaire. Journal of Personality and Social Psychology, 44, 127-138.
Schröder, K. E. E., Schwarzer, R., \& Endler, N. S. (1997). Predicting cardiac patients' quality of life from the characteristics of their spouses. Journal of Health Psychology, 2, 231244.

Schulz, U., \& Schwarzer, R. (2004). Long-term effects of spousal support on coping with cancer after surgery. Journal of Social and Clinical Psychology, 23, 716-732.
Schwarzer, R., Dunkel-Schetter, C., \& Kemeny, M. (1994). The multidimensional nature of received social support in gay men at risk of HIV infections and AIDS. American Journal of Community Psychology, 22, 319-339.
Schwarzer, R., \& Leppin, A. (1992). Social support and mental health: A conceptual and empirical overview. In L. Montada,
S.-H. Filipp, \& M. J. Lerner (Eds.), Life crises and experiences of loss in adulthood (pp. 435-458). Hillsdale, NJ: Erlbaum.
Thoits, P. A. (1986). Social support as coping assistance. Journal of Consulting and Clinical Psychology, 54, 416-423.
Thoits, P. A. (1991). Gender differences in coping with emotional distress. In J. Eckenrode (Ed.), The social context of coping (pp. 107-138). New York: Plenum.
Uno, D., Uchino, B. N., \& Smith, T. W. (2002). Relationship quality moderates the effect of social support given by close friends of cardiovascular reactivity in women. International Journal of Behavioral Medicine, 9, 243262.

Watson, D., Clark, A., \& Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. Journal of Personality and Social Psychology, 54, 1063-1070.
Wills, T. A., \& Fegan, M. F. (2001). Social networks and social support. In A. Baum, T. A. Revenson, \& J. E. Singer (Eds.), Handbook of health psychology (pp. 209-234). Mahwah, NJ: Erlbaum.
Xu, Y., \& Burleson, B. R. (2001). Effects of sex, culture, and support type on perceptions of spousal support: An assessment of the "support gap" hypothesis in early marriage. Human Communication Research, 27, 535-563.


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