

BRIEF REPORTS

Willingness to Express Emotions to Caregiving Spouses

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This study examined the association between care-recipients' willingness to express emotions to spousal caregivers and caregiver's well-being and support behaviors. Using self-report measures in the context of a larger study, 262 care-recipients with osteoarthritis reported on their willingness to express emotions to caregivers, and caregivers reported on their stress and insensitive responding to care-recipients. Results revealed that care-recipients' willingness to express happiness was associated with less insensitive caregiver responding, and willingness to express interpersonal emotions (e.g., compassion, guilt) was associated with less caregiving stress. There were also gender differences, such that caregiving wives, in particular, benefited from their husband's willingness to express vulnerable (e.g., anxiety, sadness) and interpersonal emotions.

Keywords: caregiving, emotion expression, interpersonal relationships, gender differences

In most committed, romantic relationships, partners assume equivalent obligation to respond to each other's needs if and when such needs arise (Mills, Clark, Ford, & Johnson, 2004). However, the needs themselves may not always be equal, and situations can arise in life, in which one partner's needs become greater than the other's. In such situations, the partner with fewer needs often takes on the role as a caregiver, and the other as a care-recipient. This is common in older married couples in which one partner is coping, to a greater extent than the other, with a chronic illness that impedes physical functioning. There is a great deal of research that indicates that providing care has negative consequences for caregivers; however, there is little research examining how emotional processes within caregiving relationships can impact caregivers' well-being and support behavior. In the present work, we focus on older married couples in which one spouse is coping with osteoarthritis (OA), one of the most common chronic conditions in later life (U.S. Department of Health and Human Services, Centers for Disease Control & Prevention, 2004). We explore how care-recipients' willingness to express emotions to their spouses relates to spouses' support behavior and stress. Specifically, we examine care-recipients' willingness to express vulnerable emotions (an-

xiety, fear, sadness), interpersonal emotions (compassion, guilt, happiness for, sadness for), anger, and happiness.

This work is grounded in theory about the interpersonal functions of emotion expression that proposes that when emotions are expressed within communal relationships, they can signal: (1) a need and desire for care, (2) a lack of need or the success of care, (3) appreciation for care, and/or (4) care *for* the partner (Clark, Fitness, & Brissette, 2001; Graham, Huang, Clark, & Helgeson, 2008). Furthermore, it has been suggested that when emotions are expressed, they convey intimacy and trust to a partner.

Functions of Care Recipients' Emotion Expression

Within well-functioning, close relationships emotions serve different communicative functions. When *vulnerable emotions*, such as sadness, fear, and anxiety, are expressed, caregivers are likely to interpret these expressions as indicators of need and to respond with support (Clark et al., 2001; Clark & Finkel, 2004; Graham et al., 2008; Gross, Richards, & John, 2006; Shimanoff, 1988). For example, sadness is expressed when a person has experienced a loss and could use comfort or help in remediating the loss, and fear is expressed when a person is in danger and desires reassurance or protection. Expression of vulnerability seems to be an essential part of the social support process. A caregiver who understands when he or she is needed is less likely to worry about when caregiving should occur and better able to give care when it is needed.

Like the expression of vulnerable emotions, the expression of *anger* may also convey important information to a caregiver about needs. For example, anger or irritability can signal to a partner to "stop what he or she is doing" or to indicate that "something is wrong" in a social support interaction. However, an important difference between the communicative function of anger and other emotions (e.g., vulnerable emotions) is that anger can also conflict with the caregiver's needs. At times, anger can be interpreted as an

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attack and can push people away (Brissette & Clark, 2000). In the present study, we hypothesize that care-recipients' willingness to express vulnerability and anger will be associated with less caregiving stress and less insensitive support. However, we also acknowledge the possibility that a greater willingness to express vulnerability and anger may also take a toll on caregivers and may be associated with negative caregiver outcomes.

What about expressions of positive emotions, such as *happiness*? Research has shown that, besides communicating to caregivers that one's needs are satisfied (Clark & Finkel, 2004; Graham et al., 2008), expressions of positive emotions have numerous interpersonal benefits, such as increasing both partners' experience of positive emotions (Gable, Reis, Impett, & Asher, 2004; Hatfield, Cacioppo, & Rapson, 1994), building relationships (Cunningham, 1988a, 1988b; Fredrickson, 1998), and enhancing approachability (Frijda & Mesquita, 1994; Keltner & Kring, 1998). Therefore, we hypothesize that care-recipients' expression of happiness should be associated with less caregiving stress and less insensitive responding to care recipients' needs. Expressions of happiness should provide a break for caregivers and evidence of the success and usefulness of their support-provision.

Interpersonal emotions have received very little attention, but when these relationship-oriented emotions are expressed, they are likely to have a large impact on the caregiver's well-being and support behaviors (Clark & Monin, 2006; Tiedens, 2004). In the present research, we focus on guilt, compassion, and happiness and sadness *for* caregivers. What these emotions have in common is that they reflect concern for another person's welfare, in the case of the present research for the caregiver's welfare. For example, according to Baumeister and colleagues (1994), the experience and expression of guilt serves various relationship-enhancing functions, including motivating people to treat partners well and avoid transgressions, minimizing inequities and enabling less powerful partners to get their way, and redistributing emotional distress. Compassion also reflects a concern for another person's welfare mixed with the motivation to alleviate that person's suffering. And, finally, not only do people experience and express emotions (e.g., happiness, sadness) about events that have implications for the self, people also feel and express emotions based on events that partners' experience. For example, a person may express happiness *for* a partner who achieved a hard-earned goal or sadness *for* a partner who received news about a death of a family member. In sum, because of the relationship-enhancing functions of these emotions, we hypothesize that care-recipients' willingness to express interpersonal emotions will be associated with less caregiver stress and less insensitive support provision.

Willingness to Express Emotions Can Foster Intimacy and Trust

Not only is it proposed that emotion expression communicates unique information about needs, it is also important to note that *willingness* to express emotions may reflect a sense of intimacy, trust, and closeness in relationships (Cutrona, 1996). Studies have found that among couples in which one person suffers from a chronic illness, care-recipients' expression of fears is associated with marital satisfaction (Spiegel, Bloom, & Gottheil, 1983; Lichtman, Taylor, & Wood, 1987), and hiding information about one's illness is related to more distress for both care-recipients and

caregivers (Coyne & Smith, 1991). Furthermore, spouses who are reluctant to express anger often experience simmering resentment (Melamed & Brenner, 1990). The idea that willingness to express emotion is an indicator of intimacy is especially important to keep in mind when making predictions about the expression of negative emotions, because although negative emotions can take an emotional toll on caregivers, open communication is beneficial for communal relationships.

Gender as a Moderator of Willingness to Express Emotion and Caregiver Well-Being and Support Behavior

Prior research suggests that the well-being of women is more strongly influenced by the psychological condition of intimate partners than the well-being of men (Hagedoorn et al., 2000), and this may be due in part to women's stronger motivation to be interdependent (Cutrona, 1996). Furthermore, women are more concerned about open communication with their partners than men (Lang-Takac & Osterweil, 1992). Thus, it is predicted that wives will be more likely to benefit from their partners' greater willingness to express emotions.

Method

Participants and Procedure

For this study, we used baseline data from care-recipients with OA and their caregiving spouses participating in a psychosocial intervention study. To be eligible for the study, care-recipients had to be 50 years of age or older; married; and diagnosed with OA of the hip, knee, or spine. The vast majority of participants were identified through medical records of rheumatology practices affiliated with the University of Pittsburgh Medical Center.

There were 262 care-recipients with osteoarthritis and their spousal caregivers who completed the measures of interest for this investigation. The majority of care-recipients in this study were female ($n = 186$, or 71%). The average care-recipient age was 69 years ($SD = 7.82$; range = 50–92), and the average age of spouses was 70 years ($SD = 8.22$; range = 47–90). Most of the sample was White (90%), and the remainder was African American (8%) or belonged to another ethnic minority group. Couples had typically been married for 41 years. Care-recipients reported having OA for 15.4 years ($SD = 11.5$; range = 1–54). The most common sites for OA were the knees (76.3% of participants), hands (57.3%), and spine (55%). The most common conditions other than OA for care-recipients were hypertension (36%), history with coronary artery disease, coronary heart disease or a myocardial infarction (29%), and gastrointestinal problems (21%).

Of the caregiving spouses, 50% reported that they either had OA or another chronic pain condition. The most common conditions other than OA for spouses were the same as for care-recipients: hypertension (32%), history with coronary artery disease, coronary heart disease or a myocardial infarction (28.3%), and gastrointestinal problems (11.8%). Spouses rated their general health as 3.3 on average ($SD = .99$), using a scale ranging from 1 (*poor*) to 5 (*excellent*).

Measures

Care-Recipients' Willingness to Express Emotions to Caregivers

Care-recipients were asked to indicate the extent to which they were willing to express each of nine emotions to their spouses in daily life: *fear, anger, happiness, sadness, guilt, compassion, anxiety, happiness for the spouse, and sadness for the spouse*. Care recipients' made ratings on a scale from 1 (*not at all willing*) to 5 (*very willing*). Composites were calculated according to the results of factor analyses and theoretical distinctions for vulnerable emotions (sadness, fear, and anxiety; $\alpha = .80$) and interpersonal emotions (compassion, happiness for the spouse, and sadness for the spouse; $\alpha = .69$). Anger and happiness ratings were analyzed as single items. See Table 1 for the intercorrelations between care-recipients' willingness to express each type of emotion.

Caregivers' Insensitive Responding to Care-Recipients

Caregivers rated how often in the past month they may have said or done a series of things to help care-recipients feel better when they were in pain or upset about their arthritis on a scale from 1 (*rarely or none of the time*) to 4 (*most or all of the time*). This measure consisted of four items (e.g., "how often did you express doubts that your spouse could make improvements in his or her arthritis?" and "how often did you try to avoid discussing your feelings with your spouse?;" adapted from Stephens & Clark, 1996; $\alpha = .73$). The mean rating of insensitive responding was 1.81 ($SD = .77$, range = 1–4).

Caregivers' Stress

Caregivers indicated how stressful it was to assist care-recipients with grocery shopping, preparing meals, doing laundry, and performing other household activities in the past month in response to care-recipients' arthritis on a scale from 1 (*not at all stressful*) to 4 (*very stressful*). This measure consisted of four items and was adapted from work by Schulz and colleagues to measure caregiver burden (Gitlin et al., 2003; Schulz & Beach, 1999; $\alpha = .64$). Caregivers' average level of stress was 1.19 ($SD = .36$, range = 1–3).

Caregivers' Marital Satisfaction

Caregivers were asked to report their level of marital satisfaction using the Marital Adjustment Test (Locke & Wallace, 1959). This 15-item measure includes questions about general level of happiness, level of agreement on a number of issues, and ways of handling disagreements. Caregivers' average marital satisfaction score was 119.7 ($SD = 24.8$, range = 17–156).

Care-Recipients' Physical Ability

Care-recipients reported how often they could perform the four household tasks (grocery shopping, preparing meals, doing laundry, and performing other household activities) in the past month from 1 (*never*) to 5 (*always*). The alpha for this measure was .73. Care-recipients' average physical ability was 4.2 ($SD = .95$, range = 1–5).

Analysis Plan

Multiple regression analyses were performed to test the hypotheses. Caregivers' marital satisfaction and care recipient's physical ability were controlled in all regression analyses to ensure that these variables were not responsible for the hypothesized effects. Interactions with gender were examined for each of the hypotheses. To further test the significant associations between the emotion composites (vulnerable emotions and interpersonal emotions) and the caregiver outcomes, latent variable analyses were performed using AMOS software (Arbuckle, 1997).

Results

Care-Recipients' Willingness to Express Emotions and Caregivers' Insensitive Responding

As shown in Table 2, contrary to predictions, regression analyses revealed that care-recipients' willingness to express vulnerable emotions, anger, and interpersonal emotions were not associated with more or less insensitive responding as reported by caregivers. However, as predicted, care recipients' willingness to express happiness was associated with less insensitive responding. There were no significant interactions with gender.

Table 1
Correlations Among Care-Recipients' Willingness to Express Each Type of Emotion

Measure	1	2	3	4	5	6	7	8	9
1. Anger	X	.55**	.52**	.47**	.23**	.40**	.12*	.11 ⁺	.25**
2. Fear	X	X	.55**	.54**	.37**	.60**	.39**	.30**	.32**
3. Anxiety	X	X	X	.63**	.38**	.51**	.44**	.28**	.35**
4. Sadness	X	X	X	X	.40**	.58**	.45**	.30**	.44**
5. Happiness	X	X	X	X	X	.32**	.55**	.56**	.35**
6. Guilt	X	X	X	X	X	X	.45**	.31**	.31**
7. Compassion	X	X	X	X	X	X	X	.55**	.39**
8. Happiness for the partner	X	X	X	X	X	X	X	X	.46**
9. Sadness for the partner	X	X	X	X	X	X	X	X	X

Notes. $N = 262$. * $p < .05$. ** $p < .01$. ⁺ $p < .10$.

Table 2
Regression Analyses: CR Willingness to Express Emotions
Predicting CG Outcomes

	β	t	df
Predicting CG insensitive responding			
Vulnerable emotions	-.01	-.13	226
Interpersonal emotions	-.08	-1.13	226
Anger	-.05	-.76	224
Happiness	-.15*	-2.10	226
Predicting CG stress			
Vulnerable emotions	-.07	-1.05	227
Interpersonal emotions	-.23**	-3.46	227
Anger	-.04	-.61	225
Happiness	-.08	-1.17	227
CR gender X vulnerable emotions	-.53*	-2.19	227
CR gender X interpersonal emotions	-1.17**	-3.10	227

Note. CR = care-recipient; CG = caregiver. * $p < .05$. ** $p < .001$.

Care-Recipients' Willingness to Express Emotions and Caregivers' Stress

According to the results of the regressions, care-recipients' willingness to express vulnerable emotions, happiness, and anger were not associated with more or less caregiver stress. However, as predicted, the more willing care-recipients were to express interpersonal emotions, the less stress the caregiver reported.

To provide further evidence that the interpersonal emotion composite was predictive of caregiver stress, we created a latent variable that included our measures of each of the interpersonal emotions (compassion, guilt, happiness for, and sadness for) and tested its association with caregiver stress in AMOS. The model fit the data ($\chi^2(5, N = 223) = 9.95, p < .10, \chi^2/df = 1.99, RMR = .04, CFI = .98, RMSEA = .07$), and the latent variable was significantly associated with less caregiver stress ($\beta = -.64, p < .001$). We also ran the model including the control variables (caregiver marital satisfaction and care-recipient physical ability) as predictors of caregiver stress. The correlations between the three predictors were: .45 for the latent variable and marital satisfaction, .15 for the latent variable and physical ability, and .16 for marital satisfaction and physical ability. The model did not improve ($\chi^2(14, N = 223) = 61.16, p < .01, \chi^2/df = 4.37, RMR = 3.56, CFI = .82, RMSEA = .12$), and the latent variable was still significantly associated with less caregiver stress (latent variable: $\beta = -.43, p < .01$; marital satisfaction: $\beta = -.01, p < .001$; physical ability: $\beta = -.03, ns$).

Interactions With Gender

Also shown in Table 2, results of the regression analyses revealed a significant interaction between gender and willingness to express vulnerable emotions predicting caregiver stress. Female care-recipients' willingness to express vulnerable emotions was not significantly associated with less caregiving stress in husbands ($\beta = .04, t(165) = .49, ns$); however, male care-recipients' willingness to express vulnerable emotions was associated with less caregiving stress in wives ($\beta = -.23, t(61) = -1.94, p < .10$).

Again, we created a latent variable in AMOS capturing the vulnerable emotions to provide further evidence for the association with caregiving wives' stress. The model fit the data ($\chi^2(2, N =$

$60) = 3.61, ns, \chi^2/df = 1.81, RMR = .11, CFI = .97, RMSEA = .07$), and the latent variable was significantly associated with less caregiver stress ($\beta = -.60, p < .01$). The model did not improve when the control variables were included ($\chi^2(9, N = 60) = 14.28, ns, \chi^2/df = 1.59, RMR = 2.61, CFI = .92, RMSEA = .10$), and the latent variable was still significantly associated with less caregiver stress (latent variable: $\beta = -.46, p < .01$; marital satisfaction: $\beta = -.02, p < .01$; physical ability: $\beta = .04, ns$). The correlations between the three predictors were: .25 for the latent variable and marital satisfaction, .07 for the latent variable and physical ability, and .05 for marital satisfaction and physical ability.

Regression analyses also revealed a significant interaction between gender and willingness to express interpersonal emotions, such that the association between greater willingness to express interpersonal emotions and less caregiver stress was significant when care-recipients were male ($\beta = -.42, t(61) = -3.65, p < .01$), but not when care-recipients were female ($\beta = -.07, t(165) = -.86, ns$).

Finally, the latent variable analyses in AMOS indicated a good model fit ($\chi^2(5, N = 60) = 9.54, ns, \chi^2/df = 1.91, RMR = .10, CFI = .94, RMSEA = .12$), and the interpersonal emotions latent variable was significantly associated with less caregiving stress in wives ($\beta = -1.54, p < .001$). The model was not improved with the control variables were included in the model as predictors ($\chi^2(14, N = 60) = 23.90, p < .05, \chi^2/df = 1.71, RMR = 2.85, CFI = .88, RMSEA = .11$; latent variable: $\beta = -1.37, p < .001$; marital satisfaction: $\beta = -.01, p < .10$; physical ability: $\beta = .02, ns$). The correlations between the predictors were: .39 for the latent variable and marital satisfaction, $-.03$ for the latent variable and physical ability, and .05 for marital satisfaction and physical ability.

Discussion

We found that willingness to express different types of emotions has implications for the well-being of spousal caregivers and the extent to which they insensitively respond to care-recipients. First, we found that care-recipients who were more willing to express happiness had spouses who reported less insensitive responding. This result may reflect either that: (1) care-recipients are less willing to express happiness to insensitive spouses because they are not satisfied with the support they are receiving; and/or (2) care-recipients' willingness to express happiness makes it easier for caregivers to deal with the demands of caregiving.

We also found that care-recipients who reported greater willingness to express interpersonal emotions to their spouses had spouses who reported less caregiving stress. This result supports the idea that the expression of interpersonal emotions (such as compassion and guilt) makes relationship partners feel mutually cared for and less likely to feel stressed.

Regarding vulnerable emotions and anger, we did not find evidence that willingness to express these emotions was either helpful or harmful to caregivers' well-being or support behavior in the sample as a whole. However, we did find that gender moderated the effect on caregiver stress of willingness to express vulnerable emotions. We also found that gender moderated the effects regarding interpersonal emotions and caregiver stress.

Our finding that caregiving wives benefited more from their husbands' willingness to express vulnerability is consistent with the idea that willingness to express emotion is a sign of intimacy, and women are more likely to desire intimacy in their relationships (Lang-Takac & Osterweil, 1992). However, it is important to note that there was a greater distribution of responses in terms of willingness to express vulnerable emotions for male care-recipients than for female care-recipients. This may have influenced the differential associations for male and female care-recipients and their spouses. Most female care-recipients rated their willingness to express vulnerability near the top of the scale; whereas male care-recipients were more evenly distributed across the entire scale. This is consistent with research that shows that women are more likely than men to report that they are willing to express emotions to others (LaFrance & Banaji, 1992). Specifically the combination of the ceiling effect on expression of vulnerable emotions for females with its attendant low variability may have precluded the ability to observe that expression of emotion eases caregiver stress among male caregivers. It remains possible that it does.

We also found that the benefits of care-recipients' willingness to express interpersonal emotions were greater when the care-recipients were male. This finding supports theory and research that female caregivers are more sensitive to and their well-being is more influenced by their partners' emotion expression. Unlike the reports of vulnerable emotions, this effect was not influenced by differential variability of males and females' responses.

Limitations and Future Research

Because in this study care-recipients were asked only about their willingness to express emotions, we cannot be sure how much of each emotion they actually felt and how much of that emotion spouses perceived. Future research would benefit from differentiating the effects of willingness to express various emotions, the extent to which people feel each emotion, and the extent to which they actually express each emotion. It is possible that if a care-recipient is always feeling a great deal of negative emotions, inhibition of these emotions may be helpful to caregivers, at times, so caregivers are not overwhelmed.

Future research should also investigate the sources of each type of emotion. Emotions can stem from the experiences of an individual as well as from interactions with a relationship partner, and emotions that originate from these different sources may affect how caregivers respond. For instance, caregivers may respond more favorably when care-recipients express negative emotions that stem from sources external to the relationship and when care-recipients express positive emotions that stem from within the relationship.

Finally, because our study was cross-sectional, one cannot infer causal direction from the results reported. We believe that the relationship between care-recipients' emotion expression and caregivers' feelings and behaviors is a reciprocal process. Not only is care-recipients' emotion expression likely to influence caregivers' well-being and ability to provide support, caregiver stress might also inhibit the care-recipient's willingness to express emotion. This may be only or especially true in the case of negative emotions, because such expressions might add to the caregiver's burden. In addition, caregiver stress may create distance in the

relationship, which is likely to make care-recipients less likely to open up.

Conclusion

In this study, we found that above and beyond the effects of marital satisfaction and the severity of care-recipients' disability, care-recipients' willingness to express emotions is associated with caregiver outcomes. These results also suggest that there is still considerable work that needs to be done to understand how husbands and wives communicate through emotion expression and respond to each other's needs when one partner has a chronic illness. We hope this report will spark interest in more interpersonal approaches to studying emotion expression (and willingness to express emotion) in the context of older caregiving relationships, because this research has important implications for how clinicians view the presence of negative and positive emotions for care recipients. It suggests that both partners should be involved in therapy addressing emotional issues resulting from chronic illness.

More broadly, the findings from the present study highlight that emotions do not exist within a vacuum. Beyond having consequences for a care-recipients' own well-being, emotion expression has important consequences for partners' well-being. This extends to all types of relationships, but especially those in which partners care about each others' needs.

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