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Daily stressors facilitate giving and receiving of emotional support in adulthood

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Abstract

The aims of the present study were to examine whether daily stressors are associated with engagement in emotional support and whether these associations differ by gender. Analyses were conducted using Wave 2 of Midlife in the United States data and its subproject National Study of Daily Experiences. The sample consisted of adults aged 33 to 84 ($N = 1,622$). Using multinomial multilevel analysis, we looked at the associations between lagged and concurrent daily stressors with engagement in emotional support. For concurrent associations, people who experienced stressors were more likely to both give and receive, solely give, and solely receive emotional support compared with those who did not have any stressors. Women were more likely to engage in both giving and receiving of emotional support compared with men when they experienced stressors during the same day. In terms of the lagged associations, both men and women who experienced stressors during the previous day were more likely to both give and receive emotional support the next day compared with those who did not experience any stressors during the previous day. These results suggest that experiencing daily stressors facilitates giving and receiving of emotional support at daily level in adulthood.

KEYWORDS

daily stressors, emotional support, multinomial multilevel analysis, social support

1 | INTRODUCTION

Giving and receiving social support is a vital aspect of daily life during adulthood due to its beneficial effects on both mental and physical health (Thoits, 1995). Social support is found to be protective of mortality (Brummett et al., 2001), cardiovascular disease (Frasure-Smith et al., 2000), and depressive symptoms (Cacioppo, Hughes, Waite, Hawkey, & Thisted, 2006). In contrast, daily stress is widely considered as a risk factor of cardiovascular disease (Black & Garbutt, 2002), immune functioning (Sin, Graham-Engeland, Ong, & Almeida, 2015), and depressive symptoms (Caspi et al., 2003; Charles, Piazza, Mogle, Sliwinski, & Almeida, 2013). However, considering that both social support and daily stress occur in the context of daily interpersonal interactions or daily routines (Bolger, Zuckerman, & Kessler, 2000), it is possible that experiencing daily

stress may play a beneficial role in that it may trigger individual's engagement in social support.

Studies that discuss beneficial effects of receiving social support are mostly based on direct effect models and stress-related models of social support (Uchino, 2004). Direct effect models suggest that receiving social support has unique main effects on health because it occurs irrespective of life stress and operates by itself at all times. Stress-related models argue that receiving social support is beneficial because it diminishes or buffers the harmful effects of stress. Therefore, according to stress-related models, receiving social support emerges only when individuals are confronted with stressful experiences (House, Umberson, & Landis, 1988). However, previous studies mostly focus on the benefits of receiving support (Strazdins, & Broom, 2007; Wolff & Agree, 2004), and there are lack of theoretical models that discuss the consequences of providing social support in daily

normative settings. In addition, there are few studies that simultaneously consider both giving and receiving aspects of social support (Thomas, 2010).

Also, aforementioned theories and studies mostly consider social support either as a moderator of stressful events or as an independent variable for its direct effect on health outcomes (Poulin, Brown, Dillard, & Smith, 2013; Thomas, 2010). Even among studies that examined engagement in day-to-day giving and receiving of emotional support, vast majority focuses on the association between daily emotional support and well-being (Bar-Kalifa & Rafaeli, 2015; Wolff, Schmiedek, Brose, & Lindenberger, 2013). There has been little attention on studying social support as a dependent variable, in other words what causes individuals to engage in social support in daily life. Examining the determinants of social support is much needed, as it may extend the existing theoretical and empirical understanding about how social support works.

One of the significant triggers of engagement in social support could be the daily experience of stressors, as daily stressors and emotional support often occur in the context of interpersonal interactions. Here, daily stressors mean "routine challenges of day-to-day living, such as the everyday concerns of work, caring for other people, and commuting between work and home (Almeida, 2005, p. 64)," and emotional support is conceptually referred to as "providing warmth and nurturance to another individual and reassuring the person that he or she is a valuable person who is cared about (Taylor et al., 2004, p. 355)." When confronted with daily stressors, individuals are likely to talk about their experiences with their significant others and seek emotional support from them. Therefore, the context of daily stressors could be an excellent opportunity to facilitate social interaction by giving and receiving emotional support. However, the daily associations between daily stressors and emotional support yet remain unexplored.

Although the complexity of the associations between emotional support and daily stressors is rarely discussed in the literature, there are some studies that connect stress and engagement in emotional support. First, when faced with daily stressful events, people tend to seek emotional support from significant others (Taylor et al., 2004). Emotional support provides comfort and encouragement that may help individuals to perceive the stressful situation differently or to actively find resources to solve the source of stress, which can reduce the adverse effects of stressors (Cohen & Wills, 1985). Soliciting and receiving emotional support are considered to be the most effective and easiest coping strategies to utilize in times of distress (Thoits, 1995), and individuals may be motivated to seek and receive support from others to deal with daily stressors (Taylor, 2011). However, previous studies that tested this theory were only based on retrospective cross-sectional data (Taylor et al., 2004). Considering that experiences of stressors and engagement in emotional support take place in everyday life, studying how stress is related to emotional support on a daily basis would be necessary. Using daily diary study could be particularly beneficial in this regard, as it allows to study how daily stressors and social support unfolds in naturalistic settings (Almeida, 2005).

Second, individuals may provide emotional support to others when they face daily stressors. For example, Taylor (2012) explained *tend-and-befriend* as a response to stress, especially among women. *Tending* is a type of caring activity that individuals use to address stressful situations in order to promote safety and protect themselves and their offspring from adverse effect of stress; *befriending* is the making and maintenance of social relationships that can potentially provide resources and protection that may help stress-coping process (Taylor et al., 2000). This type of coping strategy was found to have long-term benefits because it increases individual's potential pool for social support in the future (Burlison & Goldsmith, 1998).

Lastly, experiencing stressful events may also facilitate emotional support exchange involving simultaneous giving and receiving of support because stressful events and emotional support both occur in the dynamics of interpersonal relationships (Uchino, 2004). Emotional exchange always naturally occurs in interpersonal relationships, where giving emotional support leads to the expectation of receiving back the support, and receiving support elicits indebtedness to give the support back (Antonucci & Jackson, 1990). Social exchange theory and equity theory posit that individuals decide to maintain an interpersonal relationship on the basis of the balance between the cost of giving and the benefits of receiving in a given relationship (White, Klein, & Martin, 2015). Engagement in both giving and receiving is closer to the nature of the interpersonal relationship than solely giving or receiving. Thus experiencing daily stressors may also lead to engagement in both giving and receiving of emotional support. The benefits of giving and receiving may be greater than only giving or receiving, as solely giving can bring about disappointments when expectations to receive back is not met whereas solely receiving can incur feelings of indebtedness.

The connection of daily stressors with giving and receiving emotional support may vary by gender, as women are more likely to use emotional problem-solving strategies compared with men when faced with daily conflicts or daily problems (Matud, 2004). Taylor et al. (2000) also posit that *tend-and-befriend* is a stress response behaviour that is found among women because women are biologically prepositioned to take care of their offspring and to enhance the possibilities of survival of their young offspring. Also, according to gender role perspectives, women compared with men engage more in distress-provoking roles including providing more support to others, being more empathetic, and caring more for others (Almeida & Kessler, 1998; Gove & Tudor, 1973). Therefore, the association between daily stressors and emotional support may differ by gender, in which the association is stronger for women.

To better understand the relation between experience of stressors and social support, this study examined whether experiencing daily stressors are associated with engagement in giving and receiving emotional support and whether these associations differ by gender. Specifically, we looked at the associations between concurrent and previous-day stressors and giving, receiving, and both giving and receiving emotional support across adulthood. On the basis of the findings of the previous studies, we hypothesized that experiencing daily stressors would be associated with higher likelihood of giving,

receiving, and giving and receiving of emotional support. For gender differences, we hypothesized significant gender moderation only for the association between daily stressors and giving and receiving of emotional support and not for only receiving and only giving. Because women tend to use emotional strategies in the presence of daily stressors that include both giving and seeking emotional support, we expected that experiencing daily stressors would be related to higher likelihood of both giving and receiving emotional support among women. Findings from the present study will be able to extend our knowledge about how experiences of stressors and emotional support work in daily life in adulthood.

2 | METHOD

2.1 | Data and sample

Data for this study came from the second wave of the Midlife in the United States main survey (MIDUS II) and its subproject National Study of Daily Experiences (NSDE II). NSDE II respondents consist of a representative subset of the MIDUS II sample who were randomly selected to participate in the daily diary study. This also included respondents from MIDUS Milwaukee that recruited African Americans from Milwaukee in order to increase the diversity of the MIDUS respondents. Participants of NSDE completed short telephone interviews about their daily experiences over the course of eight consecutive evenings, including daily stressors, emotional or instrumental support, physical symptoms, and affect. Data collection was approved by the Institutional Review Boards at participating sites, and all participants provided informed consent.

Of the 2,022 respondents who participated in both the main survey and daily diary study (MIDUS II and NSDE II), we excluded those with missing information in any of the study variables. Household income had the highest proportion of missing cases (5.59% of all NSDE respondents), followed by openness (4.95%) and agency (4.1%). There were no missing cases for exposure to daily stressor variable. This resulted in the final analytic sample of 1,829 respondents who reported on 11,353 days. Around 89.23% of our sample completed at least 6 out of 8 days of daily diary interview. Average number of days completed was 7.21 ($SD = 1.38$). In our sample, 58% of the sample were women, 85.2% were White, and the age range was between 33 and 84 years ($M = 56.20$, $SD = 12.08$).

2.2 | Measures

2.2.1 | Experience of daily stressors

Daily stressors were assessed using the Daily Inventory of Stressful Events (Almeida, Wethington, & Kessler, 2002), which asks whether the respondents experienced seven types of daily stressors in the last 24 hr including arguments, stressful events at work or school, and stressful events at home. Responses to each stressor item were coded

as 0 = *no* or 1 = *yes*. This study calculated the experience of daily stressors by calculating the sum of responses to the seven stressors each day and recoding the sum into a binary variable as 0 = *no stressors* and 1 = *having at least one stressor*. Exposure to same-day stressors and previous-day stressors was used for analyses.

2.2.2 | Daily emotional support

Daily emotional support was measured by two questions (Cichy, Stawski, & Almeida, 2014): *Not counting work you might do as part of your job, did you spend any time giving emotional support to anyone, like listening to their problems, giving advice, or comforting them since this time yesterday?* and *Since this time yesterday, did you receive any emotional support from anyone or any organizations?* Daily engagement in emotional support was coded as four categories on the basis of the responses to these two questions: (a) both gave and received emotional support during the interview day, (b) only gave emotional support but did not receive, (c) only received emotional support but did not give, and (d) neither gave nor received emotional support (reference group).

2.2.3 | Person-level covariates

Studies find that various factors including demographic backgrounds, personality, spirituality, and health status influence individuals' engagement in social support. Specifically, giving or receiving support was found to differ across demographic backgrounds and socioeconomic status (e.g., Krause & Shaw, 2000). For personality, high agreeableness, high extraversion, high neuroticism, and low openness were related to lower levels of perceived support (e.g., Finch & Graziano, 2001; Swickert, Hittner, & Foster, 2010). People who are healthy are more likely to engage in social interaction (e.g., Rowe & Kahn, 1997), and people who had higher spirituality were more likely to give and receive social support (e.g., Lee & Sharpe, 2007). On the basis of the findings of these studies, covariates included in this study were age, gender, education, income, race, spirituality, chronic conditions, six personality traits, subjective physical health, and subjective mental health. Information about race was retrieved from the first wave of MIDUS main survey, and all other covariates were measured at the second wave of the MIDUS main survey.

Age at the time of the interview was included in the analysis as a continuous variable. Gender was coded 0 = *male* and 1 = *female* and race was coded 0 = *nonwhite* and 1 = *white*. For income, logged total household income was used. Spirituality was measured by summing the responses to two questionnaires: *How religious are you?* and *How important is religion in your life?* (Rossi, 2001) Responses ranged from 1 = *not at all* to 4 = *very*. Cronbach's alpha for spirituality was $\alpha = .91$. Six personality traits including agency, agreeableness, extraversion, neuroticism, consciousness, and openness were measured by asking the respondents how well the given adjectives describe them with 61 items (Rossi, 2001). All items were used on a 4-point Likert scale,

ranging from 1 = *not at all like me* to 4 = *a lot like me*. Each personality trait was calculated on the basis of the mean of a set of items that measured the same trait. Higher scores meant higher tendency of each trait. Cronbach's alpha of each traits were as follows: agency, $\alpha = .81$; neuroticism, $\alpha = .73$; extraversion, $\alpha = .77$; openness to experience, $\alpha = .77$; agreeableness, $\alpha = .79$; and conscientiousness, $\alpha = 0.67$. Chronic conditions such as hypertension and diabetes were coded as 0 = *none* and 1 = *having one or more chronic conditions*. Subjective physical health and subjective mental health were measured on a 5-point Likert scale ranging from 1 = *poor* to 5 = *excellent*. Lastly, person-level exposure to stressors was calculated by summing up each individual's day-level stressors and then recoding as a binary variable, with 0 = *no stressors at all* and 1 = *having one or more stressors across the study days*.

2.3 | Analysis

To examine whether daily stressors were associated with giving and receiving emotional support, this study analysed lagged (previous day) and concurrent (same day) associations between daily stressors and emotional support. In addition, interaction terms between experience of daily stressors and gender were also included in the analysis to test whether the associations between daily stressors and emotional support differ by gender. Daily stressor variables and gender were centred at their mean. Because NSDE is a daily diary data design with two levels (days nested within person) and emotional support in this study was measured as a nominal variable with four categories, multi-level multinomial logistic analysis was used with STATA 15.0 (Skrondal & Rabe-Hesketh, 2003).

3 | RESULTS

Table 1 presents descriptive statistics of day-level stressor variables by the types of engagement in emotional support. Out of 11,353 days observed, respondents both gave and received support on 1,066 of the days (9.39%). The percentage of days respondents who only gave and only received support were 2,105 (18.54%) and 484 (4.26%), respectively. Of all days, 36% were stressor days. On days that the respondents both gave and received emotional support, 61% reported having at least one daily stressor during the same day. On days that respondents only gave emotional support, 48% experienced one or

more concurrent daily stressors. On days that respondents only received emotional support, 54% reported having concurrent stressors. In days that respondents neither gave nor received emotional support, only 28% had stressors during the same day.

Table 2 shows descriptive statistics and correlations between gender, age, percentage of days with stressors, and percentage of days with engagement in emotional support. Percentage of days with stressors was significantly correlated with all four types of emotional support. Individuals who experienced more stressor days reported more days of both giving and receiving ($r = .33, p < .001$), only giving ($r = .23, p < .001$), and only receiving emotional support ($r = .17, p < .001$) and fewer days of neither giving nor receiving emotional support ($r = -.43, p < .001$). Gender was also significantly correlated with all emotional support variables. Women engaged more in both giving and receiving ($r = .09, p < .001$), only giving ($r = .19, p < .001$), and only receiving emotional support ($r = .08, p < .001$) but less in neither giving nor receiving emotional support compared with men ($r = -.22, p < .001$). Age was correlated only with percentage of days with stressors where older adults had fewer stressor days ($r = -.18, p < .001$). A full correlation table that includes all covariates used in this study is available in Table S1. There were no issues of multicollinearity among the study variables, as correlations between person-level variables ranged from $r = -.43 \sim .61$.

Before running full multinomial multilevel models, we ran preliminary analyses that examined the association between exposure to stressors and engagement in emotional support without covariates included in the model. Results showed that experiencing concurrent and previous-day stressors were associated with higher likelihood of all three types of engagement in emotional support (i.e., both giving and receiving, only giving, and only receiving) compared with neither giving or receiving (odds ratio [OR] = 1.23 ~ 3.77, $p < .05$; results available upon request). We then included covariates in the model to examine whether the associations remained robust.

Table 3 presents the results of full multinomial multilevel analysis. Results show that previous-day daily stressors were associated with receiving emotional support and both giving and receiving support the next day. These suggest that experiencing daily stressors facilitated engagement in emotional support in adulthood. Specifically, individuals who experienced daily stressors during the previous day were 1.26 times more likely to both give and receive emotional support (OR = 1.26, $p < .01$) and 1.28 times more likely to receive support (OR = 1.28, $p < .05$) the next day compared with those who did not have any previous day stressors.

TABLE 1 Percentage of stressor days by types of days in emotional support engagement

Day-level stressors summary	Types of days in emotional support engagement				
	All days (Obs ^a = 11,353)	Giving and receiving (Obs = 1,066)	Only giving (Obs = 2,105)	Only receiving (Obs = 484)	Neither giving nor receiving (Obs = 7,698)
Stressor days ^b	36%	61%	48%	54%	28%

^aObs = number of days observed.

^bPercentage of days with any stressors.

TABLE 2 Person-level descriptives and correlation between stressors, types of emotional support engagement, gender, and age (N = 1,829)

	1. Stressors ^a	2. Giving and receiving ^b	3. Only giving ^b	4. Only receiving ^b	5. Neither giving nor receiving ^b	6. Female	7. Age
1							
2	0.33***						
3	0.23***	-0.03**					
4	0.17***	0.12***	-0.08**				
5	-0.43***	-0.66***	-0.65***	-0.37***			
6	0.08**	0.09***	0.19***	0.08***	-0.22***		
7	-0.18***	-0.01	-0.02	0.04	0.01	-0.03	
M	36.45	9.54	18.76	4.33	67.37	0.58	56.20
(SD)	(27.46)	(19.00)	(20.83)	(10.39)	(29.84)	(0.49)	(12.08)

^a% of days with stressors.

^b% of days engaged in emotional support.

**p < .01.

***p < .001.

Reference group	Giving and receiving		Only giving		Only receiving	
	OR	(SE)	OR	(SE)	OR	(SE)
Day level						
Neither giving nor receiving						
Lag-1 stressors	1.26**	(0.10)	1.08	(0.07)	1.28*	(0.14)
Same day stressors	2.38***	(0.20)	1.95***	(0.13)	2.17***	(0.24)
Lag-1 stressors × gender	0.96	(0.15)	0.81	(0.10)	0.95	(0.21)
Same day stressors × gender	1.55**	(0.25)	1.19	(0.15)	1.22	(0.26)
Person level						
Gender	1.77***	(0.19)	2.08***	(0.19)	1.88***	(0.26)
Age	1.02***	(0.00)	1.01*	(0.00)	1.02***	(0.01)
Education	1.12***	(0.02)	1.06**	(0.02)	1.13***	(0.03)
Log house income	1.06	(0.05)	1.01	(0.04)	0.96	(0.05)
Race (White)	1.06	(0.15)	0.94	(0.11)	0.73	(0.12)
Agency (personality)	0.90	(0.08)	0.92	(0.07)	0.84	(0.10)
Agreement (personality)	0.86	(0.10)	0.92	(0.10)	1.02	(0.15)
Extra (personality)	1.29*	(0.15)	1.33**	(0.14)	1.25	(0.18)
Neuro (personality)	0.95	(0.08)	0.91	(0.07)	1.21	(0.13)
Cons (personality)	1.10	(0.13)	1.07	(0.11)	0.94	(0.13)
Open (personality)	1.29*	(0.15)	1.14	(0.11)	1.10	(0.15)
Spirituality	1.18***	(0.04)	1.11***	(0.03)	1.19***	(0.05)
Subjective physical health	1.03	(0.06)	1.02	(0.05)	0.90	(0.07)
Subjective mental health	0.94	(0.06)	0.93	(0.05)	0.97	(0.08)
Chronic condition	1.10	(0.13)	1.04	(0.11)	1.18	(0.19)
Exposure to stressors ^a	5.00***	(0.62)	2.79***	(0.32)	3.59***	(0.55)
Constant	0.00***	(0.00)	0.01***	(0.01)	0.00***	(0.00)

TABLE 3 Results of multilevel multinomial analysis on the associations between concurrent and lagged stressors and engagement in emotional support with gender interactions (N of days = 11,353)

Abbreviations: OR, odds ratio; SE, standard error.

^aBinary variable indicating exposure to at least one stressor across the study days.

*p < .05.

**p < .01.

***p < .001.

Concurrent daily stressors were also associated with receiving emotional support, giving emotional support, and both giving and receiving emotional support. People who had daily stressors were

1.95 times more likely to give emotional support (OR = 1.95, p < .001), 2.17 times more likely to receive emotional support (OR = 2.17, p < .001), and 2.38 times more likely to both give and



FIGURE 1 Odds ratio (OR) and confidence interval (CI) of concurrent stressors on both giving and receiving emotional support by gender. OR for men = 1.66, CI [1.26, 2.19], and $p < .001$; and OR for women = 2.97, CI [2.43, 3.63], and $p < .001$

receive emotional support (OR = 2.38, $p < .001$) the same day compared with those who did not have any stressors the same day. Results for both previous and concurrent daily stressors were in accordance with our hypothesis that daily stressors would be related to higher likelihood of engagement of emotional support.

Also, there was a significant gender interaction with concurrent daily stressors on both giving and receiving emotional support (OR = 1.55, $p < .01$). Women engaged more in both giving and receiving emotional support than men when they experienced daily stressors during the same day (Figure 1). This was also in accordance with our hypothesis regarding moderation by gender that the association between daily stressors and both giving and receiving of emotional support would be stronger for women compared with men.

4 | DISCUSSION

This study expands previous studies on stress and social support by examining whether daily stressors were associated with engagement in emotional support. Specifically, this study looked at day-level associations between previous and concurrent experiences of daily stressors and four types of engagement in emotional support—both giving and receiving support, only giving support, only receiving support, and neither giving nor receiving support. Moderation of these associations by gender was also tested.

Our multinomial multilevel results show that individuals were more likely to engage in giving and receiving emotional support when they experienced daily stressors the previous day or during the same day. These results support stress-related models of social support, which posit that social support functions in relation to stress. Although people usually do not engage in giving or receiving of support on a daily basis, they start to do so when they are faced with stressors (Cohen & Wills, 1985). Empirical support for the direct effects model of social support implies that engagement in emotional

support should not be dependent on the experience of stressors (House et al., 1988). However, our results do not disapprove direct effect model of social support, as there are people who engage in social support without stressful experiences.

Stress is usually caused from changes in life style, attitude, emotion, and situation (Dohrenwend, 1973; Almeida & Wong, 2009). As not all changes are harmful and some changes are useful, not all stressors have negative effects and some aspects of stress may be beneficial. In terms of daily stressors and minor events, the results from the present study suggest that daily stressors have social benefits in that they may lead people to engage in giving and receiving of emotional support in daily lives. Although positive aspects of daily stressors have received relatively less attention, previous studies suggest that people can learn and grow from stressful experiences (Thoits, 1995). People actively seek means to protect themselves from the negative effects of daily stressors through the process of appraisal or behavioural coping, which lead them to seek and receive or provide emotional support.

Descriptive statistics of our study from Table 1 and 2 show that individuals have different ways of engaging in daily emotional support. Some engaged in both giving and receiving emotional support, some only gave emotional support, and some only received emotional support. This study found that daily stressors facilitate engagement in all these three different patterns of emotional support, not just receiving emotional support. People receiving emotional support from others when faced with stressors is a widely known finding from previous studies (Cohen & Wills, 1985; Taylor, 2011; Uchino & Birmingham, 2011). From their previous experiences of stressful events, individuals know that receiving emotional support from significant others is a very useful tool in reducing the negative influence of stress. Receiving emotional support can make people feel better immediately (Jones, 2004) and help people to cope better with negative emotions that come from stressful events and maintain satisfying relationships (Barbee, Rowatt, & Cunningham, 1998; Stroebe & Stroebe, 1996). Thus in the face of stressors, receiving emotional support emerges as one of typical stress-coping behaviours in daily lives (Taylor et al., 2004).

Our results also showed that daily stressors were related to giving emotional support the same day. It is possible that people give support rather than receive support when stress is not severe and normative in daily life. Providing support makes individuals feel better and independent (Gleason, Iida, Bolger, & Shrout, 2003) so such sense of self-worth may help individuals to cope with their stressors. Giving emotional support is also useful in building intimate relationships (Trobst, Collins, & Embree, 1994), and making friends via being friendly and tendering is considered to be an effective long-term stress-coping strategy (Taylor, 2011, 2012).

In addition, results from this study suggest that concurrent and previous day daily stressors increase the likelihood of both giving and receiving emotional support on the same day. In daily lives, people usually interact with various others, and this may create several opportunities to give and receive emotional support. For those who are in need, individuals may provide emotional support; when meeting

with dependable others, individuals may receive emotional support. In addition, people may reciprocally exchange emotional support when faced with stressors, as reciprocal exchange of emotional support is one of frequent and natural interaction that takes place in daily lives. Several theories such as exchange theory and equity theory note the significance of reciprocity in social support (Väänänen, Buunk, Kivimäki, Pentti, & Vahtera, 2005). According to these theories, people both give and receive emotional support because reciprocal exchange of support is more helpful for their relationships and well-being and in dealing with stressors (Lu, 1997).

Lastly, although the associations between exposure to stressors and only giving and only receiving emotional support did not differ between men and women, there was a significant gender moderation for both giving and receiving emotional support. Specifically, women engaged more in both giving and receiving emotional support than men when they experienced stressors during the same day. This is consistent with previous studies that find that women socially engage more than men and use tend-and-befriend strategy when faced with stressful events (Taylor, 2011; Taylor et al., 2000).

This study has some limitations to note. First, although stress processes could be represented in many different ways including stress severity, type, and appraisal of stressors (Almeida & Wong, 2009), this study only considered exposure to stressors. The findings of this study suggest that exposure to stressors is related to engagement in emotional support, but findings may be different for other types of stress processes. In order to better understand the role of stress in emotional support, future research needs to consider other various aspects of stress such as types of stressors and its severity. Second, although this study tested the moderating effect of gender, there may be other important individual characteristics or resources that may influence the associations between experience of stressors and social support such as socio-economic status (Piff, Kraus, Côté, Cheng, & Keltner, 2010). To further our understanding of how daily stressors are related to social support, additional moderating factors would need to be explored.

Despite the limitations, this study expands the existing knowledge on stress and social support as follows. First, we add to the literature on social support by exploring the role of stressors as a significant correlate of engagement in emotional support. In studying stress and support, much less known on this topic compared with the buffering role of social support in times of distress. Also, this study specified different types of engagement in emotional support in order to better capture individual's daily engagement in emotional support. Lastly, this study adds some evidence towards the positive benefits of daily stress, with its findings showing that experiencing daily stressors facilitates engagement in emotional support.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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REFERENCES

- Almeida, D. M. (2005). Resilience and vulnerability to daily stressors assessed via diary methods. *Current Directions in Psychological Science*, 14(2), 64–68. <https://doi.org/10.1111/j.0963-7214.2005.00336.x>
- Almeida, D. M., & Kessler, R. C. (1998). Everyday stressors and gender differences in daily distress. *Journal of Personality and Social Psychology*, 75(3), 670–680. <https://doi.org/10.1037/0022-3514.75.3.670>
- Almeida, D. M., & Wong, J. D. (2009). Life transitions and daily stress processes. In G. H. Elder, & Giele, J. Z. (Eds.), *The craft of life course research* (pp. 141–162). New York, NY: The Guilford Press.
- Almeida, D. M., Wethington, E., & Kessler, R. C. (2002). The Daily Inventory of Stressful Events: An interview-based approach for measuring daily stressors. *Assessment*, 9(1), 41–55. <https://doi.org/10.1177/1073191102009001006>
- Antonucci, T. C., & Jackson, J. S. (1990). The role of reciprocity in social support. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 173–198). New York: John Wiley.
- Barbee, A., Rowatt, T. L., & Cunningham, M. R. (1998). When a friend is in need: Feelings about seeking, giving, and receiving social support. In P. A. Andersen & L. K. Guerrero (Eds.), *Communication and emotion* (pp. 282–298). Orlando, FL: Academic Press.
- Bar-Kalifa, E., & Rafaeli, E. (2015). Above and below baselines: The nonmonotonic effects of dyadic emotional support in daily life. *Journal of Social and Personal Relationships*, 32(2), 161–179. <https://doi.org/10.1177/0265407514525888>
- Black, P. H., & Garbutt, L. D. (2002). Stress, inflammation and cardiovascular disease. *Journal of Psychosomatic Research*, 52(1), 1–23. [https://doi.org/10.1016/s0022-3999\(01\)00302-6](https://doi.org/10.1016/s0022-3999(01)00302-6)
- Bolger, N., Zuckerman, A., & Kessler, R. C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology*, 79(6), 953–961. <https://doi.org/10.1037//0022-3514.79.6.953>
- Brummett, B. H., Barefoot, J. C., Siegler, I. C., Clapp-Channing, N. E., Lytle, B. L., Bosworth, H. B., ... Mark, D. B. (2001). Characteristics of socially isolated patients with coronary artery disease who are at elevated risk for mortality. *Psychosomatic Medicine*, 63(2), 267–272. <https://doi.org/10.1097/00006842-200103000-00010>
- Burleson, B. R., & Goldsmith, D. J. (1998). How the comforting process works: Alleviating emotional distress through conversationally induced reappraisals. In P. A. Anderson & L. Guerrero (Eds.), *Handbook of communication and emotion* (pp. 246–281). San Diego, CA: Academic Press.
- Cacioppo, J. T., Hughes, M. E., Waite, L. J., Hawkley, L. C., & Thisted, R. A. (2006). Loneliness as a specific risk factor for depressive symptoms: Cross-sectional and longitudinal analyses. *Psychology and Aging*, 21(1), 140–151. <https://doi.org/10.1037/0882-7974.21.1.140>
- Caspi, A., Sugden, K., Moffitt, T. E., Taylor, A., Craig, I. W., Harrington, H., ... Poulton, R. (2003). Influence of life stress on depression: Moderation by a polymorphism in the 5-HTT gene. *Science*, 301(5631), 386–389. <https://doi.org/10.1126/science.1083968>
- Charles, S. T., Piazza, J. R., Mogle, J., Sliwinski, M. J., & Almeida, D. M. (2013). The wear and tear of daily stressors on mental health. *Psychological Science*, 24(5), 733–741. <https://doi.org/10.1177/0956797612462222>
- Cichy, K. E., Stawski, R. S., & Almeida, D. M. (2014). A double-edged sword: Race, daily family support exchanges, and daily well-being. *Journal of Family Issues*, 35(13), 1824–1845. <https://doi.org/10.1177/0192513x13479595>

- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <https://doi.org/10.1037//0033-2909.98.2.310>
- Dohrenwend, B. S. (1973). Life events as stressors: A methodological inquiry. *Journal of Health and Social Behavior*, 14(2), 161–175. <https://doi.org/10.2307/2137066>
- Finch, J. F., & Graziano, W. G. (2001). Predicting depression from temperament, personality, and patterns of social relations. *Journal of Personality*, 69(1), 27–55. <https://doi.org/10.1111/1467-6494.00135>
- Frasure-Smith, N., Lespérance, F., Gravel, G., Masson, A., Juneau, M., Talajic, M., & Bourassa, M. G. (2000). Social support, depression, and mortality during the first year after myocardial infarction. *Circulation*, 101(16), 1919–1924. <https://doi.org/10.1161/01.cir.101.16.1919>
- Gleason, M. E., Iida, M., Bolger, N., & Shrout, P. E. (2003). Daily supportive equity in close relationships. *Personality and Social Psychology Bulletin*, 29(8), 1036–1045. <https://doi.org/10.1177/0146167203253473>
- Gove, W. R., & Tudor, J. E. (1973). Adult sex roles and mental illness. *American Journal of Sociology*, 78(4), 812–835. <https://doi.org/10.1086/225404>
- House, J. S., Umberson, D., & Landis, K. R. (1988). Structures and processes of social support. *Annual Reviews of Sociology*, 14(1), 293–318. <https://doi.org/10.1146/annurev.soc.14.1.293>
- Jones, S. (2004). Putting the person into person-centered and immediate emotional support: Emotional change and perceived helper competence as outcomes of comforting in helping situations. *Communication Research*, 31(3), 338–360. <https://doi.org/10.1177/0093650204263436>
- Krause, N., & Shaw, B. A. (2000). Giving social support to others, socioeconomic status, and changes in self-esteem in late life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 55(6), S323–S333. <https://doi.org/10.1093/geronb/55.6.s323>
- Lee, E. K. O., & Sharpe, T. (2007). Understanding religious/spiritual coping and support resources among African American older adults: A mixed-method approach. *Journal of Religion, Spirituality & Aging*, 19(3), 55–75. https://doi.org/10.1300/j496v19n03_05
- Lu, L. (1997). Social support, reciprocity, and well-being. *The Journal of Social Psychology*, 137(5), 618–628. <https://doi.org/10.1080/00224549709595483>
- Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences*, 37(7), 1401–1415. <https://doi.org/10.1016/j.paid.2004.01.010>
- Piff, P. K., Kraus, M. W., Côté, S., Cheng, B. H., & Keltner, D. (2010). Having less, giving more: The influence of social class on prosocial behavior. *Journal of Personality and Social Psychology*, 99(5), 771–784. <https://doi.org/10.1037/a0020092>
- Poulin, M. J., Brown, S. L., Dillard, A. J., & Smith, D. M. (2013). Giving to others and the association between stress and mortality. *American Journal of Public Health*, 103(9), 1649–1655. <https://doi.org/10.2105/ajph.2012.300876>
- Rossi, A. S. (2001). Contemporary dialogue on civil society and social responsibility. In A. S. Rossi (Ed.), *Caring and doing for others: Social responsibility in the domains of family, work, and community* (pp. 3–75). Chicago, IL: The University of Chicago Press.
- Rowe, J. W., & Kahn, R. L. (1997). Successful aging. *The Gerontologist*, 37(4), 433–440. <https://doi.org/10.1093/geront/37.4.433>
- Sin, N. L., Graham-England, J. E., Ong, A. D., & Almeida, D. M. (2015). Affective reactivity to daily stressors is associated with elevated inflammation. *Health Psychology*, 34(12), 1154–1165. <https://doi.org/10.1037/hea0000240>
- Skrondal, A., & Rabe-Hesketh, S. (2003). Multilevel logistic regression for polytomous data and rankings. *Psychometrika*, 68(2), 267–287. <https://doi.org/10.1007/bf02294801>
- Strazdins, L., & Broom, D. H. (2007). The mental health costs and benefits of giving social support. *International Journal of Stress Management*, 14(4), 370–385. <https://doi.org/10.1037/1072-5245.14.4.370>
- Stroebe, W., & Stroebe, M. (1996). The social psychology of social support. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 597–621). New York: Guilford.
- Swickert, R. J., Hittner, J. B., & Foster, A. (2010). Big Five traits interact to predict perceived social support. *Personality and Individual Differences*, 48(6), 736–741. <https://doi.org/10.1016/j.paid.2010.01.018>
- Taylor, S. E. (2011). Social support. In H. S. Friedman (Ed.), *Oxford handbook of health psychology* (pp. 189–214). New York: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195342819.001.0001>
- Taylor, S. E. (2012). Tend and befriend theory. In P. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 1, pp. 32–49). Thousand Oaks, CA: Sage Publications. <https://doi.org/10.4135/9781446201022>
- Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review*, 107(3), 411–429. <https://doi.org/10.1037//0033-295x.107.3.411>
- Taylor, S. E., Sherman, D. K., Kim, H. S., Jarcho, J., Takagi, K., & Dunagan, M. S. (2004). Culture and social support: Who seeks it and why? *Journal of Personality and Social Psychology*, 87(3), 354–362. <https://doi.org/10.1037/0022-3514.87.3.354>
- Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior*, 36(Extra Issue), 53–79. <https://doi.org/10.2307/2626957>, Stress, Coping, and Social Support Processes: Where Are We? What Next?
- Thomas, P. A. (2010). Is it better to give or to receive? Social support and the well-being of older adults. *Journal of Gerontology: Social Sciences*, 65B(3), 351–357. <https://doi.org/10.1093/geronb/gbp113>
- Trobst, K. K., Collins, R. L., & Embree, J. M. (1994). The role of emotion in social support provision: Gender, empathy and expressions of distress. *Journal of Social and Personal Relationships*, 11(1), 45–62. <https://doi.org/10.1177/0265407594111003>
- Uchino, B. N. (2004). Theoretical perspectives linking social support to health outcomes. In B. N. Uchino (Ed.), *Social support and physical health: Understanding the health consequences of relationships* (pp. 33–53). New Haven, CT: Yale University Press. <https://doi.org/10.12987/yale/9780300102185.003.0003>
- Uchino, B. N., & Birmingham, W. (2011). Stress and support processes. In A. Baum & R. Contrada (Eds.), *The handbook of stress science: Biology, psychology, and health* (pp. 2010, 111–2122). New York, NY: Springer Publishing Company.
- Väänänen, A., Buunk, B. P., Kivimäki, M., Pentti, J., & Vahtera, J. (2005). When it is better to give than to receive: Long-term health effects of perceived reciprocity in support exchange. *Journal of Personality and Social Psychology*, 89(2), 176–193. <https://doi.org/10.1037/0022-3514.89.2.176>
- Wolff, J. L., & Agree, E. M. (2004). Depression among recipients of informal care: The effects of reciprocity, respect, and adequacy of support. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 59(3), S173–S180. <https://doi.org/10.1093/geronb/59.3.s173>
- Wolff, J. K., Schmiedek, F., Brose, A., & Lindenberger, U. (2013). Physical and emotional well-being and the balance of needed and received emotional support: Age differences in a daily diary study. *Social Science & Medicine*, 91, 67–75. <https://doi.org/10.1016/j.socscimed.2013.04.033>
- White, J. M., Klein, D. M., & Martin, T. F. (2015). *Family theories: An introduction* (4th ed.). Thousand Oaks, CA: Sage Publications.

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