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Helping Amid the Pandemic: Daily Affective and Social Implications of COVID-19-Related Prosocial Activities

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Abstract

Background and Objectives: The novel coronavirus disease 2019 (COVID-19) pandemic may have prompted more engagement in prosocial activities, such as volunteering and support transactions. The day-to-day affective and social implications of these activities for adults of different ages are unknown. The current study examined associations of daily prosocial activities with affective and social well-being, and whether these associations varied by age.
Research Design and Methods: Participants ages 18–91 in Canada and the United States ($N = 1,028$) completed surveys for 7 consecutive evenings about their daily experiences of COVID-19-related prosocial activities (formal volunteering, support provision, support receipt), positive and negative affect, and satisfaction with social activities and relationships. Analyses were conducted using multilevel modeling and accounted for a range of potential confounding factors (e.g., sociodemographics, work, family, caregiving, daily stressors).
Results: Older age predicted more frequent formal volunteering, as well as more support provision and support receipt due to COVID-19. In particular, middle-aged and older adults provided more emotional support than younger adults, middle-aged adults provided the most tangible support, and older adults received the most emotional support. All three types of prosocial activities were associated with higher positive affect and greater social satisfaction on days when they occurred. Providing COVID-19-related support further predicted lower same-day negative affect. Age did not significantly moderate these associations.
Discussion and Implications: Older age was related to more frequent engagement in prosocial activities during the COVID-19 crisis. These activities were associated with improved daily affective and social well-being for adults of all ages.

Keywords: Emotion, Daily diary, Social support, Support transactions

The novel coronavirus disease 2019 (COVID-19) pandemic, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has had far-reaching impacts on social behavior. In particular, the pandemic may have prompted an outpouring of *prosocial activities*, or voluntary activities intended to benefit other people, groups, or causes (Eisenberg & Miller, 1987). News outlets and social media abound with reports of communities helping one another in the wake of the crisis, from increased efforts to stay connected with loved ones, to delivering groceries and medicine for neighbors, to establishing and participating in mutual aid groups (Tolentino, 2020). Substantial evidence suggests that people who engage in prosocial activities—including formal volunteering (e.g., volunteering through a group or organization, such as a school or church) and informal volunteering (e.g., helping a neighbor)—tend to show better health and well-being over time, particularly in late adulthood (Anderson et al., 2014; Kim & Ferraro, 2014; Morrow-Howell, 2010).

Older adults in the United States and Canada devote more time towards formal and informal volunteering than any other age group (Hahmann et al., 2020; United States Bureau of Labor Statistics, 2016). Based on U.S. national daily diary studies, this time commitment translates to formal volunteering on 8%–9% of days, informal volunteering on 9%–12% of days, and providing emotional support on 31%–32% of days, with older adults engaging in more formal and informal volunteering but less provision of emotional support (Chi et al., in press). However, this age pattern may have shifted due to COVID-19. Older adults are more likely to have risk factors (e.g., chronic conditions) that pose elevated risk for mortality from COVID-19 (Zhou et al., 2020); therefore, they may be less able to engage in prosocial activities outside the home. Compared to their younger counterparts, older adults may encounter more difficulty with transitioning to performing prosocial activities remotely, such as volunteering online or giving emotional support by phone. Although roughly two-thirds of Americans and Canadians aged 65 and older use the internet, the rates of digital technology use are lower at older ages and among those with lower socioeconomic status (Pew Research Center, 2017; Statistics Canada, 2019). By contrast, younger and middle-aged adults are tasked with providing care for others because of—and despite—their work and family roles, and may be heeding the call to help vulnerable members of their communities (Ong & Burrow, 2020).

In addition to longer-term health and cognitive benefits (Burr et al., 2016; Carlson et al., 2008), prosocial activities may confer more immediate psychological, physical, and social effects. To examine the proximal effects of naturally occurring prosocial activities and to better account for person-level confounding factors (e.g., better health, socioeconomic status), it is necessary to move beyond comparisons between persons (e.g., *Do volunteers have higher well-being than non-volunteers?*) to examine within-person fluctuations in well-being on occasions when prosocial activities occur (e.g., *Is well-being higher on days when volunteering occurs, relative to non-volunteering days?*). Naturalistic studies that adopt this within-person approach have demonstrated that prosocial activities predict greater same-day feelings of social connectedness and self-enhancement (Grossman et al., 2019), higher positive affect (PA; Raposa et al., 2016), more positive events (Chi et al., in press), and reduced reactivity to stressors (Han et al., 2018; Raposa et al., 2016). Importantly, this within-person approach has also revealed some negative consequences for helpers, depending on the type of activity and the person's age. For example, formal volunteering, informal volunteering, and providing emotional support were associated with same-day increases in both stressors and positive events, suggesting that these were active days with opportunities for a variety of psychosocial experiences (Chi et al., in press). Providing emotional support, in particular, may have greater psychological and health costs than

volunteering activities. On days when individuals provided emotional support, their negative affect (NA) and physical symptoms increased (Chi et al., in press) and PA decreased (Grossman et al., 2019). Compared to younger and middle-aged adults, older adults were protected from these upticks in NA and stressors when they provided emotional support, yet they also showed less of an increase in positive events (Chi et al., in press).

The costs and benefits of *receiving* support amid COVID-19 should be considered as well. Although perceived social support is consistently associated with better outcomes, received support arises in response to stressful contexts and has less clear-cut associations with health and well-being (Brown et al., 2003; Uchino, 2009). Received support has been linked to heightened same-day stress and NA, yet it can also contribute to greater feelings of closeness (Bolger et al., 2000; Gleason et al., 2008; Joo et al., 2020). These effects may differ based on age: Received support could evoke negative reactions among older adults if the support is seen as undermining their independence (Martire et al., 2002), whereas a mismatch between needed support and received support can be particularly detrimental for younger adults (Wolff et al., 2013). For adults of all ages, the stressful context of COVID-19 has likely led to increased support transactions that may have important psychological and social implications.

Public discourse during COVID-19 has portrayed older adults as vulnerable and unable to contribute to society (Ayalon et al., 2020), yet emerging evidence suggests that noninstitutionalized older adults are faring better psychologically than their younger counterparts. Younger and middle-aged adults are relatively more worried about COVID-19 (Klaiber et al., 2020) and have greater psychological distress during the pandemic (Bruine de Bruin, 2020). Drawing on theoretical accounts of role accumulation (Sieber, 1974) and multiple role identities (Thoits, 1983), older adults are expected to benefit more from the social integration, identity, and resources that come from adopting prosocial roles, whereas younger and middle-aged adults are more likely to experience role strain and diminishing psychological returns from helping others (Morrow-Howell, 2010; Van Willigen, 2000). For prosocial activities that are emotion-eliciting and stressful (e.g., providing emotional support), older age is associated with strengths in emotion regulation that can minimize the impact of negative experiences (Charles, 2010). Thus, younger and middle-aged adults might be responsible for providing more help related to COVID-19 within their families and communities, yet may not be as well-equipped as older adults to cope with the psychological impacts of the outbreak.

Given the potentially high prevalence of prosocial activities amid COVID-19, it is important to understand the affective and social ramifications of these activities.

In this preregistered study, we sought to examine: (a) age differences in the frequency of formal volunteering, providing support related to COVID-19, and receiving support related to COVID-19; (b) within-person associations between prosocial activities and PA, NA, and satisfaction with social activities and relationships; and (c) age as a moderator of the links between prosocial activities and same-day affective and social well-being. We hypothesized—diverging from past evidence—that younger age would be associated with greater engagement in prosocial activities during the pandemic. These activities were expected to predict higher same-day PA, NA, and social satisfaction. Age was hypothesized to moderate the associations, such that older adults would show less-increased NA as well as less-increased PA and social satisfaction on days when prosocial activities occurred, compared to younger and middle-aged adults. These hypotheses were tested using daily diary data collected from March 2020—soon after cities in North America began issuing stay-at-home orders—through early August 2020.

Design and Methods

Design and Sample

This study and the data analysis plan were preregistered on the Open Science Framework website (https://osf.io/kxaqv). Supplementary Table S1 summarizes deviations from the preregistration. Participants were recruited for an online study through popular print, television, and radio news outlets in North America; social media (e.g., university media channels); community organizations (e.g., YMCA); and institutions (e.g., local hospital). No monetary incentives were offered for participation. Adults ages 18 and older from Canada and the United States were eligible to enroll in the daily diary study. The surveys were offered in English, simplified and traditional Chinese, and Farsi because our local region had initial COVID-19 cases related to travel from China and Iran. All participants chose to fill out the surveys in English. Participants first completed a baseline questionnaire, followed by daily diaries for seven consecutive days. Email prompts were sent at 7 a.m. and 7 p.m. local time with links to brief morning and evening surveys on the Qualtrics survey platform. The present analyses focused on data from the evening survey, as this survey included questions about the day's prosocial activities, affect, and social satisfaction. Data were collected from March 18, 2020 to August 3, 2020 from 1192 participants who completed a total of 6,836 evening surveys (82% compliance rate; mean surveys completed = 5.74, *SD* = 1.72, median = 7).

Because past research indicates that emotional support provision and receipt might occur on only an average of 2–3 days in a week (Joo et al., 2020), we made an a priori decision to limit our analyses to only those participants who completed at least four of the seven evening surveys (i.e., ≥57% compliance rate) to ensure that we could more accurately capture the frequency of daily prosocial activities across a week. Of the 1,044 participants who met this criterion, an additional 16 participants were excluded from analyses for missing data on gender (*n* = 2), education (*n* = 1), and household income (*n* = 13). Our final analytic sample consisted of 1,028 participants, or 86% of the full daily diary sample. The study procedures were approved by the research ethics board at the authors' university.

Measures

Daily prosocial activities
The evening surveys asked participants whether they had engaged in any *formal volunteering* that day: "Today, did you engage in formal volunteer work for a church, hospital, community center, or other organization?" Participants were also asked about *support provision related to COVID-19*: "Today, did you provide help or support to anyone for reasons related to COVID-19?" *Support received related to COVID-19* was assessed with the question: "Today, did anyone help or support you for reasons related to COVID-19?" Response options were *yes* (1) or *no* (0).

If the participant responded "yes" to providing or receiving support, they were subsequently asked to select the type of support (multiple response options allowed): (a) *Emotional support*, (b) *Supplies or food*, (c) *Assistance with medical care*, (d) *Help with work/school responsibilities*, (e) *Help with family/home responsibilities*, (f) *Provided or received information*, and (g) *Other*. We created dummy-coded variables to indicate the provision or receipt (yes/no) of *Emotional Support* and of *Tangible Support* (composed of affirmative answers to any of these four items: *supplies or food*, *assistance with medical care*, *help with work/school responsibilities*, and *help with family/home responsibilities*). We did not conduct further analyses for informational support or miscellaneous types of support, as we were primarily interested in emotional and tangible support.

Daily affect
Daily affect was assessed in the evening surveys using items based on the U.S. National Study of Daily Experiences (Charles et al., 2019). Past research has demonstrated age differences in the intra-individual factor structure of emotions in daily life; we therefore assessed PA and NA using items that have previously been shown to capture the range of emotional experiences that are most relevant for younger, middle-aged, and older adults (Charles et al., 2019). Specifically, daily affect was assessed using seven items for *NA* (*anxious*, *sad*, *angry*, *frustrated*, *disgusted*, *lonely*, and *ashamed*) and nine items for *PA* (*enthusiastic*, *happy*, *satisfied*, *confident*, *calm*, *like you belong*, *close to others*, *proud*, and *full of life*). Participants rated the extent that each item described how they felt that day using a sliding scale from *not at all* (0) to *extremely* (100). The items were averaged within their respective subscales to

compute daily NA and PA. The affect scales had good between-person reliability (R_{KF} = .98 for NA, .99 for PA) and within-person reliability (R_C = .74 for NA, .85 for PA).

Satisfaction with social activities and relationships

In the evening surveys, participants were administered items derived from brief versions of the Patient Reported Outcomes Measurement Information System (PROMIS) Scale v 1.2—Global Health instrument, which was developed by the National Institutes of Health to assess physical, mental, and social well-being (Hays et al., 2017). Participants were asked the following question about *daily social satisfaction* adapted from PROMIS Global Mental Health for use in daily diaries, "How would you rate your satisfaction with your social activities and relationships today?" Ratings were made on a sliding scale from *Poor* (0) to *Excellent* (100).

Covariates

The baseline questionnaire included questions about sociodemographics, work and family characteristics, caregiving, and health. We controlled for these variables in the analyses, as they were likely to be confounded with or to influence prosocial activities, affect, and social well-being. Specifically, *age* was tested as a moderator, and the analyses covaried for *gender* (woman, man, other gender), *race* (White vs non-White), *education* (college graduate vs. non-college graduate), and *country of residence* (Canada vs. United States). *Household income* in the past year was reported by indicating one of eight income ranges, with categories from "Less than $25,000" to "$200,000 or more." To approximate a median split, we created a dummy-coded variable for household income ≥$75,000.

Participants reported their employment status on the baseline questionnaire; responses included full-time employed, part-time employed, not employed, caregiving (e.g., for children or older adults), student, or retired. Two dummy-coded variables were used to indicate whether participants were *employed* (either full- or part-time) or *retired*. Separately, *caregiver status* was defined as an affirmative response to questions regarding providing care for someone over the age of 60 or providing care for someone with a chronic medical condition. For *parent status*, participants answered a separate question asking whether they had a child under the age of 18. Thus, employment/ retirement status, caregiver status, and parent status were assessed with separate questions, but we did not have information about whether participants were employed as caregivers. The *presence of a chronic condition* was assessed with the item, "I have a chronic medical condition such as heart disease, lung disease, or diabetes" (1 = *yes*, 0 = *no*). Participants were asked about their *COVID-19 status*. However, because no participants reported having COVID-19 as confirmed with testing, we did not control for COVID-19 status.

The analyses also controlled for *daily provision of assistance for disability/special needs* (not specifically related to COVID-19) as well as *daily stressors*, which were both assessed in the evening survey. Specifically, immediately after the questions about COVID-19 prosocial activities, participants were asked, "Today, did you provide assistance to someone who has a health problem, disability, or other special needs (other than what you have already reported)?" Responses were *yes* or *no*. The *number of daily stressors* were determined by asking participants whether each of the following eight stressful events had occurred that day: (a) *argument, conflict, or disagreement*; (b) *family or home stress*; (c) *work or school stress*; (d) *financial problem*; (e) *traffic or transportation stress*; (f) *health problem or accident*; (g) *stressful event that happened to close friends or family*; and (h) *other stressful event* (Klaiber et al., 2020).

Analytic Strategy

Analyses were conducted using R version 4.0.0. First, age group differences in the study variables were examined using χ^2 tests for categorical variables and one-way ANOVAs with Tukey HSD tests for continuous variables. For this initial analysis, age was categorized as younger (ages 18–39), middle-aged (ages 40–59), and older (ages 60–91). We used the cutpoint of age 60 for older adults because initial public health recommendations stated that individuals aged 60 years and above were among those at highest risk for severe COVID-19 and death (World Health Organization, 2020), which may have influenced support exchanges and well-being among older adults and their close contacts. Next, unconditional means models were run to partition the outcome variation at the between-person versus within-person levels of analysis. We computed intraclass correlation coefficients (ICCs; between-person variation/total variation) for the predictor and outcome variables.

Age was subsequently examined as a continuous variable in the primary analyses. Two-level models using restricted maximum likelihood estimation (lme4 and lmerTest packages in R) were run for each of the prosocial activities—formal volunteering, support provision, and support receipt—as predictors of daily PA, NA, and satisfaction with social activities and relationships. Predictors and covariates from the daily diaries (i.e., prosocial activities, stressors, and daily provision of assistance for disability) were centered at the person-mean (i.e., group-mean) and entered at Level 1, whereas age and person-means of these daily variables were grand mean centered and entered at Level 2. All other covariates were categorical or dummy-coded variables entered at Level 2. A random slope for daily support provision was included to allow people to differ from one another in the associations between support provision and affective or social well-being outcomes. As denoted in Tables 2 and 4, the random slopes for formal volunteering and

support receipt were removed due to nonconvergence. To examine age as a moderator of the associations between prosocial activities and well-being outcomes, we included interactions for Age × Daily prosocial activity in each of the multilevel models. As secondary analyses, we ran models that replaced "any support provision" and "any support receipt" predictors with dummy-coded variables for "emotional support" and for "tangible support."

Results

Sample Characteristics and Study Variables by Age Group

As shown in Table 1, nearly all study variables differed by age group, except for country of residence and rates of receiving tangible support. Participants (*N* = 1,028) ranged in age from 18 to 91 years (mean age = 45.8, *SD* = 16). The sample was 87% women (12% men, 1% other gender),

69% college educated, and 89% identified as White race. Eighty percent of participants resided in Canada and were from 10 of the 13 provinces and territories. Participants in the United States (20%) came from 38 states.

Older adults volunteered more frequently than middle-aged and younger adults. Compared to younger adults, middle-aged and older adults were more likely to provide any help or support. Middle-aged and older adults provided emotional support at similar rates, whereas middle-aged adults provided the most tangible support. Older adults were more likely than younger and middle-aged adults to receive any help or support, particularly emotional support. There were no significant age differences in the frequency of receiving tangible support. Older age was associated with higher daily PA, lower NA, and more satisfaction with social activities and relationships.

Most of the variance in prosocial activities was attributable to within-person fluctuations from day-to-day.

Table 1. Mean (*SD*) or *N* (%) for Study Variables by Adult Age Group

Variable	Younger (18–39 years), *n* = 424	Middle-aged (40–59 years), *n* = 342	Older (60–91 years), *n* = 262	*p*-Value
Participant characteristics				
Gender				.009
Women	376 (88.7%)[a,b]	299 (87.4%)[b,c]	218 (83.2%)[a,c]	
Men	40 (9.4%)[a]	40 (11.7%)	44 (16.8%)[a]	
Other gender	8 (1.9%)[a]	3 (0.9%)	0 (0%)[a]	
Canada (vs United States)	330 (77.8%)	276 (80.7%)	213 (81.3%)	.463
White race	355 (83.7%)[a,b]	312 (91.2%)[b]	246 (93.9%)[a]	<.001
College graduate	309 (72.9%)[a,b]	239 (69.9%)[b]	165 (63.0%)[a]	.023
Employed	294 (69.3%)[a]	251 (73.4%)[c]	89 (34.0%)[a,c]	<.001
Retired	0 (0%)[a,b]	29 (8.5%)[b,c]	162 (61.8%)[a,c]	<.001
Household income ≥$75,000	225 (53.1%)[a,b]	249 (72.8%)[b,c]	115 (43.9%)[a,c]	<.001
Any chronic condition	57 (13.4%)[a,b]	87 (25.4%)[b]	81 (30.9%)[a]	<.001
Caregiver	27 (6.4%)[b]	39 (11.4%)[b]	24 (9.2%)	.048
Parent of child under age 18	88 (20.8%)[a,b]	129 (37.7%)[b,c]	8 (3.1%)[a,c]	<.001
Provided assistance for disability, % of days	7% (16%)[a,b]	12% (21%)[b]	13% (22%)[a]	<.001
No. of daily stressors	0.96 (0.63)	1.00 (0.71)[c]	0.85 (0.59)[c]	.014
Prosocial activities, % of days				
Formal volunteering	3% (10%)[a,b]	6% (17%)[b,c]	10% (23%)[a,c]	<.001
Provided any help or support	25% (29%)[a,b]	38% (34%)[b]	38% (34%)[a]	<.001
Provided emotional support	17% (26%)[a,b]	26% (31%)[b]	29% (31%)[a]	<.001
Provided tangible support	11% (20%)[b]	18% (24%)[b,c]	12% (21%)[c]	<.001
Received any help or support	20% (27%)[a]	23% (28%)[c]	29% (29%)[a,c]	<.001
Received emotional support	14% (23%)[a]	16% (24%)	20% (26%)[a]	.016
Received tangible support	8% (17%)	10% (17%)	11% (17%)	.21
Daily well-being outcomes				
Daily positive affect	43.22 (17.20)[a,b]	47.94 (18.03)[b]	51.24 (19.82)[a]	<.001
Daily negative affect	28.22 (15.05)[a]	26.45 (16.47)[c]	22.66 (15.89)[a,c]	<.001
Social satisfaction	55.54 (19.64)[a,b]	59.27 (19.76)[b,c]	63.23 (19.62)[a,c]	<.001

Notes: N = 1,028 persons. Age was grouped into categories for descriptive purposes in this table. In the subsequent analyses, age was entered as a continuous variable. *p*-Values for group differences were obtained using χ² tests for categorical variables and one-way ANOVA with Tukey HSD tests for continuous variables.
[a]Significant difference between younger and older adults. [b]Significant difference between younger and middle-aged adults. [c]Significant difference between middle-aged and older adults.

Specifically, ICCs were .44 for daily formal volunteering, .38 for support provision (emotional support provision = .38, tangible support provision = .28), and .34 for support receipt (emotional support receipt = .33, tangible support receipt = .22). ICCs also showed a great deal of within-person variation for the daily well-being outcomes: PA = .65, NA = .60, and social satisfaction = .46.

Formal Volunteering

Table 2 presents the results from multilevel models for daily formal volunteering predicting same-day affective and social well-being, with age as a hypothesized moderator. Between-persons, people who engaged in more frequent volunteering had higher mean daily PA, lower mean NA, and were more satisfied with their social activities and relationships, compared to those who volunteered less frequently. Within-persons, PA and social satisfaction were higher on days when volunteering occurred, compared to days without volunteering. Older age was associated with higher daily PA and social satisfaction but was not significantly predictive of daily NA. Age did not moderate the associations of daily volunteering with daily affect or social satisfaction.

Support Provision

People who provided more help or support related to COVID-19 had higher mean levels of daily PA, lower mean NA, and were more satisfied with their social relationships and activities, compared to those who provided help or support less frequently (Table 3). In line with the between-person findings, on days when people provided COVID-19-related help or support, they reported higher PA and social satisfaction and lower NA. Age did not moderate these associations. In secondary analyses, both emotional and tangible support provision were associated with increased PA and social satisfaction, but only emotional support provision was further associated with lower NA (Supplementary Tables S2 and S3).

Support Receipt

As shown in Table 4, people who received more support related to COVID-19 had higher mean daily PA and higher mean social satisfaction but no difference in mean daily NA, compared to those who received support less frequently. At the within-person level, on days when people received COVID-19-related support, they had higher-than-usual PA and social satisfaction but no difference in daily NA. Age did not moderate the within-person relationships between support receipt and daily affect or social satisfaction. Secondary analyses revealed that both emotional and tangible forms of support receipt predicted higher same-day social satisfaction (Supplementary Tables S4 and S5),

and receiving tangible support was also related to higher PA (Supplementary Table S5).

Discussion and Implications

This study examined the within-person associations between daily prosocial activities (i.e., formal volunteering, and providing and receiving support related to COVID-19) with PA, NA, and satisfaction with social activities and relationships in the initial four and a half months of the COVID-19 pandemic in Canada and the United States. The results revealed that older age was associated with more frequent engagement in daily prosocial activities. All three types of prosocial activities predicted higher PA and greater satisfaction with social relationships and activities on days when they occurred. Providing COVID-19-related support was further associated with lower same-day NA. These effects were age-invariant, indicating that prosocial activities were important for well-being among adults of all ages in the wake of the COVID-19 pandemic.

Contrary to our expectations that older adults would be less able to volunteer during the pandemic, we found that older adults engaged in more formal volunteering than did younger and middle-aged adults. Because older adults have long been the backbone of the volunteer workforce in North America (Anderson et al., 2014), they may have had more opportunities to continue volunteering through organizations with which they were already affiliated. Younger and middle-aged adults, on the other hand, reported much lower rates of volunteering on a daily basis, perhaps due to immense family- and work-related disruptions (e.g., home-schooling children, job loss, remote work). In addition, older age was associated with a greater frequency of providing and receiving any COVID-19-related support; these age differences were specifically driven by emotional rather than tangible support. Notably, middle-aged adults provided tangible support most frequently, possibly due to social roles that bring more responsibility, such as providing support to grown children and aging parents (Fingerman et al., 2016). Older adults may have been inhibited from providing tangible support by concerns regarding their higher risk for severe health consequences from COVID-19.

Previous daily diary evidence suggests that providing emotional support is associated with increased NA (Chi et al., in press) and does not enhance feelings of social connectedness (Grossman et al., 2019). Our current findings may have differed from past research because we examined support provided specifically for reasons related to COVID-19. The context of the pandemic perhaps made it more commonplace for people to check in with members of their social circles and to provide various types of support. Given that loneliness, stress, and mental health problems are prevalent during COVID-19—especially among younger adults (Bruine de Bruin, 2020; Klaiber et al., 2020)—volunteering and providing

Table 2. Multilevel Models for Formal Volunteering Predicting Same-Day Affective and Social Well-being

Parameters	Positive affect, *n* = 6,401 days			Negative affect, *n* = 6,401 days			Social satisfaction, *n* = 6,382 days		
	Est.	95% CI	*p*	Est.	95% CI	*p*	Est.	95% CI	*p*
Fixed effects									
Intercept	38.76	34.01–43.51	<.001	32.92	29.04–36.79	<.001	52.20	47.03–57.37	<.001
Age	0.18	0.09–0.27	<.001	−0.06	−0.14 to 0.01	.076	0.19	0.09–0.28	<.001
Men (vs women)	0.46	−2.80 to 3.72	.782	−0.18	−2.85 to 2.48	.892	−1.86	−5.40 to 1.69	.305
Other gender (vs women)	−2.84	−13.03 to 7.34	.584	7.61	−0.71 to 15.93	.073	−6.90	−17.99 to 4.19	.223
Canada (vs United States)	2.06	−0.60 to 4.71	.129	−3.99	−6.16 to −1.82	<.001	1.53	−1.36 to 4.42	.300
White race	0.00	−3.37 to 3.37	.999	0.46	−2.29 to 3.21	.743	−1.00	−4.66 to 2.67	.595
College graduate	1.39	−0.95 to 3.72	.244	−2.10	−4.00 to −0.19	.031	2.46	−0.08 to 5.00	.058
Employed	3.68	1.03–6.33	.007	−1.47	−3.64 to 0.70	.184	4.53	1.64–7.41	.002
Retired	2.03	−2.07 to 6.13	.331	−3.42	−6.77 to −0.07	.045	3.13	−1.33 to 7.59	.169
Household income ≥$75,000	4.18	1.93–6.43	<.001	−2.16	−4.00 to −0.33	.021	2.92	0.47–5.36	.019
Any chronic condition	−0.76	−3.37 to 1.85	.570	1.09	−1.04 to 3.22	.317	−3.47	−6.31 to −0.63	.017
Caregiver	2.39	−1.39 to 6.16	.215	−0.22	−3.30 to 2.86	.890	3.57	−0.54 to 7.68	.088
Parent of child <18 years	2.29	−0.37 to 4.95	.091	−0.81	−2.98 to 1.36	.466	1.65	−1.25 to 4.54	.265
Provided assistance for disability (BP)	8.84	3.20–14.47	.002	−6.31	−10.92 to −1.71	.007	9.87	3.73–16.01	.002
Provided assistance for disability (WP)	1.30	−0.05 to 2.64	.059	0.00	−1.23 to 1.23	1.000	2.76	0.67–4.85	.010
No. of daily stressors (BP)	−7.79	−9.44 to −6.14	<.001	10.20	8.85–11.55	<.001	−7.81	−9.61 to −6.01	<.001
No. of daily stressors (WP)	−4.18	−4.56 to −3.79	<.001	5.40	5.05–5.75	<.001	−4.48	−5.08 to −3.88	<.001
Volunteering (BP)	10.35	3.89–16.80	.002	−6.31	−11.59 to −1.04	.019	7.88	0.84–14.92	.028
Volunteering (WP)	2.30	0.20–4.39	.032	−1.65	−3.56 to 0.26	.090	5.49	2.25–8.74	.001
Age × Volunteering (WP)	−0.08	−0.20 to 0.05	.224	0.07	−0.05 to 0.18	.256	−0.18	−0.38 to 0.01	.069
Random effects, SD (95% CI)[a]									
Residual	12.44 (12.20–12.67)			11.34 (11.13–11.56)			19.24 (18.88–19.60)		
Intercept	16.25 (15.37–16.90)			13.11 (12.38–13.66)			16.79 (15.77–17.54)		

Notes: BP = between-person; CI = confidence interval; WP = within-person. *N* = 1,028 persons.

[a]To ensure model convergence, we did not estimate the random slope for daily volunteering.

Table 3. Multilevel Models for Support Provision Predicting Same-Day Affective and Social Well-being

Parameters	Positive affect, n = 6,399 days			Negative affect, n = 6,399 days			Social satisfaction, n = 6,380 days		
	Est.	95% CI	p	Est.	95% CI	p	Est.	95% CI	p
Fixed effects									
Intercept	39.83	35.17–44.49	<.001	32.50	28.63–36.37	<.001	53.52	48.45–58.60	<.001
Age	0.15	0.06–0.23	.001	−0.06	−0.13 to 0.01	.094	0.15	0.06–0.24	.002
Men (vs women)	1.67	−1.52 to 4.86	.305	−0.65	−3.30 to 2.00	.629	−0.77	−4.24 to 2.71	.665
Other gender (vs women)	−2.51	−12.48 to 7.46	.622	7.39	−0.88 to 15.67	.080	−7.03	−17.89 to 3.83	.205
Canada (vs United States)	1.26	−1.35 to 3.87	.343	−3.74	−5.91 to −1.58	.001	0.68	−2.16 to 3.52	.639
White race	0.46	−2.83 to 3.76	.783	0.21	−2.52 to 2.95	.879	−0.61	−4.20 to 2.98	.739
College graduate	0.79	−1.50 to 3.08	.499	−1.82	−3.72 to 0.09	.061	1.73	−0.77 to 4.22	.174
Employed	2.49	−0.11 to 5.10	.061	−0.93	−3.09 to 1.23	.400	3.35	0.51–6.18	.021
Retired	1.24	−2.78 to 5.25	.546	−2.83	−6.17 to 0.50	.095	2.50	−1.87 to 6.87	.262
Household income ≥$75,000	4.47	2.28–6.67	<.001	−2.25	−4.07 to −0.42	.016	3.11	0.71–5.50	.011
Any chronic condition	−0.28	−2.83 to 2.27	.830	0.77	−1.35 to 2.88	.478	−3.10	−5.87 to −0.32	.029
Caregiver	2.42	−1.27 to 6.11	.199	−0.31	−3.37 to 2.76	.844	3.56	−0.47 to 7.58	.083
Parent of child <18 years	2.41	−0.19 to 5.02	.069	−0.86	−3.02 to 1.31	.437	1.80	−1.04 to 4.64	.214
Provided assistance for disability (BP)	7.11	1.61–12.62	.011	−6.13	−10.70 to −1.55	.009	7.42	1.42–13.43	.015
Provided assistance for disability (WP)	1.03	−0.32 to 2.37	.135	0.11	−1.12 to 1.34	.857	2.27	0.19–4.36	.033
No. of daily stressors (BP)	−9.38	−11.04 to −7.73	<.001	10.85	9.48–12.23	<.001	−9.37	−11.17 to −7.56	<.001
No. of daily stressors (WP)	−4.31	−4.70 to −3.92	<.001	5.45	5.10–5.80	<.001	−4.72	−5.32 to −4.12	<.001
Support provision (BP)	12.56	9.20 to 15.93	<.001	−4.22	−7.02 to −1.42	.003	12.62	8.95–16.28	<.001
Support provision (WP)	2.95	1.99–3.91	<.001	−1.21	−2.08 to −0.34	.006	4.77	3.24–6.30	<.001
Age × Support provision (WP)	0.01	−0.05 to 0.08	.660	−0.00	−0.06 to 0.05	.956	−0.01	−0.11 to 0.09	.835
Random effects, SD (95% CI)									
Residual	12.31 (12.06–12.56)			11.27 (11.04–11.49)			18.96 (18.58–19.34)		
Intercept	15.90 (15.04–16.54)			13.10 (13.34–14.94)			16.45 (15.46–17.19)		
Support provision (WP)	4.08 (0.64–5.85)			3.47 (0.92–5.13)			7.90 (4.65–10.34)		
Correlation: intercept, support provision (WP)	−0.14 (−0.93 to 0.019)			−0.37 (−1.00 to −0.09)			−0.20 (−0.46 to 0.02)		

Note: BP = between-person; CI = confidence interval; WP = within-person. *N* = 1,028 persons.

Table 4. Multilevel Models for Support Receipt Predicting Same-Day Affective and Social Well-being

Parameters	Positive affect, n = 6,398 days			Negative affect, n = 6,398 days			Social satisfaction, n = 6,379 days		
	Est.	95% CI	p	Est.	95% CI	p	Est.	95% CI	p
Fixed effects									
Intercept	38.80	34.06–43.53	<.001	32.96	29.07–36.84	<.001	52.28	47.14–57.42	<.001
Age	0.17	0.08–0.25	<.001	−0.07	−0.15 to −0.00	.045	0.17	0.07–0.27	<.001
Men (vs women)	1.56	−1.70 to 4.81	.348	−0.44	−3.12 to 2.23	.745	−0.82	−4.35 to 2.72	.650
Other gender (vs women)	−3.35	−13.50 to 6.79	.517	7.77	−0.57 to 16.11	.068	−7.34	−18.37 to 3.68	.192
Canada (vs United States)	1.52	−1.14 to 4.18	.264	−3.96	−6.15 to −1.77	<.001	0.96	−1.93 to 3.85	.514
White race	0.80	−2.57 to 4.17	.642	0.32	−2.44 to 3.09	.819	−0.23	−3.89 to 3.43	.902
College graduate	0.74	−1.61 to 3.08	.538	−2.05	−3.98 to −0.13	.037	1.80	−0.75 to 4.34	.167
Employed	3.17	0.52–5.81	.019	−1.30	−3.47 to 0.87	.240	4.06	1.19–6.93	.006
Retired	1.86	−2.22 to 5.94	.372	−3.30	−6.65 to 0.06	.054	3.00	−1.43 to 7.43	.185
Household income ≥$75,000	4.70	2.46–6.95	<.001	−2.24	−4.09 to −0.40	.017	3.42	0.98–5.86	.006
Any chronic condition	−0.60	−3.19 to 2.00	.652	0.94	−1.19 to 3.07	.389	−3.37	−6.19 to −0.55	.019
Caregiver	2.66	−1.10 to 6.42	.166	−0.25	−3.34 to 2.84	.873	3.86	−0.23 to 7.95	.064
Parent of child < 18 years	2.29	−0.36 to 4.94	.090	−0.77	−2.95 to 1.41	.487	1.67	−1.21 to 4.55	.256
Provided assistance for disability (BP)	9.34	3.78–14.90	.001	−7.14	−11.71 to −2.57	.002	10.00	3.95–16.04	.001
Provided assistance for disability (WP)	1.28	−0.07 to 2.62	.063	−0.02	−1.25 to 1.21	.976	2.71	0.62–4.79	.011
No. of daily stressors (BP)	−8.84	−10.53 to −7.15	<.001	10.35	8.96–11.74	<.001	−8.85	−10.69 to −7.01	<.001
No. of daily stressors (WP)	−4.20	−4.59 to −3.81	<.001	5.40	5.05–5.75	<.001	−4.58	−5.18 to −3.98	<.001
Support receipt (BP)	8.37	4.41–12.34	<.001	−0.24	−3.50 to 3.02	.884	8.72	4.41–13.03	<.001
Support receipt (WP)	1.16	0.18–2.14	.020	−0.00	−0.90 to 0.89	.993	3.53	2.01–5.05	<.001
Age × Support receipt (WP)	0.03	−0.03 to 0.09	.323	−0.05	−0.11 to 0.00	.055	−0.00	−0.10 to 0.09	.954
Random effects, SD (95% CI)[a]									
Residual	12.44 (12.20–12.67)			11.34 (11.13–11.56)			19.23 (18.86–19.59)		
Intercept	16.18 (15.31–16.84)			13.15 (12.42–13.69)			16.68 (15.67–17.42)		

Notes: BP = between-person; CI = confidence interval; WP = within-person. *N* = 1,028 persons.
[a]To ensure model convergence, we did not estimate the random slope for daily support receipt.

support could be feasible approaches for strengthening social satisfaction during the pandemic.

Receiving support for COVID-19 was also linked to higher affective and social well-being for adults of all ages. Past research on support receipt has shown variable and sometimes negative effects of received support on health and well-being outcomes (Uchino, 2009). In contrast to the existing literature, perhaps the support received specifically for COVID-19 (e.g., comfort, supplies, help with children's distance learning) was more appropriate and welcome in the current context, rather than unsolicited support that might imply incompetence (Smith & Goodnow, 1999) or received support that threatens the recipient's sense of independence (Martire et al., 2002). Furthermore, support exchanges are a two-way street: people may have spontaneously given and received support in the same social interactions (Joo et al., 2020), thus reducing the otherwise negative impact of received support on self-esteem (Bolger et al., 2000). Lastly, the support received during COVID-19 may have been well matched with the recipient's needs. For example, emotional support—received on 20% of days among older adults in this study—is perhaps the most effective form of social support for coping with uncontrollable events (Uchino, 2009).

The findings of this study should be considered in light of its limitations. We could not tease apart the direction of associations; thus, it was unclear whether prosocial activities led to subsequent fluctuations in well-being, or whether higher PA and social satisfaction prompted individuals to engage in prosocial activities. In addition, this study required regular internet access to complete the daily surveys. Among older adults, rates of internet use vary based on age, educational attainment, and household income (Pew Research Center, 2017; Statistics Canada, 2019). Thus, data from our sample—composed of individuals who were primarily White, women, well-educated, and Canadian—might not be broadly representative of daily life amid COVID-19, which limits the generalizability of these findings. In particular, older adults in this sample were perhaps more socially and digitally connected, healthy, and better able to engage in prosocial activities, compared to those from the general population. Nevertheless, the frequency of prosocial activities observed in this study were comparable to those reported in previous national U.S. studies (Chi et al., in press).

Practical Implications

Findings from the current study suggest that reaching out to help friends, relatives, and neighbors—or to receive emotional support and tangible assistance—can improve affective and social well-being on a day-to-day basis. These activities may also lead to longer-lasting psychological, cognitive, and physical health benefits, based on evidence from observational studies and randomized controlled trials of older adult volunteers (Anderson et al., 2014).

Several age-related considerations are worth noting. Although older adults devote the most hours annually to volunteering, adolescents and the youngest adults (e.g., born 1996 and after) had higher rates of volunteering than other generational cohorts prior to the pandemic (Hahmann et al., 2020). With the shift to remote schooling and cancellation of in-person extracurricular activities, young people could counteract loneliness and strengthen their sense of purpose through intergenerational engagement with older adults and by helping others in their communities who may be isolated (Ong & Burrow, 2020). In addition, despite increasing rates of technology and social media use among older adults in recent years (Pew Research Center, 2017), a sizeable proportion of older adults are experiencing a double burden of social and digital exclusion amid the COVID-19 pandemic, particularly those in long-term care facilities and those with physical and cognitive limitations (Seifert et al., 2020). This digital and social divide could be bridged by increasing access and skills for information and communication technologies, thus enabling older adults to give and receive emotional support while maintaining physical distance (Czaja et al., 2018). Indeed, older adults who use the internet for social purposes (e.g., connecting with friends and family) are more likely to engage in future volunteer activities, which, in turn, predicts greater well-being across several years (Szabo et al., 2019).

Conclusion

To conclude, people responded to the COVID-19 crisis by providing or receiving help that was directly related to the pandemic. Daily diary data from a lifespan sample of adults revealed that older adults, in particular, engaged in formal volunteering and provided and received COVID-19-related emotional support more frequently than younger adults, whereas middle-aged adults provided the most COVID-19-related tangible support. These prosocial activities conferred benefits for well-being, specifically increased PA and social satisfaction on days when these activities occurred, as well as reduced NA on days when support was provided. Our findings raise the possibility that volunteering and providing and receiving support may be actionable strategies for enhancing well-being amid the pandemic.

Supplementary Material

Supplementary data are available at *The Gerontologist* online.

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Conflict of Interest

None declared.

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