

Original Research Report

# Volunteers' Felt Respect and Its Associations With Volunteering Retention, Daily Affect, Well-being, and Mortality

Dwight C. K. Tse, MA<sup>®</sup>

Quality of Life Research Center, Claremont Graduate University, California.

Address correspondence to: Dwight C. K. Tse, MA, Quality of Life Research Center, Claremont Graduate University, 1227 N. Dartmouth Avenue, Claremont, CA 91711. E-mail: [cheuk-kit-dwight.tse@cgu.edu](mailto:cheuk-kit-dwight.tse@cgu.edu)

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## Abstract

**Objectives:** Volunteering is associated with improved physical and psychological well-being; volunteers feeling more respect for their work may have better well-being than their counterparts.

**Methods:** This study investigated the effects of felt respect for volunteer work on volunteering retention, daily affect, well-being (subjective, psychological, and social), and mortality. The study analyzed survey and mortality data from a national sample of 2,677 volunteers from the Midlife in the United States Study over a 20-year span. Daily affect data were obtained from a subsample of 1,032 volunteers.

**Results:** Compared to volunteers feeling less respect from others, those feeling more respect (a) were more likely to continue volunteering 10 and 20 years later, (b) had higher levels of daily positive affect and lower levels of daily negative affect, and (c) had higher levels of well-being over a 20-year period. The effect of felt respect on mortality was not statistically significant.

**Discussion:** Greater level of felt respect for volunteer work is positively related to volunteers' retention rates, daily affective experience, and well-being.

**Keywords:** Longevity, MIDUS, Social exchange theory

Volunteering is popular among adults across the lifespan. The [U.S. Bureau of Labor Statistics \(2016\)](#) indicates that more than 60 million people in the United States perform formal volunteer work. One potential reason for the prevalence of volunteering is that it is beneficial to both service recipients and volunteers ([Griep et al., 2015](#); [Kahana, Bhatta, Lovegreen, Kahana, & Midlarsky, 2013](#)). Especially for older adults, research consistently finds a positive relation between volunteering and psychological well-being (PWB), physical health, and even longevity (e.g., [Anderson et al., 2014](#); [Connolly & O'Shea, 2015](#); [Oman, Thoresen, & McMahan, 1999](#)). Therefore, volunteering is considered a contributor to positive aging characterized by good

physical health, high cognitive functioning, and active societal engagement ([Chong, Ng, Woo, & Kwan, 2006](#); [Hirschfelder & Reilly, 2007](#)). However, not all volunteers enjoy equally the benefits associated with volunteering. Research has shown that the salubrious effect of volunteering on well-being depends on volunteers' feeling needed or appreciated. For example, two studies have shown that volunteering is related positively to quality of life and negatively to depression, but only among older adults who feel that their work is adequately appreciated ([McMunn, Nazroo, Wahrendorf, Breeze, & Zaninotto, 2009](#); [Wahrendorf, von dem Knesebeck, & Siegrist, 2006](#)). In [Piliavin and Siegl's \(2007\)](#) research, the sense of mattering—a perception of

others' being aware of and relying on oneself—mediates the positive association between volunteering and PWB. As such, being recognized and respected for what volunteers have done for the community appears to be an important factor that determines the relationship between volunteering and well-being.

Social exchange theory provides insights on why only volunteers receiving adequate respect enjoy volunteering's well-being benefits. The theory holds that social behavior emerges from the process of mutual reinforcement (Homans, 1961). In this framework, people who engage in social activities that require high effort but receive low reward are likely to feel more stress and negative emotions, and thus more likely to discontinue the activities (Cook, Cheshire, Rice, & Nakagawa, 2013; Siegrist, 1996).

Volunteer work can be a costly social exchange activity because volunteers devote time and effort for the greater social good, which can be otherwise spent on leisure or other self-interest activities. Therefore, a complementary, or even greater, level of reward may be needed to justify the costs volunteers have put in their community work. In terms of social exchange theory, rewards can be tangible or intangible (Homans, 1961). In the case of volunteering, intangible rewards such as social recognition and respect play a more important role than tangible rewards given that volunteer work, by definition, involves minimal materialistic compensation. Feeling that others respect a person's volunteer work is one of the social reward indicators that are associated with greater self-esteem and the feeling of a better self (Piliavin & Siegl, 2007). Previous studies have used similar concepts, such as felt appreciation and sense of mattering, to operationalize social rewards of volunteer work (McMunn et al., 2009; Wahrendorf et al., 2006).

Volunteers who do not receive sufficient social rewards from others may perceive volunteering as a stress rather than a positive experience. In turn, they may be more likely to drop out from volunteering. Prolonged volunteering engagement with insufficient respect may offset the physical and psychological benefits volunteering can bring (McMunn et al., 2009; Wahrendorf et al., 2006). The impact of social (non-monetary) rewards, or lack thereof, on volunteers' well-being can even be more salient among older volunteers, given that social motives (strengthening social relationships) of volunteering become more important with age (Okun & Schultz, 2003). Therefore, if volunteering is considered a contributor of positive aging, it is necessary to understand under what conditions volunteering can maximize the associated well-being benefits.

## The Current Study

Previous studies on volunteers' social rewards (perceived appreciation, sense of mattering) and well-being provide clear evidence for a positive association. Adding to these findings, the current study was the first to examine multiple outcomes of felt respect for volunteer work, including

volunteer motivation (retention), daily affect, and long-term subjective well-being (SWB). Furthermore, given the ample evidence of the salubrious effect of volunteering on longevity (see Anderson et al., 2014, for a review), I also explored whether volunteers with different levels of felt respect enjoyed similar longevity benefits. Hypotheses are as follows:

Volunteers feeling more respect for volunteer work (a) are more likely to continue volunteering 10 and 20 years later (Hypothesis 1); (b) have higher levels of daily positive and lower levels of daily negative affect than those feeling more respect (Hypothesis 2); (c) have higher levels of well-being (concurrently, 10 years and 20 years later; Hypothesis 3); and (d) have lower mortality rates (Hypothesis 4) than those feeling less respect.

## Methods

### Data and Sample

Data were drawn from Waves 1 (1995–1996), 2 (2004–2006), and 3 (2013–2014) of the National Survey of Midlife Development in the United States Project (MIDUS 1, 2, and 3, respectively). The longitudinal dataset consists of a national United States sample age 25 or above. The project is designed to investigate the midlife development of health, well-being, and social responsibility (Radler, 2014).

MIDUS 1 (1995–1996) involved a national random digit dialing sample (RDD) selected from working telephone banks, oversamples from five metropolitan areas, the siblings of people from the RDD sample, and an RDD sample of twin pairs. The full MIDUS 1 sample was 7,108 respondents (age range = 20–75,  $M = 46.9$ ,  $SD = 12.9$ ; 48% male).

MIDUS 2 (2004–2006) was a longitudinal follow-up conducted about 10 years after MIDUS 1. Of the participants in the original sample, 4,963 respondents (age range = 30–84,  $M = 56.2$ ,  $SD = 12.4$ ; 45% male) participated in the MIDUS 2 phone interview, a retention rate of 75% adjusted for mortality.

MIDUS 3 (2013–2014) data were collected about 10 years after MIDUS 2. A total of 3,294 respondents completed MIDUS 3 (age range = 39–93,  $M = 64.5$ ,  $SD = 11.2$ ; 45% male), and it had a retention rate of 77% adjusted for mortality and ineligibility (respondents who did not participate in MIDUS 2 were excluded from participation in MIDUS 3; see Radler [2014] for more information regarding the MIDUS samples).

In 2004–2009 (between MIDUS 2 and 3), a subsample of MIDUS 2 participants took part in the Daily Stress Project ( $n = 2,022$ ). All respondents had completed the phone interviews and surveys in MIDUS 2 before participating in the Daily Stress Project ( $M_{\text{time gap}} = 20.3$  months,  $SD = 13.8$ ), in which they completed daily phone interviews and surveys for 8 consecutive days. The MIDUS team also followed up and collected mortality data of all MIDUS 1 participants in October 2015. A total of 1,299 respondents (18.2%

of the MIDUS 1 sample) had died. The sample size of the longitudinal data was sufficiently large for detecting an odds ratio greater than 1.50 in binary logistic regressions ( $N = 613$ ; [Faul, Erdfelder, Lang, & Buchner, 2007](#)), a poor model fit ( $N = 1,807$ ; root mean square error of approximation  $> .08$ ; [Preacher & Coffman, 2006](#)) in growth curve modeling, and a hazard ratio (HR) greater than 1.30 in Cox proportional hazard regressions ( $N = 2,501$ ; [Chow, Shao, & Wang, 2003](#)), with power = .80 and  $\alpha = .05$ . The sample size of the diary data was also larger than the recommended minimum in the literature (total observations  $> 5,000$ ; [Maas & Hox, 2005](#)).

## Measures

### Volunteering status and felt respect for volunteer work

Participants reported the extent to which they felt others respected the unpaid volunteer work they did in the community on a 4-point scale: 1 (*a lot*), 2 (*some*), 3 (*a little*), and 4 (*not at all*). They were also instructed to respond 5 (*does not apply*) if they did no volunteer work in their community. In other words, whereas respondents choosing options 1–4 were volunteers with different levels of felt respect, those choosing option 5 were non-volunteers.

### Volunteering hours by domains

Participants reported the average hours per month they volunteered in (a) hospital, nursing home, or other health-care-oriented work; (b) school or other youth-related volunteer work; (c) political organizations; and (d) other organizations.

### Subjective well-being

SWB was operationalized as satisfaction with life, presence of positive affect, and absence of negative affect ([Diener, 1984](#)). Participants completed a 5-item life satisfaction scale ([Prenoda & Lachman, 2001](#)), a 6-item positive affect scale, and a 6-item negative affect scale ([Mroczek & Kolarz, 1998](#)).

For life satisfaction, participants rated their life overall, work, health, relationship with spouse/partner, and relationship with children on 11-point Likert scales from 0 (*the worst possible*) to 10 (*the best possible*). A mean composite score was computed by averaging items.

For positive and negative affect, participants reported how much time they felt the positive and negative affective states (e.g., cheerful, nervous) during the past 30 days on 5-point Likert scales from 1 (*all of the time*) to 5 (*none of the time*). Whereas positive affective items were reverse-coded and averaged such that higher score represents *higher* frequencies of positive affect, negative affective items were averaged without recoding and thus higher score represents *lower* frequencies.

Finally, an SWB composite score was computed by rescaling the life satisfaction composite score into a 5-point

metric, then averaging the composite scores of the three scales. Higher scores represent higher levels of SWB. Cronbach's alphas of the SWB scale were .87 (MIDUS 1), .84 (MIDUS 2), and .85 (MIDUS 3).

### Psychological well-being

Participants completed either the 21-item (MIDUS 1) or the 42-item PWB scale (MIDUS 2 and 3; [Ryff, 1989](#)). The PWB scales included three (MIDUS 1) or six (MIDUS 2 and 3) items of each PWB factor: (a) autonomy, (b) environmental mastery, (c) personal growth, (d) positive relations with others, (e) purpose in life, and (f) self-acceptance. Participants reported the extent they agreed with the statements on 7-point Likert scales from 1 (*Strongly agree*) to 7 (*Strongly disagree*). Previous studies have also used the 42-item scale in MIDUS 2 and 3, given its superior psychometric properties over the 21-item scale in MIDUS 1 ([Choi & Kim, 2011](#)). A PWB composite score was computed by reverse-coding the positively worded items and averaging all item scores, with higher scores indicating higher PWB levels. Cronbach's alphas of the PWB scale were .81 (MIDUS 1), .93 (MIDUS 2), and .94 (MIDUS 3).

### Social well-being

Participants completed a 14-item social well-being (SocWB) scale ([Keyes, 1998](#)). Based on [Keyes \(1998\)](#) conceptualization, the scale included two items on the first factor termed social coherence, and three items on each of the remaining four factors: social integration, social acceptance, social contribution, and social actualization. Participants responded using 7-point Likert scales from 1 (*Strongly agree*) to 7 (*Strongly disagree*). An SocWB composite score was computed by reverse-coding the positively worded items and averaging item scores. Higher scores represent higher levels of SocWB. Cronbach's alphas were .81 (MIDUS 1), .82 (MIDUS 2), and .83 (MIDUS 3).

### Daily affect

Participants reported how often during the day they felt the 14 negative (e.g., nervous) and 13 positive affective states (e.g., cheerful) from 0 (*None of the time*) to 4 (*Most of the time*). Whereas the affect scale in the longitudinal dataset measured the frequencies of affective states in the past 30 days, this scale measured the frequencies of affective states on a *daily* basis. Daily negative and positive affect composite scores were computed by averaging the scores of the negative and positive affect items, respectively. Higher scores represent higher frequencies of daily affect. Cronbach's alphas for daily negative and positive affect were .89 and .96, respectively.

### Mortality

The MIDUS team recorded all MIDUS 1 participants' survival status (0 = *survive*, 1 = *deceased*) and the months and years when participants deceased from 1994 to October 2015.

### Demographic variables

Demographic information included in this study was age, sex, race, education, income, and marital status. All demographic variables were collected in MIDUS 1. Age was mean-centered, and its squared term was included to examine the non-linear age effect on the outcomes.

### Baseline health correlates

Baseline health indicators were measured in MIDUS 1. Following [Oman's \(2007\)](#) suggestion on health covariates to be considered when examining mortality and longitudinal health-related effect of volunteering, the list of covariates included (a) major depression, (b) instrumental activities of daily living (IADL), (c) self-rated physical health, (d) heart attack history, (e) cancer history, (f) number of chronic health conditions, (g) frequency of physical symptoms in the past 30 days, (h) body mass index (BMI), (i) smoking habit, and (j) alcohol consumption habit.

Major depression with 0 (*Negative*) and 1 (*Positive*) was determined based on participants' self-reports on depressed affect and anhedonia symptoms ([Kessler, Mickelson, & Williams, 1999](#)). IADL indicated the extent to which participants could perform seven daily living activities independently ([Lawton & Brody, 1969](#)). Higher scores reflected greater difficulty in performing the activities. Participants also rated their physical health from 1 (*Poor*) to 5 (*Excellent*) and reported heart attack and cancer history with 0 (*Negative*) and 1 (*Positive*). Number of chronic health conditions was the sum of conditions (out of 27; e.g., stroke) the participants reported experiencing in the past 12 months ([Lachman & Weaver, 1998](#)). Participants also reported how often they experienced nine physical symptoms (e.g., headaches) in the past 30 days with 1 (*Almost every day*) and 6 (*Not at all*). The summative score was reverse-coded; higher scores reflected more frequent experiences of physical symptoms ([Lachman & Weaver, 1998](#)). Finally, participants reported their height, weight, smoking habit (current smokers, past smokers, non-smokers), and alcohol consumption habit (current regular consumers, past regular consumers, non-regular consumers; regular consumption refers to drinking three or more days per week). The MIDUS team calculated participants' BMI given their height and weight. BMI was mean-centered, and the squared BMI was included to account for its non-linear effect on well-being and mortality.

### Daily variables

Participants reported whether they had done any volunteer work during the day (0 = no, 1 = yes), number of stressors in the day, and the frequency of experiencing the seven daily physical symptoms (e.g., headache) from 1 (*All of the time*) to 5 (*None of the time*). The proportion of days spent volunteering over the sampling period was also calculated. The average score of daily physical symptoms was reverse-coded, and higher scores reflected higher frequencies. Finally, an indicator of weekend (vs. weekday) was

also included because it potentially influenced participants' daily affect.

### Analytic Methods

The rates of missingness of the variables ranged from 0% (major depression at MIDUS 1) to 59.3% (felt respect at MIDUS 3). To correct for bias stemming from missing data for the three-wave dataset and the Daily Stress Project, multiple imputation (MI) procedures with Bayesian estimation and multilevel MI procedures with Bayesian estimation were employed, respectively ([Asparouhov & Muthén, 2010](#)). All variables mentioned in the Measures section (except daily affect and daily variables) were included in the imputation model of the longitudinal dataset. Daily affect, daily variables, and demographic variables were included in the imputation model of the daily diary dataset. Both MI procedures were conducted in MPlus, resulting in 20 imputed datasets for each of them. Statistical results were pooled from the imputed data according to [Rubin's \(1987\)](#) rules. [Supplementary Tables S1 and S2](#) show the summary statistics of the observed and imputed data.

Whereas I used the diary dataset to test Hypothesis 2, all other hypotheses were tested using the longitudinal dataset (including the mortality data). For the longitudinal dataset, respondents who indicated that they did not volunteer during MIDUS 1 were excluded in the analyses, resulting in a final sample of 2,677 participants. Similarly, for the diary dataset, only volunteers who had completed the Daily Stress Project were included in the daily affect analyses (final  $N = 1,032$ , total daily reports = 8,256; see [Supplementary Table S3](#) for the comparison between Daily Stress Project participants and non-participants). Given that the Daily Stress Project (2004–2009) was conducted soon after MIDUS 2 (2004–2006), MIDUS 2 felt respect was combined with the diary data because of the smaller time gap between the felt respect measure and daily affect. All hypothesis tests were conducted with the “not at all” group as the reference group, meaning that all statistical test coefficients compared the other felt respect groups against the “not at all” group.

Before testing the hypotheses, Spearman's rho ( $r_s$ ) was estimated to assess whether felt respect for volunteer work was (ordinally) associated with the demographic variables in MIDUS 1. Only MIDUS 1 data were used because demographic variables tend to be stable across years, and the subsequent waves of data may be subject to selective attrition bias ([Crano, Brewer, & Lac, 2015](#)).

To examine the effect of felt respect for volunteer work on volunteer retention (H1), binary logistic regression was conducted to analyze the odds of future volunteering among the four felt respect groups at MIDUS 1, controlling for demographic variables and volunteer hours in MIDUS 1. Volunteer hours were controlled for in the model because previous volunteering behavior tends to predict future volunteer involvement ([Omoto & Snyder, 1995](#)).



To investigate the effect of felt respect for volunteer work on daily affect (H2), I conducted multilevel modeling with felt respect as the predictor and daily positive and negative affect as the outcomes, controlling for demographics, daily volunteer activity, and other daily variables.

To examine the long-term effect of felt respect for volunteer work on well-being (H3), I conducted growth curve modeling with SWB, PWB, and SocWB as the outcomes. The model included felt respect in MIDUS 1 as the predictor and demographics, baseline volunteering hours, and baseline health correlates as time-invariant covariates. I determined good model fit with comparative fit indices (CFI) >.95, root mean square error of approximation (RMSEA) <.06, and standardized root mean residual (SRMR) <.08 (Hu & Bentler, 1999).

To examine the effect of felt respect for volunteer work on mortality (H4), I merged the mortality data with the longitudinal data and conducted Cox proportional hazard regression analyses predicting mortality recorded from 1994 to 2015, controlling for demographics, baseline volunteering hours, and baseline health correlates. Given that mortality is infrequent among younger adults (relative to older adults) and many studies on volunteering and mortality consist of the older population only (see Okun, Yeung, & Brown, 2013 for review), a subgroup analysis was conducted to distinguish the effect of felt respect on younger (age below 55) adults compared to older adults (age 55 or above).

## Results

### Preliminary Analyses

In all waves, the distributions of felt respect were negatively skewed: in MIDUS 1, 39.8% volunteers feeling “a lot” of

respect, 40.1% “some,” 17.2% “a little,” and 2.9% “not at all”; in MIDUS 2, 49.0% “a lot,” 36.6% “some,” 13.1% “a little,” and 1.3% “not at all”; in MIDUS 3, 48.9% “a lot,” 30.3% “some,” 9.4% “a little,” and 1.0% “not at all.”

I conducted Spearman’s rho( $r_s$ ) correlation analyses to examine the association between demographic variables and the ordinal trend toward greater levels of feeling respect for volunteer work (from *not at all* to *a lot*) in MIDUS 1. The demographic variables included (a) age, (b) sex (0 = female, 1 = male), (c) education (0 = high school or below, 1 = some college or above), (d) income (0 = <\$50,000, 1 = ≥\$50,000), (e) race (White, African American, and other races), and (f) marital status (0 = unmarried, 1 = married). I also examined hours volunteering per month in hospitals, schools, political organizations, and other organizations. Table 1 shows the demographic information of each felt respect volunteer group in MIDUS 1 and the correlation coefficients. Although age, sex, and race (White) showed statistically significant correlations with feeling respect for volunteering, the effect sizes were very small (all  $|r_s|$ s < .10; Cohen, 1992), suggesting that the demographic variables had minimal ordinal relationships with felt respect for volunteer work.

### Hypothesis 1: Volunteer Retention

I conducted binary logistic regression to examine the effect of felt respect for volunteer work in MIDUS 1 on volunteering participation in MIDUS 2 and 3, controlling for demographic variables and volunteer hours. As shown in Table 2, felt respect in MIDUS 1 showed a significant effect on volunteering participation in subsequent waves: in MIDUS 2,  $F(3, 161) = 11.77, p < .001$ ; in MIDUS 3,

**Table 1.** Demographic Information for Each Level of Respect of Volunteers in MIDUS 1

Demographic variables	M (SD) or %				Spearman’s $r_s$
	A lot <sup>a</sup>	Some <sup>b</sup>	A little <sup>c</sup>	Not at all <sup>d</sup>	
Age	48.6 (12.4)	47.7 (12.5)	45.4 (11.9)	45.9 (12.8)	-.087***
Sex (% male)	45.2	46.8	54.4	54.5	.060**
Education (% some college or above)	72.1	69.4	69.3	70.1	-.026
Income (% of ≥\$50,000)	15.8	15.4	19.8	12.0	.020
Race (%)					
White	89.0	92.5	92.0	90.8	.047*
African American	6.4	4.0	5.0	6.5	-.031
Others	4.6	3.5	3.0	2.7	-.034
Marital status (% married)	29.7	25.3	27.0	33.8	.025
Hours per month volunteered in					
Hospital	2.0 (6.7)	1.3 (4.9)	0.6 (2.6)	0.5 (3.5)	-.095***
School	5.3 (13.2)	3.7 (8.0)	3.1 (8.1)	2.4 (7.4)	-.086***
Political organizations	2.5 (13.7)	1.6 (10.7)	1.5 (10.5)	0.7 (4.3)	-.087***
Others	8.7 (17.8)	4.9 (10.7)	3.9 (10.9)	1.4 (3.7)	-.221***

Note: N = 2,677. Columns reflect the level of felt respect for volunteer work in MIDUS 1. SDs are reported in parentheses. In the Spearman’s  $r_s$  analysis, volunteer groups were coded as 1 = A lot, 2 = Some, 3 = A little, and 4 = Not at all. A positive  $r_s$  indicates the demographic variable’s relation to *less* respect.

<sup>a</sup>n = 1,066. <sup>b</sup>n = 1,073. <sup>c</sup>n = 461. <sup>d</sup>n = 77. \*p < .05. \*\*p < .01. \*\*\*p < .001.

**Table 2.** Odds Ratios [95% Confidence Intervals] of Volunteering Retention in MIDUS 2 (Left) and MIDUS 3 (Right) Predicted by Felt Respect in Volunteer Work, Demographic Information, and Volunteering Hours in MIDUS 1

Parameter	MIDUS 2 volunteering retention	MIDUS 3 volunteering retention
Intercept	0.54 [0.25, 1.17]	0.79 [0.38, 1.63]
MIDUS 1 felt respect <sup>a</sup>		
A lot	3.21*** [1.80, 5.74]	3.56*** [1.97, 6.44]
Some	2.05* [1.17, 3.60]	2.10* [1.14, 3.87]
A little	1.38 [0.78, 2.43]	1.64 [0.85, 3.17]
Not at all	—	—

Note:  $N = 2,677$ . "Not at all" group was the reference group. For parsimony, all controlled variables in the model including volunteering hours in various organizations and demographic variables (e.g., age, gender; see the *Methods* section for the complete list) are not reported. See [Supplementary Table S3](#) for the complete binary logistic regression results with and without the controlled variables.

<sup>a</sup> $n_s = 1,066$  ("a lot"), 1,073 ("some"), 461 ("a little"), and 77 ("not at all"). \* $p < .05$ . \*\*\* $p < .001$ .

$F(3, 117) = 12.69, p < .001$ . Specifically, volunteers feeling "a lot" of and "some" respect in MIDUS 1 are significantly more likely to volunteer again than those feeling "no [respect] at all" (both  $ps < .05$ ). In MIDUS 2, 82.9% volunteers who felt "a lot" of respect in MIDUS 1 continued volunteering. The volunteering retention rates for volunteers who felt "some" respect, "a little" respect, and "not at all respect" were 73.9%, 64.9%, and 54.9%, respectively. In MIDUS 3, the retention figures dropped to 75.4% "a lot," 64.8% "some," 59.4% "a little," and 46.2% "not at all." The findings indicate that felt respect predicted volunteering retention over a 20-year span, even after controlling for demographics and initial volunteering engagement in different organizations.

### Hypothesis 2: Daily Affect

I conducted multilevel modeling to investigate the differences in daily negative and positive affect among volunteers feeling various levels of respect for volunteer work. In the multilevel models, I used felt respect for volunteer work to predict daily negative and positive affect, controlling for demographic and daily variables (see the variable list in the *Measures* section).

**Table 3** shows the model results. The fixed-effect coefficients indicate the differences in daily affect among the felt respect groups. The random-effect coefficients indicate the variances of daily affect that can be attributed to within-person differences (residual), between-person differences (intercept), and autocorrelation (i.e., the relationship between daily affect and itself over time). The effects of felt respect on daily affect were significant after accounting for the control variables: for negative affect,  $F(3, 3525) = 7.22, p < .001$ ; for positive affect,  $F(3, 69028) = 14.47, p < .001$ . Volunteers with higher levels of felt respect experienced lower average levels of daily negative affect and higher average levels of positive affect. For example, on a 5-point scale, the level of negative affect of volunteers feeling "a lot" of respect was 0.16 units lower than volunteers feeling "no respect at all." For daily positive affect, volunteers feeling "a lot" of respect were 0.47 units higher than the "not

at all" group (both  $ps < .001$ ). The effect of felt respect on daily affect was independent of demographics and daily life fluctuations.

### Hypothesis 3: Well-being Over 20 Years

I conducted linear growth curve modeling to investigate the association between felt respect for volunteer work in MIDUS 1 and volunteers' SWB, PWB, and SocWB in all waves. I used felt respect in MIDUS 1 to predict the intercepts and slopes of each well-being indicator. A statistically significant intercept suggests that the felt respect group has a different initial well-being level than the "not at all" group. A significant slope suggests that the felt respect group has a different rate of change in well-being than the "not at all" groups over the 20-year span.

**Table 4** shows the model results and **Figure 1** shows the SWB, PWB, and SocWB levels of the four felt respect groups in MIDUS 1, 2, and 3. All models showed good fit. The effects of felt respect on the well-being indicators were significant: for SocWB, Wald's  $\chi^2(6) = 96.25$ ; for PWB, Wald's  $\chi^2(6) = 168.60$ ; for SocWB, Wald's  $\chi^2(6) = 169.38$ , all  $ps < .001$ . As shown in **Figure 1**, the "not at all" group had the lowest SWB, PWB, and SocWB levels across the 20-year span. Generally, volunteers feeling more respect reported higher initial levels (intercepts) on each well-being indicator than those feeling less respect. For example, compared to the "not at all" group, the "a lot" group had a higher SWB initial level by 0.23 units (on a 5-point metric), a higher PWB initial level by 0.62 units, and a higher SocWB initial levels by 0.68 units (both PWB and SocWB are on a 7-point metric; all  $ps < .001$ ). Given that the effects of felt respect on the slope of the growth curves were not significant (all  $ps > .05$ ), they suggest that the initial differences in well-being remained stable after 20 years.

### Hypothesis 4: Mortality

Finally, I conducted Cox proportional hazard regression on the whole sample and separately on younger (below 55 years old) and older (55 years old or above) volunteers.

**Table 3.** Fixed and Random Effects [95% Confidence Intervals] for Multilevel Models of Daily Negative Emotions (Left) and Positive Emotions (Right) in the Daily Stress Project

Fixed effects	Negative emotions	Positive emotions
Intercept	0.21*** [0.13, 0.30]	2.64*** [2.39, 2.89]
Felt respect <sup>a</sup>		
A lot	-0.16*** [-0.24, -0.08]	0.47*** [0.23, 0.71]
Some	-0.13** [-0.21, -0.05]	0.27* [0.02, 0.51]
A little	-0.12** [-0.20, -0.03]	0.19 [-0.06, 0.45]
Not at all	—	—
Random effects		
Level 2 (between-person)		
Intercept	0.03*** [0.03, 0.04]	0.34*** [0.31, 0.37]
Level 1 (within-person)		
Residual	0.04*** [0.03, 0.04]	0.13*** [0.12, 0.13]
Autocorrelation	0.09*** [0.06, 0.13]	0.13*** [0.09, 0.17]

Note: *N* = 1,032; *k* = 8,256. “Not at all” group was the reference group. For parsimony, volunteering day, percentage of volunteering days, demographic variables (e.g., age, gender; see the *Methods* section for the complete list), and daily life correlates (i.e., weekday/weekend, number of daily stressors and physical symptoms) are not reported. See [Supplementary Table S5](#) for the complete results with and without the controlled variables. <sup>a</sup>*n*s = 470 (“a lot”), 384 (“some”), 153 (“a little”), and 25 (“not at all”). \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

**Table 4.** Parameter Estimates (Top) [95% Confidence Intervals] and Model Fit Indices (Bottom) of the Latent Growth Curves of Subjective, Psychological, and Social Well-being of the MIDUS 1 Volunteer Sample From 1994 to 2015

Parameter	Subjective well-being	Psychological well-being	Social well-being
Intercept			
Intercept	3.93*** [3.80, 4.06]	4.94*** [4.71, 5.18]	4.17*** [3.88, 4.46]
Felt respect <sup>a</sup>			
A lot	0.23*** [0.14, 0.31]	0.62*** [0.47, 0.77]	0.68*** [0.49, 0.87]
Some	0.13** [0.04, 0.21]	0.39*** [0.23, 0.54]	0.43*** [0.24, 0.61]
A little	0.06 [-0.03, 0.14]	0.23** [0.07, 0.38]	0.17 [-0.02, 0.37]
Not at all	—	—	—
Slope			
Intercept	0.04 [-0.07, 0.15]	0.06 [-0.09, 0.20]	0.01 [-0.17, 0.20]
Felt respect <sup>a</sup>			
A lot	-0.03 [-0.10, 0.04]	-0.04 [-0.13, 0.06]	-0.10 [-0.22, 0.01]
Some	-0.02 [-0.08, 0.05]	-0.01 [-0.10, 0.08]	-0.06 [-0.18, 0.05]
A little	-0.01 [-0.08, 0.06]	0.00 [-0.10, 0.10]	-0.01 [-0.13, 0.12]
Not at all	—	—	—
Model fit indices			
$\chi^2(df)$	32.6 (29)	21.4 (29)	42.7* (29)
CFI	1.00	1.00	.99
SRMR	.016	.006	.009
RMSEA [90% CI]	.007 [.000, .017]	.000 [.000, .009]	.013 [.001, .021]

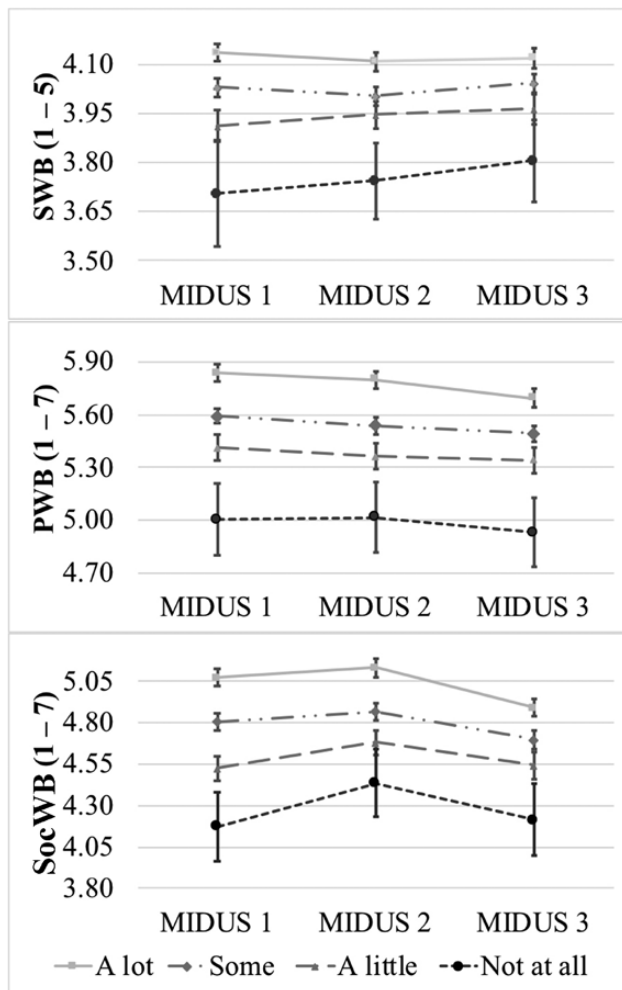
Note: *N* = 2,677. “Not at all” group was the reference group. For parsimony, all controlled variables including demographic variables (e.g., age, gender), baseline volunteering hours, and baseline health correlates (e.g., major depression, heart attack history) are not reported. See [Supplementary Tables S6 and S7](#) for the complete growth curve modeling results with and without the controlled variables. CFI = comparative fit indices; RMSEA = root mean square error of approximation; SRMR = standardized root mean residual. <sup>a</sup>*n*s = 1,066 (“a lot”), 1,073 (“some”), 461 (“a little”), and 77 (“not at all”). \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

I included felt respect in MIDUS 1, demographics, baseline volunteering hours, and baseline health correlates in the model.

[Table 5](#) shows the Cox regression results. A HR significantly greater than 1 indicates that the felt respect group had a higher mortality hazard than volunteers feeling “no [respect] at all.” For all volunteers, the effect of felt respect

in MIDUS 1 on mortality was not statistically significant, Wald’s  $\chi^2(3) = 3.81, p = .282$ . None of the felt respect subgroups had significantly lower mortality hazards (indicated by HRs) than the “not at all” group (all *ps* > .05).

[Figure 2](#) shows the survival curves of younger and older volunteers from the month they participated in MIDUS 1 until October 2015, broken down by levels of



**Figure 1.** Subjective (top), psychological (middle), and social well-being (bottom) at MIDUS 1, 2, and 3 among the four felt respect volunteers groups at MIDUS 1 ( $N = 2,677$ ). The error bars represent the 95% confidence intervals.

felt respect. In the subgroup analysis, for younger adults, the effect of felt respect on mortality was not significant, Wald's  $\chi^2(3) = 5.30, p = .151$ . All volunteer subgroups had similar levels of mortality hazards (all  $ps > .05$ ). For older adults, the effect of felt respect on mortality was also not significant, Wald's  $\chi^2(3) = 5.00, p = .171$ , although older volunteers feeling “a lot” of respect ( $HR = 0.70, p = .042$ , 95% confidence interval [CI]: 0.49, 0.99), “some” respect ( $HR = 0.67, p = .024, CI: 0.47, 0.95$ ), and “a little” respect ( $HR = 0.76, p = .033, CI: 0.59, 0.98$ ) had statistically significantly lower mortality hazards than those feeling “no [respect] at all.” Taken together, the results failed to support Hypothesis 4 among both younger and older volunteers.

## Discussion

I examined the effect of feeling respect for volunteer work on volunteers' retention (H1), daily affective experience (H2), well-being over a 20-year span (H3), and longevity (H4). With the exception of Hypothesis 4, the findings are consistent with social exchange theory and previous studies (e.g., McMunn et al., 2009; Piliavin & Siegl, 2007). The results indicate that felt respect was positively associated with volunteers' retention, daily affect, and well-being.

Although there was an overall higher percentage of volunteers feeling “a lot” of respect from others in MIDUS 3 than in MIDUS 1 and 2, there remained at least one of ten volunteers in this U.S. national sample who did not feel well respected (i.e., those who reported feeling “a little” or “no [respect] at all”). The percentage of inadequately respected volunteers in the United States in this study is similar to the figures found in other countries. For example, 11.7% of volunteers from 10 European countries and 10.1% from England reported their volunteer work receiving inadequate appreciation from others (McMunn et al., 2009; Wahrendorf et al., 2006).

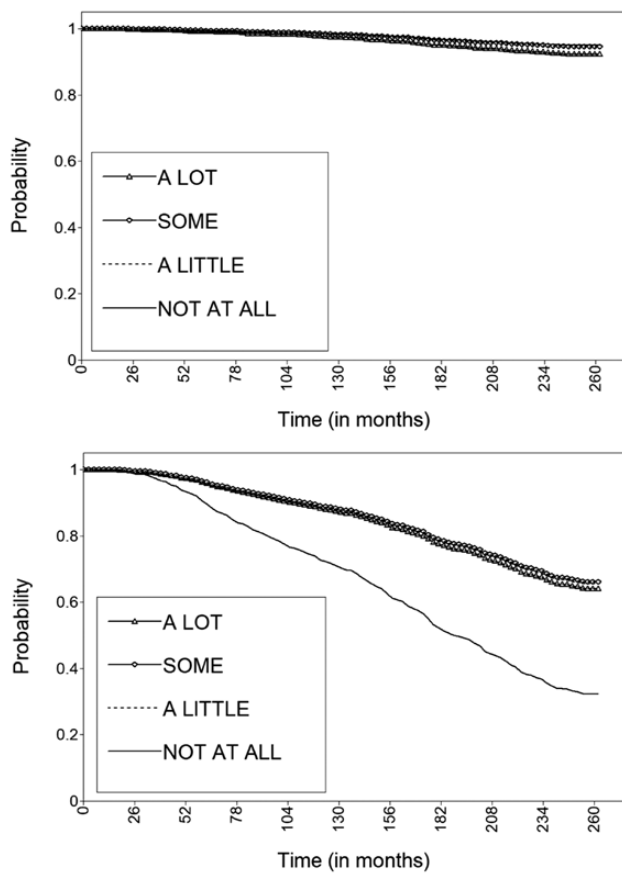
**Table 5.** Mortality Hazard Ratio Estimates [95% Confidence Intervals] of Felt Respect for Volunteer Work and Model Fit Indices for the Cox Proportional Hazard Regression Models of the MIDUS 1 Volunteer Sample From 1994 to 2015

Parameter	All ages <sup>a</sup>	Younger adults <sup>b</sup>	Older adults <sup>c</sup>
Felt respect			
A lot	0.80 [0.47, 1.36]	1.81 [0.55, 5.93]	0.70* [0.49, 0.99]
Some	0.67 [0.39, 1.15]	1.23 [0.38, 4.05]	0.67* [0.47, 0.95]
A little	0.80 [0.46, 1.40]	1.98 [0.60, 6.51]	0.76* [0.59, 0.98]
Not at all	—	—	—
AIC	6,021	2,133	3,872
BIC	6,186	2,289	4,003
-2LL	5,965	2,078	3,816

Note: “Not at all” group was the reference group. For parsimony, all controlled variables including demographic variables (e.g., age, gender), baseline volunteering hours, and baseline health correlates (e.g., major depression) are not reported. See [Supplementary Tables S8 and S9](#) for the complete results with or without the controlled variables. AIC = Akaike information criterion; BIC = Bayesian information criterion; -2LL = -2 log-likelihood.

<sup>a</sup> $N = 2,674$  (1,064 “a lot,” 1,073 “some,” 460 “a little,” and 77 “not at all”), one participant with missing age was excluded in subgroup analyses. <sup>b</sup>Younger adults were below 55 years old;  $n = 1,877$  (717 “a lot,” 746 “some,” 356 “a little,” and 59 “not at all”). <sup>c</sup>Older adults were 55 years old or above;  $n = 796$  (347 “a lot,” 327 “some,” 104 “a little,” and 18 “not at all”). \* $p < .05$ .





**Figure 2.** Survival curves of younger (top; below 55 years old;  $n = 1,877$ ) and older (bottom; 55 years old or above,  $n = 796$ ) MIDUS 1 volunteers, broken down by the levels of felt respect in MIDUS 1. The horizontal line refers to the months the volunteers had participated in MIDUS 1 until October 2015.

The demographic analyses reveal that older, non-White, and female volunteers perceive more respect for volunteer work. However, the small effect sizes ( $|r_s| < .10$ ) suggests that feeling respected is not a privilege that is enjoyed by only a specific demographic group. Rather, it appears that no volunteer group is completely sheltered from the possibility of feeling poorly respected.

First, volunteers feeling more respect from others were more likely to continue volunteering than their counterparts (H1). This is in line with social exchange theory (Homans, 1961): When volunteers do not perceive sufficient social rewards from volunteering, the continuation of volunteering may not justify the costs (e.g., time, effort). Selective attrition from volunteering may be one reason why the percentages of volunteers with lower levels of felt respect declined in subsequent waves.

Compared to volunteers feeling less respect, those feeling more respect had a generally better affective profile—higher average levels of daily positive affect and lower average levels of negative affect (H2). It is noteworthy that the effects of felt respect on daily (average) positive and negative affect were independent of whether the volunteers

had done volunteer work on that day. Although previous studies have found that daily engagement in volunteer work (compared to days not engaging in volunteer work) is associated with a reduction of physiological reactivity toward daily stressors and a greater level of social connectedness and self-enhancement (Grossman, Wang, & Gruenewald, 2017; Han, Kim, & Burr, 2018), to the best of my knowledge, this is the first study examining the effect of felt respect for volunteer work on a daily level. The results suggest that felt respect for volunteer work can be associated with even the very short-term (daily) indicators of hedonic well-being.

For long-term well-being indicators (SWB, PWB, and SocWB), volunteers with higher levels of felt respect had higher levels of well-being than those with lower felt respect levels across the three waves (H3). This finding is consistent with previous cross-sectional analyses (McMunn et al., 2009; Wahrendorf et al., 2006). The growth curve modeling results further demonstrate that such cross-sectional differences are likely to continue decades later, controlling for baseline demographic and health correlates.

The Cox regression results did not support the hypothetical effect of felt respect on mortality (H4). Although older volunteers with higher respect levels showed lower mortality hazards than those feeling “no [respect] at all,” the effect of felt respect on mortality was not significant for both older and younger volunteers. It is possible that there were some preexisting health differences among volunteers with different respect levels. For example, Wahrendorf and colleagues (2006) found that volunteers feeling inadequate appreciation from others are likely to show more depressive symptoms than their counterparts. Therefore, when all the demographic and (both physical and psychological) health correlates were in the model, the effect of felt respect on mortality became non-significant.

The findings highlight the importance of social reward on volunteers’ retention and well-being. Social reward is important in volunteering for two reasons. First, this is the major form of reward volunteers obtain in the absence of (or with minimal) financial compensation. Social rewards are likely to be a motivating factor leading people (especially older adults; Okun & Schultz, 2003) to volunteer. Second, as shown by the current findings, the effects of felt respect—a form of social reward—on retention and well-being are significant even after controlling for types (of organizations) and intensity (i.e., hours per week) of volunteering involvement. From the perspective of social exchange theory, volunteer work is not a unidirectional “giving” activity but a mutually contingent exchange process (Homans, 1961). Consistent with the theoretical postulations (Siegrist, 1996) and expanding upon previous empirical evidence (e.g., Piliavin & Siegl, 2007), the current results suggest that sufficient rewards received by volunteers in the form of respect and recognition are crucial to volunteers’ retention, affect, and well-being.

## Strengths and Limitations

The multi-wave, multi-study nature of the MIDUS data allows for the analysis of the effect of felt respect for volunteer work on multiple outcomes, providing a more holistic understanding of its well-being and health associates. I am able to examine both the very short-term, daily effects of felt respect for volunteer work on negative and positive affect using the daily diary data and its long-term effects on volunteers' retention, well-being, and mortality using the 20-year longitudinal data.

A major limitation is that the survey question of felt respect for volunteer work did not differentiate the sources of respect or the respect from specific volunteer work they refer to. In other words, felt respect in this study is a general evaluation of the respect volunteers feel from multiple people and in multiple contexts. Although felt respect for volunteer work was the key construct investigated in the current study, I was unable to explore its associated outcomes more deeply due to the constraint of working with existing datasets. Some interesting research questions include, in which contexts and from whom volunteers receive most respect? Furthermore, which sources of respect contribute the most to volunteers' retention, affect, and well-being? Future research should use multiple-item measures to differentiate respect from different sources, such as beneficiaries, program administrators, and family members. It could also examine the effects of each source on different domains of well-being (e.g., positive relations with others and self-acceptance in PWB), given that these well-being domains may have different normative developmental trajectories.

Another limitation is that the diary data did not have a daily indicator of felt respect. In this study, I used felt respect reported in MIDUS 2 prior to the Daily Stress Project as the predictor of volunteers' daily affect. Such a measure, however, was not ideal. First, there was a substantial time gap ( $M_{\text{time gap}} = 20.3$  months) between the measures. There is a possibility that volunteers' felt respect may have changed within the lag period. More important, felt respect for volunteer work as a static measure ignores the daily variation of respect. A day with more negative exchanges during volunteer work is likely to induce a lower level of felt respect than other volunteer days, and in turn, may result in volunteers' worse affective profiles (Rook, 2001). Future studies should explore the possibility of using daily or momentary variables to examine the dynamic social exchanges between volunteers and their immediate environments and how these exchanges affect volunteers' daily well-being.

In addition, because MIDUS includes both random (RDD) and non-random samples (e.g., siblings and twins of the RDD sample), the study sample should not be considered representative of the U.S. population. Finally, attrition over the 20-year span poses problems of missing data. Specifically, if attrition is due to unmeasured reasons (i.e., missing not at random), statistical estimates drawn from MIs may still be biased (Enders, 2010). Nevertheless, the

recent advancement of imputation procedures may help minimize the biases introduced by attrition, even when the missing at random assumption is violated (Graham & Collins, 2012). Despite attrition being a common problem of longitudinal research, such design can unveil the long-term association between felt respect and well-being that is otherwise unable to be investigated (Crano et al., 2015).

## Future Research and Implications

The question left unanswered by this study is the cause of felt respect among volunteers. One possibility is that some dispositional differences affect how sensitive volunteers are to social rewards (e.g., reward sensitivity; Lucas, Diener, Grob, Suh, & Shao, 2000). Volunteers who are more sensitive to rewards may feel more respect even when volunteering in the same context as their counterparts. Another possibility is that some organizational characteristics, such as organizational support, is predictive of volunteers' felt respect (Boezeman & Ellemers, 2007). Future studies should examine whether the differences in felt respect among volunteers are more attributable to dispositional factors, situational factors, or a disposition-situation fit.

Conventionally, volunteering programs are intended to benefit the service recipients, and the benefits they bring to the volunteers may be seen as by-products. However, these by-products, such as social rewards and respect, also influence how likely volunteers are to continue devoting their efforts to programs. Policymakers and program directors should consider incorporating the enhancement of volunteers' felt respect and well-being into the goals of their programs to better benefit all involved.

Governmental and non-profit organizations have long been promoting volunteering as a pathway to healthy aging (e.g., AARP, 2017; Corporation for National and Community Service, 2017). Although the current findings support the notion that the majority of volunteers do enjoy the well-being benefits of volunteering, they also reveal that the benefits are less pronounced among the groups who do not receive sufficient respect for their volunteer work. While it is important to encourage older adults to engage in productive, prosocial activities to promote successful aging (Rowe & Kahn, 1997), it is also important to recognize that volunteer work does not happen in a social vacuum. Volunteers need sufficient social recognition and support to sustain the costly (time-wise and sometimes emotionally) volunteer work that they engage in. Therefore, it appears beneficial to cultivate a respectful atmosphere for volunteers to promote volunteerism that can ultimately lead to positive and successful aging.

Volunteers do not always feel that others respect their efforts. Compared to volunteers who feel inadequately respected, those who feel more respect from others have lower drop-out rates from volunteering, better daily affective experiences, and higher levels of well-being over a 20-year span. Volunteering may bring benefits to volunteers,

but more so among those who feel that others respect their volunteer work.

## Supplementary Material

Supplementary data are available at *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* online.

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