

Can close relationships reduce social class health disparities?: Supportive and trusting close relationships are especially important for health and well-being in lower social class contexts

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Abstract

Social class disparities in health and well-being are pervasive and well-documented. The present research investigates one mechanism that may reduce these disparities: supportive and trusting close relationships. Using a large, representative sample from the Midlife in the U.S. survey (MIDUS), we conducted meta-analysis to summarize longitudinal findings across two waves of health and well-being outcomes and close relationship predictors. We found that close relationships are particularly important for health among people with lower compared to higher social class standing. Specifically, the positive effect of supportive and trusting relationships on future health and well-being was twice as strong for people with lower social class standing (i.e., less education, income). Moreover, initial access to relationships that were higher (versus lower) in support and trust significantly reduced social class health disparities 6-8 years later. Overall, these findings highlight that close relationships are critical for promoting health among those with lower social class standing.

Keywords: socioeconomic status, health, well-being, social class disparities, close relationships

Statement of Relevance

The present research identifies close relationships as especially important to the health and well-being of people in lower social class contexts, and thus provides crucial insights relevant to policies and programs that seek to reduce social class disparities in health. Currently, many programs designed to promote health among those with lower social class standing target individuals. However, when intervening in lower social class settings, our findings emphasize the importance of recognizing the social nature of health. These findings suggest that health interventions can increase their effectiveness by incorporating or leveraging the benefits of close relationships (e.g., intervening at the family or community level, leveraging social support to motivate behaviors that promote health). Furthermore, these findings also suggest that policies that disrupt supportive and trusting close relationships (e.g., lack of childcare, paternal leave, variable work hours) can undermine health in lower social class settings.

Can close relationships reduce social class health disparities?:

Supportive and trusting close relationships are especially important for health and well-being in
lower social class contexts

Social class disparities in health are pervasive and well-documented. With lower social class standing, people can expect to live shorter lives, suffer from more diseases, and have worse overall health and well-being (Case & Deaton, 2017; Goldman et al., 2018). A similarly robust literature from decades of research in epidemiology, public health, and health psychology shows that close relationships are foundational to health and well-being (Cohen, 2004; Feeney & Collins, 2015; Pietromonaco & Collins, 2017). Drawing on both of these literatures, the current research asks whether close relationships—specifically, supportive and trusting close relationships—are sufficiently powerful to reduce social class disparities in health.

Some research has examined the impact of close relationships on the link between social class and health, but the results have been inconsistent (Schöllgen et al., 2011; Uphoff et al., 2013). One set of findings show that close relationships are important regardless of social class standing (e.g., Abel et al., 2011; Gallo et al., 2006), while another suggests they are more beneficial for the health of individuals with higher social class standing (e.g., Baron-Epel et al., 2008; Gorman & Sivaganesan, 2007). On the basis of these findings, close relationships are unlikely to reduce social class disparities in health.

However, yet another set of findings shows that close relationships are more important for health in lower social class settings, as they can help individuals cope with the specific stressors and challenges of low-resourced environments (Antonucci et al., 2003; Miller et al., 2011; Morozink et al., 2010). These findings are consistent with the idea that close relationships

are particularly important resources for individuals with lower versus higher social class standing, and consequently, can serve to reduce social class health disparities.

Here, we begin to resolve these contradictory findings by providing a comprehensive examination of close relationships and their effects on health across social class. Specifically, utilizing four different indicators of social class, we use meta-analysis to summarize the longitudinal effects of four features of supportive and trusting close relationships on five features of health and well-being. We hypothesize that:

- (1) Supportive and trusting close relationships are more important for the health and well-being of people with lower (versus higher) social class standing.
- (2) Given the benefits of close relationships for individuals with lower social class standing, having access to relationships that are higher (versus lower) in support and trust will reduce future social class health disparities.

Method

Participants and Procedure

To determine the links between social class, health, and close relationships, we examined responses to the Midlife in the U.S. (MIDUS) survey—a national survey funded by the National Institute on Aging which seeks to understand the role of social, psychological, and behavioral factors in health and well-being. MIDUS data provides three advantages for testing our hypotheses: (1) a large, representative sample and adequate statistical power, (2) extensive and validated measures of close relationships (e.g., levels of support and strain), health and well-being, and social class standing, and (3) a longitudinal survey tracking participants over multiple decades, allowing us to draw causal inferences on the role of relationships in health and well-being across social class.

MIDUS respondents were recruited through an initial phone interview before receiving a self-administered questionnaire booklet through the mail that included a variety of psychosocial, health, and well-being measures. We focused on respondents in the second and third waves of MIDUS. Data for the second wave was collected from 2004-2006 and data for the third wave was collected from 2012-2014. We refer to the two waves as Time 1 and Time 2 respectively.

We analyzed data from the 2716 respondents who completed surveys at both Time 1 and Time 2. The sample comprised 1503 women and 1213 men (Time 1 $M_{\text{age}} = 55.40$ years, $SD = 11.17$; Time 2 $M_{\text{age}} = 64.49$ years, $SD = 11.17$). The sample was 87.3% White, 3.3% Black, 2.8% Latino, 0.8% Native American, 0.4% Asian, and 5.4% unspecified racial identity.

Measures

We assessed five features of health and well-being, four features of supportive and trusting close relationships, and four indicators of social class. An overview of these measures can be found in Table 1. Detailed descriptive statistics for each measure can be found in the Tables S1-S5 of the Supplemental Materials.

Health and well-being outcomes. Five different features of health and well-being were assessed in the present study: physical health, mental health, global health, quality of daily life, and life satisfaction (see Table 1).

Physical health (1) was a composite of self-rated physical health and number of chronic health conditions ($\alpha = .61$).

Mental health (2) was a composite of self-rated mental health, number of depression symptoms, and number of anxiety symptoms ($\alpha = .56$).

Global health (3) was a composite of self-rated overall health and self-rated health relative to others ($\alpha = .70$).

Quality of daily life (4) was a composite of number of basic activities of daily life participants are unable to complete, number of days missed from work due to poor health, and number of medications used daily ($\alpha = .63$).

Life satisfaction (5) was a composite of overall rating of life and self-rated satisfaction with life ($\alpha = .69$).

We assessed health and well-being outcomes reported at both Time 1 and Time 2.

Close relationship predictors. To assess the extent to which close relationships were supportive and trusting, we examined four features of close relationships: family support, friend support, neighbor support, and positive relationships in general (see Table 1).

Family support (1) assessed the extent to which individuals perceived support or strain from family members. Participants responded to eight items on a 4-point scale (1 = often, 4 = never; $\alpha = .82$). Example items are: “How much can you rely on family members for help if you have a serious problem?” (r) and “How often do family members let you down when you are counting on them?”

Friend support (2) assessed the extent to which individuals perceived support or strain from their friends. The items were identical to the family support items but replaced “family members” with “friends.”

Neighbor support (3) was comprised of the following two items: “I could call on a neighbor for help if I needed it” (r) and “People in my neighborhood trust each other” (r). Responses were on a 4-point scale (1 = a lot, 4 = not at all; $\alpha = .77$).

Positive relationships in general (4) was a composite of three scales that assessed the extent to which relationships, more generally, were perceived as supportive and trusting ($\alpha = .70$). Example items include “I have not experienced many warm and trusting relationships with

others” (r), “When I am unhappy about something, I tend to seek the company of a friend rather than remaining alone,” and “My community is a source of comfort”.

Close relationship predictors were assessed at Time 1.

Social class indicators. Social class is a complex construct reflecting both one’s access to economic resources as well as one’s subjective social rank relative to others (Kraus et al., 2011). Researchers increasingly recognize the need to disentangle the multiple facets of social class and their consequences on health and well-being (Herd et al., 2007). To examine multiple aspects of social class standing, we utilized four different indicators of social class—education, income, subjective social rank, and perceived access to resources compared to others.

Education and income were assessed as objective indicators of social class that are closely tied to one’s access to economic and material resources. To measure *education*, we used participants’ highest level of educational attainment (796 participants had a high school degree or less education, 771 participants had some college but not a four-year degree, and 1,145 participants had at least a bachelor’s degrees or more education). To measure *income*, we used participants’ household income ($M = \$74,849$, $SD = \$60,720$).

Subjective social rank and perceived access to resources compared to others were assessed as indicators of social class that captured individuals’ perceived position in society relative to others. To measure *subjective social rank*, we used the MacArthur Scale of Subjective Social Status (Adler et al., 2000), which presents participants with a "social ladder" and asks them to place an "X" on the rung on which they feel they stand in relation to others in their community ($M = 4.43$, $SD = 1.81$). To measure perceived access to resources compared to others (i.e., *perceived resources*), participants responded to 18 items ($\alpha = .81$) assessing the extent to which they perceived being worse off than others in their work opportunities, ability to

provide for their children, and living environments (Ryff et al., 1999). Participants responded on a 4-point scale (1 = not at all true, 4 = extremely true) to items such as “Most people live in a better neighborhood than I do” and “I feel cheated about the chances I have had to work at good jobs (r)” ($M = 3.85$, $SD = 1.81$).

Social class indicators were assessed at Time 1.

Table 1

Measures of health and well-being, close relationships, and social class

Measures	Description
Health and Well-Being Outcomes	
(1) <i>Physical Health</i>	self-rated physical health and number of chronic health conditions (31 items)
(2) <i>Mental Health</i>	self-rated mental health, number of anxiety symptoms, and number of depression symptoms (24 items)
(3) <i>Global Health</i>	self-rated overall health and self-rated health relative to others (2 items)
(4) <i>Quality of Daily Life</i>	number of basic activities able to complete, number of days missed from work, and number of medications used daily (12 items)
(5) <i>Life Satisfaction</i>	self-rated satisfaction with life and overall rating of life (2 items)
Close Relationship Predictors	
(1) <i>Family Support</i>	e.g., “How much can you rely on family members for help if you have a serious problem?” (8 items)
(2) <i>Friend Support</i>	e.g., “How much can you rely on friends for help if you have a serious problem?” (8 items)
(3) <i>Neighbor Support</i>	e.g., “I could call on a neighbor for help if I needed it” (2 items)
(4) <i>Positive Relationships</i>	e.g., “I have not experienced many warm and trusting relationships with others” (14 items)
Social Class Indicators	
<i>Education</i>	highest level of educational attainment
<i>Income</i>	household income
<i>Subjective Social Rank</i>	rank on community “social ladder”
<i>Perceived Resources</i>	perceived access to resources compared to others in society

Analytic Approach

To examine the role of close relationships in health across social class, we tested a series of separate linear regression models composed of unique combinations of the five health and well-being outcomes and four close relationship predictors (see Table 1). That is, for each health and well-being outcome, we examined the predictive role of each close relationship predictor for a total of 20 analyses. We then repeated these 20 analyses for each social class indicator. In each model, Time 2 (T2) health and well-being outcomes were regressed on Time 1 (T1) close relationship predictors, T1 social class, and the interactions between T1 close relationship predictors and T1 social class. We controlled for T1 health and well-being as well as gender, age, race, and marital status. Analyses were conducted with the greatest possible sample size given response rates to the items of interest. Our statistical model was as follows:

$$T2\ Health_i = \beta_0 + \beta_1(T1\ Close\ Relationship_i) + \beta_2(T1\ Social\ Class_i) + \beta_3(T1\ Close\ Relationship_i \times T1\ Social\ Class_i) + \beta_4(T1\ Health_i) + \beta_5(Covariates_i) + error_i$$

To test our first hypothesis that supportive and trusting close relationships are more important for the health and well-being of people with lower compared to higher social class standing, we analyzed the simple effects of close relationships on health for individuals with lower versus higher social class standing. To examine the simple effects for lower vs. higher education, we used categorical distinctions and compared effects for high school-educated (low educational attainment) vs. college-educated (high educational attainment) participants. Income was assessed as a continuous variable. To look at the simple effects for lower vs. higher income, we compared the effects for income at -1 SD (lower income) vs. income at +1 SD (higher

income). We followed the same procedure as income for subjective social rank and perceived inequality. Random-effects meta-analyses were then conducted on these simple effects using the metafor packaged in R (Viechtbauer, 2010). A separate meta-analysis was conducted for each indicator of social class. Each model examined social class standing (lower vs. higher) as a moderator of the observed effects. We controlled for any variation in effect sizes due to the type of health and well-being outcome being examined (e.g., physical vs. mental health) or close relationship predictor being examined (e.g., family vs. friend support) by assigning them as random effects in the model. Effect sizes were standardized beta coefficients (r) and variance was calculated using the *escalc* function in the metafor package.

To test our second hypothesis that access to relationships that are higher (versus lower) in support and trust reduces social class health disparities, we examined the size of social class health disparities when close relationships were reported as lower (-1 SD), mean, or higher (+1 SD) in support and trust. We then followed the same meta-analysis procedure described above, but instead examined close relationships as a moderator of social class health disparities.

Results

We first hypothesized that supportive and trusting close relationships are more important for the health and well-being of people with lower versus higher social class standing. For the two objective indicators of social class (i.e., education and income), the meta-analyses results supported this hypothesis. As detailed in Table 2, the effect of supportive and trusting close relationships on health and well-being was twice as strong for participants with lower vs. higher levels of education ($r = .12$ vs. $r = .06$) and for participants with lower vs. higher levels of income ($r = .12$ vs. $r = .05$). Although the same pattern emerged for subjective social rank and perceived resources, these differences were not statistically significant (see Table 2).

To help ensure that these results represented the causal consequence of close relationships on health, we reran our analysis with health and well-being at T1 predicting supportive and trusting close relationships at T2 (while controlling for close relationships at T1). We found a significant effect of health and well-being on close relationships, p 's $< .001$, but social class did not moderate this effect, p 's $> .08$. Thus, while health and well-being are likely to influence the quality of one's relationships, this effect is not stronger for individuals with lower social class standing. In fact, results largely trended in the opposite direction, such that health and well-being had stronger consequences on close relationships for those with higher vs. lower social class standing. Together these results support the specific causal link between close relationships and health benefits in lower- compared to higher-social class contexts.

Table 2

Education and income moderate the positive effect of supportive and trusting relationships on health and well-being

<i>Effect</i>				
<i>Moderation</i>	<i>Simple</i>	<i>r</i>	95% CI	<i>Q</i>
Education		.057	 [.01,.10]*	 8.17, <i>p</i> = .99
	Low	.116	[.07,.16]***	
	High	.059	[.02,.10]**	
Income		.072	 [.03, .12]**	 20.86, <i>p</i> = .65
	Low	.118	[.07,.16]***	
	High	.046	[.00,.09]*	
Subjective Social Rank		.019	 [-.03,.06]	 15.20, <i>p</i> = .91
	Low	.085	[.04,.14]***	
	High	.066	[-02,.12]**	
Perceived Resources		.009	 [-.03,.05]	 16.65, <i>p</i> = .86
	Low	.080	[.04,.12]***	
	High	.070	[.03,.11]**	

Notes. Table displays moderating effects of social class on the link between close relationships and health and well-being, and simple effects for higher and lower social class standing. Bolded text are moderation analyses, plain text are simple effect analyses. For education, Low = high school-educated participants and High = college-educated participants. For income, subjective social rank, and perceived resources, Low = -1 SD and High = +1 SD.

Given the specific benefits of close relationships for individuals with lower social class standing, we next hypothesized that having access to relationships that are higher (versus lower) in support and trust would serve to reduce social class health disparities in the future. Since we

did not find any moderating effects of social class when measured by subjective social rank or perceived resources, we tested this hypothesis using only education and income. The results of our meta-analyses revealed a moderating effect of close relationships on social class health disparities. Health disparities were significantly smaller at higher levels of support and trust compared to lower levels of support and trust for both education, $b = .06$, $z = 2.51$, $p = .01$, 95% CI [.01,.10], and income, $b = .05$, $z = 2.17$, $p = .03$, 95% CI [.01, .09]. There were no significant differences at higher levels of support and trust compared to mean levels or lower levels of support and trust compared to mean levels, p 's > .21.

Together, these results demonstrate that supportive and trusting close relationships have potential to reduce social class health disparities. However, the size of this effect varied significantly based on the particular health and well-being outcome being assessed, $Q_m = 49.07$, $p < .001$, and the particular close relationship predictor being assessed, $Q_m = 9.36$, $p = .02$. This finding suggests that specific features of supportive and trusting relationships can have more or less of an impact on specific features of health and well-being across social class. For example, one noteworthy difference was that the positive effect of family support on health and well-being was four times stronger for individuals with lower ($r = .13$) compared to higher ($r = .03$) social class standing, but the positive effect of friend support was more comparable across social class ($r_{low} = .10$, $r_{high} = .07$; see Table S6 and S7 in Supplemental Materials for a full breakdown of effect sizes for each outcome and predictor).

Discussion

For the first time, the current study provides a comprehensive examination of the long-term health and well-being benefits of close relationships for people with lower versus higher social class standing. By systematically analyzing five measures of health, four measures of

relationships, and four indicators of social class, we identified a robust and clear pattern: supportive and trusting close relationships are particularly important for health in lower-social class environments and have potential to reduce social class health disparities.

The comprehensive study helps to resolve previous inconsistencies in the literature on the links between close relationships, health, and social class. We found that supportive and trusting close relationships only had differential effects on health across objective indicators of social class (education and income), but not across subjective indicators (e.g., subjective rank). This pattern suggests that close relationships may be especially important in meeting the material and economic needs of those with lower class standing. Future research is needed to examine the mechanisms through which relationships impact health in lower-class environments—that is, the particular health and well-being benefits (e.g., coping with stressors) and burdens (e.g., additional responsibilities) that close relationships confer. Furthermore, although we drew on a representative sample, future research should determine whether these findings generalize to racial minority groups and settings outside the U.S.

Together, these findings highlight the especially critical role of close relationships for people navigating lower-social class environments. While previous research has recognized that lower social class contexts tend to foster interdependence and social responsiveness (Markus & Conner, 2014; Stephens et al., 2014), the present work provides one potential reason for this link. Specifically, in the absence of economic wealth, having “social wealth”—or family, friends and neighbors who can help to navigate the demands of everyday life—is especially critical for health and well-being. In contrast, when people have higher social class standing and more access to economic wealth, their social wealth may be less crucial for good health.

The present research contributes to a growing literature linking close relationships to health and well-being for individuals navigating lower social class worlds. Many programs and policies designed to address social class disparities in health focus solely on the individual and aim to change individual behavior (e.g., people's diet or exercise habits). Our findings call for an expanded and more socially-oriented definition of health (Hook & Markus, 2020) that takes into account the importance of trusting and supportive social relationships for policies and programs designed to mitigate social class disparities and promote health among those with lower social class standing.

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