Examing the Role of Friendship for Employee Well-Being

Lydia Craig
George Mason University
Department of Psychology

Lauren Kuykendall
George Mason University
Department of Psychology

Correspondence concerning this article should be addressed to Lydia Craig, Department of Psychology, George Mason University, Fairfax, VA 22030

Contact: lcraig3@gmu.edu
Abstract

Sustaining high-quality experiences across multiple life roles is essential for well-being. While this has long been acknowledged in the work-nonwork literature, research to date has focused primarily on experiences in work and family roles. Responding to calls to better understand how roles beyond work and family impact employee well-being, we seek to highlight the role of supportive friendships. Drawing on Social Support Resources Theory, we suggest that supportive friendships influence general well-being via self-esteem, a key personal resource. We argue that supportive friendships should enhance self-esteem and subsequently well-being because of the voluntary nature of friendship and the unique support that friends provide. In Study 1, we examine the extent to which supportive friendships contribute to employees’ general well-being via self-esteem, controlling for the effects of supportive marital and family relationships, finding that supportive friendships have unique effects. In Study 2, building on these findings, we propose and test an expanded model in which we: (1) differentiate between support from work-based and nonwork friends, (2) examine organization-based self-esteem in addition to general self-esteem as mediating variables, and (3) consider the role of supportive friendships for both general and work-related well-being. We find that supportive nonwork friends influence both general and work-related well-being, while supportive work friends are primarily important for well-being at work. The present studies are the first to consider the effects of both work and nonwork friends on well-being and to test a mechanism for such effects. 

Keywords: well-being, close relationships, friendships, social support, self-esteem
Sustaining high-quality experiences across multiple life roles is essential for well-being. Acknowledging this, work-nonwork research has sought to understand how to help employees experience positive outcomes in both work and nonwork roles. To date, this research has largely focused on work and family roles (e.g., Greenhaus & Powell, 2006; Parasuraman, Purohit, Godshalk, Beutell, 1996), while other nonwork domains have received little consideration (Carlson & Kacmar, 2000; Powell, Greenhaus, Allen, & Johnson, 2016). While positive experiences in work and family roles are clearly important for employees’ general well-being (Amstad et al., 2011; Shockley & Singla, 2011), they do not represent the full set of roles that matter for employee well-being, as many workers strive not only to have a good career and happy family life, but also to maintain hobbies, volunteer activities, and friendships (Carlson & Kacmar, 2000; Powell, Greenhaus, Allen, & Johnson, 2016). Noting the need to understand how roles beyond work and family impact employees’ lives, researchers have called for an expanded focus on roles other than work and family (Eby, Casper, Lockwood, Bordeaux & Brinley, 2005). Some research has responded to the call, documenting the benefits of engaging in nonwork roles beyond family (e.g., leisure, Kuykendall et al., 2017; civic engagement, Guo, Baruch, & Russo, 2017).

One role that has been identified as potentially important for well-being is friendship (Powell et al., 2016), a role that has to date received little attention (though see Keeney, Boyd, Sinha, Westring, & Ryan, 2007; Voydanoff, 2005). In addition to academic research highlighting the need to study friendship, the ubiquity of popular media articles focused on the struggles of cultivating and maintaining friendships during working adulthood also points to friendship as an important life role that many employees consider essential for their well-being (Doll, 2012; Thomas, 2012).
In this paper, we explain why supportive friendships are important for well-being (generally and at work) beyond the effects of supportive family and spousal relationships. Drawing on and extending Social Support Resource Theory (Hobfoll, Freedy, Lane & Geller, 1990), we suggest that supportive friendships should enhance well-being via self-esteem—a key personal resource—as support from friends is freely given despite other demands and is uniquely suited to affirm our worth. We examine these predictions in Study 1 using data from a large nationally representative sample. In doing so, we contribute to extent research by explaining why supportive friendships impact employee well-being and documenting that they do so beyond the effects of family and spousal relationships, the nonwork relationships that to date have been most frequently considered (Eby et al, 2005; Greenhaus & Powell, 2006).

We suggest that the effects of friendship on self-esteem not only contribute to general well-being but also to well-being at work, as general and domain-specific self-esteem are resources that are known to influence experiences in multiple domains (Ten Brummelhuis & Bakker, 2012). Building on our first study, we propose an expanded model in Study 2 in which we: (1) differentiate between support from work-based and nonwork friends, (2) examine organization-based self-esteem in addition to general self-esteem as mediating variables, and (3) consider the effects of supportive friendships on both general and work-related well-being.

By examining the effects of both work and nonwork friends for employee well-being, we extend research on work-nonwork enrichment (Greenhaus & Powell, 2006) and on workplace friendships (Colbert, Bono, & Purvanova, 2016; Henderson & Argyle, 1985; Riordan & Griffeth, 1995). We build on the work-nonwork enrichment literature by examining the extent to which supportive nonwork friendships may contribute to well-being at work, adding to past research that has shown cross-domain effects of supportive family relationships on work-related well-
being (Amstad et al., 2011; Halbesleben, 2006). We also contribute to research on work-based friendships, which has shown positive effects of friendships at work (e.g., Colbert et al., 2016; Henderson & Argyle, 1985; Riordan & Griffeth, 1995), but has not identified mechanisms through which these effects occur. We extend this work by explaining why these friendships positively impact well-being at work—through their effects on general and organizational-based self-esteem.

Study 1

Study 1 Theoretical Background and Hypotheses

Defining Friendship. Consistent with typical conceptions of friendship, we understand friendships to be those relationships that are freely and mutually chosen and founded in reciprocal support, intimacy, and shared interests or values (Hartup & Stevens, 1997). While one’s family and romantic partners can share many of these attributes, friendships are distinct from family and romantic relationships both theoretically and in individuals’ self-reports of their relationships (Hartup & Stevens, 1997). While one’s spouse is also freely and mutually chosen at the outset, the binding commitment of marriage does not have an equivalent in friendships, making friendships more of an ongoing choice that can more easily be deprioritized or dissolved in the face of irreparable strains (Adams & Blieszner, 1994; Wiseman, 1986). Further, friendships do not carry the biological ties—and typically associated commitments—that characterize family relationships (Adams & Blieszner, 1994; Pillemer & Rothbard, 2018; Wright, 1984). In this regard, friendships are much more voluntary and flexible than one’s marriage and family relationships.

Social support, self-esteem and well-being. In this section, we draw on and extend Social Support Resource Theory (SSRT; Hobfoll et al., 1990) to explain why friendship should
be important for well-being. SSRT is based on Conservation of Resources theory (Hobfoll, 1988), which broadly proposes that individuals are motivated to protect and gain resources and that resources support further resource gain (for a detailed discussion of COR, see Hobfoll, 2011). From this basis in COR, SSRT proposes that social support serves both to define and protect the self and to facilitate the preservation and acquisition of further resources (Hobfoll et al., 1990). In SSRT, social support is seen as an important antecedent of well-being. One primary reason social support is thought to be important for well-being is because of its likely positive effects on self-esteem—an important key resource (Hobfoll, 1990; 2002; Ten Brummelhuis & Bakker, 2012).

We suggest that supportive friendships should uniquely predict self-esteem beyond support from one’s spouse and family. Working adults are increasingly facing high demands from work and family roles (Greenhaus & Kossek, 2014). Though these roles can be highly rewarding, time spent in these roles limits the amount of discretionary time that can be allocated to other valued roles, including friendship. Research has shown that, in the face of role-related demands from work and family, working adults often deprioritize friendships (Carstensen, 1992; Hartup & Stevens, 1997). This is understandable, as friendships are much more flexible, carrying fewer binding commitments or immediate consequences if commitments are not upheld (Huxhold, Miche, & Schuz, 2013; Wright, 1984). As such, maintaining and cultivating supportive friendships in working adulthood requires that individuals make intentional and mutual choices to prioritize and make time for friendship (Fingerman, Hay, & Birditt, 2004; Roberts & Dunbar, 2011), when neglecting friendship may be an easier choice. When people choose to cultivate and maintain supportive friendships with us—because they want to and not because they have to—it conveys that we are valued and worthy of their limited time. This
strongly enhances our self-esteem, as self-esteem is known to be a function of being valued by others (Leary, 2005).

Further, the nature of support from friends likely differs from the nature of support from one’s family and spouse in a way that is important for self-esteem. Research has shown that friends are more likely to provide companionate and esteem support than are family (Messeri, Silverstein, & Litwak, 1993; Montpetit, Nelson, & Tiberio, 2017). These types of support often involve engaging in positive self-disclosure or capitalization (i.e., retelling happy events to important others), which is known to promote the acquisition of both social and personal resources such as self-esteem (Peters, Reis, & Gable, 2018; Reis et al., 2010). Such sharing of positive events is described as a key “rule of friendship” according to Henderson and Argyle (1985). Research has shown that individuals frequently capitalize on positive events by communicating them to close friends (e.g., Demir, Haynes, & Potts, 2017; Derlega, Anderson, Winstead, & Greene, 2011). Doing so has been shown to enhance self-esteem, as positive and constructive responses from a friend or other affirms one’s sense of being valued (Peters et al., 2018).

In promoting our self-esteem, support from friends should subsequently impact well-being (i.e., high positive affect, low negative affect, life satisfaction; Diener, 1984). As a key personal resource, there are several ways in self-esteem may promote well-being (Hobfoll, 2002; Ten Brummelhuis & Bakker, 2012). First, resources such as self-esteem can help protect individuals from experiencing stressful situations and can help individuals manage stressful situations when they arise, promoting well-being (Hobfoll, 2002). Second, self-esteem can facilitate the acquisition of other resources, resulting in a “gain spiral” of resource accumulation (Ten Brummelhuis & Bakker, 2012). Further, resources—especially key personal resources—are
relatively stable over time and help maintain well-being when other resources are depleted (Hobfoll, 2002).

The effects of self-esteem on well-being have been widely empirically documented. Research adopting a cross-lagged panel analysis approach found that self-esteem prospectively predicts positive life outcomes, while life outcomes do not predict self-esteem (Orth, Robins, & Widaman, 2012; Orth, 2017). This is consistent with meta-analytic evidence noting strong relationships between self-esteem and well-being (Bowling, Eschleman, Wang, Kirkendall, & Alarcon, 2010; Chang, Ferris, Johnson, Rosen, & Tan, 2012; Kuykendall, Tay, & Ng, 2015). In sum, we suggest that supportive friendships are an important source of self-esteem beyond one’s spousal and family relationships and should predict self-esteem and well-being beyond the effects of those other sources. Our full model is presented in Figure 1.

**Hypothesis 1:** Support from friends will be indirectly and positively related to well-being (i.e., life satisfaction, positive affect, low negative affect) via self-esteem, controlling for the effects of support from spouse and family.

**Methods for Study 1**

**Sample description.** We used data from Wave 2 (collected from 2004-06) of the National Survey of Midlife Development in the United States (MIDUS), a nationally representative dataset collected by the MacArthur Midlife Research Network and the University of Wisconsin-Madison. Respondents were 749 working and married adults (404 men) with an average age of 51.14 (SD = 9.7). We included only participants from the Main Sample in order to ensure that the sample was nationally representative (i.e., we excluded the regional oversamples). We only included respondents who were married and working in order to assess the effects of supportive friends beyond family and spouse for the well-being of working adults.
Measures.

Support from friends. Friend support was assessed using four items. Respondents were asked to indicate to what extent their friends, for example, care about them and can be relied upon for help. Response options ranged from 1 (A lot) to 4 (Not at all), and responses were reverse coded, with higher values corresponding to greater support. Cronbach’s alpha for all study measures are presented in Table 1.

Support from family. Family support was assessed by asking respondents to respond to the same items as above with regard to all family (not including their spouse/partner). Response options and reverse coding were the same as above.

Support from spouse. Spouse support was assessed with six items. Four of the support items were parallel to the friend support measures, with the addition of two questions that asked how much one’s partner appreciates them and how much they can relax and be themselves with their partner (1 = A lot, 4 = Not at all, reverse-coded).

Self-esteem. Self-esteem was measured with seven items from the Rosenberg (1965) self-esteem, which asked respondents to indicate their agreement with items such as “On the whole, I am satisfied with myself” from 1 (Strongly agree) to 7 (Strongly disagree). Responses were reverse-coded.

Life satisfaction. Life satisfaction was assessed with one item that asked respondents, on a scale from 0 (“worst possible life overall”) to 10 (“best possible life overall”), “How would you rate your life overall these days?”. Single-item measures have been shown to perform very similarly to multi-item measures of well-being and are widely used (Cheung & Lucas, 2014).

Positive and negative affect. Positive affect was measured with four items which asked respondents to indicate how much of the time in the past 30 days they felt, for instance,
“enthusiastic” and “proud” (1 = All of the time, 5 = None of the time). Responses were re-coded with higher scores reflect higher levels of positive affect. Negative affect was similarly assessed by asking respondents to indicate how often they felt, for example, “afraid” and “irritable” (1 = All of the time, 5 = None of the time). Again, responses were reverse-coded, with higher scores indicating greater negative affect.

**Traditionalism.** This measure was used in the statistical tests to examine the potential influence of common method variance, as there was no reason to expect substantive relationships between this variable and substantive study variables. It was measured with three items, including, “People should observe moral laws more strictly than they do” (1 = True of you, 4 = False). Responses were reverse-coded.

**Study 1 Results**

Descriptive statistics, alpha reliabilities, and correlations of study variables are presented in Table 1. Due to the large sample size, we used a conservative criterion (α = .01) for significance testing (Judge & Bretz, 1992).

**Confirmatory Factor Analyses.** We first tested the structure of the social support scales using Mplus Version 7 (Muthen & Muthen, 2004). We used robust maximum-likelihood estimation due to the skewed nature of the data. To compare models, we used the Satorra-Bentler chi-square difference test, which is appropriate for use with robust maximum likelihood estimation (Satorra & Bentler, 2010). We first tested a single-factor model in which all support items were allowed to load on a common factor, which showed poor model fit, $\chi^2 = 2277.94$, $df = 77$, CFI = 0.474, RMSEA = 0.196, SRMR = 0.181. We then tested a three-factor model (support from friends, support from family, support from spouse), which resulted in a significant
improvement in model fit, \( \chi^2 = 409.97, df = 74, CFI = 0.920, RMSEA = 0.078, SRMR = 0.041, \Delta \chi^2 = 1576.7, \Delta df = 3, p < .01 \). Thus, the three-factor social support solution was retained.

**Hypothesis testing.** We used structural equations modeling to test our hypotheses. All variables were specified as latent constructs. We used robust maximum-likelihood (MLR) estimation in order to account for the non-normality of the data. Fit of the model was assessed using the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) (Hu & Bentler, 1999), and models were compared using the Satorra-Bentler chi-square difference test, which is appropriate for use with MLR estimations (Satorra & Bentler, 2010). Well-being outcomes (i.e., life satisfaction, positive affect, negative affect) were allowed to correlate. We first tested a full measurement model, which displayed acceptable fit, \( \chi^2 = 1106.89, df = 390, CFI = 0.914, RMSEA = 0.050, SRMR = 0.041 \). We then tested our structural models. The partial mediation model fit the data well, \( \chi^2 = 1148.22, df = 414, CFI = 0.915, RMSEA = 0.049, SRMR = 0.053 \). We then tested a full mediation model, which fit significantly worse than the partial mediation model, \( \chi^2 = 1278.39, df = 423, CFI = 0.901, RMSEA = 0.052, SRMR = 0.053, \Delta \chi^2 = 132.29, \Delta df = 9, p < .05 \). Thus, the partial mediation solution was retained. Direct and indirect effects for the full model are presented in Table 2.

Hypothesis 1 stated that there would be an indirect effect of friend support on well-being via self-esteem, controlling for the effects of spouse and family support. In support of Hypothesis 1, there was a significant indirect effect of friend support on life satisfaction (\( \beta = 0.06, 95\% \text{ CI} = [.03, .09], p < .01 \)), positive affect (\( \beta = 0.12, 95\% \text{ CI} = [.06, .18], p < .01 \)), and negative affect (\( \beta = -0.13, 95\% \text{ CI} = [-.20, -.06], p < .01 \)) via self-esteem, controlling for the effects of spouse and family support.
To supplement the test of our hypothesis, we were also interested in understanding the relative contribution of friend, family, and spouse support for self-esteem and well-being. We use Relative Importance Analysis, which extends relative weights analysis (a method used to partition variance explained by multiple correlated predictors) by generating resampled datasets from which a sampling distribution is derived. This distribution is then used to determine the statistical significance of relative weights (Tonidandel, LeBreton, & Johnson, 2009; Tonidandel & LeBreton, 2011). As such, it is useful supplement to regression analyses in determining the relative contribution of multiple correlated predictors.

In the relative importance analysis, all predictors were entered simultaneously. Confidence intervals were estimated using bootstrapping with 10,000 replications. Results are presented in Table 3. For ease of interpretation, results are reported in percentages, which reflect the percentage of explained variance that is attributable to a given predictor. For self-esteem, spouse support explained the most variance (rescaled estimate = 40.0%), followed by family (32.0%) and friend support (28.0%). These percentages did not significantly differ, as evidenced by overlapping confidence intervals around the raw relative weights. For life satisfaction, support from one’s spouse explained the largest amount of variance (58.2%), followed by friend support (24.8%) and family support (17.0%). For positive affect, all support variables explained approximately one-third of the variance. The largest portion of variance in negative affect was explained by family support (47.1%), followed by spouse support (41.2%), with friend support accounting for the least variance (11.7%).

Common Method Variance. Several procedural remedies were in place to address concerns about common method variance (CMV) (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). This included: (1) separation of study
variables by other variables not included in this study, (2) requesting honest answering to reduce evaluation apprehension and socially desirable responding, (3) ensuring item clarity, succinctness, and simple language in order to improve item comprehension and decrease the likelihood of stylistic responding, and (4) by using reverse coded items and varying scale types and anchor labels. In addition to these procedural approaches, we used the CFA marker approach in order to statistically test for the presence of CMV (Richardson, Simmering, & Sterling, 2009; Williams, Hartman, & Cavazotte, 2010). We selected traditionalism as our marker variable, as we had no reason to expect it to be related to study variables. We followed the approach described by Williams and Anderson (1994) (see also Williams et al., 2010). We first tested the baseline model and then compared it to the method-C model. The baseline and method-C models were not significantly different, $\Delta \chi^2 = 0.61$, $\Delta df = 1$, $p > .05$, indicating that there was no evidence of substantive CMV. The subsequent models were not tested.

**Study 1 Discussion**

We hypothesized that supportive friendships should contribute to self-esteem and subsequently to well-being beyond support from relationships more typically studied in the work-nonwork literature, as support from friends is freely given despite other demands and uniquely suited to affirm our worth. Consistent with these predictions, we found that supportive friendships contribute to self-esteem and general well-being beyond supportive spousal and family relationships. Further, we found evidence that friend support influences well-being indirectly via self-esteem. This is consistent with SSRT, which proposes that social support should promote the acquisition of personal resources (self-esteem) and subsequently well-being.

Of note, while some of the observed indirect effects are relatively small, the practical value of these effects must be considered in light of their malleability (Matz, Gladstone, &
Stillwell, 2017). That is, while personality, for instance, has a large effect on well-being, it is not particularly malleable (McCrae & Costa, 1994). In contrast, the quality of one’s friendships likely is more malleable, as people choose to invest time in the cultivation and maintenance of friendships. Thus, while small, the effect of friendship likely has practical relevance because of its potential malleability.

Results of the relative importance analysis further suggest that supportive friendships contribute substantially to well-being relative to the effects of family and spouse support, particularly for positive affect. These results suggest that supportive friendships make meaningful contributions to well-being relative to the contributions of supportive spouse and family relationships and thus are worth cultivating and maintaining despite competing demands.

**Study 2**

In Study 1, we established that supportive friendships contribute to general well-being beyond individuals’ family and spousal relationships. As well-being is conceptualized as both general and domain-specific (Erdogan, Bauer, Truxillo, & Mansfield, 2012), Study 2 aimed to extend the findings of Study 1 by examining how friendships not only impact general well-being but also impact well-being in the work domain. Further, as many working adults cultivate friendships both at and outside of work, we consider and compare the effects of support from work and nonwork friends, expanding our contribution beyond establishing the importance of friendship for employee well-being to also clarifying whether the effects of friendships differ across domains (at work vs. outside of work). As with well-being, we also differentiate between general self-esteem and organization-based self-esteem (OBSE) in order to examine whether friends impact OBSE in addition to general self-esteem, and how these resources subsequently influence well-being.
We also consider cross-domain effects. Specifically, we build on research documenting the positive (i.e., enriching) effects of family roles on work-related outcomes (Amstad et al., 2011; Greenhaus & Powell, 2006) by considering how nonwork friends may influence work-related well-being through self-esteem and OBSE. We are the first to our knowledge to examine the enriching effects of nonwork friends. Our full model, which extends Study 1, is presented in Figure 2 and discussed more fully below.

**Study 2 Theoretical Background and Hypotheses**

**Social support from work and nonwork friends and general well-being.** In Study 1, drawing on Social Support Resources Theory (Hobfoll et al., 1990), we argued and found that supportive friendships contribute uniquely to workers’ self-esteem and subsequently to general well-being. Here, we expand on Study 1, differentiating between the effects of support from work-based and nonwork friends. We suggest that support from both work and nonwork friends should contribute to well-being via self-esteem—a key personal resource (Ten Brummelhuis & Bakker, 2012). As described above, supportive nonwork friends should enhance our self-esteem when they choose to provide support despite other role-related commitments, as doing so conveys that we are valued and worthy of their time. While support from work friends may be expected to be less affirming insofar as this support requires less effort and intentionality and may feel somewhat less voluntary (due to proximity), supportive work friends should enhance self-esteem because their proximity in our daily lives allows them to provide encouragement for day-to-day events as they occur (Peters et al., 2018). As employees spend most of their waking hours at work, their workplace friendships may be the most readily accessible sources of support and may be the friends with whom we most frequently have spontaneous interactions, which contributes to work friends playing an important role in enhancing self-esteem. Support from
work friends may focus on workplace events but may also include a broader range of events in one’s nonwork life (Colbert et al., 2016). As noted in Study 1, self-esteem, as a key personal resource, should subsequently influence general well-being.

Building on our focus on general self-esteem in Study 1, we suggest that supportive friends not only impact one’s general self-esteem, but also impact work-specific self-esteem (i.e. OBSE, Pierce & Gardner, 2004). OBSE refers to the extent to which an individual feels “capable, significant, and worthy as an organizational member” (Pierce & Gardner, 2004, p. 593). Early theorizing suggested that messages from significant others that communicate employees’ value and importance to the organization are a strong determinant of OBSE (Korman, 1970, 1971). Such messages can convey both our professional competence and that we are accepted and included, both important drivers of self-esteem (Gardner & Pierce, 2016). This is consistent with meta-analytic evidence that suggests that social support at work is an important predictor of OBSE (Bowling et al., 2010). Work-based friends are ideally positioned to regularly provide messages that affirm our social inclusion and value to the organization. These messages from friends should be particularly affirming because we consider their perspective trustworthy and reliable, which is not necessarily the case for all coworkers or supervisors (Pierce & Gardner, 2004).

Nonwork friends may also contribute to the extent to which we feel capable and worthy at work, as nonwork friends often provide support for work-related topics or issues and can affirm our vocational identity or professional competence (Viswesvaran, Sanchez, & Fisher, 1999). This is consistent with research that has found that friends play an important role in promoting career-related self-efficacy and identity (Kvitkovicova, Umemera, & Macek, 2017). However, the present study is the first to our knowledge to directly examine the relationship
between nonwork friend support and OBSE. In sum, as OBSE—like general self-esteem—is an important predictor of general well-being, social support from work and nonwork friends should influence well-being via OBSE (Bowling et al., 2010).

Hypothesis 2: Social support from nonwork friends will indirectly and positively relate to general well-being (life satisfaction, positive affect, absence of negative affect) via general self-esteem.

Hypothesis 3: Social support from work friends will indirectly and positively relate to general well-being (life satisfaction, positive affect, absence of negative affect) via general self-esteem.

Hypothesis 4: Social support from nonwork friends will indirectly and positively relate to general well-being (life satisfaction, positive affect, low negative affect) via OBSE.

Hypothesis 5: Social support from work friends will indirectly and positively relate to general well-being (life satisfaction, positive affect, low negative affect) via OBSE.

Social support from work and nonwork friends and work-related well-being. In addition to impacting general well-being, we suggest that supportive friendships should also promote work-related well-being via general self-esteem and OBSE (Bowling et al., 2010; Chang et al., 2012). Parallel to our consideration of life satisfaction and affective well-being, we consider the role of supportive friendships for job satisfaction and job-related affective well-being.

We suggest above that supportive work friendships should promote both general self-esteem and OBSE. To the extent that this is true, well-being at work should be enhanced, consistent with evidence that both general self-esteem and OBSE are important antecedents of well-being at work (Bowling et al., 2010). More specifically, supportive work friends should
facilitate general self-esteem, as work friends often provide support for issues beyond work (Colbert et al., 2016). In doing so, support from work friends should subsequently promote high levels of job satisfaction and job-related affective well-being. Additionally, supportive friendships at work should help employees feel affirmed of their worth to their organizations, resulting in high levels of OBSE and subsequently high levels of work-related well-being.

Additionally, we suggest that supportive nonwork friends should have cross-domain effects, impacting well-being at work. Consistent with enrichment perspectives (Greenhaus & Powell, 2006; Ten Brummelhuis & Bakker, 2012), these resources that are generated in nonwork friendships can transfer to the work role and enhance experiences in the work role. Specifically, these perspectives suggest that, when a resource generated in one role is consistently required by and perceived as relevant to another role, that resource will benefit experiences in the other role. As self-esteem is a critical resource for sustaining high-quality work experiences (Bowling et al., 2010), the self-esteem resources created by nonwork friends should help facilitate optimal engagement in and satisfaction with work. Thus, by facilitating general self-esteem and OBSE, supportive nonwork friendships likely have cross-domain effects on well-being at work. We note that, while many studies have shown cross-domain effects of family roles (Viswesvaran et al., 1999; Amstad et al., 2011), we are the first to propose and examine cross-domain effects of support from nonwork friends.

**Hypothesis 6:** Support from nonwork friends will indirectly and positively relate to job satisfaction and job-related affective well-being via general self-esteem.

**Hypothesis 7:** Support from work friends will indirectly and positively relate to job satisfaction and job-related affective well-being via general self-esteem.
Hypothesis 8: Support from nonwork friends will indirectly and positively relate to job satisfaction and job-related affective well-being via organization-based self-esteem.

Hypothesis 9: Support from work friends will indirectly and positively relate to job satisfaction and job-related affective well-being via organization-based self-esteem.

Study 2 Methods

Study design. We used a two-wave design to test our proposed model. At Time 1, participants completed a survey which measured social support from work and nonwork friends. Two weeks later, participants received an email inviting them to participate in the second wave of the study. At Time 2, self-esteem, work-related well-being, and general well-being outcomes were measured.

Sample description. We tested our model using a sample recruited from Amazon’s MTurk. To be eligible, respondents were required to be full-time workers and over the age of 18. Following recommended practices, screening questions were embedded within other demographic questions to disguise them (Cheung, Burns, Sinclair, & Sliter, 2017). Participants that did not correctly answer attention check items were removed. Respondents were compensated $1.00 for responding to the first survey, and $1.50 for the second survey. Of the 493 that responded to the first survey, 310 returned the second survey, a retention rate of 62.9%. The sample consisted of 53.2% women, the average age was 37.3, and the average tenure was 6.94 years. Approximately 79.7% of the sample was Caucasian. Participants were from a variety of industries, most commonly government (12.6%) health care and social assistance (13.9%), and general management (18.1%).

Measures. For all measures, except where otherwise stated, respondents used a five-point likert scale (1 = “Strongly disagree” to 5 = “Strongly agree”).
Social support from work and nonwork friends. To measure social support from work and nonwork friends, we used Procidano and Heller’s (1983) Perceived Social Support scale, based on House’s (1981) taxonomy of social support, a widely used scale to measure social support from specific sources (i.e., from family and friends). Here, we used the friend scale and asked respondents to respond once in consideration of their nonwork friends, and a second time considering work friends (specifically, friends with whom they currently work). Example items include, “I have nonwork friends who are good at helping me solve problems” (from the nonwork friends scale) and “I rely on my work-based friends for emotional support” (from the work friends scale).

Self-esteem and OBSE. General self-esteem was measured as in Study 1. OBSE was measured using 10 items developed by Pierce et al. (1989), including “I am valued around here” and “I am cooperative around here”.

Job satisfaction. We measured job satisfaction using a five-item scale developed by Judge et al. (1998) and adapted from the Brayfield-Rothe (1951) scale. Sample items include, “Most days I am enthusiastic about my work” and “I consider my job rather unpleasant” (reverse-coded).

Job-related positive and negative affect. Job-related affective well-being was measured with a 20-item scale of positive and negative job-related affect (Van Katwyk, Fox, Spector, & Kelloway, 2000). Respondents were asked to indicate how often any part of their job made them feel, for example, anxious, happy, frustrated, or discouraged. Response options ranged from 1 (Never) to 5 (Extremely often).

Life satisfaction. We measured life satisfaction using the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). Participants indicated their agreement with five
Positive and negative affect. Positive and negative affect were measured using the 20-item PANAS scale, which asked participants to what extent they generally felt (from 1 = very slight or not at all to 5 = extremely), for instance, enthusiastic, afraid, upset, and interested.

Task interdependence. Task interdependence was included in order to statistically test for the presence of common method variance, as it was not expected to have strong relationships with study variables. It was measured using eleven items from Pearce and Gregerson (1991), including “My own performance is dependent on receiving accurate information from others.”

Study 2 Results

Confirmatory Factor Analysis. We used confirmatory factor analysis in order to examine the structure of (1) the social support scales and (2) the self-esteem scales. For social support, we first tested a single-factor model in which all support items (from work and nonwork friends) loaded onto a single factor. This model showed poor fit, $\chi^2 = 516.57$, $df = 35$, CFI = 0.674, RMSEA = 0.211, SRMR = 0.149. The two-factor model showed a significant improvement in fit, $\chi^2 = 101.64$, $df = 34$, CFI = 0.954, RMSEA = 0.080, SRMR = 0.036, $\Delta \chi^2 = 427.8$, $\Delta df = 1$, $p < .01$. Similarly, for self-esteem, we first tested a single factor solution, allowing the general self-esteem items and the OBSE items to load on one factor, which displayed poor fit, $\chi^2 = 1156.62$, $df = 170$, CFI = 0.650, RMSEA = 0.137, SRMR = 0.122. The two-factor solution fit significantly better, $\chi^2 = 673.88$, $df = 169$, CFI = 0.821, RMSEA = 0.098, SRMR = 0.092, $\Delta \chi^2 = 139.0$, $\Delta df = 1$, $p < .01$.

Hypothesis Testing. Descriptive statistics and correlations are presented in Table 4. We used structural equations modeling to test our hypotheses. As is commonly the case with
complex models, we were unable to identify a good-fitting measurement model and thus could not test a latent variable model. However, in order to correct for measurement error in our model, we followed recommendations to use scale scores as single indicators of latent variables and fixed the residual variance of factor indicators to \((1 - \text{reliability}) \times \text{sample variance}\) \(^1\) (Cole & Preacher, 2013; Muthen & Muthen, 2005; Williams & O’Boyle, 2008). We used robust maximum-likelihood (MLR) estimation in order to account for the non-normality of the data. Mediators were allowed to correlate given their known relationships, as were outcomes (Bowling et al., 2010; Diener et al., 1999). Fit of the model and model comparisons were assessed as in Study 1. We first compared a partial mediation model to a full mediation model. As the partial mediation model was fully saturated, fit was perfect. The full mediation model showed good fit, but fit was significantly worse than the partial mediation model, \(\chi^2 = 23.40, df = 12, CFI = 0.992, RMSEA = 0.055, SRMR = 0.028, \Delta\chi^2 = 23.40, \Delta df = 12, p < .05\). Thus, lacking theoretical rationale to expect full mediation, the partial mediation model was retained. Results for direct and indirect effects are shown in Table 5. An overview of the hypotheses is shown in Table 6.

Hypothesis 2 stated that support from nonwork friends would predict general well-being via general self-esteem. This hypothesis was supported for life satisfaction, \(\beta = 0.21, 95\% \text{ CI} = [0.08, 0.34], p < .01\), and negative affect, \(\beta = -0.26, 95\% \text{ CI} = [-0.41, -0.10], p < .01\), but not positive affect, \(\beta = 0.03, 95\% \text{ CI} = [-0.04, 0.09], p > .05\). Hypothesis 3 stated that support from work friends would predict general well-being via general self-esteem, which was not supported (life satisfaction: \(\beta = 0.09, 95\% \text{ CI} = [-0.03, 0.21], p > .05\); negative affect: \(\beta = -0.11, 95\% \text{ CI} = [-0.25, 0.03], p > .05\); positive affect: \(\beta = 0.01, 95\% \text{ CI} = [-0.02, 0.04], p > .05\)). Hypothesis 4 stated that support from nonwork friends would predict general well-being via OBSE. This hypothesis was

\(^1\) Variance values were obtained from Mplus output, and Cronbach’s alpha was used as an estimate of reliability.
supported for positive affect, $\beta = 0.11$, 95% CI = [.03, .19], $p < .01$, but not life satisfaction, $\beta = 0.05$, 95% CI = [-.01, .10], $p > .05$, or negative affect, $\beta = 0.05$, 95% CI = [-.01, .10], $p > .05$.

Hypothesis 5 stated that support from work friends would predict general well-being via OBSE, which was unsupported (life satisfaction: $\beta = 0.05$, 95% CI = [-.01, .11], $p > .05$; positive affect: $\beta = 0.01$, 95% CI = [-.02, .04], $p > .05$; negative affect: $\beta = 0.05$, 95% CI = [-.02, .012], $p > .05$).

Hypothesis 6 stated that nonwork friend support would predict job-related well-being via general self-esteem. This hypothesis was supported job-related negative affect, $\beta = -0.14$, 95% CI = [-.22, -.06], $p < .01$, but not job satisfaction, $\beta = 0.08$, 95% CI = [-.00, .16], $p > .05$, or job-related positive affect, $\beta = -0.01$, 95% CI = [-.06, .05], $p > .05$. Hypothesis 7 stated that work friend support would predict job-related well-being via general self-esteem. This hypothesis was unsupported (job satisfaction: $\beta = 0.03$, 95% CI = [-.01, .08], $p > .05$; job-related positive affect: $\beta = -0.00$, 95% CI = [-.03, .02], $p > .05$; or job-related negative affect: $\beta = -0.10$, 95% CI = [-.23, .03], $p > .05$). Hypothesis 8 stated that nonwork friend support would predict job-related well-being via OBSE. This was supported for job satisfaction, $\beta = 0.16$, 95% CI = [.05, .26], $p < .01$, and job-related positive affect, $\beta = 0.17$, 95% CI = [.06, .27], $p < .01$, but not job-related negative affect, $\beta = 0.03$, 95% CI = [-.06, .07], $p > .05$. Hypothesis 9 stated that work friend support would predict job-related well-being via OBSE, which was supported for job satisfaction, $\beta = 0.17$, 95% CI = [.07, .26], $p < .01$, and job-related positive affect, $\beta = 0.18$, 95% CI = [.08, .28], $p < .01$, but not job-related negative affect, $\beta = 0.01$, 95% CI = [-.06, .08], $p > .05$.

Common Method Variance. As in Study 1, we employed multiple procedural approaches that should curb biased responding, including (1) temporal separation of predictors and criterion, (2) confidentiality, (3) instructions that were included to encourage honest answering, (4) reverse-coded items and distractors, and (5) items that used clear and concise
language. We additionally conducted statistical tests for CMV as in Study 1, using task interdependence as our marker variable. We found that the method-C model fit significantly better than the baseline model, $\Delta \chi^2 = 13.12, \Delta df = 1, p < .05$, indicating the presence of CMV.

We next tested the method-U model, but it failed to converge even after increasing the number of iterations. Therefore, we next tested the method-R model based on the method-C specifications. This model was not significantly different than the method-C solution, $\Delta \chi^2 = 0.85, \Delta df = 45, p > .05$, therefore there was no evidence that CMV was biasing any parameter estimates. In light of these findings, we are confident that our results are not substantially influenced by CMV.

**Study 2 Discussion**

In Study 2, we examined the effects of support from both work and nonwork friends on work-related and general well-being via general self-esteem and OBSE. Drawing on SSRT (Hobfoll et al., 1990), we proposed that work and nonwork friends have cross-domain benefits via self-esteem (both general and organization-based). We found evidence of asymmetrical effects; while support from nonwork friends benefitted well-being both at work and outside of work (via both general and organization-based self-esteem), support from work friends had effects only on work-related well-being via OBSE. Of note, the indirect effects of work friend support on job satisfaction and job-related positive affect via OBSE were nearly equivalent in magnitude to the same indirect effects from nonwork friend support. Given that the significant indirect effects were quite large in magnitude for both general and work-related well-being and that friendships are quite malleable, our results that cultivating and maintaining supportive friendships may be an effective approach for enhancing well-being.

These results build on our findings from Study 1 in two main ways: (1) by showing that the effects of friendship on self-esteem not only enhance general well-being but also well-being
at work and (2) by showing that these effects differ for friendships at work and outside of work. We are the first, to our knowledge, to compare the effects of work and nonwork friends on employee well-being and to identify cross-domain effects supportive nonwork friends on work-related well-being.

**General Discussion**

Responding to calls to consider how employee outcomes are impacted by their experiences in roles other than work and family (Eby et al., 2005; Greenhaus & Powell, 2006), this paper has focused on understanding why friendships impact employee well-being. Results showed that supportive friendships impact employee’s general well-being (Study 1 and 2) and work-related well-being (Study 2) through self-esteem (both general and organization-based). These effects predicted well-being beyond the effects of spouse and family (Study 1) and for both work-based and nonwork friendships (Study 2).

In doing so, we are the first to our knowledge to: (1) examine why friends matter for the well-being of employed adults beyond the effects of family roles, (2) differentiate the effects of work vs. nonwork friends on self-esteem and well-being, and (3) show cross-domain effects of nonwork friends on well-being at work. Together, these studies highlight the importance of friendship (either as a work role or a nonwork role) as a role that deserves greater attention as an important source of employee well-being.

**Implications for Research and Theory**

Drawing on SSRT (Hobfoll et al., 1990), we argued that supportive friendships impact well-being by facilitating self-esteem. While this is true of many relational roles, we suggested that friendships are particularly well-suited to facilitate self-esteem because they provide support that is freely given in the face of other demands, thus affirming our value and worth. This has
important implications for work-nonwork research, which has not yet highlighted the role of friendships for well-being or how friendship may interact with other valued roles. For instance, the Work-Home Resources Model has argued that self-esteem, as a key personal resource, can enhance experiences across valued life roles (Ten Brummelhuis & Bakker, 2012), but has not yet highlighted how self-esteem can be enhanced by specific role-related experiences or relationships. Further, while some research has noted that work can interfere with personal roles beyond family (and vice-versa, Wilson & Baumann, 2015), this work has not yet explained why interference with particular nonwork roles may be particularly likely or harmful. As noted in our introduction, as a role that is particularly easy to neglect but has important benefits for self-esteem and well-being, work or family interference with friendship may be both likely and harmful. This suggests that future research may seek to understand when and why work or family conflicts with friendship and the consequences for work and nonwork outcomes.

The fact that friendship is consequential for self-esteem is notable given that positive self-evaluations (including self-esteem) are one of the strongest known predictors of well-being (see Table 1; Kuykendall, Ng, & Tay, 2015). Regarding the effects of friendship on self-esteem, it is worth noting one surprising finding, the asymmetric effects of general self-esteem and OBSE on well-being outcomes. Specifically, we found that OBSE had stronger effects on positive affect (generally and at work), and general self-esteem had stronger effects on negative affect (generally and at work). Prior research has not typically considered general self-esteem and OBSE together, and these findings may be due to the fact that the self-esteem measure includes items that tap into feelings of worthlessness, while OBSE items are exclusively positively valenced, making general self-esteem a stronger predictor of negative affect.
As many adults have friends at work, we thought that it was important to consider whether supportive work and nonwork friends have similar effects on well-being at work and outside of work. We addressed this question in Study 2, in which we differentiated between work and nonwork friends, considering how each relates to general and organization-based self-esteem and subsequently to well-being (generally and at work). We found that supportive nonwork friends were particularly beneficial, enhancing both general self-esteem and OBSE and subsequently general well-being and well-being at work. Supportive work friends played a more limited role, enhancing OBSE and well-being at work. Our findings build on the work-nonwork literature that has shown how nonwork roles can enrich work experiences. While past work has shown that family roles positively impact well-being at work (Amstad et al., 2011), research has not examined how nonwork relational roles other than family have positive effects on work experiences. By showing that support from other nonwork relational roles (i.e., nonwork friends) impact well-being at work, we broaden the focus of this research and suggest that future work should further consider how other valued nonwork roles (e.g., leisure, Kuykendall et al., 2017) have unique psychological benefits that can enhance experiences at work.

Our results also build on research on work-based friendships, which has shown that friendships at work can have important benefits (Colbert et al., 2016; Henderson & Argyle, 1985; Riordan & Griffith, 1995), but has not identified mechanisms through which these effects occur. We extend this work by explaining why these friendships positively impact well-being at work—through their effects on organizational-based self-esteem. We also contribute to recent perspectives that have emphasized that friendships at work may have a potential “dark side” (Pillemer & Rothbard, 2018). More specifically, Pillemener and Rothbard (2018) suggest that the defining features of friendship (i.e., informality, voluntariness, communal norms, and socio-
emotional goals) are in tension with organizational norms (i.e., formal roles, involuntary constrains, exchange norms, and instrumental goals). While we agree that these features can be in tension and can cause negative consequences (e.g., distraction from work goals, impaired decision-making), we suggest that these negative consequences should be considered in light of potential benefits of friendship for work and nonwork outcomes that we and others have shown. Further, we suggest that the organizational norms noted above are highly variable both within and between organizations, suggesting that there are certain times and places in which negative effects of friendship are less likely. Future research should seek to identify factors that determine when the positive consequences outweigh the negative consequences to help better inform the circumstances in which it is beneficial for managers to promote friendships at work.

Implications for Employees and Organizations

In the face of multiple role-related demands, workers must make decisions about the extent to which they prioritize friendships. Doing so can be challenging, as friendships are relatively easy to neglect compared to the work and family roles, which generally involve more specific responsibilities and consequences if responsibilities are neglected (Wilson & Baumann, 2015). However, to the extent that friendships are important for self-esteem and subsequent well-being, neglecting them may be harmful. Thus, our results highlight that when making decisions about how to allocate time between work and nonwork roles, workers should consider not only how to balance work and family demands but also how to cultivate and sustain supportive friendships.

However, as we noted, one can cultivate friendships at work or outside of work (or both). To the extent that the employee is in a job where cultivating workplace friendships is difficult or has strong negative consequences (Pillemer & Rothbard, 2018), it may be more beneficial to
cultivate friendships outside of work. However, for employees who have limited nonwork time and are in work settings that are conducive to friendships without strong negative consequences, cultivating friendships at work may be most beneficial. Our results suggest that, to the extent that employees are able to cultivate friendships at and outside of work, they will likely derive the greatest benefits, as work and nonwork friends can be supportive in different ways.

Our paper has important managerial implications, both with regard to friends at work and friends outside of work. As noted above, some recent perspectives have emphasized the potential negative effects of friendship (Pillemer & Rothbard, 2018), with the implication that managers should be cautious about promoting friendships. While this is an important perspective, the potential dark side should be considered in light of the benefits of workplace friendships as well as the unique organizational context. Given that self-esteem and OBSE are strong predictors of positive outcomes at work (e.g., job satisfaction, performance), it is important for managers to consider the potential benefits of workplace friendships via their effects on OBSE. Further, managers may consider the existing or desired organizational culture and when deciding the extent to which friendships at work should be promoted or discouraged.

With regard to nonwork friends, the work-nonwork literature has recently emphasized that work-nonwork policies and practices should not be limited to helping employees balance work and family (Casper & DePaulo, 2012; Casper, Weltman, & Kwesiga, 2007). This work has noted that it is important to consider not only how organizational policies and practices influence workers’ ability to fulfill the family role, but how such practices and policies may affect other valued roles beyond family. Our paper provides evidence that friendship is one such role that managers and organizations should attend to, both because of its effects on general well-being but also on work-related outcomes. Because of this, managers should concern themselves not
only with whether their policies and practices are helping or hindering workers to prioritize family, but also how such policies may be influencing workers’ nonwork friendships. One way managers can do this is by having respect for employees’ desires to balance work and nonwork roles, regardless of whether those nonwork roles are family roles or other nonwork roles such as friendship (Casper et al., 2007).

**Future Directions and Limitations**

There are many areas for future research related to workers’ friendships. One direction may be to consider work-friend (or family-friend) interference. Some have characterized work and family as “greedy” roles (e.g., Pittman, 1994; Hill, 2005), as they make strong demands on our time and energy. In contrast, our friendships are much more flexible, with fewer specific expectations or immediate consequences if expectations are not met. Given this flexible nature, it is likely that such “greedy” roles may interfere with working adults’ ability to prioritize friendships. In light of the consequences of friendship for well-being, this interference may be harmful. Future research may consider the extent to which adults experience work-friend or family-friend conflict, how their experiences and reactions to these types of conflict differ from conflicts between work and family, and the consequences of such conflict for well-being.

Research may also adopt a decision-making perspective in order to better understand how people make decisions about whether and when to prioritize friends and the factors that drive such decisions, as well as the consequences of such decisions at the person level and on a daily basis. This line of inquiry has been applied to the family context in order to understand how individuals make time allocation decisions in instances when work and family conflict (Greenhaus & Powell, 2003; Powell & Greenhaus, 2006; Shockley & Allen, 2015). Such research may use vignettes or a policy-capturing approach in order to understand factors that
drive decisions about whether and when to prioritize friendship and the consequences of these decisions.

Finally, while the focus in the present study was on how friendships impact employee well-being, friendships also likely play an important role in mitigating loneliness—an increasingly concerning societal issue impacting employed adults (Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015). This trend is of concern, as loneliness has known important implications for work outcomes (Lam & Lau, 2012; Ozcelik & Barsade, 2011) as well as general health and well-being (Holt-Lunstad et al., 2015; Valtorta, Kanaan, Gilbody, Ronzi, & Hanratty, 2016). Future research may consider how employees in socially isolated work roles can benefit from cultivating nonwork friends to combat experiences of loneliness and its negative repercussions for employees.

The results of these studies should be considered in light of their limitations. Though a strength of this research is our use of a large, nationally representative dataset in Study 1, it is also a limitation in that the data was collected cross-sectionally, which limits inferences of causality. While we used a stronger, time-separated design in Study 2, bidirectional effects are still a possibility, and future research may seek to more clearly identify the direction of the effects from friend support to self-esteem and well-being. Consistent with past research that has shown bidirectional effects (Cohen & Wills, 1985; Turner, 1981), we would expect that the relationships between friend support and well-being would also be bidirectional.

It is also important to note that the observed positive effects of workplace friendships may have important moderators that, in some cases, could substantially diminish the positive effects of workplace friendship on well-being. For instance, in workplaces in which friendships are not common or encouraged, employees could experience negative consequences of
cultivating supportive friendships. To the extent that these relationships are viewed negatively by others, their positive effects on self-esteem may be diminished.

Conclusion

This paper suggests, that while working adults may struggle to prioritize friendships given the numerous demands of work and family roles, their well-being—generally and at work—may benefit by cultivating supportive friendships, either at work or outside of work. Given these likely benefits, organizations should take note of friendship as a role that matters for employee well-being and consider how their policies and practices can be used to not only support positive experiences in work and family roles, but also in friendships.
References


Powell, G., Greenhaus, J., Allen, T., & Johnson, R. *Advancing and expanding work-Life theory from multiple perspectives.* Retrieved August 1, 2017 from


### Table 1

*Means, standard deviations, and correlations among Study 1 variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Friend support</td>
<td>3.24</td>
<td>0.78</td>
<td>(.87)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Family support</td>
<td>3.54</td>
<td>0.64</td>
<td>.36</td>
<td>(.84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Spouse support</td>
<td>3.69</td>
<td>0.77</td>
<td>.24</td>
<td>.28</td>
<td>(.88)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Self-esteem</td>
<td>38.5</td>
<td>6.79</td>
<td>.24</td>
<td>.23</td>
<td>.26</td>
<td>(.76)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Life satisfaction</td>
<td>8.06</td>
<td>1.30</td>
<td>.33</td>
<td>.33</td>
<td>.46</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Positive affect</td>
<td>3.60</td>
<td>0.71</td>
<td>.23</td>
<td>.24</td>
<td>.22</td>
<td>.52</td>
<td>.44</td>
<td>(.90)</td>
<td></td>
</tr>
<tr>
<td>7. Negative affect</td>
<td>1.55</td>
<td>0.47</td>
<td>-.13</td>
<td>-.13</td>
<td>-.12</td>
<td>-.50</td>
<td>-.32</td>
<td>-.39</td>
<td>(.80)</td>
</tr>
</tbody>
</table>

*Notes.* N = 749. Correlations greater than |0.07| are significant at *p* < .01. Cronbach’s alpha reliabilities are presented on the diagonal.
Table 2

*Direct and indirect effects on well-being outcomes*

<table>
<thead>
<tr>
<th></th>
<th>Life satisfaction</th>
<th>Positive affect</th>
<th>Negative affect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend support</td>
<td>0.12** [.04, .20]</td>
<td>0.04 [-.07, .13]</td>
<td>0.03 [-.07, .13]</td>
</tr>
<tr>
<td>Spouse support</td>
<td>0.32** [.24, .40]</td>
<td>0.03 [-.05, .11]</td>
<td>0.05 [-.05, .14]</td>
</tr>
<tr>
<td>Family support</td>
<td>0.11* [.02, .20]</td>
<td>0.07 [-.03, .16]</td>
<td>0.01 [-.09, .10]</td>
</tr>
<tr>
<td><strong>Indirect Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>via Self-esteem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend support</td>
<td>0.06** [.03, .09]</td>
<td>0.12** [.06, .18]</td>
<td>-0.13** [-.20, -.06]</td>
</tr>
<tr>
<td>Spouse support</td>
<td>0.07** [.03, .10]</td>
<td>0.13** [.07, .19]</td>
<td>-0.14** [-.21, -.08]</td>
</tr>
<tr>
<td>Family support</td>
<td>0.05** [.01, .08]</td>
<td>0.09* [.03, .15]</td>
<td>-0.10** [-.16, -.03]</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.38**</td>
<td>0.44**</td>
<td>0.41**</td>
</tr>
</tbody>
</table>

*Notes.* $N = 749$. Standardized path estimates are shown. Direct effects are derived from the partial mediation model. 95% confidence intervals are shown in brackets. *$p < .05$, **$p < .01$.}
Table 3
Study 1 relative importance analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Relative Weight</th>
<th>Rescaled Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-esteem</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend Support</td>
<td>0.04 [.02, .05]</td>
<td>28.0</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.04 [.02, .06]</td>
<td>32.0</td>
</tr>
<tr>
<td>Spouse Support</td>
<td>0.05 [.03, .07]</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Life Satisfaction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend Support</td>
<td>0.05 [.03, .07]</td>
<td>24.8</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.03 [.02, .05]</td>
<td>17.0</td>
</tr>
<tr>
<td>Spouse Support</td>
<td>0.12 [.09, .15]</td>
<td>58.2</td>
</tr>
<tr>
<td><strong>Positive affect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend Support</td>
<td>0.03 [.02, .05]</td>
<td>32.5</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.03 [.02, .05]</td>
<td>32.0</td>
</tr>
<tr>
<td>Spouse Support</td>
<td>0.04 [.02, .06]</td>
<td>35.5</td>
</tr>
<tr>
<td><strong>Negative affect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend Support</td>
<td>0.01 [0.00, 0.02]</td>
<td>11.7</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.03 [0.02, 0.05]</td>
<td>47.1</td>
</tr>
<tr>
<td>Spouse Support</td>
<td>0.03 [0.01, 0.05]</td>
<td>41.2</td>
</tr>
</tbody>
</table>

Note. N = 749. 95% confidence intervals around the relative weights are shown in parentheses. All relative weights were significant at least $p < .05$ (no exact $p$-values were generated).

** $p < .001$  * $p < .01$
Table 4

Means, standard deviations, and correlations among Study 2 variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nonwork friend support (T1)</td>
<td>3.62</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Work friend support (T1)</td>
<td>3.37</td>
<td>0.88</td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Self-esteem (T2)</td>
<td>3.91</td>
<td>0.90</td>
<td>.36</td>
<td>.29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. OBSE (T2)</td>
<td>4.08</td>
<td>0.80</td>
<td>.43</td>
<td>.44</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Life satisfaction (T2)</td>
<td>3.68</td>
<td>1.01</td>
<td>.32</td>
<td>.30</td>
<td>.62</td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Positive affect (T2)</td>
<td>3.24</td>
<td>0.86</td>
<td>.23</td>
<td>.26</td>
<td>.29</td>
<td>.42</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Negative affect (T2)</td>
<td>1.60</td>
<td>0.80</td>
<td>-.27</td>
<td>-.22</td>
<td>-.58</td>
<td>-.35</td>
<td>-.27</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Job satisfaction (T2)</td>
<td>3.60</td>
<td>1.04</td>
<td>.40</td>
<td>.43</td>
<td>.53</td>
<td>.67</td>
<td>.51</td>
<td>.38</td>
<td>-.30</td>
<td>.88</td>
</tr>
<tr>
<td>9. Job-related positive affect (T2)</td>
<td>3.01</td>
<td>0.91</td>
<td>.34</td>
<td>.45</td>
<td>.36</td>
<td>.60</td>
<td>.52</td>
<td>.67</td>
<td>-.01</td>
<td>.72</td>
</tr>
<tr>
<td>10. Job-related negative affect (T2)</td>
<td>2.11</td>
<td>0.86</td>
<td>-.34</td>
<td>-.31</td>
<td>-.61</td>
<td>-.46</td>
<td>-.34</td>
<td>-.08</td>
<td>.66</td>
<td>-.62</td>
</tr>
</tbody>
</table>

Notes. N = 310. Correlations greater than |0.08| are significant at p < .05. Correlations greater than |0.22| are significant at p < 0.01. Cronbach’s alpha reliabilities are presented on the diagonal.
### Table 5

**Direct and indirect effects of support measures on general and work-related well-being**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Life satisfaction</th>
<th>Positive affect</th>
<th>Negative affect</th>
<th>Job satisfaction</th>
<th>Job-related positive affect</th>
<th>Job-related negative affect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonwork friend support</td>
<td>-0.00</td>
<td>-0.01</td>
<td>-0.03</td>
<td>0.02</td>
<td>-0.03</td>
<td>-0.04</td>
</tr>
<tr>
<td>Work friend support</td>
<td>0.07</td>
<td>0.10</td>
<td>-0.05</td>
<td>0.17*</td>
<td>0.27**</td>
<td>-0.10</td>
</tr>
<tr>
<td></td>
<td>[-.06, .19]</td>
<td>[-.06, .27]</td>
<td>[-.19, .10]</td>
<td>[0.01, 0.33]</td>
<td>[.12, .41]</td>
<td>[-.26, .05]</td>
</tr>
<tr>
<td><strong>Indirect effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonwork friend support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General self-esteem</td>
<td>0.21**</td>
<td>0.03</td>
<td>-0.26**</td>
<td>0.08</td>
<td>-0.01</td>
<td>-0.23**</td>
</tr>
<tr>
<td>OBSE</td>
<td>[0.08, .34]</td>
<td>[0.04, .09]</td>
<td>[-.41, -.10]</td>
<td>[-.00, .16]</td>
<td>[-.06, .05]</td>
<td>[-.38, -.08]</td>
</tr>
<tr>
<td></td>
<td>[-.01, .11]</td>
<td>[.03,.19]</td>
<td>[-.01, .10]</td>
<td>[0.05, .26]</td>
<td>[.06, .27]</td>
<td>[-.06,.07]</td>
</tr>
<tr>
<td>Work friend support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General self-esteem</td>
<td>0.09</td>
<td>0.01</td>
<td>-0.11</td>
<td>0.03</td>
<td>-0.00</td>
<td>-0.10</td>
</tr>
<tr>
<td>OBSE</td>
<td>[.03,.21]</td>
<td>[-.02, .04]</td>
<td>[-.25, .03]</td>
<td>[-.01, .08]</td>
<td>[-.03, .02]</td>
<td>[-.23,.03]</td>
</tr>
<tr>
<td></td>
<td>[-.01, .11]</td>
<td>[-.02,.12]</td>
<td>[.07,.26]</td>
<td>[.08, .28]</td>
<td>[-.06,.08]</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.56**</td>
<td>0.22**</td>
<td>0.45**</td>
<td>0.63**</td>
<td>0.47**</td>
<td>0.52**</td>
</tr>
</tbody>
</table>

**Notes.** N = 310. Standardized path estimates are shown. Direct effects are derived from the partial mediation model. 95% confidence intervals are shown in brackets.
Table 6
Overview of Study 2 hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Nonwork friend support → general self-esteem → general well-being</td>
<td>Partially supported (for SWL, NA)</td>
</tr>
<tr>
<td>3. Work friend support → general self-esteem → general well-being</td>
<td>Unsupported</td>
</tr>
<tr>
<td>4. Nonwork friend support → OBSE → general well-being</td>
<td>Partially supported (for PA)</td>
</tr>
<tr>
<td>5. Work friend support → OBSE → general well-being</td>
<td>Unsupported</td>
</tr>
<tr>
<td>6. Nonwork friend support → general self-esteem → job-related well-being</td>
<td>Partially supported (for JNA)</td>
</tr>
<tr>
<td>7. Work friend support → general self-esteem → job-related well-being</td>
<td>Unsupported</td>
</tr>
<tr>
<td>8. Nonwork friend support → OBSE → job-related well-being</td>
<td>Partially supported (for JS, JPA)</td>
</tr>
<tr>
<td>9. Work friend support → OBSE → job-related well-being</td>
<td>Partially supported (for JS, JPA)</td>
</tr>
</tbody>
</table>

Notes. SWL = Life satisfaction; NA = Negative affect; PA = Positive affect; JS = Job satisfaction; JPA = Job-related positive affect; JNA = Job-related negative affect.
Figure 1. Study 1 proposed model. Grey paths represent effects of control variables.
Figure 2. Study 2 proposed model. Direct effects from predictors to outcomes are omitted for visual clarity.
Highlights

- Supportive friendships predict well-being beyond the effects of family support
- Supportive friendships influence general well-being via self-esteem
- Supportive work and nonwork friendships influence well-being at work
- These effects are mediated by self-esteem and OBSE