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## Longitudinal Associations of Global and Daily Support with Marital Status

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### ABSTRACT

The provision and receipt of emotional support demonstrates benefits for relationships; however, little research has investigated how either global or day-to-day spousal support influences marital stability. This project assessed how global perception of support from a partner and daily provision and receipt of emotional support over 1 week contributed to divorce 10 years later, accounting for demographic covariates. There were no significant associations of support variables with future divorce. Greater education attainment was the only factor significantly associated with decreased risk for divorce. Results suggest that despite potential short-term benefits, global and daily support may not predict long-term marital stability.

### ARTICLE HISTORY

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### KEYWORDS

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Committed relationships in the United States have a 40-50% chance of permanent separation or divorce (Raley & Sweeney, 2020). Some couple therapies have had success in alleviating couple distress, but approximately 26% of couples in treatment divorce by 5-year follow-up from treatment (Lebow et al., 2012). Although divorce is an appropriate step for some couples, understanding factors that influence marital stability and marital dissolution over time can contribute to our ability to predict and perhaps reduce the likelihood of divorce.

To date, many factors have been identified as important predictors of divorce, including own parent's divorce, age at time of marriage, income, education level, and initial satisfaction levels as newlyweds (for reviews, see Raley & Sweeney, 2020; Amato, 2010). Although static epidemiological factors such as these can help in the prediction of divorce, they do not inform our ability to help couples improve their chances of relationship stability over time. In addition, the vast majority of research related to predicting divorce is from samples of younger and newlywed samples, so

less is known about predictors of divorce in couples who have been married for longer periods of time.

Social support, defined as the provision of emotional nurturance or material aid when needed (Sherbourne & Stewart, 1991), is among the most studied constructs with regard to romantic relationship functioning. A wealth of literature documents the associations between social support and positive relationship outcomes (Bradbury & Karney, 2004; Cutrona & Suhr, 1994; Pasch & Bradbury, 1998). The majority of studies have focused on global perceived support, or perceived availability of support if needed. Some studies have found different patterns for concrete instances of received support, with a person's recognition of support receipt sometimes being associated with worse daily mood (e.g., Bolger et al., 2000), whereas other studies find beneficial effects of support receipt (e.g., Thorsteinsson & James, 1999). No study has yet compared global perceived support to concrete instances of received support in predicting divorce.

An emerging line of research has explored the potentially beneficial effects of support provision. For instance, in studies of romantic couples, giving emotional support to a spouse has been associated with positive health outcomes (e.g., Brown et al., 2003), positive affect (e.g., Carter et al., 2019; Gleason et al., 2003), and relationship closeness (Gleason et al., 2003). Thus, both receiving and giving support could influence long-term relationship outcomes, yet research does not traditionally explore the simultaneous associations of these constructs to assess their relative contributions to marital dissolution (for an exception, see Pasch & Bradbury, 1998).

In addition, several studies have found that the quantity and overall importance of provision and receipt of support in romantic relationships may vary for men and women. Some research indicates that when compared to men, women may desire more emotional support and such support is more important in predicting marital satisfaction (Acitelli & Antonucci, 1994; Lawrence et al., 2008; Xu & Burleson, 2001). No research to date has explored how daily or global support provision and receipt may relate to marital outcomes differentially by sex.

To address these gaps, the present study used data from the Midlife in the United States (MIDUS; Brim et al., 2004) study to evaluate how daily support receipt and daily support provision as assessed via daily diary compare to global perceptions of support in the prediction of divorce over a subsequent period of 10 years. As a secondary aim, we investigated sex differences in the aforementioned associations. Based on prior studies showing that women desire and benefit more from support receipt in heterosexual marriages than men (e.g. Acitelli & Antonucci, 1994; Xu & Burleson, 2001), we hypothesized that positive effects of support would be stronger for women than for men. Notably, the sample included

middle-aged couples who have been married for approximately 20 years, which diverges from most of marital dissolution research that focuses on newlywed couples.

## Method

### *Data collection*

Data were collected as part of the National Survey of Daily Experiences (NSDE), a telephone-diary study component of large-scale Midlife in the United States study (MIDUS; Brim et al., 2004). The larger MIDUS study originated with the goal of assessing contributors to health and well-being for adults in middle age, and participants were recruited via random digit dialing. The study was designed to be nationally-representative and included data collection in 14 U.S. metropolitan areas; however, when compared with national averages, the study under-represented those who had completed a high school degree or less and African American individuals (Brim et al., 2004). The first wave of the study was conducted in 1996–1997 (T1), and the second wave was completed between 2004 and 2006 (T2). Participants were interviewed at T1 for trait and demographic measures and subsequently on the telephone for 8 consecutive nights in T1. Although T2 similarly involved both daily diary and demographic/trait interview, the present study only uses T2 to assess divorce.

The full survey was administered to a total of 7,108 participants at T1. Of those participants, 1,031 subjects (excluding sibling participants) participated in the daily telephone interviews. The current study uses a subset of that sample who reported being married at T1, resulting in a sample size of 673 participants. The sample was 50.2% male, and the average age at T1 was 47.54 ( $SD = 12.77$ ). The majority of the sample reported being White (91.8%), while 4.5% was Black and/or African American, 0.6% was Native American or Aleutian Islander/Eskimo, 0.9% Asian or Pacific Islander, 0.5% was multi-racial, and 1.7% reported their race as “Other.” Regarding highest degree of education at T1, 8.6% reported “some grade school to GED,” 30.0% reported “graduating high school,” 29.3% reported “some college credits,” and 32.1% reported graduating college to a doctorate or professional degree. The average household income reported by participants was \$65,846.11 ( $SD = \$50,500.36$ ). Regarding their relationships, 78.2% reported that their spouse at T1 was their first marriage, while 18.1%, 3.0%, and 0.7% reported being in their second, third, and fourth marriages, respectively. The average length of marriage reported at T1 was 21.72 years ( $SD = 14.19$  years).

## Measures

### Daily emotional support

Daily emotional support was measured at T1 with a dichotomous variable. Respondents were asked to indicate if they had 1) given support to and 2) received support from a spouse. When asked about providing support, respondents were asked, “*Not counting work you might do as part of your job, did you spend any time giving emotional support to anyone, like listening to their problems, giving advice, or comforting them?*” If they had provided such support, they were subsequently asked to identify to whom they had provided such support. If a respondent identified that they had given their spouse or partner support, the item was coded 1, and if they had not provided such support to a partner or spouse, the item was coded 0. Similarly, respondents were asked, “*Since the last time we spoke, did you receive any emotional support from anyone or any organization?*” The instructions specified that such support did not include counseling from a therapist or psychiatrist. The item was coded 1 if the answer was yes, and it was identified that such support was received from a spouse or partner, and 0 if they had not received support that day from a spouse or partner. Provision (and receipt) of support was operationalized as the total number of days that support was provided (and received), divided by the total number of days with observed data, for only those who provided data on at least 5 days (93.9% of respondents;  $n=632$ ). Overall, respondents at T1 identified that they provided emotional support to a spouse or partner on average 7.2% of the 5-8 days ( $SD=17.3\%$ ) with 76.7% of participants reporting none across the diary, and received emotional support on average 7.2% of the 5-8 days ( $SD=17.9\%$ ) with 77.3% of participants reporting none across the diary.

### Global marital support

Global marital support was measured on a self-administered questionnaire at T1, based on a scale developed by Schuster et al. (1990). Respondents answered six items that assessed the degree to which a person felt their spouse or partner understood, supported, and appreciated them on a scale from 1 (*A lot*) to 4 (*Not at all*). For scoring, items were reverse-coded so that lower scores indicate lower perceived marital support, while higher scores indicate higher marital support. The scores across all six items were averaged; thus, scores ranged from 1 to 4. This measure showed good internal consistency (Cronbach's  $\alpha = .86$  in the full sample).

### Marital status

Marital status was collected at T1 and T2 with questions that asked respondents to identify their current marital status. If at T2 they had divorced, they were asked to provide the month and year of divorce. If they had

divorced from a partner since the previous data collection, they were coded 1, and if they were still with the same partner, they were coded 0, for ease of interpretation. At T2, 26 participants reported that they had divorced from the marriage reported at T1, and 329 reported that they were still in the same marriage as reported in T1. In addition, at T2, 21 participants reported being widowed, and 1 person reported being “separated” but not divorced from their partner (these data were left undefined). Data were missing from 296 (44%) participants on this variable due to attrition from T1 to T2. Missing variable analyses were conducted to identify any patterns of missingness for this variable, finding that there were no significant differences on any T1 variables for those who had missing T2 marital outcomes.

### ***Missing data handling***

After the final measures of each variable were identified and created, the extent of missing data was assessed. Rates of missingness ranged from 0 to 1.7% for the T1 demographic and trait variables and from 5.8% and 6.1% for T1 daily reports of receiving and giving support, respectively. For T2 divorce, the primary outcome, 377 participants provided data, resulting in 44% missing data. To account for the missing data, we used multiple imputation, which creates a plausible distribution of each missing datum (Little & Rubin, 2002). Multiple imputation is considered best statistical practice for handling large amounts of missing data (Enders, 2010). Compared with traditional alternatives (e.g., listwise deletion), multiple imputation decreases bias in parameter estimates and increases the statistical power to detect significant effects. The imputation models were computed with the R statistical software using the “mice” package – version 3.3.0 (van Buuren, 2018; van Buuren & Groothuis-Oudshoorn, 2010).

The imputation model included all T1 participants and all variables in the logistic regression models (including the interaction terms). Two hundred and fifty imputed datasets were created. When working with multiply imputed data, the regression model is estimated with each imputed dataset and then results are combined together with standard pooling rules (Little & Rubin, 2002). Pooled parameter estimates are the averages from each of the models and the standard errors are a combination of sampling variability due to random sampling and missing data. The fraction of missing information is the proportion of sampling variability due to missing data.

### ***Data analytic plan***

All analyses were conducted using the R open source statistical software (R Core Team, 2019). Prior to analyses, some demographic variables were

transformed for ease of interpretation. Sex was recoded such that  $-0.5$  was women and  $+0.5$  was men. Age was recoded to be in units of 10 years and income was recoded to units of \$10,000. Education was dummy coded to match the 4 categories of highest educational attainment at T1 described above with less than high school diploma as the reference group. Odds ratios and semi-standardized coefficients are provided as additional effect sizes (Cohen et al., 2003).

Four interaction terms were created after mean centering. To test the interaction between giving and receiving support, the daily giving and receiving support variables were multiplied together. To test moderation by sex, both of the giving and receiving support variables were each multiplied by the sex variable. Finally, to test a potential three-way interaction, a variable was created by multiplying daily giving support by daily receiving support and sex.

Using this method, 5 binary logistic regression models were used to test hypotheses. In the first main effects model, a regression was specified with 7 predictors: four demographic covariates (age, income, education dummy code variables, and sex) and three support variables (daily support received, daily support given, global marital support). In the second, third, and fourth models, one two-way interaction term were added. In the fifth model, the three-way interaction was added in addition to the three two-way interactions. To assess the goodness-of-fit of the models, McFadden's Pseudo- $R^2$  was computed, which provides the proportion of deviance explained (Cohen et al., 2003).

## Results

Table 1 presents the means, standard deviations, and bivariate correlations of primary variables after the multiple imputation. There were no large point-biserial correlations between any of the T1 support variables and divorce at T2. The strongest correlation with T2 divorce was T1 age with

**Table 1.** Means, standard deviation, and correlations among key variables.

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. T2 Divorce	0.09	0.28	1.00					
2. Age	4.75	1.28	-0.07	1.00				
3. Income	6.58	5.05	-0.06	0.02	1.00			
4. Global Support	3.60	0.52	-0.06	0.05	0.08*	1.00		
5. Daily Giving Support	0.07	0.17	0.00	-0.06	0.08	0.04	1.00	
6. Daily Received Support	0.08	0.18	-0.01	-0.05	0.10*	0.09*	0.63***	1.00
7. Male	0.00	0.50	0.00	0.06	0.12**	0.10**	0.09*	0.00

Note. Daily Giving Support and Daily Received Support show univariate means and standard deviations while all other variables show means and standard deviations from the multiply imputed dataset.

\* $p < .05$ . \*\* $p < .01$  \*\*\* $p \leq .001$ .

**Table 2.** Results of logistic regression predicting divorce.

Predictor	b	SE	FMI	SSC	OR	95% OR CI
Intercept	1.29	1.63	0.54	0.00	3.65	[0.15, 90.07]
Age	-0.24	0.16	0.49	-0.31	0.79	[0.57, 1.09]
Income	-0.02	0.05	0.40	-0.12	0.98	[0.89, 1.07]
Male	0.10	0.41	0.50	0.05	1.10	[0.49, 2.48]
Edu – high school	-1.60*	0.65	0.54	-0.73	0.20	[0.06, 0.73]
Edu – some college	-1.27	0.65	0.57	-0.58	0.28	[0.08, 1.00]
Edu – college degree	-1.62*	0.68	0.52	-0.76	0.20	[0.05, 0.75]
Global Support	-0.34	0.37	0.54	-0.18	0.71	[0.34, 1.49]
Daily Giving Support	-0.02	0.25	0.63	-0.02	0.98	[0.60, 1.61]
Daily Receiving Support	0.00	0.22	0.56	-0.01	1.00	[0.64, 1.54]
Full Model Pseudo- $R^2$	0.08					

Note. When adding support variables,  $\Delta$ Pseudo- $R^2 = 0.01$ . Edu=Education with reference group less than high school, FMI=fraction of missing information, SSC= semi-standardized coefficient, OR=odds ratio, CI=confidence interval.

\* $p < .05$ ; \*\* $p < .01$ . \*\*\* $p \leq .001$ .

$r_{pb} = -.07$ . The product-moment correlations between the daily support variables and global support were both less than .10: ( $r = .09$  for daily received support and  $r = .04$  for daily given support), suggesting weak concordance between global and daily support.

### **Logistic regression predicting divorce – main effects**

The pooled results are presented in Table 2. No support variables were significantly related to divorce. Education was the only significant predictor, such that high school graduates and participants who completed college or higher had a lower likelihood of divorce compared with participants with less than high school. Regarding goodness-of-fit, McFadden's Pseudo- $R^2 = 0.07$  for a model with only the four demographic covariates. The three support variables explained an additional 1% of the deviance, indicating they did not meaningfully add to goodness-of-fit.

### **Logistic regression predicting divorce – interaction effects**

Pooled results are presented in Tables 3–6. No interactions or support variables were significantly related to divorce with small additional deviance explained. Again, only two education categories - high school graduates and completed college or higher - showed significantly lower likelihood of divorces compared to participants with less than high school.

## **Conclusions**

This study investigated the role of global perceived support and daily reported events of provision and receipt of support, in marital stability over 10 years using a large sample of middle-aged Americans in heterosexual marriages. We detected no significant associations between global



**Table 3.** Results of logistic regressions predicting divorce with interaction of giving support by sex.

Predictor	b	SE	FMI	SSC	OR	95% OR CI
Intercept	1.28	1.63	0.54	0.00	3.60	[0.14, 89.74]
Age	-0.24	0.16	0.49	-0.31	0.78	[0.57, 1.08]
Income	-0.02	0.05	0.40	-0.12	0.98	[0.89, 1.07]
Male	0.10	0.42	0.49	0.05	1.10	[0.49, 2.51]
Edu – High School	-1.61*	0.66	0.54	-0.74	0.20	[0.06, 0.73]
Edu – Some College	-1.28	0.65	0.57	-0.58	0.28	[0.08, 1.00]
Edu – College Degree	-1.63*	0.68	0.52	-0.76	0.20	[0.05, 0.75]
Global Support	-0.33	0.37	0.54	-0.17	0.72	[0.34, 1.49]
Daily Giving Support	-0.04	0.25	0.60	-0.05	0.96	[0.58, 1.59]
Daily Receiving Support	-0.00	0.22	0.56	-0.01	1.00	[0.64, 1.54]
Giving X Sex	0.06	0.36	0.50	0.04	1.06	[0.52, 2.16]
Full Model Pseudo- $R^2$	0.08					

Note. When adding support variables and interactions,  $\Delta$ Pseudo- $R^2$ = 0.02.

Edu=Education with reference group less than high school, FMI=fraction of missing information, SSC=semi-standardized coefficient, OR=odds ratio, CI=confidence interval.

\* $p < .05$ ; \*\* $p < .01$ . \*\*\* $p \leq .001$ .

**Table 4.** Results of logistic regressions predicting divorce with interaction of receiving support by sex.

Predictor	b	SE	FMI	SSC	OR	95% OR CI
Intercept	1.31	1.63	0.54	0.00	3.71	[0.15, 92.20]
Age	-0.24	0.16	0.49	-0.31	0.79	[0.57, 1.09]
Income	-0.02	0.05	0.40	-0.13	0.98	[0.89, 1.07]
Male	0.07	0.42	0.49	0.03	1.07	[0.47, 2.45]
Edu – High School	-1.59*	0.65	0.54	-0.73	0.20	[0.06, 0.74]
Edu – Some College	-1.27*	0.65	0.57	-0.58	0.28	[0.08, 1.01]
Edu – College Degree	-1.62*	0.68	0.52	-0.76	0.20	[0.05, 0.76]
Global Support	-0.35	0.37	0.54	-0.18	0.71	[0.34, 1.47]
Daily Giving Support	0.00	0.25	0.61	0.00	1.00	[0.62, 1.62]
Daily Receiving Support	-0.05	0.24	0.53	-0.07	0.95	[0.60, 1.51]
Receiving X Sex	-0.18	0.34	0.45	-0.12	0.84	[0.43, 1.65]
Full Model Pseudo- $R^2$	0.09					

Note. When adding support variables and interactions,  $\Delta$ Pseudo- $R^2$ = 0.02.

Edu=Education with reference group less than high school, FMI=fraction of missing information, SSC=semi-standardized coefficient, OR=odds ratio, CI=confidence interval.

\* $p < .05$ ; \*\* $p < .01$ . \*\*\* $p \leq .001$ .

or daily reports of support and subsequent marital stability. In addition, we did not find that support had differential effects on marital stability for men or women. Only education level was consistently related to a lower likelihood of divorce over 10 years, with those who had at least completed high school generally showing a lower likelihood of divorce compared to those who had not completed high school.

On one hand, the general lack of results was surprising based on the numerous benefits found in prior research related to support, including specific findings that provision and receipt of support can have a positive influence on relationship outcomes (e.g., Monin et al., 2017; Morelli et al., 2015; Sullivan et al., 2010). It may be that the salutary effects of receiving support are more short-lived, as the aforementioned studies found benefits over weeks and months rather than a decade. On the

**Table 5.** Logistic regressions predicting divorce with daily support interaction.

Predictor	b	SE	FMI	SSC	OR	95% OR CI
Intercept	1.48	1.65	0.54	0.00	4.40	[0.17, 113.31]
Age	-0.24	0.17	0.49	-0.31	0.78	[0.57, 1.09]
Income	-0.02	0.05	0.40	-0.11	0.98	[0.89, 1.07]
Male	0.10	0.42	0.50	0.05	1.11	[0.49, 2.51]
Edu – High School	-1.63*	0.66	0.55	-0.75	0.20	[0.05, 0.73]
Edu – Some College	-1.27	0.65	0.57	-0.58	0.28	[0.08, 1.01]
Edu – College Degree	-1.68*	0.69	0.53	-0.78	0.19	[0.05, 0.73]
Global Support	-0.36	0.38	0.54	-0.19	0.70	[0.33, 1.46]
Daily Giving Support	0.07	0.24	0.59	0.10	1.08	[0.67, 1.73]
Daily Receiving Support	0.08	0.19	0.43	0.11	1.08	[0.74, 1.18]
Giving X Receiving	-0.14	0.16	0.56	-0.77	0.87	[0.64, 1.18]
Full Model Pseudo-R <sup>2</sup>	0.09					

Note. When adding support variables and interactions,  $\Delta$ Pseudo-R<sup>2</sup>= 0.03.

Edu=Education with reference group less than high school, FMI=fraction of missing information, SSC=semi-standardized coefficient, OR=odds ratio, CI=confidence interval.

\* $p < .05$ ; \*\* $p < .01$ . \*\*\* $p \leq .001$ .

**Table 6.** Logistic regressions predicting divorce with three-way daily support X sex interaction.

Predictor	b	SE	FMI	SSC	OR	95% OR CI
Intercept	1.48	1.66	0.54	0.00	4.41	[0.17, 115.54]
Age	-0.25	0.17	0.48	-0.32	0.78	[0.56, 1.08]
Income	-0.02	0.05	0.40	-0.11	0.98	[0.89, 1.08]
Male	0.04	0.46	0.47	0.02	1.04	[0.42, 2.57]
Edu – High School	-1.64*	0.67	0.55	-0.75	0.19	[0.05, 0.73]
Edu – Some College	-1.28	0.65	0.57	-0.58	0.28	[0.08, 1.01]
Edu – College Degree	-1.68*	0.70	0.53	-0.78	0.19	[0.05, 0.74]
Global Support	-0.37	0.38	0.53	-0.19	0.69	[0.33, 1.45]
Daily Giving Support	0.06	0.25	0.54	0.08	1.06	[0.65, 1.75]
Daily Receiving Support	-0.01	0.24	0.41	-0.01	0.99	[0.63, 1.58]
Giving X Receiving	-0.15	0.18	0.54	-0.82	1.12	[0.42, 3.00]
Giving X Sex	0.12	0.50	0.45	0.08	0.75	[0.30, 1.89]
Receiving X Sex	-0.29	0.47	0.56	-0.20	0.86	[0.60, 1.23]
Giving X Receiving X Sex	-0.04	0.31	0.51	-0.01	0.96	[0.52, 1.77]
Full Model Pseudo-R <sup>2</sup>	0.10					

Note. When adding support variables and interactions,  $\Delta$ Pseudo-R<sup>2</sup>= 0.04.

Edu=Education with reference group less than high school, FMI=fraction of missing information, SSC=semi-standardized coefficient, OR=odds ratio, CI=confidence interval.

\* $p < .05$ ; \*\* $p < .01$ . \*\*\* $p \leq .001$ .

other hand, our findings align with other research that has struggled to identify predictors of long-term marital outcomes. For example, a recent study using machine learning with 11,196 couples did not find variables that reliably predicted long-term changes in marital health (Joel et al., 2020). It is important to note that, despite the large sample and intensive methodology, the divorce rate in our sample was low, with a significant amount of attrition. Although our use of multiple imputation represents best practice in addressing missing data, these factors may have impeded our ability to detect significant results. Moreover, our intentional focus on middle-aged, stable relationships, and the low level of racial/ethnic diversity found in the sample, may limit the generalizability of our findings.

It is worth noting that individuals in our sample reported relatively high scores of perceived global support from their partner, yet reported giving support to and receiving support from a partner on only 7.2% of days over the data collection period. Despite the low reports of daily support, perceptions of global support were significantly, positively related at the bivariate level to daily reported received support from a partner in our data. Some studies have explored the difference between the effects of “visible” and “invisible” support on relationship quality, finding that visible support received from a partner sometimes has negative effects (e.g., Bolger & Amarel, 2007), while invisible support may increase marital satisfaction and relationship quality in the long term (e.g., Bolger et al., 2000; Girme et al., 2018; Kaul & Lakey, 2003). Furthermore, theories related to invisible support suggest that such support may be more frequently provided when relationships are more interdependent and a support provider has more empathic accuracy for what their partner is experiencing (Howland, 2016; Zee & Bolger, 2019). As both interdependency and empathic accuracy often increase over the duration of a relationship, and our sample consisted of couples with long relationships, it is possible that support received by individuals in our sample was invisible and thus may not have been reported. Another possible explanation for the low daily support reports could be that generic wording of daily support questions may have led participants to not consider close partner interactions in their responses.

In contrast to our hypotheses, we did not find that global or daily reports of support differed in contribution to marital stability for men compared to women. Many of the factors previously discussed, including the low base-rate of divorce, may have played a role in this null result. In addition, recent research has found that sex differences may be more important in nuanced factors such as the quality and appropriateness of timing of support more than simply whether or not support was provided or received (Brock & Lawrence, 2010; Lawrence et al., 2008), and thus the measures of support used in this study could not replicate such findings. Regarding other demographic characteristics, our findings do align with research specifically focused on adults over the age of 55, which also found that likelihood of divorce was not related to income (Brown & Lin, 2012). The relationship between age and divorce also seems to show a more nuanced picture, as older adults in their first marriage appear to have a much lower divorce rate compared to adults who have divorced and remarried (Brown & Lin, 2012). As over 75% of our sample was in their first marriage and approximately 47 years old at T1, this combination of marital history and age helps explain our sample’s overall low divorce rate. Furthermore, our findings with regard to education were consistent with prior research that has found links between educational attainment and greater marital stability (Recksiedler

& Stawski, 2019). Overall, in our sample, attainment of at least a high school diploma or GED was related to a lower risk for divorce compared to those with less educational attainment. There may be correlates to achieving lower than GED-level education that help to explain this finding and should be assessed in future research.

### ***Limitations and directions for future research***

This study possessed many strengths, such as a large sample drawn from across the United States with longitudinal data including both single time-point and daily diary formats spanning a decade and use of multiple imputation to account for missing data. That said, there are important limitations. Several of our limitations were statistical. The stability of the sample provided limited range in number of couples who divorced, and individuals reported giving or receiving support in their romantic relationship at a very low frequencies, which may have impeded our ability to detect a relationship between those variables. Also, the inclusion of only heterosexual, mostly White participants greatly limits the generalizability of findings. Although most research to date shows that couples in same and opposite-sex marriages have similar levels of marital stability (Mackey et al., 2004), future research into the role of support in the stability of same-sex marriages and non-marital romantic partnerships is warranted. In addition, having only one member per couple prevented us from being able to examine potential differences in partner reports of support that is provided and received. A related limitation of the study is the broader challenge of adequately measuring social support given the variety of structures and functions of the construct and potential need for idiographic assessment, including perceived need and degree of optimal support matching (Holt-Lunstad et al., 2017).

### ***Implications for family therapy theory***

Despite these limitations, this study reinforces findings in the literature demonstrating the difficulty in predicting marital stability over time. Neither global support perception nor daily reports of support provision or receipt were related to divorce outcomes 10 years later. Although our hypotheses were not supported, our lack of findings may demonstrate that the positive benefits of support provision and receipt in marriages may be more short-lived, or, more likely, that they may be more complex longitudinally than our data were able to capture. In addition, we also identified that marriages for individuals who had completed at least high school are less likely to end in divorce over a 10-year period.

### ***Implications for family therapy practice***

The results of this project suggest that neither global perception of support nor daily provision or receipt of support is significantly related to risk of divorce for middle-aged American couples 10 years later. As previously discussed, this project has limitations and future research would be warranted before such findings directly inform clinical practice. The broader literature still suggests that support provided to and received by a spouse does have benefits in weeks and months following support. As noted, one interesting aspect of our data was the discrepancy between the relatively high global support perceived from a partner compared to relatively low reports of daily receipt and provision of support. This discrepancy suggests that middle-aged individuals may generally feel supported, but have a hard time intentionally identifying provision and receipt of emotionally supportive behaviors on a day-to-day basis and benefit from clinical intervention to improve this ability.

Elements that we were not able to measure include the extent to which a person desired or solicited support and the adequacy of support in meeting a partner's needs. Research on these more nuanced contexts has found that support in relationships is most helpful when it matches the partner's needs (Brock & Lawrence, 2010; Priem & Solomon, 2015; Zee & Bolger, 2019). Thus, it may be helpful in practice to encourage couples to engage in conversations about what each person finds supportive and what makes that support helpful, so that couples can learn to "match" the quantity, quality, and timing of support to best fit their partner, and to be more broadly intentional about these behaviors. This type of awareness and communication is an important component of several types of couples' therapies (e.g., "catch your partner being good" in Cognitive Behavioral Conjoint Therapy for PTSD [Monson & Fredman, 2012] and debriefing components of behavior exchange exercises in Integrative Behavioral Couple Therapy [Christensen & Jacobsen, 1996]). Because the sample in the present study was not generally high in marital distress, it is likely that focusing on support receipt from a partner as in relationship interventions for "well" relationships (e.g., the Marriage Checkup [Cordova et al., 2014]) could also be helpful. In sum, recognition and provision of support is likely supported in clinical practice, but would benefit from more nuanced assessment in the context of research.

### **Disclosure statement**

No potential conflict of interest was reported by the authors.

## References

- Acitelli, L. K., & Antonucci, T. C. (1994). Gender differences in the link between marital support and satisfaction in older couples. *Journal of Personality and Social Psychology*, 67(4), 688–698. <https://doi.org/10.1037//0022-3514.67.4.688>
- Amato, P. R. (2010). Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*, 72(3), 650–666. <https://doi.org/10.1111/j.1741-3737.2010.00723.x>
- Bolger, N., & Amarel, D. (2007). Effects of social support visibility on adjustment to stress: Experimental evidence. *Journal of Personality and Social Psychology*, 92(3), 458–475. <https://doi.org/10.1037/0022-3514.92.3.458>
- Bolger, N., Zuckerman, A., & Kessler, R. C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology*, 79(6), 953–961. <https://doi.org/10.1037/0022-3514.79.6.953>
- Bradbury, T. N., & Karney, B. R. (2004). Understanding and altering the longitudinal course of marriage. *Journal of Marriage and Family*, 66(4), 862–879. <https://doi.org/10.1111/j.0022-2445.2004.00059.x>
- Brim, O. G. B., Ryff, C. D., & Kessler, R. (2004). *How healthy are we? A national study of well-being at midlife*. The University of Chicago Press.
- Brock, R. L., & Lawrence, E. (2010). Support adequacy in marriage: Observing the platinum rule. In K. T. Sullivan & J. Davila (Eds.), *Support processes in intimate relationships*. Oxford University Press.
- Brown, S. L., & Lin, I. (2012). The gray divorce revolution: Rising divorce among middle-aged and older adults, 1990–2010. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 67(6), 731–741. <https://doi.org/10.1093/geronb/gbs089>
- Brown, S. L., Nesse, R. M., Vinokur, A. D., & Smith, D. M. (2003). Providing social support may be more beneficial than receiving it: Results from a prospective study of mortality. *Psychological Science*, 14(4), 320–327. <https://doi.org/10.1111/1467-9280.14461>
- van Buuren, S. (2018). *Flexible imputation of missing data - second edition*. CRC Press.
- van Buuren, S., & Groothuis-Oudshoorn, K. (2010). MICE: Multivariate imputation by chained equations in R. *Journal of Statistical Software*, 45(3), 1–67.
- Carter, S., Giff, S. T., Campbell, S. B., & Renshaw, K. D. (2019). Supporting a spouse with military posttraumatic stress: Daily associations with partners' affect. *Journal of Traumatic Stress*, 32(2), 323–329. <https://doi.org/10.1002/jts.22390>
- Christensen, A., & Jacobson, N. S. (1996). *Acceptance and change in couple therapy: A therapist's guide to transforming relationships*. W. W. Norton & Company.
- Cohen, J., Cohen, P., West, A. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Routledge.
- Cordova, J. V., Fleming, C. J. E., Morrill, M. I., Hawrilenko, M., Sollenberger, J. W., Harp, A. G., Gray, T. D., Darling, E. V., Blair, J. M., Meade, A. E., & Wachs, K. (2014). The marriage checkup: A randomized controlled trial of annual relationship health checkups. *Journal of Consulting and Clinical Psychology*, 82(4), 592–604. <https://doi.org/10.1037/a0037097>
- Cutrona, C. E., & Suhr, J. A. (1994). Social support communication in the context of marriage: An analysis of couples' supportive interactions. In B. R. Burleson, T. L. Albrecht, & I. G. Sarason (Eds.), *Communication of social support: Messages, interactions, relationships, and community* (pp. 113–135). Sage Publications, Inc.
- Enders, C. K. (2010). *Applied missing data analysis*. The Guilford Press.
- Girme, Y. U., Maniaci, M. R., Reis, H. T., McNulty, J. K., Carmichael, C. L., Gable, S. L., Baker, L. R., & Overall, N. C. (2018). Does support need to be seen? Daily invisible

- support promotes next day relationship well-being. *Journal of Family Psychology*, 32(7), 882–893. <https://doi.org/10.1037/fam0000453>
- Gleason, M. E. J., Iida, M., Bolger, N., & Shrout, P. E. (2003). Daily supportive equity in close relationships. *Personality & Social Psychology Bulletin*, 29(8), 1036–1045. <https://doi.org/10.1177/0146167203253473>
- Holt-Lunstad, J., Robles, T. F., & Sbarra, D. A. (2017). Advancing social connection as a public health priority in the United States. *The American Psychologist*, 72(6), 517–530. <https://doi.org/10.1037/amp0000103>
- Howland, M. (2016). Reading minds and being invisible: The role of empathic accuracy in invisible support provision. *Social Psychological and Personality Science*, 7(2), 149–156. <https://doi.org/10.1177/1948550615606195>
- Joel, S., Eastwick, P. W., Allison, C. J., Arriaga, X. B., Baker, Z. G., Bar-Kalifa, E., Bergeron, S., Birnbaum, G. E., Brock, R. L., Brumbaugh, C. C., Carmichael, C. L., Chen, S., Clarke, J., Cobb, R. J., Coolsen, M. K., Davis, J., de Jong, D. C., Debrot, A., DeHaas, E. C., ... Wolf, S. (2020). Machine learning uncovers the most robust self-report predictors of relationship quality across 43 longitudinal couples studies. *Proceedings of the National Academy of Sciences of the United States of America*, 117(32), 19061–19071. <https://doi.org/10.1073/pnas.1917036117>
- Kaul, M., & Lakey, B. (2003). Where is the support in perceived support? The role of generic relationship satisfaction and enacted support in perceived support's relation to low distress. *Journal of Social and Clinical Psychology*, 22(1), 59–78. <https://doi.org/10.1521/jscp.22.1.59.22761>
- Lawrence, E., Bunde, M. A. L. I., Barry, R. A., Brock, R. L., Sullivan, K. T., Pasch, L. A., White, G. A., Dowd, C. E., & Adams, E. E. (2008). Partner support and marital satisfaction: Support amount, adequacy, provision, and solicitation. *Personal Relationships*, 15(4), 445–463. <https://doi.org/10.1111/j.1475-6811.2008.00209.x>
- Lebow, J. L., Chambers, A. L., Christensen, A., & Johnson, S. M. (2012). Research on the treatment of couple distress. *Journal of Marital and Family Therapy*, 38(1), 145–168. <https://doi.org/10.1111/j.1752-0606.2011.00249.x>
- Little, R. J. A., & Rubin, D. B. (2002). *Statistical analysis with missing data* (2nd ed.). JohnWiley & Sons, Inc.
- Mackey, R. A., Diemer, M. A., & O'Brien, B. A. (2004). Relational factors in understanding satisfaction in the lasting relationships of same sex and heterosexual couples. *Journal of Homosexuality*, 47(1), 111–136. [https://doi.org/10.1300/J082v47n01\\_07](https://doi.org/10.1300/J082v47n01_07)
- Monin, J. K., Poulin, M. J., Brown, S. L., & Langa, K. M. (2017). Spouses' daily feelings of appreciation and self-reported well-being. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, 36(12), 1135–1139. <https://doi.org/10.1037/hea0000527>
- Monson, C. M., & Fredman, S. J. (2012). *Cognitive-behavioral conjoint therapy for PTSD: Harnessing the healing power of relationships*. Guilford Press.
- Morelli, S. A., Lee, I. A., Arnn, M. E., & Zaki, J. (2015). Emotional and instrumental support provision interact to predict well-being. *Emotion (Washington, D.C.)*, 15(4), 484–493. <https://doi.org/10.1037/emo0000084>
- Pasch, L. A., & Bradbury, T. N. (1998). Social support, conflict, and the development of marital dysfunction. *Journal of Consulting and Clinical Psychology*, 66(2), 219–230. <https://doi.org/10.1037/0022-006X.66.2.219>
- Priem, J. S., & Solomon, D. H. (2015). Emotional support and physiological stress recovery: The role of support matching, adequacy, and invisibility. *Communication Monographs*, 82(1), 88–112. <https://doi.org/10.1080/03637751.2014.971416>

- R Core Team (2019). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <http://www.R-project.org/>
- Raley, R. K., & Sweeney, M. M. (2020). Divorce, repartnering, and stepfamilies: A decade in review. *Journal of Marriage and Family*, 82(1), 81–99. <https://doi.org/10.1111/jomf.12651>
- Recksiedler, C., & Stawski, R. S. (2019). Marital transitions and depressive symptoms among older adults: Examining educational differences. *Gerontology*, 65(4), 407–418. <https://doi.org/10.1159/000493681>
- Schuster, T. L., Kessler, R. C., & Aseltine, R. H. (1990). Supportive interactions, negative interactions, and depressed mood. *American Journal of Community Psychology*, 18(3), 423–438. <https://doi.org/10.1007/BF00938116>
- Sherbourne, C. D., & Stewart, A. L. (1991). The MOS social support survey. *Social Science & Medicine* (1982), 32(6), 705–714. [https://doi.org/10.1016/0277-9536\(91\)90150-b](https://doi.org/10.1016/0277-9536(91)90150-b)
- Sullivan, K. T., Pasch, L. A., Johnson, M. D., & Bradbury, T. N. (2010). Social support, problem solving, and the longitudinal course of newlywed marriage. *Journal of Personality and Social Psychology*, 98(4), 631–644. <https://doi.org/10.1037/a0017578>
- Thorsteinsson, E. B., & James, J. E. (1999). A meta-analysis of the effects of experimental manipulations of social support during laboratory stress. *Psychology & Health*, 14(5), 869–886. <https://doi.org/10.1080/08870449908407353>
- Xu, Y., & Burlison, B. R. (2001). Effects of sex, culture, and support type on perceptions of spousal social support: An assessment of the “support gap” hypothesis in early marriage. *Human Communication Research*, 27(4), 535–566. <https://doi.org/10.1111/j.1468-2958.2001.tb00792.x>
- Zee, K. S., & Bolger, N. (2019). Visible and invisible social support: How, why, and when. *Current Directions in Psychological Science*, 28(3), 314–320. <https://doi.org/10.1177/0963721419835214>