

# Social Isolation, Depression, and Psychological Distress Among Older Adults

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## Abstract

**Objective:** To investigate the impact of objective and subjective social isolation from extended family members and friends on depressive symptoms and psychological distress among a national sample of older adults. **Method:** Data for older adults (55 years and above) from the National Survey of American Life ( $N = 1,439$ ) were used to assess level of objective social isolation and subjective social isolation and to test regression models examining their impact on depressive symptoms (Center for Epidemiologic Studies Depression [CES-D] Scale) and psychological distress (Kessler 6 [K6] Scale). **Results:** The majority of respondents were not socially isolated from family or friends; 5% were objectively isolated from family and friends, and less than 1% were subjectively isolated from family and friends. Regression analyses using both social isolation measures indicated that objective social isolation was unrelated to depressive symptoms and psychological distress. However, subjective social isolation from both family and friends and from friends only was associated with more depressive

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symptoms, and subjective social isolation from friends only was associated with higher levels of psychological distress. **Discussion:** Assessments of social isolation among older populations should account for both subjective and objective dimensions, as well as both family and friend social networks. Social isolation from friends is an important, but understudied, issue that has significant consequences for older adult mental health.

### **Keywords**

social isolation, mental health, emotional support, social integration

### **Introduction**

Social isolation is a significant threat to the health and well-being of older adults (Klinenberg, 2016) that is associated with an increased risk of mortality (Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015; Holt-Lunstad, Smith & Layton, 2010; LaVeist, Sellers, Brown, & Nickerson, 1997; Steptoe, Shankar, Demakakos, & Wardle, 2013). Being socially isolated is also linked to poorer mental health (E. Y. Cornwell & Waite, 2009b; Coyle & Dugan, 2012). A recent editorial in the *American Journal of Public Health* underscores the significance of social isolation as a threat to mental health (Klinenberg, 2016), and the American Academy of Social Work and Social Welfare has identified social isolation as a Grand Challenge of particular concern for older adults (Lubben, Gironde, Sabbath, Kong, & Johnson, 2015). Projected demographic changes for the U.S. population further underscore the importance of understanding the causes and impacts of social isolation on older adults. Changes in the age distribution of the United States indicate that by the year 2040, approximately one out of every five Americans (approximately 80 million persons) will be an older adult (Administration on Aging, 2013). This demographic change will affect the social networks of adults as they grow older, potentially resulting in smaller social networks and fewer younger people to attend to the needs of our older adults. The goal of this study is to investigate the impact of social isolation from extended family members and friends on two indicators of mental well-being—depressive symptoms and psychological distress—among a national sample of older adults.

### ***Age Differences in Social Isolation***

In addition to changes in population demographics, research on age differences in both the size and composition of social networks demonstrate that

older adults frequently have smaller social networks in comparison with younger adults (B. Cornwell, Laumann, & Schumm, 2008; McPherson, Smith-Lovin, & Brashears, 2006). Despite this, maintaining relationships with friends and family members is an important priority among older adults, further emphasizing the importance of social ties for this age group (National Council on Aging, 2013). With regard to social network composition, age is significantly related to having more primary group members (i.e., spouse and children) in an older individual's social network (B. Cornwell et al., 2008).

Noted age differences in social network size and composition are consistent with Carstensen, Isaacowitz, and Charles (1999) socioemotional selectivity theory, which states that older adults assign greater importance to having small social networks that are comprised of family members and longtime friends. Socioemotional selective theory further posits that these social network changes represent purposeful strategies that older adults use to maximize positive emotions and minimize negative social interactions (Carstensen et al., 1999). In addition to these age-related changes, emerging evidence suggests that social network size may be decreasing and social isolation increasing for Americans of all ages (Klinenberg, 2016). McPherson and colleagues (2006) found that between 1985 and 2004, there was a significant increase in the number of individuals indicating they had no one in their social network to discuss important matters (i.e., social isolates). Accordingly, projected growth of the older population, coupled with anticipated decreases in younger and middle-age cohorts, suggests that increased social isolation and associated health problems may be particularly acute for older adults (Klinenberg, 2016).

In sum, current research documents several negative associations between social isolation and mortality and physical health outcomes among older adults. However, questions with respect to social isolation and its mental health consequences for older adults are largely understudied. The present study contributes to the literature by examining objective and subjective social isolation from family and friends in relation to depressive symptoms and psychological distress among a national sample of older adults.

### *Objective and Subjective Social Isolation*

Current prevalence estimates for social isolation among older adults range between 15% and 40% (Elder & Retrum, 2012)—a broad estimate that emphasizes the lack of consensus concerning the definition and operationalization of social isolation (Valtorta, Kanaan, Gilbody, & Hanratty, 2016). Research increasingly focuses on social isolation as being comprised of two separate constructs identified as objective social isolation and subjective social isolation (E.

Y. Cornwell & Waite, 2009a, 2009b; Coyle & Dugan, 2012; Elder & Retrum, 2012; Valtorta et al., 2016). Objective social isolation represents the tangible aspects of social isolation represented by physical separation from and an absence or deficiency of interaction with other people. Measures of objective social isolation frequently include assessments of the size of one's social network, frequency of interaction with social network members, and participation in groups, volunteering, or other social activities/events. Subjective social isolation, however, is defined as an individual's perceptions and quality of his or her relationships with members of his or her social networks, as well as perceived integration and involvement in social networks (Valtorta et al., 2016). Studies of subjective social isolation include the constructs of loneliness (Cacioppo & Hawkley, 2003), subjective closeness to friends and family members, presence of a confidant, and perceived social support from members of one's social network (E. Y. Cornwell & Waite, 2009a, 2009b). Finally, objective isolation and subjective isolation, although frequently correlated with each other (Coyle & Dugan, 2012; Shankar, Hamer, McMunn, & Steptoe, 2013), are not the same construct. Individuals who experience objective social isolation (e.g., having infrequent contact with network members) may or may not be subjectively isolated (e.g., feeling distant from one's social network members).

### *Social Isolation and Mental Health*

E. Y. Cornwell and Waite (2009b) explored the relationship between objective social isolation, subjective social isolation, and mental health using the National Social Life, Health, and Aging Project (NSHAP) sample of 3,005 older adults. Objective social isolation was measured by the Social Disconnectedness Scale (Cronbach's  $\alpha = .73$ ) and included items such as social network size, social network range, frequency of contact, number of friends, and socializing with family members and friends (E. Y. Cornwell & Waite, 2009a). Subjective social isolation was measured by the Perceived Isolation Scale (Cronbach's  $\alpha = .70$ ) that assessed frequency of respondents (a) confiding to family members, (b) confiding to friends, (c) confiding to spouse, (d) relying on family members, (e) relying on friends, (f) relying on spouse, (g) feeling a lack of companionship, (h) feeling left out, and (i) feeling isolated from others. When analyzed separately, both the Social Disconnectedness scale and Perceived Isolation scale were associated with self-rated mental health. However, when both scales were analyzed together, the effect of the Social Disconnectedness scale on self-rated mental health, although still significant, was attenuated. The Perceived Isolation scale was also significantly related to depressive symptoms, whereas the Social Disconnectedness scale was unrelated.

Coyle and Dugan (2012) used the 2006 and 2008 waves of the Health and Retirement Study ( $n = 11,825$ ) to examine the association between social isolation, loneliness, and the likelihood of having a mental health problem. Using multivariate logistic regression models, they found that when estimated independently of one another in separate models, both loneliness and objective social isolation were significantly related to the presence of a mental health problem. However, when both objective social isolation and loneliness were estimated together, only higher objective social isolation scores were significantly related to lower odds of reporting a mental health problem. Loneliness was related to higher odds of reporting a mental health problem when estimated with objective social isolation.

Snowden (2001) examined social embeddedness and psychological distress using the National Medical Expenditures Study (a nationally representative household survey  $n = 18,000$ ). Social embeddedness included frequency of visits by friends, visits to friends, telephone conversations with friends/relatives, group participation, and presence of a confidant. All five measures of social embeddedness were related to psychological distress; lacking a confidant to share personal feelings and emotions was the strongest predictor of distress. Finally, Thompson and Heller's (1990) study examined the relationship between objective isolation, perceived social support, and psychological well-being among 271 community-dwelling older women. Their study found that older women with higher levels of objective social isolation were significantly more likely to have lower psychological well-being, even while controlling for perceived social support.

Collectively, these findings suggest several features concerning the relationships among objective and subjective social isolation and mental health outcomes. First, objective and subjective social isolation may operate differently in relation to specific mental health outcomes (e.g., psychological distress, depressive symptoms, self-rated mental health). Related to this, research emphasizes the importance of examining objective and subjective social isolation simultaneously to ascertain whether objective and subjective social isolation exert independent and differential effects on mental health. Furthermore, the relationships between objective social isolation, subjective social isolation, and mental health are complex. For example, some evidence indicates that the effect of objective social isolation on self-rated mental health is mediated by subjective social isolation (E. Y. Cornwell & Waite, 2009b). However, other analyses that control for subjective social isolation indicate mixed findings such that objective social isolation is associated with both better mental health (Coyle & Dugan, 2012) and worse psychological well-being (Thompson & Heller, 1990). Nonetheless, research findings confirm that high-quality relationships (i.e., perceived support, having a

confidant) with a variety of social network members (e.g., family, friends) are associated with positive mental health outcomes.

### **Current Study**

The current study examines the relationships between social isolation (objective and subjective) from extended family members and friends and depressive symptoms and psychological distress within a nationally representative sample of older adults. Our study contributes to the social isolation literature by exploring both objective and subjective social isolation from distinct social networks—family versus friends. Furthermore, for both objective and subjective social isolation, we distinguish between different patterns of isolation (e.g., objectively socially isolated from family only, friends only, both family and friends, or neither). This allows for a more precise understanding of how patterns of objective and subjective social network involvement are associated with mental health. Based on prior research, we hypothesize that (a) objective social isolation from friends and family members will be associated with higher levels of depressive symptoms and psychological distress, (b) subjective social isolation from family members and friends will be associated with higher levels of depressive symptoms and psychological distress, and (c) the effects of objective social isolation will be attenuated when analyzed with subjective social isolation from family and friends.

## **Method**

### **Data Set**

The National Survey of American Life: Coping With Stress in the 21st Century (NSAL) is a nationally representative data set of African Americans, Black Caribbeans, and Whites. Data for the NSAL were collected by the Program for Research on Black Americans at the University of Michigan's Institute for Social Research (Jackson et al., 2004). The fieldwork for the study was completed by the Institute of Social Research's Survey Research Center, in cooperation with the Program for Research on Black Americans. The NSAL sample is a national multi-stage probability design. Respondents in the NSAL data set are community-dwelling adults aged 18 and older; persons residing in institutional settings (e.g., nursing homes or prisons) were excluded from the sample. Data for the NSAL were collected from February 2001 to June 2003; the overall response rate was 72.3%. Most of the interviews were conducted face-to-face (86%) in respondents' homes, whereas the remaining 14% were telephone interviews. All interviews were conducted in English, using a computer-assisted personal interview.

The total sample of the NSAL consists of 6,082 respondents with 3,570 African Americans, 1,621 Black Caribbeans, and 891 non-Hispanic Whites. The current study utilizes data from the older adult subsample aged 55 and older ( $n = 1,439$ ) with 837 African Americans, 304 Black Caribbeans, and 298 non-Hispanic Whites. For all three race/ethnic samples, the NSAL weights were designed to correct for disproportionate sampling and non-response, and for population representation across various socio-demographic characteristics. Data collection for the NSAL was approved by the University of Michigan Institutional Review Board. Respondents were compensated for their time.

### Dependent Variables

The two dependent variables for this study are the 12-item version of the Center for Epidemiologic Studies Depression Scale (CES-D Scale) and the Kessler 6 (K6) Scale. The CES-D Scale is a self-report scale of depression symptomatology. The 12-item version of the scale has demonstrated acceptable reliability (Cronbach's  $\alpha = .76$ ) and similar factor structure to the original CES-D Scale (Radloff, 1977). The CES-D items focus on the previous 30 days and include the following: (a) had trouble keeping their mind on track, (b) enjoyed life, (c) had crying spells, (d) could not get going, (e) felt depressed, (f) felt hopeful, (g) felt restless, (h) felt happy, (i) felt just as good as other people, (j) felt that everything was an effort, (k) felt that people were unfriendly, and (l) felt that people dislike them. Items are scored from 0 "rarely or none of the time" to 3 "most or all of the time" and then summed into a continuous measure with scores ranging from 0 to 36 with higher scores indicating higher levels of depressive symptoms.

The K6 Scale is a measure of non-specific psychological distress that is utilized as a screening tool for serious mental illness in community-based samples (Cronbach's  $\alpha = .83$ ) and verified to accurately discriminate cases of *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994) psychiatric disorders (Cornelius, Groothoff, van der Klink, & Brouwer, 2013; Kessler et al., 2002). The K6 was validated in a two-stage clinical reappraisal survey (telephone screening interview [ $n = 1,000$ ], followed by face-to-face clinical interviews [ $n = 153$ ]). Cronbach's alphas for the K6 in the face-to-face clinical interviews and in the 1997 and 1998 waves of the National Health Interview Survey were .89 (Kessler et al., 2002) and .88, respectively. Cornelius and colleagues (2013) verified a Cronbach's  $\alpha$  of .88 in a study ( $n = 293$ ) of disability claimants.

The six items of the K6 use a 5-point Likert-type scale (ranging from 0 = *none of the time* to 4 = *all of the time*) to assess, over the past 30 days, how often the respondent felt (a) nervous, (b) hopeless, (c) restless or fidgety, (d) so depressed that nothing could cheer you up, (e) that everything was an effort, and (f) worthless. Scale items are summed to achieve a final score, with higher scores on the K6 indicating higher levels of psychological distress (Kessler et al., 2002; Kessler et al., 2003).

### **Key Independent Variables**

**Objective social isolation.** Objective social isolation was created by combining frequency of contact with family members and frequency of contact with friends. Frequency of contact with family is assessed by the following item:

How often do you see, write or talk on the telephone with family or relatives who do not live with you? Would you say nearly everyday, at least once a week, a few times a month, at least once a month, a few times a year, hardly ever or never?

Frequency of contact with friends was assessed in the same manner as frequency of contact with family. Both items were recoded into two separate dichotomous variables by combining the item response categories: (a) nearly every day, at least once a week, a few times a month versus (b) at least once a month, a few times a year, hardly ever or never. The two dichotomous variables (a) objective social isolation from family (yes/no) and (b) objective social isolation from friends (yes/no), were then combined into a single variable. This resulting variable had four categories: (a) objectively isolated from both family members and friends, (b) objectively isolated from family only, (c) objectively isolated from friends only, or (d) not objectively isolated from family and friends. This operationalization has the advantage of assessing interactions involving both family and friends and provides a more comprehensive perspective on social isolation (Taylor, Taylor, & Chatters, 2016).

**Subjective social isolation.** A similar coding strategy was used to create the variable representing subjective social isolation. Subjective social isolation was created by combining both subjective family closeness and subjective friend closeness. Subjective family closeness is assessed by the item, "How close do you feel towards your family members? Would you say very close, fairly close, not too close, or not close at all?" Subjective friend closeness was assessed in the same manner as subjective family closeness. Both items

were recoded into two separate dichotomous variables (family subjective closeness and friend subjective closeness) by combining the following response categories: (a) very close and fairly close versus (b) not too close and not close at all. These two dichotomous variables were then combined to create a single four-category variable representing respondents who are (a) subjectively isolated from family and friends, (b) subjectively isolated from family only, (c) subjectively isolated from friends only, and (d) not subjectively isolated from family and friends.

*Covariates.* Covariates for the study are age, education, gender, marital status, household income, race, and number of chronic health conditions. Age, education, and household income are measured continuously; chronic health conditions represent a count of reported health problems. Marital status is measured as married/cohabiting and not married (the reference group is married/cohabiting), and race is categorized as African American, Black Caribbean, and non-Hispanic Whites (the reference group is African American).

*Analyses.* Descriptive statistics are presented in Table 1. Survey weights were applied to constitute a nationally representative data set. Accordingly, the percentages for each descriptive statistic represent the weighted proportions based on the distribution of African Americans, Black Caribbeans, and Whites in the U.S. population. An examination of the univariate distribution of our dependent variables indicated that they were not normally distributed. In particular, the variance exceeded the mean that indicated overdispersion. Consequently, instead of linear regression, we used negative binomial regression, which is the appropriate technique for this type of non-normal distribution. Survey weights were applied for all multivariate analyses. In total, four models were estimated. First, Model 1 regresses depressive symptoms on objective social isolation and the covariates; following this, Model 1a regresses depressive symptoms on objective social isolation and the covariates, with the addition of subjective social isolation to the analysis model. Similarly, Model 2 regresses psychological distress on objective social isolation and the covariates; following this, Model 2a regresses psychological distress on objective social isolation and the covariates, with the addition of subjective social isolation. The reference group for the objective social isolation variable is “not objectively isolated from either group,” and the reference group for the subjective social isolation variable is “not subjectively isolated from either group.” All analyses were conducted with STATA, Version 13.

**Table 1.** Demographic Characteristics of the Sample and Distribution of Study Variables.

	%	<i>n</i>	<i>M</i>	<i>SD</i>	Minimum	Maximum
Objective social isolation						
Objective isolation from both family and friends	5.04	64				
Objective isolation from family only	7.27	89				
Objective isolation from friends only	11.70	164				
Not objectively isolated from either group	76.00	1,090				
Subjective social isolation						
Subjective isolation from both family and friends	1.12	25				
Subjective isolation from family only	3.15	42				
Subjective isolation from friends only	9.90	128				
Not subjectively isolated from either group	85.83	1,182				
Race/ethnicity						
African American	40.73	837				
Black Caribbean	2.74	304				
Non-Hispanic Whites	56.53	298				
Gender						
Male	44.58	543				
Female	55.42	896				
Age		1,439	66.72	8.85	55	94
Family income		1,439	36,705	38,913	0	6,40,000
Education		1,439	12.05	3.42	0	17
Marital status						
Married/cohabit	46.42	499				
Non-married	53.58	930				
No. of chronic health problems		1,370	2.48	1.91	0	11

Note. % and *n* are presented for categorical variables and *M* and *SDs* are presented for continuous variables. Percentages are weighted and frequencies are unweighted.

## Results

### *Descriptive Statistics*

Table 1 shows descriptive statistics for the variables in the study. With regard to objective social isolation, 5% of the older adults in our sample ( $n = 64$ ) were objectively isolated from both their family members and

their friends, 7% were isolated from their family only ( $n = 89$ ), 12% were isolated from their friends only ( $n = 164$ ), and 76% were not isolated from either group ( $n = 1,090$ ). With regard to subjective social isolation, a little more than 1% ( $n = 25$ ) were subjectively isolated from both family members and friends, 3% ( $n = 42$ ) were subjectively isolated from family only, 10% ( $n = 128$ ) were subjectively isolated from friends only, and 86% ( $n = 1,182$ ) were not subjectively isolated from either group. With respect to covariates, average age of the sample is 67 years; 40% of the respondents are African American, 56% are non-Hispanic Whites, and roughly 3% are Black Caribbean; and women make up the majority of the sample (56%), as do persons who are not married (53%). Average family income is US\$37,000; respondents average 12 years of education, and have an average of 2.5 chronic health problems.

### *Multivariate Analysis*

*Regression models for depressive symptoms.* In Model 1, depressive symptoms are regressed on objective social isolation and the covariates ( $F = 16.84, p < .001$ ). Results indicate that older adults who are objectively isolated from both family members and friends had a higher level of depressive symptoms in comparison with older adults who were not objectively isolated from either group ( $b = .35$ , standard error [ $SE$ ] =  $.15, p < .05$ ). In Model 1a, depressive symptoms are regressed on objective isolation, subjective isolation, and the covariates ( $F = 14.91, p < .001$ ). Objective social isolation is no longer statistically significant once subjective social isolation is included in the model. Older adults who are subjectively isolated from both family and friends ( $b = .39, SE = .14, p < .01$ ) and older adults who are subjectively isolated from friends only ( $b = .40, SE = .09, p < .001$ ) have significantly higher levels of depressive symptoms in comparison with older adults who are not subjectively isolated from either group.

*Regression models for psychological distress.* In Model 2, psychological distress is regressed on objective social isolation and the covariates ( $F = 11.66, p < .001$ ); objective social isolation is not significantly associated with psychological distress. In Model 2a ( $F = 12.18, p < .001$ ), objective social isolation is not significantly associated with psychological distress. However, subjective social isolation from friends only is significantly associated with psychological distress indicating that older adults who are subjectively isolated from their friends only have greater psychological distress in comparison with older adults who are not subjectively isolated from either group ( $b = .39, SE = .12, p < .01$ ). Please see Table 2 for additional information on the multivariate regression models.

**Table 2.** Negative Binominal Regression Analysis of Social Isolation and Depressive Symptoms (CES-D) and Psychological Distress (K6) Among Older Americans.

Independent variables <sup>a,b</sup>	Depressive symptoms (CES-D)		Psychological distress (K6)	
	Model 1 <i>b</i> (SE)	Model 1a <i>b</i> (SE)	Model 2 <i>b</i> (SE)	Model 2a <i>b</i> (SE)
Objective social isolation				
Objective isolation from both family and friends	0.35 (0.15)*	0.14 (0.15)	-0.11 (0.25)	-0.21 (0.24)
Objective isolation from family only	0.23 (0.13)	0.23 (0.12)	0.26 (0.16)	0.25 (0.17)
Objective isolation from friends only	0.11 (0.14)	0.02 (0.15)	0.00 (0.19)	-0.07 (0.19)
Not objectively isolated from either group	0	0	0	0
Subjective social isolation				
Subjective isolation from both family and friends	—	0.39 (0.14)**	—	0.32 (0.27)
Subjective isolation from family only	—	0.09 (0.15)	—	0.12 (0.28)
Subjective isolation from friends only	—	0.40 (0.09)***	—	0.39 (0.12)**
Not subjectively isolated from either group		0		0
Race/ethnicity				
African American	0	0	0	0
Black Caribbean	0.15 (0.14)	0.09 (0.13)	0.16 (0.13)	0.10 (0.12)
White	0.44 (0.09)***	0.43 (0.09)***	0.40 (0.09)***	0.39 (0.10)***
Gender				
Male	0	0	0	0
Female	0.16 (0.13)	0.17 (0.13)	0.26 (0.12)*	0.26 (0.13)*
Age	-0.01 (0.01)*	-0.01 (0.01)*	-0.02 (0.01)**	-0.02 (0.01)**
Family income	-0.01 (0.01)*	-0.01 (0.01)*	-0.01 (0.01)*	-0.01 (0.01)*
Education	-0.03 (0.01)	-0.03 (0.01)*	-0.02 (0.01)*	-0.03 (0.01)*
Marital status				
Married	0	0	0	0
Non-married	-0.09 (0.09)	-0.12 (0.10)	-0.09 (0.12)	-0.11 (0.12)
No. of chronic health problems	0.08 (0.02)***	0.08 (0.02)***	0.15 (0.02)***	0.15 (0.02)***
<i>F</i>	16.84***	14.91***	11.66***	12.18***
<i>N</i>	1,267	1,238	1,270	1,241

Note. Significance test of the individual parameter estimates was based on a complex design-corrected *t* test. *b* = regression coefficient; CES-D = Center for Epidemiologic Studies Depression Scale.

<sup>a</sup>Regression coefficients and standard errors are reported.

<sup>b</sup>Several independent variables are represented by dummy variables. Race/ethnicity, African Americans are the excluded category; Gender, 0 = female, 1 = male; Marital status, married is the excluded category.

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

## Discussion

The purpose of this study was to determine the association between objective and subjective social isolation from friends and family members and their effects on depressive symptoms and psychological distress. Our hypotheses were partially confirmed: Subjective social isolation from both family and friends was associated with higher levels of depressive symptoms; subjective isolation from friends only was associated with both greater depressive symptoms and psychological distress. Objective social isolation from friends and family members was significantly related to greater depressive symptoms in the initial model, but was no longer significant when subjective social isolation was introduced. Objective social isolation was unrelated to psychological distress, with or without subjective social isolation. Furthermore, being subjectively socially isolated from both family and friends was significant with regard to depressive symptoms. However, highlighting the importance of connections and closeness with peer relationships for well-being, subjective social isolation from friends only was associated with greater levels of depressive symptoms and psychological distress.

Our findings are consistent with those from previous studies concerning the negative impact of social isolation for mental health and highlight the pivotal role of subjective social isolation for depressive symptoms and psychological distress. In contrast, contact with family and friends (objective social isolation) (a) had no independent effect on depressive symptoms when considered concurrently with perceptions of closeness to family and friends (subjective social isolation) and (b) was not a significant predictor of psychological distress, with or without subjective social isolation. Findings for subjective social isolation, however, indicated that feelings of closeness to family and friends were more potent in relation to both depressive symptoms and psychological distress. Older adults who reported subjective social isolation (lower levels of closeness) from both family and friends had higher levels of depressive symptoms (but not psychological distress), whereas subjective social isolation from friends only was associated with both more depressive symptoms and higher levels of psychological distress. These findings are consistent with other work (E. Y. Cornwell & Waite, 2009b; Coyle & Dugan, 2012) indicating a stronger association between subjective social isolation and mental health outcomes as compared with objective social isolation. Finally, the findings for objective social isolation and depressive symptoms suggest that the relationship between objective social isolation and mental health is mediated by subjective social isolation (E. Y. Cornwell & Waite, 2009b). Collectively, these findings suggest that objective and subjective social isolation have different associations with mental health outcomes and

that subjective social isolation from specific groups (friends and family vs. friends only) may be differentially important for particular outcomes (Valtorta et al., 2016).

The present study contributes to the literature on social isolation in several ways. First, the construct of social isolation is commonly thought of and defined as objective social isolation or a situation involving a total absence or severely limited social interaction and contact with others (Cacioppo & Hawkley, 2003; Valtorta et al., 2016). This study clarifies the construct of social isolation by demonstrating that objective isolation (infrequent contact with others) and subjective isolation (diminished feelings of closeness to others) are each types of social isolation that represent separate aspects of social relationships (E. Y. Cornwell & Waite, 2009a, 2009b; Coyle & Dugan, 2012; Elder & Retrum, 2012; Valtorta et al., 2016). Furthermore, as demonstrated here, objective and subjective social isolation have differential consequences for mental health outcomes. This has both conceptual importance for improving our understanding of the construct of social isolation and practical significance for appreciating divergent manifestations of social isolation in real-life contexts. The potency of subjective social isolation as compared with objective social isolation for study outcomes was demonstrated by its association with both depressive symptoms and psychological distress. In terms of the practical significance of these findings, acknowledging the differences between objective and subjective social isolation helps us to understand situations in which older adults have frequent contact with others, but are simultaneously absent of feelings of genuine closeness and personal connection (and vice versa).

Findings for subjective social isolation indicated that older persons reporting a lack of feelings of closeness to both family and friends and friends only had higher levels of depressive symptoms, whereas those with lower feelings of closeness to friends only had higher levels of psychological distress. It was notable that subjective social isolation from friends was the only social isolation category that was predictive of psychological distress. Current literature on older adult social relations is primarily focused on family relationships. However, these findings highlight the importance of friendships in the lives of older adults and particularly underscore their importance in relation to subjective social isolation and mental health outcomes. However, social isolation from family only (objective or subjective) was not associated with study outcomes. Several reasons why social isolation from family was less prominent as a predictor of study outcomes are possible.

Relationships with family have the advantage of being more enduring and consistent over time, and thus are reliable groups to turn to for social interactions and contact. However, family relationships are also based on a sense of

familial obligation and duty that may entail emotional ambivalence and problematic and stressful interactions (e.g., lack of privacy, expectations to provide support). Accordingly, older adults may choose to voluntarily limit their contact with family if their interactions with family members are a significant source of stress. Furthermore, older adults, like all people, can exercise their ability to choose the friends who are a part of their social networks. Friends are chosen on the basis of mutual affinities, frequently have similar lived experiences, are often older adults themselves (as compared with family members, who may not be older), and offer different types of support and social interactions than do family members. Study findings validated the importance of friendships by demonstrating that being subjectively socially isolated from friends (but not family) was detrimental for mental well-being (depressive symptoms and psychological distress). Given the apparent importance of friendships, it is important to recognize that there are a variety of external changes to friendship social networks (e.g., illness and death of friends, loss of important social roles through changes in work, retirement, and relocation to a new city) that could negatively affect contact with and/or the quality of relationships with friends. Furthermore, transitions and losses involving friendship networks could increase an older adult's level of subjective social isolation with potentially adverse impacts on mental well-being. Additional research is needed to better understand the differential importance of social isolation from friends versus family members for mental health outcomes among older adults.

### *Limitations*

Study limitations should be noted. First, these data are cross-sectional, so we are not able to assess causality or the direction of these effects. For example, relationships with family members and friends may be strained or avoided for persons with mental health challenges (e.g., exhibiting depressive symptoms), particularly if they are not receiving treatment for their disorder. As a result of problematic interpersonal relationships, friends and family members may become less emotionally connected to the individual and purposely curtail interaction and contact, leading to social isolation. Conversely, individuals who are socially isolated could report depressive symptoms or experience psychological distress because of their lack of emotional connections and infrequent contact with their family members and friends. Second, despite a relatively large sample size, very few respondents indicated being socially isolated from family and friends. This is especially true for subjective social isolation. Consequently, we lack sufficient power to investigate specific differences by race or ethnicity for associations between social isolation and

depressive symptoms and psychological distress. Third, the NSAL sampled community-dwelling older adults who reside in households (i.e., non-institutional settings). Study findings are not generalizable to older adults who are homeless or institutionalized who may have a higher prevalence of social isolation from family members and friends, as well as higher rates of depressive symptoms and/or psychological distress.

### *Implications and Future Research Directions*

Our study found that social isolation was associated with worse mental health outcomes among older Americans. Clinicians and health providers addressing depression and psychological distress among older adults should assess whether social isolation may be a factor. Our findings suggest that it is important to assess both family and friendship networks of older adults with depressive symptoms and psychological distress and the possibility that being isolated from these social networks is implicated in mental health difficulties. Family members should recognize the importance of friendship relationships and seek medical and social service support if an older relative loses a close friend(s), especially if there is a significant change in mood and/or behavior. In addition, seeking assistance from a trained therapist may be helpful in reconnecting older adults who are isolated from their friends and family members, and significantly mitigate noted depressive symptoms and psychological distress. If this is not possible, it may be beneficial for a social worker or therapist to assist the older adult in forming new social relationships.

Future research on these topics should assess the impact of both objective social isolation and subjective social isolation on mental health using longitudinal studies. Despite the important knowledge gained from cross-sectional studies on these topics, using prospective research designs will help determine the causal nature of these relationships and assist in developing targeted interventions. For example, prospective studies can focus on discrete social network events (e.g., death of a spouse/partner, physical relocation) to assess short- and long-term impacts on objective and subjective social isolation and their association with changes in mental well-being. Future research should also include other important covariates such as sexual orientation. Studies within sexual minority populations may provide useful insights concerning distinctive aspects of friendship and family networks and social isolation. Finally, given the projected aging of the population, research should examine changing definitions and functions of family and friendships in relation to social isolation and its impact on the well-being of older adults.

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