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### Comparing Old and Young Adults as They Cope with Life Transitions: The Links between Social Network Management Skills and Attachment Style to Depression

Omri Gillath<sup>a</sup>; David Kevin Johnson<sup>a</sup>; Emre Selcuk<sup>b</sup>; Cynthia Teel<sup>c</sup>

<sup>a</sup> University of Kansas, Lawrence, Kansas, USA <sup>b</sup> Cornell University, Ithaca, New York, USA <sup>c</sup> University of Kansas Medical Center, Kansas City, Kansas, USA

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# Comparing Old and Young Adults as They Cope with Life Transitions: The Links between Social Network Management Skills and Attachment Style to Depression

OMRI GILLATH, PhD and DAVID KEVIN JOHNSON, PhD  
*University of Kansas, Lawrence, Kansas, USA*

EMRE SELCUK, MA  
*Cornell University, Ithaca, New York, USA*

CYNTHIA TEEL, PhD, RN  
*University of Kansas Medical Center, Kansas City, Kansas, USA*

*Smaller social networks are associated with poorer health and well-being, especially as people negotiate life transitions. Many older adults, however, tend to have smaller networks, without the expected negative outcomes. To understand better how older adults avoid such outcomes we measured social network management skills, attachment style, and depression among individuals going through a life transition. Older adults who recently became caregivers were compared with young adults who recently transitioned to college. Although older adults initiated fewer and terminated more social ties (being selective in their choice of network members), both age groups had an equal number of close network members. A closer look revealed that securely attached older adults maintained their social ties, and in turn, sustained low levels of depression. These findings emphasize the importance of attachment style and network skills to mental health in general, and among older adults specifically.*

**KEYWORDS** *aging, attachment, caregiver, depression, social networks*

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Address correspondence to Omri Gillath, Department of Psychology, University of Kansas, 1415 Jayhawk Blvd., Rm. 518, Lawrence, KS 66045-7556, USA. E-mail: ogillath@ku.edu

Small social networks are known to be associated with negative outcomes, such as poor health and well-being (cf. reviews by Cohen & Janicki-Deverts, 2009; Jetten, Haslam, Haslam & Branscombe, 2009). This is also true for some older adults where smaller social networks are found to be a risk factor for depressive symptoms (Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009), more loneliness (e.g., Dykstra, van Tilburg, & de Jong Gierveld, 2005), worse cognition, and higher dementia incidence (Crooks, Lubben, Petitti, Little, & Chiu, 2008). Conversely, larger social networks appear to be a buffer among older adults. Thus, larger networks seem to provide a buffer from negative outcomes associated with life transitions, such as the transition to the role of a caregiver for one's own spouse (Litwin, 2007; Osborn et al., 2003).

Caring for a disabled spouse is an all too common stressor of old age (cf., review by Bouldin & Andresen, 2010). Failure to adapt to this life transition was found to result in negative physical and mental health consequences (e.g., Brennan, Schutte, & Moos, 2006; Kramer & Lambert, 1999), such as chronic illness, higher mortality rates (cf. review by Kramer & Vitaliano, 1994), higher stress, burnout, and depression (e.g., Bookwala, Yee, & Schulz, 2000; Pinquart & Sorensen, 2006). To deal with this transition and its consequences, as well as the loss of their partner's emotional and instrumental support (Kramer & Lambert, 1999; Revenson, 1994), older caregivers could turn to their social network for support. Unfortunately, the increased functional dependence of their spouse limits the opportunities for carers to interact with friends and other acquaintances outside of the home setting (e.g., Cowan, 1991; Levitt, Weber, & Guacci, 1993). Decreased opportunity for social interaction, compounded by the complexity of associated age-related transitions (e.g., retirement, move to a nursing house, death of close friends or family), is likely to decrease the size of older adult caregivers' social networks and the support provided via the networks (de Vries, 1996). This scenario is likely to result in a vicious cycle of increasing isolation, higher burden, and worsening health (Russo, Vitaliano, Brewer, Katon, & Becker, 1995).

For certain adults, though, smaller social networks do not seem to carry the same negative outcomes. According to the socioemotional selectivity theory (e.g., Baltes & Carstensen, 1996; Fung, Carstensen & Lang, 2001; Lang, Staudinger, & Carstensen, 1998) if older adults purposely decrease the size of their networks rather than passively experience this decrease due to life events, the outcomes are likely to be more positive. According to the theory, older adults who tend to decrease social contact with peripheral network members can focus on interacting with emotionally close members. This pruning process, which results in a smaller but tighter network, is thought to represent a successful coping with a developmental norm or task characteristic of that age group. Thus, selecting close network members who can help fulfill specific needs (like getting social support) is thought to help older adults avoid depression that is usually associated with smaller

networks (Carstensen, 1993; Fung et al., 2001; Lang et al., 1998). In line with their theory, Carstensen and colleagues found that older adults indeed have fewer peripheral social partners (hence smaller overall network size) but do not differ from young adults on the number of people they are emotionally close to. Furthermore, despite having smaller social networks, older adults who succeed in their selection of network members seem to experience similar life satisfaction to that of young adults (Fung et al., 2001; see also Gaugler et al., 2009).

The two bodies of research reviewed above seem to introduce an interesting contradiction. On the one hand, small networks have pervasive negative consequences. Indeed, older adults and especially older caregivers who experience an unwanted or unintentional reduction in their social network suffer negative consequences (like higher depression). On the other hand, some older adults seem to purposely reduce their network size, as a part of a maturational process, without experiencing the same negative consequences. We suggest that what looks like a contradiction is actually not. Instead, the difference between older adults with smaller networks who experience negative outcomes and those who do not lies in the way network size is reduced.

Specifically, we suggest that all older adults are likely to experience reduction in network size due to life events and transitions. However, some of these older adults will skillfully manage their social ties to optimize their social networks. Such skillful management will in turn reduce the negative consequences usually associated with smaller networks. In the current paper we focus on the question: How can one manage his or her network skillfully (or what contributes to better network management)? We examined two factors in the current study that are likely to contribute to successful management—attachment style, and network management skills defined as ease and tendency to initiate, maintain, and loosen social ties. We predicted that attachment security and better skills would result in better management, which in turn would lead to lower depression.

A central factor in the study of close relationships is attachment style (cf. review Mikulincer & Shaver, 2007), known to be associated with social networks in general and to affect older adults' networks specifically (e.g., Tesch, 1989). Attachment style is associated with the way people perceive and manage (initiate, maintain, and terminate) their social ties (e.g., Jang, Smith, & Levine, 2002; Kirkpatrick & Davis, 1994). For example, Mikulincer and Horesh (1999) found that attachment styles affect initiation-related processes such as impression formation and self-disclosure. More recently, attachment style was also found to be associated with the structure of people's social network (securely attached people had bigger and denser networks; e.g., Doherty & Feeney, 2004; Rowe & Cernelley, 2005). In a separate line of research, attachment insecurity was found to be positively associated with depression (Selcuk & Gillath, 2009). Thus, it is not surprising that

attachment was found to moderate the link between social networks and depression (Uchino, 2009). Following these findings, in the current paper we examined the links of attachment style to network management skills, and how the two constructs (attachment and management skills) link with depression.

Socioemotional selectivity theory, as well as our predictions, focus on older adults, suggesting that something specifically about this age group allows older adults to avoid the negative consequences of smaller networks. We therefore wanted to examine whether our predictions about attachment security and network management skills and their relations to depression will receive support only among older adults or also among other age groups. To test this we chose to compare older caregivers with a group of young adults (for a similar approach see Emlet, 2006; Pfeil, Arjan, & Zaphiris, 2009). We chose young adults because like older adults they are in a developmental stage that requires reconfiguring their social networks. Current developmental theory posits that young and older adults spend more resources on managing their social networks as compared with middle aged adults who are more invested in their career (e.g., Cornwell, Schumm, & Laumann, 2008). To deal with the fact that older adults in our sample went through a life transition (becoming caregivers), we used a sample of young adults who also went through a life transition (becoming college freshman). Both groups go through a life transition that is likely to result in a significant loss of close social ties and thus force people to further configure or better manage their network (e.g., Hays, & Oxley, 1986; Lopez, & Gormley, 2002). In the current article, we compared older caregivers and college freshmen on the way they use attachment style and network management skills to navigate a life transition.

## PREDICTIONS

We predicted that older caregivers would initiate less and terminate more social ties as compared with young adults, and attachment style would moderate the links between age and social network management skills. Furthermore, we expected network management skills, age group, and attachment style to predict levels of depressive symptoms. Specifically, we predicted that older adults would be similar to young adults on their level of depressive symptoms as long as they are securely attached and skilled at managing their networks.

## METHODS

### Participants

We matched an adult sample that was obtained by petitioning the exhaustive pool of caregiver participants who had completed two separate NIH or

AHA randomized clinical trials with archival data from an ongoing research program on social networks and attachment in young adults. Data were collected from 26 older adults (15 women) whose age ranged from 58 to 85 years ( $M = 72.8$  yrs,  $SD = 7.90$ ), and who recently (within the last 6 months) became the primary caregivers for their spouse because of a stroke or onset of dementia; and 74 young adults (41 women) who recently (within the last six months) transitioned to college, whose age ranged from 18 to 25 years ( $M = 19.1$  yrs,  $SD = 1.16$ ). Samples were matched for education, race, and gender. The majority of older adults (82%) reported finishing some or all of college, and all young adults had some level of college education. Both samples were predominantly Caucasian (each > 95%), and in both samples women were a little more than half of the sample (~55%). Young adults participated to fulfill course credit, whereas older adults received a 20 dollar monetary incentive to enroll in this study.

## Materials and Procedures

Both the older caregivers and young adults completed the same measures (either on-line or using pen and paper) except for the self-reported depression symptomatology (see details below).

### NETWORK MANAGEMENT SKILLS

To assess network management skills we used the Network Management Inventory (NMI; Gillath & Selcuk, 2008), a 24-item self-report measure consisting of three factors: initiation (e.g., "I like meeting new people"), maintenance (e.g., "I keep my contact with my old social network members") and termination (e.g., "It is easy for me to let go of old friends"). Each factor represents the ease of- and the tendency to initiate, maintain, or dissolve social ties. Ratings were made using a 7-point scale ranging from 1 (*not at all*) to 7 (*very much*). Cronbach alphas for all three factors in the current study were adequate (ranging from .81 to .89).

### SOCIAL NETWORK SIZE AND FELT CLOSENESS

The Social Network Inventory (SNI; Treadwell, Leach, & Stein, 1993) was used to assess network size and closeness. Participants were asked to name up to the 10 closest people in their network, report how close they feel toward each of these people, their perception of how close each of these network members feels toward them, and how frequently they interact with each person. Ratings were made using a 7-point scale ranging from 1 (*not at all close/frequent*) to 7 (*very close/frequent*). Beyond the actual number

of close others nominated, three scores were calculated for each participant, one representing the closeness he or she feels toward the closest people, another representing how close the participant thinks his or her network members feel toward him or her, and a third representing interaction frequency.

#### ADULT ATTACHMENT STYLE

The Experience in Close Relationships Inventory (ECR; Brennan, Clark, & Shaver, 1998) is a self-report instrument designed to measure attachment-related anxiety (e.g., “I worry about being abandoned”) and avoidance (e.g., “I prefer not to show a partner how I feel deep down”). Participants were asked to think about their close relationships, without focusing on any particular one, and rate the extent to which each item accurately described their feelings in these relationships using a 7-point scale ranging from 1 (*not at all*) to 7 (*very much*). In the current study, Cronbach alphas were high for both scales (.92 and .93, for anxiety and avoidance respectively) and the two were not correlated ( $r = .12$ , *ns*). Higher scores on one or both dimensions indicate attachment insecurity; lower scores on both dimensions indicate attachment security.

#### DEPRESSION

To assess depression in older adults we used the *Center for Epidemiologic Studies Depression Survey* (CES-D; Gupta, Punetha, & Diwan, 2006). The CES-D is a 20-item scale that assesses frequency of symptoms in the past week. Among young adults we used *Beck's Depression Inventory* (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), a 30-item symptom checklist where participants rate items indicating intensity and severity of depression. We chose these measures because the two depression measures shared similar psychometric features (in the current study both had Cronbach's alpha  $> .82$ ), have overlapping content, and were previously found to be highly correlated (e.g., Benedict, Fishman, McClellan, Bakshi, & Weinstock-Guttman, 2003; Wilcox, Field, Prodromidis, & Scafidi, 1998). We followed the prescription detailed by Zich, Attkisson, and Greenfield (1990) and created scaled scores for inter-group comparisons after equating variances, thus setting inter-individual differences on a common metric. This allowed us to get comparable depression scores standardized equivalently across the two samples.

#### Data Analysis Strategy

Pearson's correlations tested for associations. Linear regression analyses were used to determine the influence of social network variables and individual differences in attachment on depression. We used hierarchical linear

regression and entered main effects, two-way, and three-way interactions. When interactions were present, we followed Aiken and West's (1991) recommendations for interpreting complex relationships using conditional regression and Preacher, Curran, and Bauer's (2006) on-line tool to compute simple intercepts and slopes of the interaction variables when they were set at one SD above and below the mean. This allowed us to further probe the conditional regression results.

## RESULTS

### Network Management Skills

Correlations between variables of interest are presented in Table 1. We first examined the effects of attachment and age group on the three aspects of people's network management skills: 1) initiating new ties, 2) maintaining existing ties, and 3) terminating existing ties. The tendency to initiate new social ties, as expected, was predicted by age group,  $\beta = -.20$ ,  $t(95) = -2.00$ ,  $p < .05$ ,  $\Delta r^2 = .07$ , such that older adults tended to initiate social ties less than young adults. The tendency to maintain social ties was predicted by attachment avoidance,  $\beta = -.37$ ,  $t(95) = -3.82$ ,  $p < .01$ ,  $\Delta r^2 = .14$ , and three two-way interactions (anxiety by age group,  $\beta = -.75$ ,  $t(92) = -2.13$ ,  $p < .01$ , avoidance by age group,  $\beta = .64$ ,  $t(92) = 2.37$ ,  $p < .01$ , and attachment anxiety by avoidance,  $\beta = 1.35$ ,  $t(92) = 3.05$ ,  $p < .01$ ,  $\Delta r^2 = .11$ , for this step). Results from the conditional regression indicated that low attachment anxiety increased the tendency to maintain one's ties (DV) in both samples but the effect was stronger among older adults,  $b = -1.16$ ,  $t(92) = -3.03$ ,  $p < .01$ , than among young adults,  $b = -.63$ ,  $t(92) = -2.44$ ,  $p < .05$ . Conversely, the effect of avoidance was stronger among young adults,  $b = -1.33$ ,  $t(92) = -4.30$ ,  $p < .001$ , than among older adults,  $b = -0.90$ ,  $t(92) = -3.04$ ,  $p < .01$ . The interaction between attachment anxiety and avoidance suggested that scoring lower on both dimensions (i.e., being secure) was associated with more maintenance,  $b = -1.06$ ,  $t(92) = -4.69$ ,  $p < .001$ , as compared with scoring lower on avoidance and higher on anxiety,  $b = -.60$ ,  $t(92) = -4.06$ ,  $p < .001$ .

The tendency to terminate social ties was also predicted by age group,  $\beta = -.23$ ,  $p < .01$ ,  $\Delta r^2 = .20$ , such that older adults were more likely to terminate existing network ties. It was also predicted by attachment avoidance,  $\beta = .42$ ,  $t(95) = 4.48$ ,  $p < .01$ ,  $\Delta r^2 = .20$ , such that higher avoidance was positively associated with increased likelihood of terminating social ties. These two main effects were qualified by a two-way interaction,  $\beta = -.78$ ,  $t(92) = -2.93$ ,  $p < .01$ ,  $\Delta r^2 = .08$ , showing that avoidance had a significant effect on the tendency to terminate social ties only among young adults  $b = .96$ ,  $t(92) = 2.95$ ,  $p < .01$ , and not among older adults,  $b = .40$ ,  $t(92) = 1.29$ , *ns*.



**TABLE 1** Correlations Among Main Variables

	Anxiety	Closeness—Self for Other	Closeness—Other for Self	Frequency of Contact	No. Network Members	Network Initiation	Network Maintenance	Network termination	Depression
Avoidance	0.11	-0.19	-.23*	-.34**	0.01	-0.17	-0.34**	0.39**	0.26*
Older Adults	0.07	-0.39	-.46*	-0.23	0.28	0.06	-0.18	0.08	0.30
Young Adults	0.15	-0.10	-0.11	-0.36**	-0.09	-0.23	-0.43**	0.57**	0.28*
Anxiety		0.09	0.05	0.11	0.02	-0.02	-0.02	0.08	0.39**
Older Adults		-0.37	-0.38	-0.15	-0.13	-0.18	-0.20	0.23	0.37
Young Adults		0.19	0.14	0.12	0.04	-0.03	0.04	0.01	0.31**
Closeness—Self to Other			0.92**	0.27**	-0.17	0.05	0.26**	-0.26**	-0.15
Older Adults			0.90**	0.58**	0.04	-0.17	0.14	-0.26	-0.35
Young Adults			0.93**	0.16	-0.25*	0.10	0.31**	-0.30*	-0.12
Closeness—Other to Self				0.29**	-0.15	0.04	0.20*	-0.25*	-0.20*
Older Adults				0.55**	0.07	-0.10	0.15	-0.28	-0.46*
Young Adults				0.17	-0.25*	0.05	0.25*	-0.28*	-0.16
Frequency of Contact					-0.02	0.16	0.13	-0.27**	-0.02
Older Adults					0.42*	-0.17	0.38	-0.43*	-0.46*
Young Adults					-0.20	0.21	0.09	-0.31**	0.04
No. Network Members						-0.07	0.06	-0.10	0.06
Older Adults						0.05	-0.05	-0.05	0.02
Young Adults						-0.14	0.10	-0.14	0.06
Network Initiation							0.03	-0.05	-0.22*
Older Adults							-0.07	0.20	0.10
Young Adults							0.08	-0.23*	-0.35**
Network Maintenance								-0.71**	-0.21*
Older Adults								-0.81**	-0.40*
Young Adults								-0.68**	-0.16
Network Loosening									0.38**
Older Adults									0.44*
Young Adults									0.36**
Depression									
Older Adults									
Young Adults									

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

## Social Network Size and Closeness

We next compared young and older adults on number of network ties, felt closeness, and contact frequency. No age group differences were found in the number of close others in the social network, how close people felt to their network members, or how close they thought their network members felt toward them all  $t_s < 1.20$ ,  $ns$ . There was, however, a difference between older and young adults on frequency of contact with their network members, such that older adults ( $M = 5.34$ ,  $SD = 1.0$ ) had less contact with their network members as compared with young adults ( $M = 5.86$ ,  $SD = 1.0$ ),  $t(98) = 2.28$ ,  $p < .05$ .

## Depression

We used a regression analysis to examine the effects of network management skills, age group, and attachment style on depression. In the regression we first entered main effects for age group (dummy coded 0 = young and 1 = older adults), attachment anxiety, and attachment avoidance. In the second step, we entered the three NMI factors (initiation, maintenance, and termination). In the third step, we entered the two-way interactions between attachment anxiety, avoidance, and age group, and in the fourth step, we entered the three-way interaction between these factors. Our predictions involved interactions mainly between age and the attachment dimensions, not interactions between the attachment dimensions, age, and NMI factors (keeping the structure of the regression analyses similar to the ones done to predict network management skills). To avoid a high Type II error rate, we excluded interaction terms from the regressions that were not relevant to our predictions reducing the number of terms included in the regressions, and avoiding the violation of estimates for cases per independent variable (e.g., Field, 2009).

The regression analysis indicated a main effect for attachment anxiety,  $\beta = .30$ ,  $t(95) = 3.06$ ,  $p < .01$ ,  $\Delta r^2 = .17$ , such that more anxiously attached people (regardless of age group) reported higher depression; and a main effect for attachment avoidance,  $\beta = .24$ ,  $t(95) = 2.50$ ,  $p < .05$ ,  $\Delta r^2 = .17$ , such that more avoidantly attached people (regardless of age group) reported higher depression. There was also a main effect for the NMI initiation factor,  $\beta = -.21$ ,  $t(92) = -2.27$ ,  $p < .05$ ,  $\Delta r^2 = .12$ , such that a higher tendency to initiate new social ties predicted lower likelihood to report feeling depressed. A main effect was also found for the NMI factor of terminating ties,  $\beta = .35$ ,  $t(92) = 2.67$ ,  $p < .01$ ,  $\Delta r^2 = .12$ , such that the tendency to let go of existing social ties predicted higher likelihood to report feeling depressed. Finally, the regression also revealed a two-way interaction between anxiety and avoidance,  $\beta = 1.04$ ,  $t(89) = -2.33$ ,  $p < .05$ ,  $\Delta r^2 = .05$ . The regression describing the association between avoidance and

depression was significantly different from zero only when anxiety was one *SD* below the mean,  $b = -.84$ ,  $t(72) = 2.16$ ,  $p < .05$ , and it was not significantly different from zero when anxiety was one *SD* above the mean,  $b = -.44$ ,  $t(72) = -1.90$ , *ns*, suggesting that avoidance was associated with higher depression only when anxiety was low. Note that the results of the regression analysis predicting depression were similar when we controlled for closeness (self to other and vice versa), average frequency of contact, and number of social network members (max = 10).

## DISCUSSION

The current results provide preliminary support to the prediction that older adults optimize their social network to buffer the negative consequences (greater depression) of life transition by selectively focusing on fewer but closer ties in their social networks. Using two developmentally distinct groups, both undergoing significant social upheaval (older adult caregivers and college student freshmen), we found that older adults are less likely to initiate new social ties and more likely to terminate existing social ties as compared with young adults. These findings support the socioemotional selectivity theory (e.g., Baltes & Carstensen, 1996; Fung et al., 2001; Lang et al., 1998). The findings could not be explained by different number of ties or felt closeness. Young and older adults had similar sized networks of close others and felt as close to these others; however, older adults reported less contact with their network members. Although it is still unclear whether older caregivers reduce the size of their networks on purpose or not, it is clear from these data that older adults are aware of their network reductions and can articulate this socioemotional selectivity on a survey.

Selectivity with regard to network members was affected not only by age but also by attachment style. Maintaining social relationships was easier for 1) older caregivers lower in attachment anxiety, 2) young adults lower in attachment avoidance, and 3) all people regardless of age who were securely attached (i.e., low on both dimensions). These results support the idea of developmentally specific patterns of network management skills (e.g., Levinson, 1986; Carstensen, 1993; Erikson, 1959). Young adults strive to achieve personal independence from their parents and tend to initiate new ties with peers, and social groups. In contrast, older adults adjust to decreasing physical strength and health, changes in life circumstances (e.g., retirement and reduced income), and the potential loss of their spouse. While coping with these different developmental tasks, older and young adults have distinct goals (Fung et al., 2001) and thus use their social networks differently to buffer transitive stress. Our current findings may suggest that young and older adults use their social network management skills differently depending on their developmental goals (e.g., young adults initiate

more new relationships while older adults are more selective with regard to existing ties).

Interestingly, attachment dimensions moderate the network management skills in each age group. Avoidance affects young adults more, whereas anxiety affects older adults more. These findings on the centrality of attachment anxiety are in line with previous findings among older adults (e.g., Beck, Stanley, & Zebb, 1996; Regier et al., 1988).

Our results also indicate that depression was associated with both attachment style and network management skills but not age. People who were more insecurely attached (higher on attachment anxiety or avoidance) were more depressed, in line with other studies on attachment and depression (e.g., Selcuk & Gillath, 2009). Depression was also predicted by a higher tendency to initiate new social ties, and a lower tendency to terminate existing ties. Thus, if you initiate new social ties, lose fewer existing ones, and in general are more secure (which we found to affect one's network management abilities), you are less likely to report depressive symptoms. Put together, these findings suggest in general having large social networks is associated with lower depression (getting more new ties and losing fewer existing ones is likely to lead to a larger network), however, older adults can do the opposite (decrease network size), and still maintain similar levels of depression.

Our sample of older adults was relatively small, limiting our ability to examine higher order interactions. Furthermore, the correlational design of the study prevented us from determining the direction of the effects and causality (e.g., do social ties or networks affect depression or vice versa). Another potential limitation is how we operationalized depression in the current study. By using different measures of depression we could have introduced extraneous measurement error; however, we do not believe that was the case here. The two measures were highly correlated, similarly distributed in the two groups, and showed differential sensitivity to network management skills, attachment styles, and age.

## CONCLUSION

Despite these limitations, our findings provide preliminary support for our predictions, and hence broaden the literature by contributing to the knowledge of the way age associates with social networks. Our findings go beyond social networks' basic characteristics (i.e., network size or closeness) into the relatively unstudied area of network dynamics and more specifically network management skills and their links to attachment. Attachment is a central factor in the relationship literature, further connecting it with networks and depression advances both the attachment literature and the field of close relationships in general. Our findings also contribute to knowledge about

how individual differences, such as network management skills and attachment style, affect depression. These findings suggest new ways to improve the well-being of older adults and their caregivers. Future studies should examine the possible implications of attachment security enhancement and network management skills training as ways to maximize the benefits social networks can provide.

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