

## Do Ableism and Ageism Predict College Students' Willingness to Provide Care for a Family Member With a Chronic Health Condition?

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As the U.S. population of older adults with chronic health conditions grows, there will be an increasing number of college-age students who are introduced to informal caregiving responsibilities. Despite the aging of the population, there is a dearth of information regarding college-age caregivers, who are a demographic likely to provide care for their family members with chronic health conditions in the not-too-distant future. The purpose of the current study was to examine the potential influence of ageism and ableism on the willingness to provide care for a family member with a chronic health condition among a sample of undergraduate students ( $n = 330$ ). Participants completed an online survey measuring these constructs. Ageism and ableism were significantly positively associated. Hierarchical linear regressions found that after controlling for age and ableism, ageism explained 5% of the variance in willingness to provide emotional care, 4% in instrumental care, and 5% in nursing care. Higher affective ageist attitudes were uniquely and inversely associated with willingness to provide emotional ( $\beta = -.187$ ), instrumental ( $\beta = -.175$ ), and nursing care ( $\beta = -.215$ ). Although not significant in the multivariate models, ableism-behavior was inversely associated with instrumental willingness to care in a bivariate manner ( $r = -.14$ ). These findings suggest that ageism has a potentially powerful influence on the future provision of care for a family member with a chronic health condition. Future research and interventions to identify methods to reduce ageism may lead to later willingness to provide care and improved quality of care toward older adults.

**Keywords:** ableism, ageism, college students, willingness to provide care

The number of individuals over age 65 is predicted to double by 2030 and will represent more than 20% of the U.S. population (Federal Interagency Forum on Aging-Related Statistics, 2012). Individuals over age 85 are the fastest growing demographic within the older adult population (Baus, Dysart-Gale, & Haven,

2005). These trends are attributable in part to the medical and public health care advances of the last century, whereby individuals tend to live with chronic diseases for longer periods of time before death in comparison to decades ago (Hosseinpoor, Bergen, & Chatterji, 2013). Chronic diseases—long-term health conditions that cause episodic, continuous, or progressive changes in an individual's life and functioning (Institute of Medicine, 2012)—are a growing cause of disability and impairment in the U.S. (World Health Organization, 2011).

As individuals age, chronic conditions become more common, which in turn causes a rise in caregiving needs. Because of the trends in population aging, the incidence of chronic disease, and rising costs of health care, large numbers of family members are providing informal health care (Hosseinpoor et al., 2013). In con-

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ditions such as Alzheimer's Disease, approximately 70% of individuals with the condition receive care from family members (Baus et al., 2005). Informal health care, or caregiving, is a range of physical, medical, emotional, and social support tasks carried out by a friend or family member (Smyth, Blaxland, & Cass, 2011; Smyth, Cass, & Hill, 2011). Informal caregiving, as opposed to professional caregiving, is without compensation and typically involves family members or friends (Becker, 2007). Specific informal caregiving tasks can include household chores, mobility assistance, bathing and cleaning, preparing meals, organizing and distributing medications, and other organizational duties (Smyth, Blaxland, et al., 2011; Smyth, Cass, et al., 2011).

As the population of older adults with chronic health conditions grows, this rise will be accompanied by an increasing number of college-age students who are introduced to informal caregiving responsibilities (Baus et al., 2005; Levine et al., 2005; Dellmann-Jenkins, Blanke-meyer, & Pinkard, 2000). Despite the aging of the U.S. population, there is a dearth of information regarding college-age caregivers, who are a demographic likely to provide care for their aging family members in the not-too-distant future. Levine et al. (2005) found that 12–15% of adult caregivers in the United States are between the ages of 18 and 25. However, the majority of research on younger caregivers focuses on children and adolescents age 18 and younger (Becker, 2007; Cass et al., 2011; Purcal, Hamilton, Thomson, & Cass, 2012; Shifren, 2001; Smyth, Blaxland, et al., 2011; Smyth, Cass, et al., 2011), often in the United Kingdom and Australia, where researchers have almost exclusively examined the types of structural and familial supports adolescent caregivers receive.

Of the existing research on young caregivers, most has focused on caregiver burden: the impact of caregiving on one's own mental, physical, or emotional health (Bonnaud, Descatha, Zins, Buyck, & Ankri, 2011; Constable, 2012; Shifren, 2001; Shifren & Chong, 2012). Shifren and Kachorek (2003) examined caregivers age 21 to 58 who had had caregiving experience before age 21 and found that the duration of caregiving responsibilities as an adolescent was associated with more positive mental health outcomes as an adult. Dellmann-Jenkins et al. (2000) interviewed a similar sample of young

adult caregivers age 18 to 40 and found that being a primary caregiver was associated with higher relationship strain among peers and family, negative effects on career goals, and high levels of stress.

Despite these studies including adult caregivers from age 18 to 25 in their overall samples, this subpopulation has not been a unique focus within each study. This distinction in subpopulations is important—young adults age 18 to 25 are at a critical developmental stage called "emerging adulthood," and as result experience different needs from other young adult caregivers (Levine et al., 2005), such as having to strike a balance between care responsibilities and a college education. Only three studies uncovered in this literature review focus exclusively on a college-age caregiving population. Levine et al. (2005) reviewed the results of previous more general studies on caregiving and found that of young adult caregivers age 18 to 25, more than half were men and many reported unmet needs such as medical help, information, and help making end-of-life decisions for care recipients. Levine et al. (2005) argued that caregivers in this age range are an extremely neglected demographic in the research literature. The second study, by Baus et al. (2005), found that college students' responses to requests to provide informal care and support range from acceptance to complete rejection, and college students are often inexperienced as providers of care when they take on care responsibilities. Additionally, male caregivers were less likely than female caregivers to perform supportive acts (e.g., bathing, chores, personal care), and female caregivers were more likely to receive social support. The third study, by Crandall, Ruggero, Bain, and Kilmer (2014), found that caregivers of a parent with bipolar or depressive disorder experienced high burden and more difficulty adapting to college than noncaregivers.

Despite this budding research area, there has been no research to date on college students' willingness to provide care for a family member if they needed to. Willingness to provide care is an informal caregiver's attitudes toward providing emotional, physical, and other caregiving duties (Abell, 2001). Willingness to provide care extends beyond physical, emotional, and social pressures felt by the caregiver and involves the caregiver anticipating responses toward the needs of the individual for whom they

provide care or are likely to provide care (Abell, 2001). Thus, willingness to provide care requires caregivers to examine their role and responsibilities through their attitudes toward the individual with a chronic condition.

One factor that could be associated with willingness to provide care for an older relative is ageism, an attitude of prejudice and discrimination toward old age, the aging process and older adults (Butler, 1980). Previous research has found that younger adults have higher levels of ageism than older individuals (Gellis, Sherman, & Lawrance, 2003; Laditka, Fischer, Laditka, & Segal, 2004; Rupp, Vodanovich, & Credé, 2005), and these attitudes are extremely prevalent among undergraduate students (Allan & Johnson, 2008), even when students have accurate knowledge about the aging process (Cottle & Glover, 2007). Further, male students typically show more ageist attitudes than their female counterparts (Bodner & Lazar, 2008). Manifestations of ageism often include three factors: avoidance of direct contact with older adults (i.e., avoidance, separation), discrimination toward older adults (Bodner & Lazar, 2008; Fraboni, Salstone, & Hughes, 1990), and negative views of older adults' contributions to society (Bodner & Lazar, 2008; Fraboni et al., 1990; Rupp et al., 2005).

Additionally, students in medical programs (e.g., nursing) have been shown to express a low preference for and knowledge about working with older adults (Happell, 2002; Lookinland & Anson, 1995; Slevin, 1991). In a study of young adults, ageism was associated with reduced compassion toward older adults, and young adults with higher levels of ageism were more likely to report the need to distance themselves from older, incapacitated adults rather than display empathy toward them (Bergman & Bodner, 2015). Thus, ageism may manifest as a social barrier to young adults' willingness to provide care, which further may represent a threat (e.g., increased mortality awareness) to young adults that results in such ageist attitudes.

Another factor that could be associated with willingness to provide care for an older relative or one with a chronic condition is ableism, the belief that disability is a lesser "state of being human," and that individuals with a disability cannot function as full members of society (Campbell, 2001, p. 5). Young adults and students in health care professions have been found

to have high levels of ableism (Tervo, Palmer, & Redinius, 2004), and ableism has been shown to be higher in male students (Sahin & Akyol, 2010) and among those with lower self-esteem (Findler, Vilchinsky, & Werner, 2007). Contrary to these findings, not all college students exhibit ableist attitudes; nursing students with a friend or family member with disability have been shown to be more likely to express positive attitudes toward individuals with a physical disability than their non-nursing peers (Ten Klooster, Dannenberg, Taal, Burger, & Rasker, 2009), and college students with high social contact with individuals with physical disabilities have more positive attitudinal and emotional responses toward this group (Beh-Pajoo, 1991). Finally, in the context of caregiving, greater exposure to family disability stigma (a form of ableism) is associated with higher caregiver burden and decreased involvement in caregiving responsibilities (Karp & Tanarugachock, 2000; Werner, Mittelman, Goldstein, & Heinik, 2012).

The research literature has identified ableism and ageism as particularly pernicious attitudes with regard to interactions with people with disabilities and older adults among college students, a demographic very likely to take on caregiving roles in the future given the aging of the U.S. population. Therefore, the purpose of the current study was to examine the potential influence of ageism and ableism on the willingness to provide care for a family member among a sample of undergraduate students. It was hypothesized that higher levels of these two forms of prejudice would be associated with a lower willingness to provide care.

## Method

### Participants

Participants consisted of undergraduate students enrolled in psychology courses at an urban university campus. Students were currently enrolled in classes and consented to taking the survey. A total of 343 students completed the study. Reliability check items were present throughout the questionnaire in order to screen inconsistent and arbitrary responses; 13 participants were excluded for arbitrary responding. The final sample included data from  $n = 330$  participants.

## Measures

**Sociodemographics.** Participants responded to a researcher-created questionnaire assessing their sociodemographics. Respondents reported their age in years, their gender identity, sexual orientation, their race/ethnicity, and their family's social class.

**Willingness to Care (WTC).** The WTC (Abell, 2001) includes 30 items that assess an individual's willingness to provide care for a family member with a chronic illness, injury, or disability. The measure produces three subscale scores (Instrumental, Emotional, and Nursing). The higher an individual's mean score, the greater the inclination to provide care. In the current study, participants were asked about their willingness to provide care to a family member with a nonspecific chronic condition. Informal caregiving was defined to participants as providing unpaid help, assistance, support, or care to a relative or friend with a chronic health condition. For the purpose of this survey, a chronic health condition is a disease or disability that lasts for three months or longer. Instructions for the WTC are as follows,

Caregiving can be a demanding and sometimes overwhelming experience. Caregivers may differ in the tasks they feel able and/or willing to perform. Being able to perform a task means that you believe you could do it if necessary. Being willing to perform a task means that you feel you would do it if it had to be done.

Using a Likert-formatted rating scale, participants were asked to rate how willing they would be to complete certain tasks ("Encourage someone who feels hopeless", "Help someone take medicine") from 1 (*completely unwilling*) to 5 (*completely willing*). The global WTC score has shown high internal consistency ( $\alpha = .92$ ) as well as high reliability for each subscale (Emotional  $\alpha = .88$ , Instrumental  $\alpha = .84$ , and Nursing  $\alpha = .91$ ; Abell, 2001).

**Fraboni Scale of Ageism (FSA).** The FSA (Fraboni et al., 1990) originally included 29 items that are designed to assess three facets of ableism. Rupp and colleagues (2005) identified a three-factor structure of the FSA and eliminated 6 items, with 23 remaining. The subscales include Ageist Stereotypes ("Many old people are stingy and hoard their money and possessions"), Separation ("I sometimes avoid eye contact with old people when I see them"), and

Affective Attitudes ("I personally would not want to spend much time with an old person"). Using a Likert-type rating scale, participants are asked to rate their attitudes toward certain statements about aging and the elderly, from 1 (*strongly disagree*) to 4 (*strongly agree*). The higher an individual's score is, the greater their level of ageism. The FSA has shown a Cronbach's alpha of .86, as well as good reliability for each subscale (Stereotypes  $\alpha = .79$ , Separation  $\alpha = .76$ , and Affective Attitudes  $\alpha = .70$ ; Rupp et al., 2005).

**Multidimensional Attitudes Toward Persons with Disabilities (MAS).** The MAS (Findler et al., 2007) includes 34 items that are designed to identify attitudes toward individuals with disabilities. Within the MAS, there is a vignette that describes a social interaction between two individuals: one with a disability and one without. After reading the vignette, participants are asked to rate their reactions to the scenario using a Likert-type rating scale from 1 (*not at all*) to 5 (*very much*). The items are divided into three subscales: Affect (Alertness, Disgust, Pity), Cognition ("He/she seems to be an interesting guy/girl"), and Behavior ("Move to another table"; Findler et al., 2007). A higher score indicates a more negative attitude. The MAS Affective and Behavioral subscale scores are significantly correlated with the Attitudes Toward Disabled Persons Scale (Yuker, Block, & Young, 1966), which suggests good construct validity. The subscales of the MAS have demonstrated high internal consistency (Affect  $\alpha = .90$ , Cognition  $\alpha = .88$ , and Behaviors  $\alpha = .83$ ) in a sample of able-bodied male and female college students (Findler et al., 2007).

## Procedure

Study personnel recruited participants by e-mailing all university psychology course instructors with information describing the study. Instructors who were willing to assist with recruitment provided the students with study information as well as a link to the survey. Students interested in participating reviewed and completed an online consent form prior to participation and completed the survey by submitting their responses using the online platform (surveymonkey.com). All participants who completed the survey received extra credit points. This study received institutional review



board approval by the authors' institution before participant recruitment.

## Data Analyses

Preliminary analyses examined bivariate correlations between each of the WTC subscales, the MAS subscales, and the FAS subscales. Additionally, correlations or analyses of variance (ANOVAs) were calculated to examine demographic differences on the WTC total score. Three hierarchical multiple regressions were run to examine the extent to which ableism (Affect, Cognition, and Behavior) and ageism (Ageist Stereotypes, Separation, and Affective Attitudes) are associated with each of the willingness to care subscales (Emotional Care, Instrumental Care, and Nursing Care) after controlling for any demographics shown to be related to WTC. In each of the three regressions, participant age was entered in the first step, with ableism and ageism subscales entered in the second and third steps, respectively, as the independent variable and each of the three willingness to care subscales entered as the dependent variable in each regression.

## Results

### Participants

The average age of participants was 21.6 ( $SD = 4.29$ ) and the majority of participants were women (70.7%), whereas 28.7% identified as men and .3% identified as intersex. Most participants identified as heterosexual (91.2%), followed by bisexual (5.4%), gay/lesbian (2.1%), and queer (.6%) with 43.2% identifying

as White, 24.5% Black, 16.6% Asian, 6.3% Hispanic/Latino, and 9.1% multiracial. The breakdown of participants' social class is as follows: upper-middle class (54.7%), lower middle class (25.7%), working class (10.3%), upper class (5.4%), and lower class (3.6%).

### Normality Assumptions

Normality assumptions were checked before running the following analyses. For nursing care, ageism, and all three ableism subscales, normality assumptions were met. However, emotional care and instrumental care had skewness of  $-3.82$  and  $-1.46$  and kurtosis of  $18.62$  and  $2.60$ , respectively. To fix these violations, emotional care and instrumental care were reflected and transformed using log transformations, which adjusted the skewness and kurtosis appropriately. Emotional and instrumental willingness to care were then reverse coded to reflect the original direction of the scale (higher scores indicate more willingness to care). Tolerance and the variance inflation factor (VIF) values were used to assess multicollinearity. Tolerance values ranged from .99 to 1.00 and VIF values ranged from 1.00 to 1.01, indicating no multicollinearity. Additionally, no multicollinearity was observed in the bivariate correlations (see Table 1) at the .70 level. Appropriate and normal distributions of residual scatterplots were observed.

### Correlation Matrix

A correlation matrix was generated to examine the bivariate relationships among all variables in the current study (see Table 1).

Table 1  
Correlation Matrix: Willingness to Provide Care, Ageism, and Ableism

| Variable             | 1      | 2      | 3      | 4     | 5     | 6     | 7     | 8     | 9 |
|----------------------|--------|--------|--------|-------|-------|-------|-------|-------|---|
| 1. Emotional care    | —      |        |        |       |       |       |       |       |   |
| 2. Instrumental care | .70**  | —      |        |       |       |       |       |       |   |
| 3. Nursing care      | .56**  | .75**  | —      |       |       |       |       |       |   |
| 4. FSA stereotypes   | -.20** | -.19** | -.21** | —     |       |       |       |       |   |
| 5. FSA separation    | -.21** | -.23** | -.25** | .74** | —     |       |       |       |   |
| 6. FSA affective     | -.24** | -.26** | -.28** | .47** | .61** | —     |       |       |   |
| 7. MAS cognitive     | -.07   | -.08   | -.10   | .24** | .24** | .33** | —     |       |   |
| 8. MAS affective     | -.10   | -.09   | -.09   | .29** | .20** | .08   | .23** | —     |   |
| 9. MAS behavioral    | -.07   | -.14** | -.08   | .31** | .24** | .23** | .46** | .52** | — |

Note. MAS = The Multidimensional Attitudes Toward Persons with Disabilities Scale; FSA = Fraboni Scale of Ageism.  
\*\*  $p < .01$ , two-tailed.

All willingness to care subscales were positively related with each other, as well as negatively associated with ageism. Emotional and nursing care was not related to any ableism variables, and instrumental care was only negatively associated with the behavioral ableism subscale. All of the ableism subscales were positively associated with each other, as well as with ageism. Additionally, correlations and ANOVAs were run to examine whether the demographic variables of age, racial/ethnic minority status, social class, and gender were associated with the WTC total score. Only age was associated ( $r = .16, p = .003$ ;  $r = .13, p = .024$ ), such that older students were more willing to provide instrumental and nursing care, respectively, for a relative with a chronic health condition.

### Emotional Care

In the first hierarchical multiple regression (see Table 2), ageism and ableism were regressed onto willingness to provide emotional care after controlling for age. Age was entered into the first step, which was significant,  $F(1, 328) = 4.05, p = .045, R^2 = .01$ . The second step including the measures of ableism did not significantly increase the amount of variance explained in emotional care,  $\Delta F(3, 325) = 2.31, p = .076, \Delta R^2 = .02$ . In the third step, ageism variables were

entered, which resulted in a significant addition of variance,  $\Delta F(3, 322) = 8.09, p < .001, \Delta R^2 = .07$ . Although originally significant in the first model, age became a nonsignificant predictor in the final model of emotional care ( $p = .145$ ). Ageism–affective attitudes was uniquely related to emotional care,  $\beta = .187, p = .007$ , such that when considering the statistical reflection, greater ageist affective attitudes were associated with a lower willingness to provide emotional care. However, the remaining ageism and ableism subscales were not independently associated with emotional care (all  $ps > .383$ ).

### Instrumental Care

The second hierarchical multiple regression (see Table 2) tested the association between prejudice and willingness to provide instrumental care while controlling for age. Age was entered into the first step, which was significant,  $F(1, 328) = 10.10, p = .002, R^2 = .03$ . The second step including ableism resulted in a significant increase in the amount of variance explained in instrumental care,  $\Delta F(3, 325) = 2.80, p = .040, \Delta R^2 = .02$ . Finally, ageism variables were entered in the third step, resulting in an increase in variance,  $\Delta F(3, 322) = 5.79, p < .001, \Delta R^2 = .05$ . Age remained significantly related to instrumental care in the final model ( $\beta = -.147, p = .007$ ). Ageism–affective attitudes

Table 2  
*Hierarchical Multiple Regression Analyses: Associations Between Willingness to Care and Prejudice*

| Independent variable | Emotional care |         | Instrumental care |         | Nursing care |         |
|----------------------|----------------|---------|-------------------|---------|--------------|---------|
|                      | $\Delta R^2$   | $\beta$ | $\Delta R^2$      | $\beta$ | $\Delta R^2$ | $\beta$ |
| Step 1 – Age         | .01*           |         | .03**             |         | .02*         |         |
| Age                  |                | -.078   |                   | .147**  |              | .095    |
| Step 2 – Ableism     | .02            |         | .02*              |         | .01          |         |
| MAS affective        |                | -.043   |                   | -.045   |              | -.064   |
| MAS cognitive        |                | -.002   |                   | .060    |              | .006    |
| MAS behavioral       |                | -.019   |                   | -.093   |              | .032    |
| Step 3 – Ageism      | .07***         |         | .05**             |         | .07***       |         |
| FSA stereotypes      |                | -.060   |                   | -.022   |              | -.029   |
| FSA separation       |                | -.076   |                   | -.068   |              | -.083   |
| FSA affective        |                | -.187** |                   | -.175*  |              | -.215** |
| Total $R^2$          | .10            |         | .10               |         | .10          |         |

Note. MAS = The Multidimensional Attitudes Toward Persons with Disabilities Scale; FSA = Fraboni Scale of Ageism.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ , two-tailed.

was uniquely related to instrumental care,  $\beta = .175$ ,  $p = .012$ , such that higher ageist affective attitudes were inversely associated with willingness to provide instrumental care. The remaining ageism and ableism subscales did not have a significant relationship with instrumental care (all  $ps > .177$ ).

### Nursing Care

The final hierarchical multiple regression (see Table 2) examined the association between prejudice and willingness to provide nursing care. Age was entered into the first step, which was significant,  $F(1, 328) = 5.18$ ,  $p = .024$ ,  $R^2 = .02$ . The second step including the measures of ableism did not result in a significant increase in variance explained in willingness to provide nursing care,  $\Delta F(3, 325) = 1.44$ ,  $p = .230$ ,  $\Delta R^2 = .01$ . In the third step, ageism variables were entered into the model, resulting in a significant increase in variance,  $\Delta F(3, 322) = 8.77$ ,  $p < .001$ ,  $\Delta R^2 = .07$ . For nursing care, age was no longer significant in the second model ( $p = .079$ ), and ageism— affective attitudes was uniquely associated with willingness to care - nursing,  $\beta = -.215$ ,  $p = .002$ , such that an increase in ageist affective attitudes was inversely associated with the willingness to provide nursing care. Similar to the previous models, the remaining ageism and ableism subscales did not have a significant relationship with instrumental care (all  $ps > .297$ ).

### Discussion

The growing population of older adults with chronic conditions in the United States presents a unique public health challenge, as well as increases the burden for younger family members to undertake a caregiving role for their older family members. Emerging adults (ages 18–25) have largely been absent from the caregiving research literature. Understanding propensity for caregiving at this developmental stage may be particularly important given the focus on identity formation and role exploration during this time (Arnett, 2000). Further, no studies have assessed factors associated with the willingness to care for a family member during this developmental stage. The purpose of the present study was to examine the potential influence of ageism and ableism on the willing-

ness to provide care for a family member with a chronic health condition among a sample of undergraduate students.

It was hypothesized that all facets of the two types of prejudice would be negatively associated with willingness to care. Bivariate associations indicated that all willingness to provide care variables (emotional, instrumental, and nursing) were negatively associated with the three aspects of ageism (stereotypes, separation, and affective attitudes), but were generally not associated with ableism, except through a negative association between ableism-behavior and instrumental care. A series of hierarchical multiple regressions indicated that after controlling for students' age, ageism— affective attitudes was uniquely associated of all willingness to care variables such that greater ageist affective attitudes were associated with lower willingness to provide emotional, instrumental, and nursing care for a family member at some point in the future. Other aspects of ageism, such as stereotypes and separation, as well as all aspects of ableism were not uniquely associated with willingness to care factors.

Ageism with respect to affective attitudes emerged as the most influential individual aspect of prejudice that was associated with reduced willingness to care among this sample of emerging adults. Affective attitudes toward older people reflect individuals' feelings that spending time with older individuals is not enjoyable, that they are not as interesting or individualistic as younger people, and a lack of empathy toward the struggles experienced by older adults (Rupp et al., 2005). Young people generally display highly prevalent ageist attitudes despite being educated or being in a helping profession, such as nursing (Allan & Johnson, 2008; Happell, 2002; Slevin, 1991). From a terror management perspective, ageism may manifest through a fear of death, as the presence of older adults serves as a reminder of younger individuals' mortality, which brings the innate fear of death to the forefront (Martens, Goldenberg, & Greenberg, 2005; Martens, Greenberg, Schimel, & Landau, 2004). Levenson (1981) suggested that because aging is not "curable," doctors minimize complications associated with age, despite the impact on older adults' quality of life. This indicates a problematic view of older adults within the care context, especially those with chronic conditions that require con-

stant care. Physicians from a variety of specialties have reported fear of death (Hamama-Raz, Solomon, & Ohry, 2000). Fear of death has been associated with negative feelings toward patients (Bodner, Shrira, Hermesh, Ben-Ezra, & Iancu, 2015), a fear that might be particularly salient when physicians treat older patients. Ageist stereotypes also affect how older adults accept treatment. When primed with negative stereotypes about aging, older adults have been less likely to accept a hypothetical life-prolonging medical intervention compared to those primed with positive age stereotypes (Levy, Ashman, & Dror, 2000). Thus, ageism may potentially impact emerging adults' willingness to care for their family member in the future both in an inform care context and in helping professions, as well as may negatively affect their family members' willingness to live. Although it is not known whether the participants in this study will eventually be family caregivers, negative affective attitudes toward older adults may reduce their willingness to provide care, which could result in a greater likelihood of institutionalizing their family member.

Although the overall model of prejudice was significantly associated with reduced willingness to care, stereotypes about and desire to be separate from older adults were not individually associated with reduced willingness to care. It is possible that individuals recognize ageist stereotypes and discriminatory behaviors as wrong, and are less willing to endorse these beliefs and behaviors, while the affective associations with older individuals are less salient and susceptible to response bias. Ageist stereotypes have been shown to be direct stressors that increase older individuals' cardiovascular stress (Levy, Hausdorff, Hencke, & Wei, 2000). Thus, while explicit stereotypes of aging may not be associated with emerging adults' willingness to care for their family member, these stereotypes may have a negative effect on the health of their potential care-recipient. Moreover, ageism may contribute to neglect or elder abuse by younger adults (Quinn & Tomita, 1986).

Despite the high prevalence of ableism among young adults (Tervo et al., 2004), the three facets of ableism assessed in this study were not associated with willingness to care for a family member in the future at the multivariate level. This suggests that willingness to care

may be dictated more by the perception of caring for an aging person rather than a person with a disability. This result may be limited because participants in the current study were mostly women and recruited from a university psychology course. These characteristics may result in a more positive view of individuals with a disabling condition. Additionally, this may reflect the university's efforts to be inclusive to individuals with disabilities, as Beh-Pajooh (1991) found that college students with high social contact with individuals with physical disabilities show more positive attitudinal and emotional responses toward this group.

### Clinical Implications

The findings from the current study indicate that targeting ageist affective attitudes may be the primary aspect of ageism to influence the provision of care for a family member in the future. Evidence shows that increasing knowledge on aging may not be the most effective method to decrease negative attitudes toward older adults, but rather may increase negative age stereotypes (Knapp & Stubblefield, 1999, 2000). This may be attributable to a focus on the physical aspects of aging, rather than socioemotional aspects of aging. Strategies to challenge ageism may need to be widespread. Ory, Kinney Hoffman, Hawkins, Sanner, and Mockenhaupt (2003) suggest addressing many aspects of society such as media campaigns and increased research attention. Among emerging adults, interventions could be helpful that improve emotional attitudes toward older adults through more inclusive educational curriculum and contact with older adults, and perhaps would effectively reduce anxieties about aging, which could then increase willingness to care for a family member with a chronic health condition in the future.

### Limitations and Future Directions

The current study had several limitations that should be taken into consideration and serve as a guide for future research. First, participants did not report the nature of the relationship for which they may provide care because of a chronic illness or disability. Individuals with positive or cohesive family relationships may be more likely to provide care for their family member. Additionally, information regarding



the qualities of the illness or disability of the family member was not assessed. This may impact the participants' willingness or ability to provide care depending on the severity of the illness or disability and depending on financial and physical constraints of the participant. The relatively small percent of variance explained in willingness to care for a family member by ageism and ableism reflect the absence of other variables that could be applied to the current model. For example, self-esteem and gender were not controlled for in the model, which is a limitation given their association with ageism (Bodner & Lazar, 2008; Gellis, Sherman, & Lawrance, 2003; Laditka et al., 2004; Rupp et al., 2005) or ableism (Findler et al., 2007; Sahin & Akyol, 2010) in previous literature, although gender was not associated with willingness to care. Another aspect that may influence participants' willingness to provide care is their sense of familism, which is often dictated by cultural values. Individuals from collectivistic cultures may endorse a greater sense of duty to care for their older family members, whereas people from individualistic cultures may not. Future studies should assess country of origin and levels of familism to determine how that influences willingness to provide care. Moreover, this is a cross-sectional study that cannot infer causality of the variables. A future study should assess these variables longitudinally to tease out temporal order of effects using cross-lagged panel designs. Finally, the sample consisted of mostly middle-class individuals as well as women, and therefore will not generalize to all emerging adults or all college students. Future studies should aim to collect data from a more diverse community sample to assess the effects of prejudice on willingness to care for a family member in the future.

## Conclusion

This study adds to the limited research literature on the willingness to provide care for family members in the future by assessing the associations between two forms of prejudice and the willingness to provide care in the future. As older adults with chronic conditions become more prevalent in the United States, young adults may be anticipating their role as a family caregiver. The findings from the current study indicating that affective at-

titudes of ageism as a potentially influential factor for future provision of care for a family member may direct future research and interventions to identify methods to improve such attitudes that may lead to later willingness to care and even improved quality of care toward older adults.

## References

- Abell, N. (2001). Assessing willingness to care for persons with AIDS: Validation for a new measure. *Research on Social Work Practice, 11*, 118–130. <http://dx.doi.org/10.1177/104973150101100108>
- Allan, L. J., & Johnson, J. A. (2008). Undergraduate attitudes toward the elderly: The role of knowledge, contact and aging anxiety. *Educational Gerontology, 35*, 1–14. <http://dx.doi.org/10.1080/03601270802299780>
- Arnett, J. J. (2000). Emerging adulthood. A theory of development from the late teens through the twenties. *American Psychologist, 55*, 469–480. <http://dx.doi.org/10.1037/0003-066X.55.5.469>
- Baus, R., Dysart-Gale, D., & Haven, P. (2005). Care-giving and social support: A twenty-first century challenge for college students. *Communication Quarterly, 53*, 125–142. <http://dx.doi.org/10.1080/01463370500090068>
- Becker, S. (2007). Global perspectives on children's unpaid caregiving in the family: Research and policy on "young carers" in the UK, Australia, the USA and Sub-Saharan Africa. *Global Social Policy, 7*, 23–50. <http://dx.doi.org/10.1177/1468018107073892>
- Beh-Pajooh, A. (1991). The effect of social contact on college students' attitudes toward severely handicapped students and their education integration. *Journal of Intellectual Disability Research, 35*, 339–352. <http://dx.doi.org/10.1111/j.1365-2788.1991.tb00406.x>
- Bergman, Y. S., & Bodner, E. (2015). Ageist attitudes block young adults' ability for compassion toward incapacitated older adults. *International Psychogeriatrics, 27*, 1541–1550. <http://dx.doi.org/10.1017/S1041610215000198>
- Bodner, E., & Lazar, A. (2008). Ageism among Israeli students: Structure and demographic influences. *International Psychogeriatrics, 20*, 1046–1058. <http://dx.doi.org/10.1017/S1041610208007151>
- Bodner, E., Shrira, A., Hermesh, H., Ben-Ezra, M., & Iancu, I. (2015). Psychiatrists' fear of death is associated with negative emotions toward borderline personality disorder patients. *Psychiatry Research, 228*, 963–965. <http://dx.doi.org/10.1016/j.psychres.2015.06.010>

- Bonnaud, S., Descatha, A., Zins, M., Buyck, J. F., & Ankri, J. (2011). Is there any additional psychological and/or physical job constraint associated with informal caregiving status? Findings from the GAZEL Cohort Study. *Journal of Occupational and Environmental Medicine*, 53, 829–830. <http://dx.doi.org/10.1097/JOM.0b013e3182281178>
- Butler, R. (1980). Ageism: A foreword. *Journal of Social Issues*, 36, 8–11. <http://dx.doi.org/10.1111/j.1540-4560.1980.tb02018.x>
- Campbell, F. (2001). Inciting legal fictions: Disability's date with ontology and the ableist body of the law. *Griffith Law Review*, 10, 42–62.
- Cass, B., Brennan, D., Thomson, C., Purcal, C., Hamilton, M., & Adamson, E. (2011). Young carers: Social policy impacts of the caring responsibilities of children and young adults. Report prepared for ARC Linkage Partners, October 2011.
- Constable, L. (2012). Research into young adult caregivers aged 16–24 in Surrey. Report prepared for Action for Carers, January 2012.
- Cottle, N., & Glover, R. (2007). Combating ageism: Change in student knowledge and attitudes regarding aging. *Educational Gerontology*, 33, 501–512. <http://dx.doi.org/10.1080/03601270701328318>
- Crandall, E., Ruggero, C., Bain, K., & Kilmer, J. (2014). Adjustment difficulties and caregiving burdens faced by college students with a parent with bipolar or depressive disorders. *Journal of College Student Psychotherapy*, 28, 47–58. <http://dx.doi.org/10.1080/87568225.2014.854678>
- Dellmann-Jenkins, M., Blankemeyer, M., & Pinkard, O. (2000). Young adult children and grandchildren in primary caregiver roles to older relatives and their service needs. *Family Relations*, 49, 177–186. <http://dx.doi.org/10.1111/j.1741-3729.2000.00177.x>
- Federal Interagency Forum on Aging-Related Statistics. (2012). *Older Americans 2012*. Washington, DC: U.S. Government Printing Office.
- Findler, L., Vilchinsky, N., & Werner, S. (2007). The multidimensional attitudes scale toward persons with disabilities (MAS): Construction and validation. *Rehabilitation Counseling Bulletin*, 50, 166–176. <http://dx.doi.org/10.1177/00343552070500030401>
- Fraboni, M., Saltstone, R., & Hughes, S. (1990). The Fraboni Scale of Ageism (FSA): An attempt at a more precise measure of ageism. *Canadian Journal on Aging*, 9, 56–66.
- Gellis, Z. D., Sherman, S., & Lawrance, F. (2003). First year graduate social work students' knowledge of and attitude toward older adults. *Educational Gerontology*, 29, 1–16. <http://dx.doi.org/10.1080/713844235>
- Hamama-Raz, Y., Solomon, Z., & Ohry, A. (2000). Fear of personal death among physicians. *Omega: Journal of Death and Dying*, 41, 139–149. <http://dx.doi.org/10.2190/7G35-4CH6-KDRG-MH38>
- Happell, B. (2002). Nursing home employment for nursing students: Valuable experience or a harsh deterrent? *Journal of Advanced Nursing*, 39, 529–536. <http://dx.doi.org/10.1046/j.1365-2648.2002.02321.x>
- Hosseinpour, A. R., Bergen, N., & Chatterji, S. (2013). Socio-demographic determinants of caregiving in older adults of low- and middle-income countries. *Age and Ageing*, 42, 330–338. <http://dx.doi.org/10.1093/ageing/afs196>
- Institute of Medicine. (2012). *Living well with chronic illness: A call for public health action*. Washington, DC: The National Academies Press.
- Karp, D. A., & Tanarugsachock, V. (2000). Mental illness, caregiving, and emotion management. *Qualitative Health Research*, 10, 6–25. <http://dx.doi.org/10.1177/104973200129118219>
- Knapp, J. L., & Stubblefield, P. (1999). Assessing student's knowledge of the aging process. *Education*, 119, 135–141.
- Knapp, J. L., & Stubblefield, P. (2000). Changing students' perceptions of aging: The impact of an intergenerational service learning course. *Educational Gerontology*, 26, 611–621. <http://dx.doi.org/10.1080/03601270050200617>
- Laditka, S. B., Fischer, M., Laditka, J. N., & Segal, D. R. (2004). Attitudes about aging and gender among young, middle age, and older college-based students. *Educational Gerontology*, 30, 403–421. <http://dx.doi.org/10.1080/03601270490433602>
- Levenson, A. J. (1981). Ageism: A major deterrent to the introduction of curricula in aging. *Gerontology & Geriatrics Education*, 1, 161–162. [http://dx.doi.org/10.1300/J021v01n03\\_01](http://dx.doi.org/10.1300/J021v01n03_01)
- Levine, C., Hunt, G. G., Halper, D., Hart, A. Y., Lautz, J., & Gould, D. A. (2005). Young adult caregivers: A first look at an unstudied population. *American Journal of Public Health*, 95, 2071–2075. <http://dx.doi.org/10.2105/AJPH.2005.067702>
- Levy, B., Ashman, O., & Dror, I. (2000). To be or not to be: The effects of aging stereotypes on the will to live. *Omega: Journal of Death and Dying*, 40, 409–420. <http://dx.doi.org/10.2190/Y2GE-BVYQ-NF0E-83VR>
- Levy, B. R., Hausdorff, J. M., Hencke, R., & Wei, J. Y. (2000). Reducing cardiovascular stress with positive self-stereotypes of aging. *The Journals of Gerontology: Series B*, 55, 205–213. <http://dx.doi.org/10.1093/geronb/55.4.P205>
- Lookinland, S., & Anson, K. (1995). Perpetuation of ageist attitudes among present and future health care personnel: Implications for elder care. *Journal of Advanced Nursing*, 21, 47–56. <http://dx.doi.org/10.1046/j.1365-2648.1995.21010047.x>

- Martens, A., Goldenberg, J., & Greenberg, J. (2005). A terror management perspective on ageism. *Journal of Social Issues, 61*, 223–239. <http://dx.doi.org/10.1111/j.1540-4560.2005.00403.x>
- Martens, A., Greenberg, J., Schimel, J., & Landau, M. J. (2004). Ageism and death: Effects of mortality salience and perceived similarity to elders on reactions to elderly people. *Personality and Social Psychology Bulletin, 30*, 1524–1536. <http://dx.doi.org/10.1177/0146167204271185>
- Ory, M., Kinney Hoffman, M., Hawkins, M., Sanner, B., & Mockenhaupt, R. (2003). Challenging aging stereotypes: Strategies for creating a more active society. *American Journal of Preventive Medicine, 25*, 164–171. [http://dx.doi.org/10.1016/S0749-3797\(03\)00181-8](http://dx.doi.org/10.1016/S0749-3797(03)00181-8)
- Purcal, C., Hamilton, M., Thomson, C., & Cass, B. (2012). From assistance to prevention: Categorizing young carer support services in Australia, and international implications. *Social Policy and Administration, 46*, 788–806. <http://dx.doi.org/10.1111/j.1467-9515.2011.00816.x>
- Quinn, M. J., & Tomita, S. K. (1986). *Elder abuse and neglect: Causes, diagnosis, and intervention strategies*. New York, NY: Springer.
- Rupp, D. E., Vodanovich, S. J., & Credé, M. (2005). The multidimensional nature of ageism: Construct validity and group differences. *The Journal of Social Psychology, 145*, 335–362. <http://dx.doi.org/10.3200/SOCP.145.3.335-362>
- Sahin, H., & Akyol, A. D. (2010). Evaluation of nursing and medical students' attitudes towards people with disabilities. *Journal of Clinical Nursing, 19*, 2271–2279.
- Shifren, K. (2001). Early caregiving and adult depression: Good news for young caregivers. *The Gerontologist, 41*, 188–190. <http://dx.doi.org/10.1093/geront/41.2.188>
- Shifren, K., & Chong, A. (2012). Health-related behaviors: A study among former young caregivers. *Journal of Adult Development, 19*, 111–121. <http://dx.doi.org/10.1007/s10804-011-9140-0>
- Shifren, K., & Kachorek, L. V. (2003). Does early caregiving matter? The effects on young caregivers' adult mental health. *International Journal of Behavioral Development, 27*, 338–346. <http://dx.doi.org/10.1080/01650250244000371>
- Slevin, O. D. (1991). Ageist attitudes among young adults: Implications for a caring profession. *Journal of Advanced Nursing, 16*, 1197–1205. <http://dx.doi.org/10.1111/j.1365-2648.1991.tb01529.x>
- Smyth, C., Blaxland, M., & Cass, B. (2011). 'So that's how I found out I was a young carer and that I actually had been a carer most of my life': Identifying and supporting hidden young carers. *Journal of Youth Studies, 14*, 145–160. <http://dx.doi.org/10.1080/13676261.2010.506524>
- Smyth, C., Cass, B., & Hill, T. (2011). Children and young people as active agents in care-giving: Agency and constraint. *Children and Youth Services Review, 33*, 509–514. <http://dx.doi.org/10.1016/j.childyouth.2010.05.009>
- Ten Klooster, P. M., Dannenberg, J. W., Taal, E., Burger, G., & Rasker, J. J. (2009). Attitudes towards people with physical or intellectual disabilities: Nursing students and non-nursing peers. *Journal of Advanced Nursing, 65*, 2562–2573. <http://dx.doi.org/10.1111/j.1365-2648.2009.05146.x>
- Tervo, R. C., Palmer, G., & Redinius, P. (2004). Health professional student attitudes towards people with disability. *Clinical Rehabilitation, 18*, 908–915. <http://dx.doi.org/10.1191/0269215504cr820oa>
- Werner, P., Mittelman, M. S., Goldstein, D., & Heinik, J. (2012). Family stigma and caregiver burden in Alzheimer's disease. *The Gerontologist, 52*, 89–97. <http://dx.doi.org/10.1093/geront/gnr117>
- World Health Organization. (2011). *Global status report on noncommunicable diseases 2010*. Geneva, Switzerland: WHO Press.
- Yuker, H. E., Block, J. R., & Young, J. H. (1966). *The measurement of attitudes toward disabled persons*. Albertson, NY: Human Resources Foundation.

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