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INTERGENERATIONAL RELATIONSHIPS, AGING ATTITUDES, AGING ANXIETY, AND FUTURE ANXIETY AS DETERMINANTS OF BEHAVIORAL INTENTIONS TOWARD OLDER ADULTS: A BAYESIAN REGRESSION ANALYSIS

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ABSTRACT

This study employs Bayesian linear regression to investigate determinants of behavioral intentions toward older adults among 211 participants (N=211), with an average age of 21.70 (SD=4.23). The research question explored the collective influence of future anxiety, frequency of intergenerational contact, perceived quality of intergenerational interactions, aging anxiety, and attitudes toward aging on individuals' willingness to engage in behaviors positively affecting older adults. Bayesian model comparison assessed predictive model fit for behavioral intentions and determinants. The 'future anxiety + contact frequency + contact quality + attitudes toward aging' model emerged as highly plausible ($P(M|data) = 0.2187$) with a substantial Bayes Factor ($BF = 71.37$). Coefficients analysis revealed influential factors: future anxiety (0.0688, CI [0.0130, 0.125]), contact frequency (0.3696, CI [0.0576, 0.682]), contact quality (0.2691, CI [0.1200, 0.418]), and attitudes (0.4969, CI [0.3958, 0.598]). Aging anxiety was not a significant predictor. Future anxiety exhibited a positive relationship with behavioral intentions, an unexpected finding suggesting that individuals experiencing higher future anxiety may exhibit a heightened motivation to en-

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gage, possibly through cognitive reappraisal mechanisms. Practical implications underscore the value of fostering positive interactions and tailoring interventions to individual traits.

Keywords: Intergenerational Relationships; Behavioral Intentions; Attitudes toward Older Adults; Aging Anxiety.

INTRODUCTION

Intergenerational relationships hold significant importance in societies worldwide, driven by cultural norms, changing demographics, and socioeconomic dynamics (Antonucci et al., 2007; Aşiret et al., 2017; Wise & Öno1, 2021; Wise & Uzel, 2021). These relationships extend beyond grandparent-grandchild connections and encompass related and unrelated relationships and interactions (Cruz-Saco, 2010; Rooden, 2012; VanderVen, 2004; Wise, 2010). While research on intergenerational interactions often focuses on grandparent-grandchild relationships, there is a notable dearth of exploration into how young adults interact with older individuals outside their family circles. This research gap becomes more urgent in the face of recent socioeconomic challenges, such as economic instability, natural disasters, and an aging workforce returning to employment due to economic hardships and currency fluctuations across societies due to the Covid-19 pandemic (Telek et al., 2021). Intergenerational relationships are significant in uncertain contexts, providing resilience and wisdom from diverse life experiences and facilitating crucial economic support through resource and knowledge sharing (Budowle et al., 2019). For example, Burke (2020) reported that intergenerational relationships were essential sources of support during the COVID-19 pandemic, while Preoteasa et al. (2018) found that intergenerational sharing was a critical component of family well-being during an economic crisis in Romania. Additionally, a greater focus has recently been directed at intergenerational relationships in the context of climate change, focusing both on intergenerational justice and solidarity (Ayalon et al., 2023; Williams, 2021).

In an increasingly interconnected world, exploring predictors influencing young adults' assistance to older generations gains in significance, particularly amidst the

backdrop of global challenges and their solutions. Societies grapple with many complex crises, encompassing climate change, socioeconomic upheavals, natural calamities, and an array of environmental and societal shifts, all of which influence personal well-being. Examining the intergenerational dynamics underpinning mutual support becomes imperative in promoting broader societal resilience and cohesion. The impact of climate change affects individuals across generations and compels a reevaluation and examination of how different age cohorts can collaborate to mitigate its effects (Horton et al., 2014). Further, socioeconomic crises foster a climate of uncertainty and, as a consequence, compel a reconfiguration of traditional support systems (Bernanke, 2018). The ensuing environmental and societal transformations highlight intergenerational cooperation and solidarity's crucial role in adaptation and response (Pelling, 2011). Amidst these crises, the essence of mutual assistance surfaces as a pivotal element in societal resilience. Lerner and Schmid (2006) describe the socioemotional bonds underpinning intergenerational exchange, fostering a sense of shared responsibility in facing adversities. Intergenerational assistance assumes a dual significance, not merely as a mechanism to address immediate needs but as a mechanism for knowledge transfer and continuity, as underscored by Bronfenbrenner (2005). The dynamism of such interactions is corroborated by Ellerich-Groppe et al. (2021), who demonstrated how reciprocal exchanges between generations enhance collective well-being and adaptive capacities.

As societies grapple with contemporary challenges, examining intergenerational dynamics provides a lens to understand the broader fabric of societal unity and strength. The pivotal insights offered by Fingerman et al. (2009) into intergenerational support underline its potential to serve as a cornerstone for enduring social cohesion. The intricate interplay between different generations under diverse challenges elucidates the nature of support mechanisms and the transformative potential of collective action in shaping resilient societies. Consequently, it becomes imperative to identify predictors of young adult assistance to older generations, particularly against pressing crises.

Intergenerational Contact

Prior studies have established that increased intergenerational contact is linked to more favorable attitudes toward aging across diverse contexts (Fung et al., 1999; Küçükgüçlü et al., 2011; Wise & Önel, 2021). Moreover, the quality of intergenerational contact plays a pivotal role in shaping attitudes toward aging, both self and general (Cadieux et al., 2019; Okur et al., 2023). Positive interactions with older adults directly reduce negative stereotypes and indirectly through increased feelings of intergroup warmth (Cadieux et al., 2019; Meshel & McGlynn, 2004; Yoelin, 2022).

Extended contact, a concept related to imagined intergroup interactions, has emerged as a valuable avenue for fostering positive attitudes. This concept suggests that knowing someone from an ingroup has a positive relationship with an outgroup member can mitigate prejudice and ageism (Zhou et al., 2019). Extended contact challenges ingroup and outgroup distinctions, promoting more inclusive perceptions of the other group (Wright et al., 1997). In intergenerational interactions, extended contact with older individuals has been linked to decreased intergroup anxiety and improved attitudes toward older adults and the aging experience (Drury et al., 2016; Fowler & Harwood, 2000; Lytle & Levy, 2019; Wise & Uzel, 2021).

Behavioral Intentions

Behavioral intentions, grounded in the theory of planned behavior, serve as a pivotal underpinning in understanding the link between intention and subsequent behaviors (Ajzen, 1985, 1991). This theoretical framework underscores that while multiple factors may influence behaviors, intentions play a prominent role in predicting and guiding actions (Ajzen, 1991; Han & Ryu, 2009). Empirical evidence underscores the potency of intention-behavior associations, with intention changes often yielding corresponding shifts in behavior (Webb & Sheeran, 2006). Despite potential gaps between intentions and actions, intentions retain a substantial influence on behavior, emphasizing their central role in shaping individuals' actions (Sheeran & Webb, 2016).

The relationship between young adults' prosocial behavioral intentions towards older individuals and various psychological factors is important in understanding intergenerational dynamics. Research by Bousfield and Hutchison (2010) and Wise and Uzel (2021) illuminates the intricate interplay between contact quality, intergroup anxiety, aging attitudes, and prosocial intentions. These studies underscore the complex web of psychological variables that converge to influence young adults' intentions to engage in behaviors that benefit older generations. Furthermore, ageism significantly predicts prosocial behavioral intentions, signaling a significant link between attitudes and intended actions (Gherman et al., 2022). These findings highlight how age-related biases can extend beyond mere attitudes to shape individuals' intentions to engage in behaviors that support or do not support older adults actively. This alignment between attitudes and behavioral intentions reflects the influence of cognitive constructs and accentuates the tangible impact of these constructs on intergenerational interactions.

The transformative potential of intergenerational contact surfaces as a notable theme within this discourse. Wise and Uzel (2021) explored the positive impact of intergenerational contact on aging attitudes and prosocial intentions. Their research found a significant and positive relationship between high quality and frequent intergenerational interactions fostering a greater willingness to engage in behaviors that benefit older adults directly or indirectly. This relationship between contact and positive intentions highlights the role of direct experiences in shaping young adults' predispositions to contribute to intergenerational support systems. Moreover, considering the context of crises, research by McCann et al. (2015) reveals that intergroup contact can be a powerful mechanism for reducing intergroup bias and fostering cooperative intentions under challenging circumstances. Applied to intergenerational dynamics within the aftermath of crises, this insight suggests that increased intergenerational contact could mitigate age-related biases and encourage prosocial behavioral intentions.

Optimism and Future Anxiety

Optimism further influences attitudes toward aging, with positive future outlooks correlating with positive attitudes among older adults (Saleh Manige et al., 2020;

Turner & Hooker, 2022). This positive relationship reflects optimistic individuals' propensity to view aging as an opportunity rather than a decline (Barnett & Adams, 2018). Notably, macro-level crises can impact optimism, potentially affecting attitudes toward aging (de Vries et al., 2021; Trumbo et al., 2011; Yoshii et al., 2014). Davis and Graf (2022) found that in older adults, both aging anxiety and ageist attitudes were linked to a diminished future time perspective, while positive intergenerational contact is linked to lower aging anxiety and reduced ageism.

Research in intergenerational dynamics has been relatively sparse when investigating the relationships between future anxiety, dispositional optimism among young adults, and their subsequent impact on aging attitudes and anxiety. While the existing literature offers limited insights, it suggests a compelling interrelationship between these psychological constructs, shedding light on the broader landscape of generational interactions. Drawing from psychological theories, research suggests that individuals tend to harbor more negative perceptions and exhibit adverse behaviors towards those perceived as threats to their self-concept (Nelson, 2005). This perceptual bias suggests that when young adults grapple with future anxiety, characterized by uncertainties and concerns about forthcoming challenges, their cognitive lens may inadvertently project these anxieties onto the older generation, leading to ageism and negative attitudes about aging. The potential ramifications include a heightened predisposition to harbor less favorable aging attitudes and the manifestation of anxiety in intergenerational interactions.

Expanding the contextual underpinnings, the impact of environmental factors on dispositional optimism and future anxiety emerges as a pertinent thread. The impact of natural disasters (Farrell et al., 2009; Micillo et al., 2022), alongside economic deterioration and challenging living conditions (Britto, 2013; Paredes et al., 2021), collectively contribute to the erosion of individuals' optimism for the future. The consequences of these upheavals influence intergenerational relationships and solidarity, potentially worsening future anxiety among young adults. The intricacies of societal challenges intersect with psychological dynamics, further shaping how young adults perceive and interact with older generations. While future anxiety may influence young adults' perceptions of aging and intergenerational interactions, dispositional

optimism, as reported by Yıldırım et al. (2023), emerges as a potential buffer against the prevailing uncertainties. The protective role of dispositional optimism becomes particularly salient in environmental upheavals and crises, potentially attenuating the adverse impact of future anxiety on aging attitudes and intergenerational dynamics.

Current Study and Rationale

High-quality frequent interaction with older adults is generally associated with positive attitudes, lower ageism, age-based bias, and reduced aging anxiety (Wise & Önlü, 2021). The willingness to engage in prosocial behaviors toward older adults has been associated with positive aging attitudes and intergenerational contact (Bartkowiak et al., 2020; Green & Dorr, 2016; Kessler & Staudinger, 2007; Kwong & Yan, 2021; Samra et al., 2017). However, cultural dynamics in Turkey suggest some differences. Turkish culture scores high on measures of collectivism, and multigenerational households are typical and, in many cases, preferred (Hofstede, 2011). Rapid urbanization, multigenerational living arrangements, and a prevailing collectivist outlook shape social structures, highlighting the value of family ties (Hofstede, 2011; Sunar & Fisek, 2005). Thus, it would be expected that young adults in Turkey would show more positive attitudes toward older adults, related and unrelated, than young adults in more individualistic societies.

However, research with Turkish young adults does not provide evidence that these positive attitudes translate to less aging anxiety. According to Konak and Çiğdem (2005), aging in Turkish culture is understood as a period of losses and the slow accumulation of losses associated with age, including a general impairment in physical and cognitive functioning. Negative perceptions of aging have been associated with more significant aging anxiety (Sözvurmaz & Mandıracıoğlu, 2017). Since contact with older adults is a relatively common feature of Turkish society, contact frequency may not have the same predictive power in explaining aging attitudes and behavioral intentions as demonstrated in studies in Western countries. Contact quality may be more predictive, considering that, unlike in many other societies, older adults in Turkey are less likely to live in an assisted living community or nursing home and more likely to live and receive care from family members. This finding

suggests that contact quality would exhibit greater salience for younger adults than contact frequency.

Moreover, several environmental and social factors in Turkey underscore the importance of determining predictors of young adults' willingness to engage in prosocial behaviors targeted at older adults. First, in February 2023, two earthquakes occurred near Gaziantep, Turkey, with the first having a magnitude of 7.8 Mw and the second having a magnitude of 7.7 Mw. The destruction killed over 50,000 people in Turkey and Syria and displaced millions (Jia et al., 2023). Second, over the last three years, Turkey has experienced extremely high inflation, currency devaluation, and a general depreciation in living standards (Mucuk & Evren, 2023). Previous research has indicated that intergenerational relationships and solidarity between young and old are essential sources of resource acquisition in crises and help to promote resilience (Cruz-Saco, 2010; Ellerich-Groppe et al., 2021; Micillo et al., 2022; Wu & Yuan, 2023).

Turkey is known for its strong collectivist values, where the group's and the family's well-being precedes individual needs (Sunar & Fisek, 2005). This collectivist orientation often extends to the care and respect for older adults. In Turkish culture, older family members hold a revered position and are often looked after by their children or extended family. Given this cultural emphasis on intergenerational support and the duty to care for elders, individuals in Turkey might feel a particularly strong willingness to engage in activities for older adults. The collectivist nature of society encourages people to be actively involved in the lives of older family members, whether it is providing emotional support, financial assistance, or spending quality time together.

However, the same collectivist values can contribute to higher levels of personal aging anxiety. Individuals in Turkey might feel a heightened pressure to embody the societal roles and expectations associated with aging. The wisdom, experience, and guidance often attributed to older adults could lead younger individuals to worry about their ability to fulfill these roles in the future. In a collectivist society like Turkey, where family bonds are strong, individuals might be acutely aware of the re-

sponsibility to care for their older family members. This responsibility, while fulfilling, can also trigger concerns about aging and the ability to live up to familial and societal expectations. Based on these considerations, the following research question guided the current study.

RESEARCH QUESTION

What is the combined impact of future anxiety, frequency of intergenerational contact, perceived quality of intergenerational interactions, and attitudes toward aging on individuals' willingness to engage in behavioral actions that benefit older adults?

METHODS

Procedure

The participant selection process was based on a non-random convenience sampling approach. The survey was administered through an online platform (*Google Forms*) and targeted various undergraduate courses during the Spring 2023 semester, immediately in the aftermath of the earthquakes in February 2023. Participants were recruited through an announcement disseminated across different university departments. Ethical approval was obtained from the institutional review board (IRB) to ensure the ethical conduct of the study. All participants received an informed consent form outlining the voluntary nature of their participation. No incentives were provided to participants. The study was self-funded, and no conflicts of interest were reported.

Data from 211 participants were analyzed using IBM SPSS Statistics software (Version 22.0, IBM Corp., Armonk, NY). A post hoc power analysis was conducted using G*Power (Faul et al., 2007) to determine the statistical power of the analyses. The study employed a sample size of 211 participants with six predictor variables. The alpha level for all analyses was set at $p = 0.05$. Using conventional standards to determine power, with an effect size set at 0.15, the post hoc analysis revealed a statistical power exceeding 0.90, indicating sufficient power for detecting moderate to large effects according to conventional standards (.80) (Cohen, 1988).

MATERIALS

Intergenerational Contact

Contact frequency was assessed using two questions. The first question asked participants about the frequency of their interaction with older adults, with response options ranging from 1 (very rarely) to 5 (very often). Extended contact was assessed with one question that asked participants to report how many of their close friends had positive relationships with older adults, with response options ranging from 1 (none at all) to 5 (very many) (Drury et al., 2016). All items were scored such that higher scores indicated more contact frequency and extended contact.

Contact quality was assessed using three items asking participants to evaluate their previous interactions with older adults along the dimensions of voluntariness, quality, and pleasantness. Responses were scored on a 5-point Likert scale ranging from 1 to 5. All items were scored such that higher scores indicated higher quality interactions with older adults. A full scale was computed such that higher scores indicated high-quality contact with older adults. The reliability analysis of the full scale revealed a high internal consistency with a Cronbach's alpha coefficient of .88.

Aging Anxiety

The Anxiety About Aging Scale (AAS) by Lasher and Faulkender (1993) was employed to quantify aging anxiety levels. The AAS encompasses 20 items, categorized into four subscales: Fear of Old People, Psychological Concerns, Physical Appearance, and Fear of Losses. The Fear of Old People subscale explores emotional reactions during interactions with older adults. Psychological Concerns examine worries about the cognitive and psychological aspects of aging. Physical Appearance assesses perceptions of physiological changes with age, while Fear of Loss gauges concerns about potential losses in later years. High AAS scores denote higher levels of aging anxiety. Previous research with Turkish populations (Aydoğmuş, 2021; Wise & Uzel, 2021) has demonstrated that the factor structure of Turkish AAS exhibits acceptable reliability and validity. Reliability analysis of the scale in this study demonstrated acceptable levels of reliability ($\alpha=.79$).

Attitudes toward Older Adults

Participants attitudes toward older adults were evaluated with six 5-point scales that asked participants to indicate their attitudes toward older adults. Responses included: warm–cold, negative–positive, hostile–friendly, suspicious–trusting, contempt–respect, and disgust–admiration (Drury et al., 2016; Wright et al., 1997). Items were scored such that elevated scores correspond to a more favorable attitude. The reliability and validity of this measure were supported by a satisfactory Cronbach's alpha coefficient of .87.

Future Anxiety

The Dark Future Scale (DFS) (Zaleski et al., 2017) is a 5-item self-report questionnaire designed to assess an individual's negative expectations regarding their future. The scale comprises five statements, and participants indicate their level of agreement or disagreement with each statement on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The total scale score was computed, with lower scores indicative of heightened future anxiety. The Turkish version of the Dark Future scale was used (Yıldırım et al., 2023) and exhibited satisfactory internal consistency, with a Cronbach's alpha coefficient of .76.

Behavioral Intentions

The study employed a set of five items from Bousfield and Hutchison's (2010) research to gauge the inclination for positive interactions with older adults. These items presented statements like refraining from donating to organizations aiding older adults, supporting minor tax increases for senior assistance, extending help to older individuals in clear need (e.g., assisting with crossing roads or carrying groceries), finding contentment in roles involving regular contact with older adults, and not favoring allocation of leisure time to elderly support activities. The Turkish version of these items was used in this study, as adapted by Wise and Uzel (2021). The items were assessed using a five-point scale ranging from 1 (disagree) to 5 (agree). The Turkish translation of the Behavioral Intentions scale exhibited satisfactory reliability with a Cronbach's alpha coefficient of .77.

RESULTS

Participants

The sample consisted of 211 individuals, with an average age of $M = 21.70$ years ($SD = 4.23$). Among the participants, 177 (83.9%) identified as female, while 33 (15.6%) identified as male.

Descriptive Statistics

In evaluating participants' attitudes towards older adults, the responses indicate a generally positive attitude, with the highest mean score of 3.89 ($SD=.896$) for the item assessing their view as positive-negative. The lowest mean score was for the Friendly-Unfriendly item, with a mean of 3.36 ($SD=.771$). The participants' attitudes collectively yield a total mean score of 21.2 ($SD=3.89$), indicating an overall inclination towards positive perceptions. See Table 1.

Table 1.

Attitudes toward Older Adults

	Warm	Positive	Friendl y	Trusting	Respect	Ad- mire	Total
Mean	3.36	3.89	3.36	3.86	3.36	3.36	21.2
SD	0.771	0.896	0.771	0.939	0.771	0.771	3.89

The frequency of interactions with older adults had a mean score of 2.84 (1.07), indicating that such engagements occur to a moderate extent. The highest endorsed interaction quality was pleasant ($M=3.84$, $SD=.94$), with overall intergenerational contact quality having a mean score of 11.0 ($SD=2.61$). See Table 2.

Table 2.

Intergenerational Contact: Frequency, Extended, and Quality

	Frequency	Extended	Pleasant	Voluntary	Quality	Overall
Mean	2.84	3.15	3.84	3.61	3.52	11.0
SD	1.07	0.969	0.937	0.981	0.987	2.61

Five items measured behavioral intentions, asking participants to express their willingness to perform various actions related to older adults. The average total score for these intentions was 16.80 ($SD=3.46$). The item with the highest endorsement was giving money, with a mean score of 3.36 ($SD=.77$), while communication at work was the least endorsed ($M=3.01$, $SD=1.20$). This finding was similar to what Wise and Uzel (2021) reported. See Table 3.

Table 3.

Descriptive Statistics for Behavioral Intentions

	Giving Money	Increase Tax	Helping	Work	Spending Time
Mean	3.36	3.18	3.83	3.01	3.36
SD	.77	1.19	1.06	1.20	.77

Five items from the Dark Future Scale measured future anxiety. The item with the highest mean was "The thought of not achieving my goals in the future bothers me" ($M=5.03$, $SD=1.24$), while the item with the lowest mean was "I am horrified at the thought of sometimes being able to face crises or difficulties that may arise in life," ($M=3.22$, $SD=1.64$). The total mean score for future anxiety was 20.50 ($SD=5.64$). See Table 4.

Table 4.

Dark Future Scale

Items	Mean	SD
I am afraid that the problems which trouble me now will continue for a long time.	3.64	1.71
I am terrified by the thought that I might sometimes face life's crises or difficulties.	3.22	1.64
I am afraid that in the future, my life will change for the worse.	3.59	1.84
I am afraid that changes in the economic and political situation will threaten my future	5.00	1.40
I am disturbed by the thought that in the future, I won't be able to realize my goals.	5.03	1.24
Total Future Anxiety	20.50	5.64

Correlational Analysis

The correlational analysis displayed significant associations among the psychological variables under investigation. Notably, contact frequency demonstrated a significant positive correlation with extended contact ($r = 0.350$, $p < .001$), while contact quality showed positive correlations with contact frequency ($r = 0.531$, $p < .001$), extended contact ($r = 0.310$, $p < .001$), attitudes ($r = 0.285$, $p < .001$), and aging anxiety ($r = 0.339$, $p < .001$). Furthermore, attitudes displayed strong positive associations with contact frequency ($r = 0.728$, $p < .001$), extended contact ($r = 0.315$, $p < .001$), contact quality ($r = 0.619$, $p < .001$), and aging anxiety ($r = 0.619$, $p < .001$). See Table 5.

Table 5.

Correlation Matrix

<u>Variable</u>	<u>Age</u>	<u>Future</u> <u>Anxi-</u> <u>ety</u>	<u>Behav-</u> <u>ioral In-</u> <u>tentions</u>	<u>Contact</u> <u>Fre-</u> <u>quency</u>	<u>Ex-</u> <u>tended</u> <u>Contact</u>	<u>Con-</u> <u>tact</u> <u>Qual-</u> <u>ity</u>	<u>Aging</u> <u>Atti-</u> <u>tudes</u>	<u>Aging</u> <u>Anxi-</u> <u>ety</u>
Age	-							
Future Anxiety	-	-						
	.23							
	**							
Behav- ioral In- tentions	.08	.06	-					
Contact Fre- quency	.04	-.01	.35**	-				
Extended Contact	-.06	.08*	.20**	.07	-			
Contact Quality	.15	-.01	.57**	.30**		-		
	*							
Aging At- titudes	.03	-.10	.71**	.32**	.26**	.59**	-	
Aging Anxiety	-.11	.03	.15*	-.03	-.04	-.09	.37**	-

Note. * $p < .05$, * $p < .01$, **

Research Question

To investigate behavioral intentions and their determinants, a Bayesian model comparison was employed to assess the fit and relative strengths of different predictive models. Among models examined, the "future anxiety + contact frequency + contact

quality + attitudes toward aging" model emerged as the most plausible and well-supported. With the highest posterior probability ($P(M|data)$) and a substantial Bayes Factor ($BF = 71.37$), this model demonstrated a robust fit to the observed data. The coefficient of determination (R^2) values across the evaluated models indicated a moderate explanatory power, ranging from approximately 0.55 to 0.57, indicating that around 55% to 57% of the variance in the outcome variable was explained. These findings highlight the significance of the selected model in effectively capturing the underlying relationships between predictor variables and behavioral intentions. See Table 6.

Table 6.
Model Comparison

Models	P(M)	P(M data)	BF _M	BF ₁₀	R ²
Future Anxiety + Frequency + Overall quality + Attitudes	0.00391	0.2187	71.37	1.000	0.566
Future Anxiety + Overall Quality + Attitudes	0.00391	0.1325	38.95	0.606	0.554
Frequency + Overall Quality + Attitudes	0.00391	0.1061	30.25	0.485	0.553
Overall quality + Attitudes	0.00391	0.0672	18.36	0.307	0.541
Age + Future Anxiety + Frequency +	0.00391	0.0604	16.39	0.276	0.569

Overall quality + Attitudes					
Future Anxiety + Frequency + Overall Quality + Attitudes + AnxietyTotal	0.00391	0.0389	10.33	0.178	0.567
Age + Future Anxiety + Overall Quality + Attitudes	0.00391	0.0339	8.95	0.155	0.558
Future Anxiety + Frequency + Extended + Overall Quality + Attitudes	0.00391	0.0332	8.76	0.152	0.567
Future Anxiety + Overall Quality + Attitudes + AnxietyTotal	0.00391	0.0279	7.32	0.128	0.557
Sex + Future Anxiety + Frequency + Overall quality + Attitudes	0.00391	0.0274	7.18	0.125	0.566

The Bayesian coefficient analysis computed posterior summaries and 95% credible intervals to provide insight into predictor variable relationships with the outcome. The coefficients' means and standard deviations offer estimates of each predictor's average impact and variability. The intercept, representing the expected outcome when all predictors are zero, was estimated at 16.77 (SD = 0.16), with a 95% credible interval ranging from 16.45 to 17.08.

The coefficient for future anxiety was estimated at 0.07 (SD = 0.03). The 95% credible interval ranged from 0.01 to 0.13. The probability of including future anxiety in the model was 0.72, suggesting moderate evidence for its inclusion (BF = 2.53). The coefficient for contact frequency was estimated at 0.37 (SD = 0.16), with a 95% credible interval from 0.06 to 0.68. The probability of including the frequency of contact in the model was 0.63 (BF = 1.67).

Overall contact quality exhibited a coefficient of 0.27 (SD = 0.08), with a 95% credible interval of 0.12 to 0.42. Substantial evidence supported its inclusion ($P(\text{incl}|\text{data}) = 0.97$), with a substantial Bayes Factor of 33.63. The coefficient for attitudes toward older adults was estimated at 0.50 (SD = 0.05), with a 95% credible interval of 0.40 to 0.60. Furthermore, the coefficient for attitudes toward older adults was estimated at 0.50 (SD = 0.05), with a 95% credible interval of 0.40 to 0.60. However, the Bayes Factor value for attitudes toward older adults was exceptionally high ($1.60\text{e}+13$), which may indicate a potential issue with the analysis or model specification. Such extreme values are uncommon and not aligned with typical Bayes Factor interpretations.

DISCUSSION

Bayesian linear regression analysis examined the relationships between predictor variables and young adults' willingness to engage in behavioral actions benefiting older adults. By employing a Bayesian model comparison, it was possible to determine the variables that inform these intentions. This method allowed for a comprehensive examination of the various models, identifying the "future anxiety + contact frequency + contact quality + attitudes toward aging" model as the most fitting and well-supported. This model exhibited the highest posterior probability ($P(M|\text{data})$) and a substantial Bayes Factor (BF = 71.37), indicating its robust fit to the observed data, and accounted for a moderate proportion of the variance in behavioral intentions ($R^2 \approx 0.55$ to 0.57).

In intergenerational relationships, contact frequency and contact quality play a pivotal role. Research by Birditt et al. (2010) demonstrated that positive intergenerational relationship quality is closely linked to enhanced psychological well-being and

life satisfaction for older adults and younger generations. Furthermore, Fingerman et al. (2009) find that high-quality relationships between generations offer emotional support, practical assistance, and an overall sense of enhanced family cohesion. Previous research has found that high-quality intergenerational contact is associated with more positive attitudes toward aging (Cohn-Schwartz et al., 2023; Drury et al., 2016; Hannon & Gueldner, 2008; Kwong & Yan, 2023; Sun et al., 2019). Moreover, extended contact has been associated with greater levels of behavioral intentions directed at older adults (Wise & Uzel, 2021). Fowler and Gasiorek (2023) reported that envisioning intergenerational contact increased perceived trustworthiness and decreased expectations of communication difficulties with older adults, while positive aging metastereotypes led to reduced expectations of non-accommodation compared to a control group.

Considering future anxiety, Mather and Lighthall (2012) suggest that heightened future anxiety prompts individuals to adopt cautious and protective behaviors. Their research indicates that under stress conditions, individuals prioritize minimizing potential losses and avoiding unfavorable outcomes, which aligns with the inclination to adopt a conservative approach. This cautious stance may translate into actions aimed at safeguarding against future uncertainties, even in intergenerational engagement. Conversely, Sweeny et al. (2006) propose that such anxiety can stimulate proactive behaviors to mitigate potential adverse outcomes. In their study, individuals who anticipated future stressors exhibited heightened preparedness and engagement in activities to minimize future risks. This proactive response may manifest as an increased willingness to engage in behaviors that contribute to the well-being of older adults. Sweeny et al.'s (2006) findings underscore that future anxiety can serve as a motivational catalyst, propelling individuals toward action rather than inducing a state of immobilization, and thus, would help explain the positive relationship found in this study between future anxiety and behavioral intentions.

Carstensen, Isaacowitz, and Charles (2003) contribute insights into how future anxiety intersects with age-related goals and motivations. Their research highlights the concept of socioemotional selectivity theory (Carstensen, 1992), which suggests that as individuals age and perceive their future as temporally constrained, they are more

likely to prioritize emotionally meaningful goals and experiences. Applying this to the context of intergenerational relationships and behavioral intentions, individuals with heightened future anxiety may perceive an increased urgency to forge connections and contribute positively to older generations. This temporal perspective may drive them to actively seek out opportunities for intergenerational interaction, aligning with the observed willingness to engage in actions benefiting older adults. This can help explain the findings in the current study of a positive relationship between future anxiety and behavioral intentions.

Within the specific sociocultural context of Turkey, characterized by recent economic crises and the profound impact of two devastating earthquakes in February 2023 that claimed the lives of over 50,000 individuals, the intersection of future anxiety, intergenerational contact, and behavioral intentions takes on added significance. Socioemotional selectivity theory (Fung & Carstensen, 2004) underscores that individuals, particularly when confronted with perceived temporal constraints, may recalibrate their priorities towards emotionally meaningful experiences (Carstensen et al., 2003). In a context characterized by extreme crises, individuals may experience heightened future anxiety due to disruptions and uncertainties. The threat these crises pose amplifies concerns about the future. Against this backdrop, individuals with heightened future anxiety may perceive a heightened urgency to establish and cultivate intergenerational connections. The temporal perspective induced by future anxiety may drive individuals to actively seek opportunities for intergenerational interaction, recognizing the value of forging connections that transcend generations and thus demonstrating a greater inclination to engage in prosocial behaviors to benefit older adults. The positive relationship found in this study between future anxiety and behavioral intentions provides evidence for this explanation.

Research by Han et al. (2018) reported that intergenerational relationships play a pivotal role in fostering psychological well-being and offering a sense of continuity during times of adversity and uncertainty. The findings indicate that intergenerational support is important in maintaining stability and resilience in the face of societal challenges. This finding helps to explain the potential impact of heightened fu-

ture anxiety on behavioral intentions. Individuals may recognize the reciprocal benefits of intergenerational solidarity, not only in terms of emotional support but also in contributing to the well-being and continuity of older generations (Timonen et al., 2013). The prevailing collectivist orientation in Turkey underscores the importance of family ties and intergenerational connections during societal crises. The collective response to challenges often fosters a shared sense of responsibility and obligation towards older family members, potentially accentuating individuals' willingness to engage in actions benefiting older adults (König et al., 2019). For example, Roy and Ayalon (2023) found that reciprocal compassion flows between younger and older climate activists centered around creating a sustainable world, suggesting that crises that impact generations can promote greater intergenerational solidarity.

Intergenerational contact frequency and quality emerged in this study as significant determinants shaping individuals' behavioral intentions. Higher levels of intergenerational contact are consistently associated with positive outcomes, including heightened positive emotional experiences, improved communication, and greater understanding between generations (Brody & Flor, 1997; Wise & Onol, 2021). Complementing the significance of contact frequency, Fingerman et al. (2009) reported that positive intergenerational interactions are instrumental in cultivating overall satisfaction and increasing the likelihood of offering support. Consequently, the interplay between contact quality and supportive behaviors underscores the symbiotic relationship between positive interactions and a heightened willingness to contribute to the well-being of older adults. Additional findings underscore the pivotal role that contact frequency and quality play in nurturing intergenerational engagement, highlighting the notion that the more frequently individuals engage with older adults and the more positively these interactions are perceived, the more likely they are to actively participate in behaviors that uphold the welfare of older generations (Bousfield & Hutchison, 2010; Wise & Uzel, 2021). These relationships gain confirmation in the current study, as both high levels of contact frequency and quality predicted greater willingness to engage in behaviors benefiting older adults.

Attitudes toward aging can shape individuals' propensity for intergenerational interactions, a finding confirmed in the current study, as aging attitudes were a significant

predictor of behavioral intentions. Levy's (2009) research underscores that cultivating positive attitudes toward aging is associated with a longer lifespan and enhanced health outcomes. This dynamic extends beyond mere attitudes, influencing behavioral choices. Such affirmative perceptions motivate healthier behaviors and bolster cognitive resilience, thus establishing a tangible link between attitudes and actions. Moreover, the influence of positive attitudes extends into intergenerational dynamics, as North and Fiske (2013) emphasized. Their research examined the role of attitudes in prompting favorable behaviors and interactions within intergenerational contexts. This alignment between positive attitudes and supportive behaviors helps to establish a link between aging attitudes and individuals' willingness to act in ways benefiting older adults.

Limitations

Several limitations are pertinent to this study. Firstly, an uneven distribution of gender occurred, predominantly favoring female participants. Consequently, the transferability of the findings to intergenerational relationships involving young adult females and older adults may be restricted. To address this, future investigations should employ a more balanced and representative sample for more conclusive insights. Secondly, certain variables were evaluated using single-item measures, potentially needing to more adequately capture the intricate nature of participants' interactions with older individuals. However, this methodology aligns with previous research practices (e.g., Wise & Uzel, 2021), enabling comparative analysis with prior outcomes. Lastly, the study exclusively involved university students, warranting acknowledgment that a more diverse participant pool could yield richer perspectives on intergenerational relationships.

Future Directions and Study Contributions

In the aftermath of the February 2023 earthquakes, this study underscores the significance of intergenerational relationships and their influence on the behavioral inclinations of young adults toward older individuals in Turkey. Notably, the research discerns a robust association between intergenerational contact and behavioral intentions toward older adults, indicating an avenue for fostering intergenerational bonds.

Intriguingly, the study further illuminates the role of aging attitudes and future anxiety in shaping the interplay between contact frequency and behavioral intentions, specifically that higher levels of future anxiety predicted greater behavioral intentions.

These findings bear pragmatic implications for policymakers and program architects, particularly in navigating challenging economic and living conditions. By embracing the intrinsic value of intergenerational relationships, societies can cultivate a framework that promotes the well-being and caregiving of older adults, especially during periods of crisis. Such an approach becomes especially pertinent in the aftermath of adverse events, where the need for support and solidarity gains prominence. Consequently, this study contributes to the groundwork for enhancing intergenerational solidarity and caregiving, nurturing a societal ethos that upholds the welfare of older generations and addresses exigencies arising from trying circumstances.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 11–39). Springer-Verlag https://doi.org/10.1007/978-3-642-69746-3_2

Antonucci, T. C., Jackson, J. S., & Biggs, S. (2007). Intergenerational relations: Theory, research, and policy. *Journal of Social Issues*, 63(4), 679-693. <https://doi.org/10.1111/j.1540-4560.2007.00530.x>

Aronson, K. M., Stefanile, C., Matera, C., Nerini, A., Grisolaghi, J., Romani, G., Massai, F., Antonelli, P., Ferraresi, L., & Brown, R. (2016). Telling tales in school: Extended contact interventions in the classroom. *Journal of Applied Social Psychology*, 46(4), 229-241. <https://doi.org/10.1111/jasp.12358>

Aşiret, G., Kaymaz, T. T., Çopur, E., & Akyar, I. (2017). Ageism attitude towards elderly: Young perspective. *International Journal of Caring Sciences*, 10 (2), 819-827.

Ayalon, L., Roy, S., Aloni, O., & Keating, N. (2023). A scoping review of research on older people and intergenerational relations in the context of climate change. *The Gerontologist*, 63(5), 945-958. <https://doi.org/10.1093/geront/gnac028>

Ayalon, L., Chasteen, A., Diehl, M., Levy, B., Neupert, S. D., Rothermund, K., Tesch-Römer, C., & Wahl, H. W. (2020). Aging in times of the COVID-19 pandemic: Avoiding ageism and fostering intergenerational solidarity. *The Journals of Gerontology: Series B*, 76(2), e49-e52. <https://doi.org/10.1093/geronb/gbaa051>

Aydoğmuş, M. E. (2021). Adaptation of the Aging Semantic Differential Scale into Turkish. *Turkish Journal of Geriatrics*, 24(2), 255-263. <https://doi.org/10.31086/tjgeri.2021.222>

Barnett, M. D., & Adams, C. M. (2018). Ageism and aging anxiety among young adults: Relationships with contact, knowledge, fear of death, and optimism. *Educational Gerontology*, 44(11), 693–700. <https://doi.org/10.1080/03601277.2018.1537163>

Bengtson, V. L., & Roberts, R. E. (1991). Intergenerational solidarity in aging families: An example of formal theory construction. *Journal of Marriage and the Family*, 53(4), 856-870. <https://doi.org/10.2307/352993>

Bernanke, B. (2018). The Global Saving Glut and the U.S. Current Account Deficit. *Brookings Papers on Economic Activity*, 2005(1), 67–146. <https://doi.org/10.1353/eca.2005.0020>

Birditt, K. S., Miller, L. M., Fingerman, K. L., & Lefkowitz, E. S. (2010). Tensions in the parent and adult child relationship: Links to solidarity and ambivalence. *Psychology and Aging* 25(2), 296-303. <https://doi.org/10.1037/a0015196>

Britto, S. (2013). 'Diffuse anxiety': The role of economic insecurity in predicting fear of crime. *Journal of Crime and Justice*, 36(1), 18–34. <https://doi.org/10.1080/0735648X.2011.631399>

Bousfield, C., & Hutchison, P. (2010). Contact, anxiety, and young people's attitudes and behavioral intentions towards the elderly. *Educational Gerontology*, 36(6), 451–466 <https://doi.org/10.1080/03601270903324362>

Brody, G. H., & Flor, D. L. (1997). Maternal resources, parenting practices, and child competence in rural, single-parent African American families. *Child Development*, 68(4), 803-816. <https://doi.org/10.1111/j.1467-8624.1998.tb06244.x>

Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Sage.

Budowle, R., Arthur, M. L., & Porter, C. M. (2019). Growing intergenerational resilience for Indigenous food sovereignty through home gardening. *Journal of Agriculture, Food Systems, and Community Development*, 9(B), p. 145. <https://doi.org/10.5304/jafscd.2019.09B.018>

Burke, S. (2020). Stronger together? Intergenerational connection and Covid-19. *Quality in Ageing and Older Adults*, 21(4), 253–259. <https://doi.org/10.1108/QAOA-07-2020-0033>

Cadieux, J., Chasteen, A. L., & Packer, D. J. (2019). Intergenerational contact predicts attitudes toward older adults through inclusion of the outgroup in the self. *The Journals of Gerontology: Series B*, 74(4), 575-584. <https://doi.org/10.1093/geronb/gbx176>

Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging*, 7(3), 331-338. <https://doi.org/10.1037/0882-7974.7.3.331>

Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (2003). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54(3), 165-181. <https://doi.org/10.1037/0003-066X.54.3.165>

Central Bank of the Republic of Turkey. (n.d.). Consumer prices. Retrieved April 30, 2023, from <https://www.tcmb.gov.tr/wps/wcm/connect/EN/TCMB+EN/Main+Menu/Statistics/Inflation+Data/Consumer+Prices>

Chase, C. A. (2010). An intergenerational e-mail pal project on attitudes of college students toward older adults. *Educational Gerontology*, 37(1), 27–37. <https://doi.org/10.1080/03601270903534804>

Charles, S. T., & Carstensen, L. L. (2010). Social and emotional aging. *Annual Review of Psychology*, 61, 383-409. <https://doi.org/10.1146/annurev.psych.093008.100448>

Cohen, J. (1977). *Statistical power analysis for the behavioral sciences* (Rev. ed.). Lawrence Erlbaum Associates, Inc.

Cohn-Schwartz, E., de Paula Couto, M. C., Fung, H. H., Graf, S., Hess, T. M., Liou, S., ... & Rothermund, K. (2023). Contact with older adults is related to positive age stereotypes and self-views of aging: The older you are the more you profit. *The Journals of Gerontology: Series B*, gbad038. <https://doi.org/10.1093/geronb/gbad038>

Cramm, J. M., & Nieboer, A. P. (2017). Positive ageing perceptions among migrant Turkish and native Dutch older people: A matter of culture or resources? *BMC Geriatrics*, 17(1), 159. <https://doi.org/10.1186/s12877-017-0549-6>

Cruz-Saco, M. A. (2010). Intergenerational solidarity. In *Intergenerational solidarity: Strengthening economic and social ties* (pp. 9-34). New York: Palgrave Macmillan US. <https://doi.org/10.1057/9780230115484>

Davis, E. C., & Graf, A. S. (2022). Intergenerational contact in young adults in relation to aging anxiety, attitudes, and future time perspective. *Journal of Intergenerational Relationships*, 1-17. <https://doi.org/10.1080/15350770.2022.2139039>

de Vries, L. P., van de Weijer, M. P., Pelt, D. H., Ligthart, L., Willemsen, G., Boomsma, D. I., ... & Bartels, M. (2021). Gene-by-Crisis Interaction for Optimism and Meaning in Life: The Effects of the COVID-19 Pandemic. *Behavior Genetics*, 1-13. <https://doi.org/10.1007/s10519-021-10081-9>

Drury, L., Hutchison, P., & Abrams, D. (2016). Direct and extended intergenerational contact and young people's attitudes towards older adults. *The British Journal of Social Psychology*, 55(3), 522–543. <https://doi.org/10.1111/bjso.12146>

Durbin, K. A., Barber, S. J., Brown, M., & Mather, M. (2019). Optimism for the future in younger and older adults. *The Journals of Gerontology: Series B*, 74(4), 565–574. <https://doi.org/10.1093/geronb/gbx171>

Ellerich-Groppe, N., Pfaller, L., & Schweda, M. (2021). Young for old-old for young? Ethical perspectives on intergenerational solidarity and responsibility in public discourses on COVID-19. *European Journal of Ageing*, 18(2), 159-171. <https://doi.org/10.1007/s10433-021-00623-9>

Farrell, L., Sijbenga, A., & Barrett, P. (2009). An examination of childhood anxiety depression and self-esteem across socioeconomic groups: A comparison study between high and low socioeconomic status school communities. *Advances in School Mental Health Promotion*, 2(1), 5-19. <https://doi.org/10.1080/1754730X.2009.9715694>

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149-1160. <https://doi.org/10.3758/BRM.41.4.1149>

Fingerman, K. L., Miller, L., Birditt, K., & Zarit, S. (2009). Giving to the good and the needy: Parental support of grown children. *Journal of Marriage and Family*, 71(5), 1220–1233. <https://doi.org/10.1111/j.1741-3737.2009.00665.x>

Fowler, C., & Gasiorek, J. (2023). Do Imagined Intergroup Contact Interventions and Metastereotyping Processes Interact to Predict Expectations for Future Inter-Age Interactions?. *Journal of Intergenerational Relationships*, 1-17. <https://doi.org/10.1080/15350770.2023.2208575>

Fowler, C., & Harwood, J. (2021). Does perceived normativity of intergenerational contact enhance the effects of imagined intergenerational contact? *Group Processes & Intergroup Relations*, 24(7), 1151–1179. <https://doi.org/10.1177/1368430220934548>

Fung, H. H., & Carstensen, L. L. (2004). Motivational changes in response to blocked goals and foreshortened time: Testing alternatives to socioemotional selectivity theory. *Psychology and Aging* 19(1), 68. <https://doi.org/10.1037/0882-7974.19.1.68>

Fung, H. H., Carstensen, L. L., & Lutz, A. M. (1999). Influence of time on social preferences: Implications for lifespan development. *Psychology and Aging*, 14(4), 595. <https://doi.org/10.1037/0882-7974.14.4.595>

Han, H., & Ryu, K. (2009). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the family restaurant industry. *Journal of Hospitality and Tourism Research*, 33(4), 487-510. <https://doi.org/10.1177/1096348009344212>

Han, G., Cinemre, H., & Bahçekapılı, E. (2018). Intergenerational relationships in the context of economic difficulties: A qualitative study in Turkey. *The Family Journal*, 26(4), 359-366.

Hannon, P. O., & Gueldner, S. H. (2008). The impact of short-term quality intergenerational contact on children's attitudes toward older adults. *Journal of Intergenerational Relationships*, 5(4), 59-76. https://doi.org/10.1300/J194v05n04_05

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, 2(1), 2307–0919. <https://doi.org/10.9707/2307-0919.1014>

Horton, R., Lo, S., & Ganzevoort, W. (2014). Climate change: A call for personal engagement. *The Lancet* 383(9924), 1233. [https://doi.org/10.1016/S0140-6736\(14\)60578-X](https://doi.org/10.1016/S0140-6736(14)60578-X)

Jia, Z., Jin, Z., Marchandon, M., Ulrich, T., Gabriel, A. A., Fan, W., ... & Fialko, Y. (2023). The complex dynamics of the 2023 Kahramanmaraş, Turkey, M w 7.8-7.7 earthquake doublet. *Science*, eadi0685.

Kaniel, R., Massey, C., & Robinson, D. T. (2010). Optimism and economic crisis. Available at SSRN. <https://doi.org/10.2139/ssrn.1579050>

Kiliç, D., & Adibelli, D. (2011). The validity and reliability of Kogan's attitude towards old people scale in the Turkish society. *Health*, 3(9), 602-608. <https://doi.org/10.4236/health.2011.39101>

König, R., Isengard, B. and Szydlik, M. (2019). Social inequality and intergenerational solidarity in European welfare state. Česnuitytė, V. and Meil, G. (Ed.) *Families in Economically Hard Times*, Emerald Publishing Limited, Bingley, pp. 31-51 <https://doi.org/10.1108/978-1-83909-071-420191005>

Küçükgüçlü, Ö., Mert, H., & Akpınar, B. (2011). Reliability and validity of Turkish version of attitude toward old people scale. *Journal of Clinical Nursing*, 20(21-22), 3196-3203. <https://doi.org/10.1111/j.1365-2702.2011.03764.x>

Kwong, A. N., & Yan, E. (2021). How do face-to-face, extended and vicarious intergenerational contacts impact on young people's attitude and prosocial behaviour toward older people? *Ageing International*, 1-19. <https://doi.org/10.1007/s12126-021-09437-7>

Kwong, A. N., & Yan, E. C. (2023). The role of quality of face-to-face inter-generational contact in reducing ageism: The perspectives of young people. *Journal of Intergenerational Relationships*, 21(1), 136-151. <https://doi.org/10.1080/15350770.2021.1952134>

Lerner, R. M., & Schmid, K. L. (2006). *The study of human development in times of unprecedented social change*. Mahwah, NJ: Lawrence Erlbaum Associates.

Levy, B. R. (2017). Age-stereotype paradox: Opportunity for social change. *The Gerontologist*, 57(suppl_2), S118-S126. <https://doi.org/10.1093/geront/gnx059>

Levy, B. (2009). Stereotype embodiment: A psychosocial approach to ageing. *Current Directions in Psychological Science*, 18(6), 332-336. <https://doi.org/10.1111/j.14678721.2009.01662.x>

Liu, D., Xi, J., Hall, B. J., Fu, M., Zhang, B., Guo, J., & Feng, X. (2020). Attitudes toward aging, social support and depression among older adults: Difference by urban and rural areas in China. *Journal of Affective Disorders*, 274, 85-92. <https://doi.org/10.1016/j.jad.2020.05.052>

Löckenhoff, C. E., & Carstensen, L. L. (2004). Socioemotional selectivity theory, aging, and health: The increasingly delicate balance between regulating emotions and making tough choices. *Journal of Personality*, 72(6), 1395-1424. <https://doi.org/10.1111/j.1467-6494.2004.00301.x>

Lytle, A., Apriceno, M., Macdonald, J., Monahan, C., & Levy, S. R. (2020). Pre-pandemic ageism toward older adults predicts behavioral intentions during the COVID-19 pandemic. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, gbaa210. Advance online publication. <https://doi.org/10.1093/geronb/gbaa210>

Lytle, A., & Levy, S. R. (2019). Reducing ageism: Education about aging and extended contact with older adults. *The Gerontologist*, 59(3), 580-588. <https://doi.org/10.1093/geront/gnx177>

Lytle, A., Nowacek, N., & Levy, S. R. (2020). Instapals: Reducing ageism by facilitating intergenerational contact and providing aging education. *Gerontology & Geriatrics Education*, 41(3), 308-319. <https://doi.org/10.1080/02701960.2020.1737047>

Mather, M., & Lighthall, N. R. (2012). Risk and reward are processed differently in decisions made under stress. *Current Directions in Psychological Science*, 21(1), 36-41. <https://doi.org/10.1177/0963721411429452>

McCann, S. J. H., Colquitt, J. A., Turban, D. B., & Deutsch, S. (2015). Are they us? Predicting ethnic identification and helping behavior in response to multicultural challenges. *Academy of Management Journal*, 58(4), 1308-1331.

McGuinn, K.K., & Mosher-Ashley, P.M. (2002) Children's fears about personal aging. *Educational Gerontology* 28 (7), 561-575, DOI: <https://doi.org/10.1080/03601270290099769>

Meshel, D. S., & MCGlynn, R. P. (2004). Intergenerational contact, attitudes, and stereotypes of adolescents and older people. *Educational Gerontology*, 30(6), 457-479. <https://doi.org/10.1080/03601270490445078>

Micillo, L., Rioux, P. A., Mendoza, E., Kübel, S. L., Cellini, N., Van Wassenhove, V., ... & Mioni, G. (2022). Time perspective predicts levels of anxiety and depression during the COVID-19 outbreak: A cross-cultural study. *PLoS One*, 17(9), e0269396. <https://doi.org/10.1371/journal.pone.0269396>

Mucuk, M., & Evren, S. (2023). What Drives Inflation in High-inflation Countries? Evidence from Haiti, Sudan, Turkey and Zambia. *Politická Ekonomie*, 71(3), 238-266. <https://doi.org/10.18267/j.polek.1385>

Neikrug, S. M. (1998). The value of gerontological knowledge for elders: A study of the relationship between knowledge on aging and worry about the future. *Educational Gerontology* 24(3), 287-296. <https://doi.org/10.1080/0360127980240308>

Nelson, T. D. (2005). Ageism: Prejudice against our feared future self. *Journal of Social Issues*, 61(2), 207-221. <https://doi.org/10.1111/j.1540-4560.2005.00402.x>

Nishi-Strattner, M., & Myers, J. E. (1983). Attitudes toward the elderly: An intergenerational examination. *Educational Gerontology* 9(5-6), 389-397. <https://doi.org/10.1080/0380127830090503>

North, M. S., & Fiske, S. T. (2013). Act your (old) age: Prescriptive, ageist biases over succession, consumption, and identity. *Personality and Social Psychology Bulletin*, 39(6), 720-734. <https://doi.org/10.1177/0146167213480043>

Okur, E., Akbal, Y., Yagci Sentürk, A., Daştan, B., & Kuralay, Ç. (2023). The willingness of elderly care program students to care for older adults and the associated factors: a multi-centered research. *Educational Gerontology*, 49(4), 333-344. <https://doi.org/10.1080/03601277.2022.2111894>

Özdemir Ocaklı, B., & Yalçın, B. (2021). Perception of intergenerational conflict in Turkey: A macro level analysis of determinants. *OPUS- International Journal of Society Researches* 17(33), 67-94. <https://doi.org/10.26466/opus.818458>

Paredes, M. R., Apaolaza, V., Fernandez-Robin, C., Hartmann, P., & Yañez-Martinez, D. (2021). The impact of the COVID-19 pandemic on subjective mental well-being: The interplay of perceived threat, future anxiety and resilience. *Personality and Individual Differences*, 170, 110455. <https://doi.org/10.1016/j.paid.2020.110455>

Pelling, M. (2011). *Adaptation to climate change: From resilience to transformation*. Routledge. <https://doi.org/10.4324/9780203889046>

Preoteasa, A. M., Vlase, I., & Tufă, L. A. (2018). Intergenerational support as a reaction to socioeconomic crisis: alteration of solidarity within precarious Romanian households. *European Societies*, 20(1), 111-130. <https://doi.org/10.1080/14616696.2017.1402123>

Prior, K., & Sargent-Cox, K. A. (2014). Students' expectations of ageing: An evaluation of the impact of imagined intergenerational contact and the mediating role of ageing anxiety. *Journal of Experimental Social Psychology*, 55(November), 99-104. <https://doi.org/10.1016/j.jesp.2014.06.001>

Roodin, P. A. (2012). Global intergenerational research, programs and policy: What does the future hold?. In *Intergenerational Relationships* (pp. 215-219). https://doi.org/10.1300/J194v02n03_15

Rosencranz, H. A., & McNevin, T. E. (1969). A factor analysis of attitudes toward the aged. *The Gerontologist* 9(1), 55-59. <https://doi.org/10.1093/geront/9.1.55>

Roy, S., & Ayalon, L. (2023). “They did not know what they were doing”: Climate change and intergenerational compassion. *The Gerontologist*, gnad063. <https://doi.org/10.1093/geront/gnad063>

Saleh Manige, H., Papi, S., Sahaf, R., Abbasi Asl, M., Ramshini, M., Rassafiani, M., & Bodaghi, A. M. (2020). Predicting the perception of aging based on optimism in the elderly people. *Iranian Journal of Ageing*, 14(4), 450-461.

Schwarz, L. K., & Simmons, J. P. (2001). Contact quality and attitudes towards the elderly. *Educational Gerontology*, 27(2), 127-137. <https://doi.org/10.1080/03601270151075525>

Sheeran, P., & Webb, T. L. (2016). The intention-behavior gap. *Social and Personality Psychology Compass* 10(9), 503-518. <https://doi.org/10.1111/spc3.12265>

Sörensen, S., Hirsch, J. K., & Lyness, J. M. (2014). Optimism and planning for future care needs among older adults. *GeroPsych*. <https://doi.org/10.1024/1662-9647/a000099>

Sweeny, K., Carroll, P. J., & Shepperd, J. A. (2006). Is optimism always best? Future outlooks and preparedness. *Current Directions in Psychological Science* 15(6), 302-306 <https://doi.org/10.1111/j.1467-8721.2006.00457.x>

Sun, Q., Lou, V. W., Dai, A., To, C., & Wong, S. Y. (2019). The effectiveness of the young-old link and growth intergenerational program in reducing age stereotypes. *Research on Social Work Practice* 29(5), 519-528. <https://doi.org/10.1177/1049731518767319>

Sunar, D., & Fisek, G. (2005). Contemporary Turkish families. In U. Gielen & J. Roopnarine (Eds.), *Families in global perspective* (pp. 169-183). Allyn & Bacon/Pearson.

Tang, J., & Martins, J. T. (2021). Intergenerational workplace knowledge sharing: Challenges and new directions. *Journal of Documentation* 77(3), 722-742 <https://doi.org/10.1108/JD-08-2020-0129>

Telek, A., Özgüzel, C., & Korkmaz, S. S. (2021). Türkiye'de işgücündeki yaşlılar ve güvencesizlik [Labor and the security of the elderly in Turkey]. İstanbul Politik Araştırmalar Enstitüsü.

Timonen, V., Conlon, C., Scharf, T., & Carney, G. (2013). Family, state, class and solidarity: Re-conceptualising intergenerational solidarity through the grounded

theory approach. *European Journal of Ageing*, 10, 171-179.
<https://doi.org/10.1007/s10433-013-0272-x>

Trumbo, C., Lueck, M., Marlatt, H., & Peek, L. (2011). The effect of proximity to Hurricanes Katrina and Rita on subsequent hurricane outlook and optimistic bias. *Risk Analysis: An International Journal* 31(12), 1907-1918
<https://doi.org/10.1111/j.1539-6924.2011.01633.x>

Türgay, A. S., Şahin, S., Aykar, F. Ş., Sari, D., Badir, A., & Özer, Z. C. (2015). Attitudes of Turkish nursing students toward elderly people. *European Geriatric Medicine* 6(3), 267-270 <https://doi.org/10.1016/j.eurger.2015.01.006>

TurkStat. (2021, September 1). Labor force statistics (2014 and after). *Employment, unemployment, and wages*. <https://data.tuik.gov.tr/>

Turner, R. N., Crisp, R. J., & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. *Group Processes & Intergroup Relations* 10(4), 427-441. <https://doi.org/10.1177/1368430207081533>

Turner, R. N., & Crisp, R. J. (2010). Imagining intergroup contact reduces implicit prejudice. *British Journal of Social Psychology* 49(1), 129-142. <https://doi.org/10.1348/014466609X419901>

Turner, R. N., Hewstone, M., Voci, A., & Vonofakou, C. (2008). A test of the extended intergroup contact hypothesis: The mediating role of intergroup anxiety, perceived ingroup and outgroup norms, and inclusion of the outgroup in the self. *Journal of Personality and Social Psychology* 95(4), 843-860. <https://doi.org/10.1037/a0011434>

Turner, S. G., & Hooker, K. (2022). Are thoughts about the future associated with perceptions in the present?: Optimism, possible selves, and self-perceptions of aging. *The International Journal of Aging and Human Development* 94(2), 123-137. <https://doi.org/10.1177/0091415020981883>

Turner, R. N., & West, K. (2012). Behavioural consequences of imagining intergroup contact with stigmatized outgroups. *Group Processes & Intergroup Relations* 15(2), 193-202. <https://doi.org/10.1177/1368430211418699>

VanderVen, K. (2004). Intergenerational theory in society: Building on the past, questions for the future. *Journal of Intergenerational Relationships* 2(3-4), 75-94. https://doi.org/10.1300/J194v02n03_07

Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin* 132(2), 249-268 <https://doi.org/10.1037/0033-2909.132.2.249>

Williams, L. (2021). *Indigenous intergenerational resilience: Confronting cultural and ecological crisis*. Routledge. <https://doi.org/10.4324/9781003008347>

Wise, R. (2010). Intergenerational relationship characteristics and grandchildren's perceptions of grandparent goal influence. *Journal of Intergenerational Relationships* 8(1), 54-68. <https://doi.org/10.1080/15350770903520668>

Wise, R., & Önoğlu, A. (2021). Intergenerational relationships and aging anxiety among emerging adults in Turkey. *Journal of Intergenerational Relationships* 19(2), 196-208. <https://doi.org/10.1080/15350770.2020.1730293>

Wise, R. M., & Uzel, A. (2021). Intergenerational contact, aging anxiety and behavioral intentions toward older adults. *Educational Gerontology* 47(10), 470-485. <https://doi.org/10.1080/03601277.2021.2002599>

Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge across-group friendships and prejudice. *Journal of Personality and Social Psychology* 73(1), 73-90. <https://doi.org/10.1037/0022-3514.73.1.73>

Wu, X., & Yuan, Z. (2023). Understanding the sociocultural resilience of rural areas through the intergenerational relationship in transitional China: Case studies from Guangdong. *Journal of Rural Studies*, 97, 303-313. <https://doi.org/10.1016/j.jrurstud.2022.12.001>

Yaghoobzadeh, A., Navab, E., Mirlashari, J., Nasrabadi, A. N., Goudarzian, A. H., Allen, K. A., & Pourmollamirza, A. (2020). Factors moderating the influence of intergenerational contact on ageism: A systematic review. *Journal of Psychosocial Nursing and Mental Health Services* 58(8), 48-55. <https://doi.org/10.3928/02793695-20200624-01>

Yıldırım, M., Kaynar, Ö., Arslan, G., & Chirico, F. (2023). Fear of COVID-19, resilience, and future anxiety: psychometric properties of the Turkish version of the dark future scale. *Journal of Personalized Medicine* 13(4), 597. <https://doi.org/10.3390/jpm13040597>

Yoelin, A. B. (2022). Intergenerational service learning within an aging course and its impact on undergraduate students' attitudes about aging. *Journal of Intergenerational Relationships* 20(3), 277-292. <https://doi.org/10.1080/15350770.2021.1881019>

Yoshii, H., Saito, H., Kikuchi, S., Ueno, T., & Sato, K. (2014). Report on maternal anxiety 16 months after the great East Japan earthquake disaster: anxiety over radioactivity. *Global Journal of Health Science* 6(6), 1. <https://doi.org/10.5539/gjhs.v6n6p1>

Zaleski, Z., Sobol-Kwapinska, M., Przepiorka, A., & Meisner, M. (2019). Development and validation of the Dark Future scale. *Time & Society* 28(1), 107-123. <https://doi.org/10.1177/0961463X16678257>

Zhou, S., Page-Gould, E., Aron, A., Moyer, A., & Hewstone, M. (2019). The extended contact hypothesis: A meta-analysis on 20 years of research. *Personality and Social Psychology Review* 23(2), 132-160. <https://doi.org/10.1177/1088868318762647>

