

3-30-2024

## Expectations Towards Aging Among Filipino University Students: Educating the Younger Generations to Combat Ageism

Melanie Tolentino

*Central Luzon State University, Nueva Ecija, Philippines*

Marcelo Savassi Kakiyara

*Kyoto University, Kyoto, Japan, kakiyara.marcelo.54z@st.kyoto-u.ac.jp*

Follow this and additional works at: <https://animorepository.dlsu.edu.ph/apssr>

---

### Recommended Citation

Tolentino, Melanie and Kakiyara, Marcelo Savassi (2024) "Expectations Towards Aging Among Filipino University Students: Educating the Younger Generations to Combat Ageism," *Asia-Pacific Social Science Review*. Vol. 24: Iss. 1, Article 3.

DOI: <https://doi.org/10.59588/2350-8329.1522>

Available at: <https://animorepository.dlsu.edu.ph/apssr/vol24/iss1/3>

This Research Article is brought to you for free and open access by the DLSU Publications at Animo Repository. It has been accepted for inclusion in Asia-Pacific Social Science Review by an authorized editor of Animo Repository.

RESEARCH ARTICLE

# Expectations Towards Aging Among Filipino University Students: Educating the Younger Generations to Combat Ageism

Melanie Tolentino<sup>1</sup> and Marcelo Savassi Kakihara<sup>2\*</sup>  
Central Luzon State University, Nueva Ecija, Philippines

<sup>2</sup>Kyoto University, Kyoto, Japan

\*kakihara.marcelo.54z@st.kyoto-u.ac.jp

**Abstract:** The study determined the effect of an online educational webinar on young Filipino's expectations toward aging. Students from social sciences-related programs and engineering/business programs of a state university in the Philippines were recruited to join an intervention group and a passive control group, respectively. Data was obtained in two time points for both groups through the Expectations Toward Aging Questionnaire (ERA-12). Results showed that the intervention group's baseline scores improved significantly compared to the control group. Consistent with the previous studies, our data suggests that affordable and short online educational interventions may be effective in reducing ageism among young university students. The study highlights the importance of further research on ageism and strategies to promote age-friendly environments in the Philippines.

**Keywords:** ageism, Philippines, Filipino university students, healthy aging, social inclusion, educational intervention

Aging is a shared human experience, rich in diversity and unique trajectories. While it can be marked by decline in health conditions for some, for many others, it is manifested as a period of good health and well-being (World Health Organization [WHO], 2015). According to the literature, variety in the aging process is determined by the combination of individual physiological decline and environmental factors such as gender, ethnic group, and economic status (Dwyer-Lindgren et al., 2017; Gee & Payne-Sturges, 2004; Goldenberg, 2018; Krekula et al., 2018).

Further exploring this topic, this research considers one important psychosocial factor associated with healthy aging called ageism. The term ageism was

coined in 1969 by the psychiatrist Robert N. Butler, who described it as “the prejudice of one age group against another age group” and “a personal revulsion to and distaste for growing old, disease, disability; and fear of powerlessness, ‘useless,’ and death” (Butler, 1969, p. 243). Today, ageism is defined by the World Health Organization (WHO) as a multidimensional phenomenon constituted by stereotypes, discrimination, and prejudice, which respectively refer to thoughts, actions, and feelings towards aging and older adults (WHO, 2021).

Here, we focus on stereotypes, a key dimension of ageism, which can have a significant impact on how someone experiences the aging process (Allen, 2016;

Levy et al., 2022; Levy et al., 2023). According to the previous literature, when negative stereotypes about aging are internalized, as in a self-fulfilling prophecy, the chances of having health issues such as heart diseases (Levy et al., 2009) and mental illness increase (Gum & Ayalon, 2018; Han, 2018; Levy, Chang, et al., 2022). Individuals who believe that aging is a period of inevitable health decline tend to be more susceptible to environmental stress and are often more likely to adopt poor health practices (Levy, 2009). Furthermore, such beliefs make them predisposed to engage in discriminatory behavior and hold prejudiced views (Rupp et al., 2006; WHO, 2021). On the macro level, ageism can lead to the deterioration of intergenerational bonds, isolation of older adults, difficulty in access to health treatments, and intensification of inequalities (Chang et al., 2020; Shiovitz-Ezra et al., 2018).

On the other hand, it is increasingly recognized that individuals who have positive views about aging tend to have better physical condition, are less likely to develop psychiatric problems (Levy et al., 2014), and live longer (Levy et al., 2002). Moreover, in environments where older adults are respected and institutions are inclusive, people tend to age with good health, feeling a sense of value, and being connected to their community (WHO, 2015).

### Ageism in the Philippines' Context

The Philippines is a relatively young country. Currently, the proportion of young people is still significantly higher than older adults, and the mean age of the population is one of the lowest in Asia. According to the 2020 National Census of Population and Housing, the percentage of people 60 years older is just 8.5 % (9.22 million) of the total household population (Philippine Statistics Authority, 2023). For comparison, in Japan, this percentage is 35.4% of the whole population (United Nations, Department of Economic and Social Affairs, Population Division, 2022). The stage of demographic transition in the Philippines opens a window of opportunities for positive social changes (United Nations, Department of Economic and Social Affairs, Population Division, 2015). Addressing contemporary challenges of population aging, such as ageism (Tolentino & Kakihara, 2021), paves the way for the older population to play a positive role in shaping community life (Arcinas et al., 2019). If these

issues are successfully handled now, in the near future the country may collect the dividends brought by the aging society (Scott, 2021) and potentially become a role model of healthy aging to the world.

In the Philippines, ageism remains largely unexplored, yet the scarce evidence in the literature suggests that it is widespread and prevalent, as observed in different Western countries (Ayalon, 2014). For example, in a study conducted by Officer et al. (2020) involving 57 countries, it was shown that attitudes related to ageism may be prevalent in the Philippines. The result was based on aggregated answers to nine questions of the World Value Survey that assessed participants' thoughts and feelings about older people and their evaluation of other Filipino's views towards older adults (Ingelhart et al., 2014).

Recent events corroborate these findings, such as the growing cases of elder abuse reported by the Commission on Human Rights of the Philippines (Ayalon & Roy, 2022; Commission on Human Rights of the Philippines, 2017), or the widespread use of negative stereotypes in the national media. In a critical discourse analysis of 30 news articles from three leading Philippine broadsheets, it was found that the characteristics commonly ascribed to older Filipinos are physical and mental frailty, vulnerability and susceptible to being victims of crimes or accidents, incompetent, dependent, and impoverished (Lustañas, 2019). Moreover, ageism seems to be more severe towards women and they are more likely to be targeted by negative views. Evidence is based on a survey conducted by a beauty product company in the Philippines. One in two women refused to reveal their age, and two out of three feel that they are judged according to their age (Handog, 2021).

Ageism during the COVID-19 pandemic is also a matter of concern. The policy and practice in the country regarding vaccines have shifted from senior adults to the younger population, the so-called working-age adults (Lloyd-Sherlock et al., 2021). Capitalizing the reason for economic necessity enforces the age stereotypes of older adults as unproductive members of society, and it can lead to neglect and, to some extent, exclusion. This was true for older people who manifested greater loneliness during the COVID-19 lockdown. The lockdown heightened the use of technology in communications, which apparently led older adults to isolation because they may not be adept to it (Hechanova et al., 2022). In a study assessing

online media representation of older adults across 20 countries over an eight-month period starting from October 2019, the Philippines was indicated as one of the countries with highest levels of ageism. Accordingly, cultural factors such as individualism, masculinity, uncertainty avoidance, and long-term orientation were associated with negative narratives toward older adults.

Despite the negative evidence, in the last decade, the number of research and governmental initiatives to deal with this challenge has also significantly increased. Two milestones are: the 2020 Republic Act No. 11350, creating the National Commission of Senior Citizens (NCSC); and the 2018 Longitudinal Study of Ageing and Health in the Philippines (LSAHP). Statutes promoting the social and health welfare of older Filipino adults are building blocks of creating an environment that is age friendly. These initiatives aligned with a better understanding of ageism through academic research (Badana & Andel, 2018) can help identify potential measures to address the needs of the country's aging population.

### **Raising Awareness About Ageism Among University Students**

The meaning of what it is to be an older adult, as well as the expectations about older age, are socially constructed and assimilated since childhood, for example, through TV programs, movies, and other cultural sources that often picture older characters in a negative way (Buaphet, 2019; Lee et al., 2006; Lill & Peterson, 2001; Lustaños, 2019). Combating these deeply internalized negative stereotypes starts with raising awareness about the issue and confronting them with facts. Thus, one of the main strategies to combat ageism is education. The theory of cognitive dissonance suggests that when accurate information confronts misconceptions, dissonance is created, allowing individuals to reexamine their attitudes and update their beliefs and expectations (Festinger, 1957). This may be especially true for young people who might internalize more false ideas about aging (Kornadt et al., 2017) but are also more susceptible to changes (Burnes et al., 2019).

For instance, in the systematic literature review of 63 studies conducted from 1976 to 2018, Burnes and colleagues (2019) found a significant effect

of education-based interventions on participants' attitudes, knowledge, and comfort toward older adults. The educational methods that demonstrated effectiveness in combat ageism are quite varied; for example, life-story documentaries (Yamashita et al., 2018) and theater (Black & Lipscomb, 2017); activities using virtual reality through smartphones and headsets (Hudson et al., 2019); or videos, workshops, and discussions to reduce stereotypes among university students (Lytle et al., 2021; Mellor et al., 2015; Sum et al., 2016; Whatley & Castel, 2020).

A significant gap in the literature concerns online educational interventions. This gap became especially pronounced post-2019, considering the pandemic, which required the rapid transition of in-person programs to digital platforms. With online learning becoming more prevalent in academic education, it is essential to understand how to conduct it in a meaningful way that is complementary to in-person education. Online learning can be appreciated by students in terms of full-packed information with many varied and creative techniques of message delivery, such as videos, live chats, and virtual presentations with international guests. In addition, previous studies suggest that, to some extent, it can be as effective as in-person interventions (Fearnley & Malay, 2021; Lytle & Levy, 2017; Rodríguez-Rivas et al., 2021).

Another gap in the literature is related to the predominance of studies conducted in English-speaking, high-income countries. As far as we are concerned, there are just a few interventional studies in Asian countries, including Iran (Sum et al., 2016) and China (Leung et al., 2012), but none in the Philippines. Thus, findings may be culturally biased and potentially not applicable to the Filipino population.

With the objective of filling these gaps, the current study investigates for the first time the effect of an online educational intervention on the ageism level of young Filipino students. Here, we focus on explicit negative stereotypes about aging measured by the Expectations Regarding Ageing survey (ERA-12). This scale was created with the intention of measuring stereotypes among older adults. Higher scores are considered to be associated with Rowe and Kahn's (1987) model of successful aging, whereas lower scores are linked to health decline and function (Sarkisian, Hays, et al., 2002). Based on previous studies (e.g., Joshi et al., 2010; Park & Kweon, 2014), we test the possibility

of using this scale with the targeted population. We hypothesize that a short online webinar that provides accurate information about aging and ageism would be enough to promote positive changes in expectations towards aging.

## Methods

### *Sample*

The study used a non-randomized controlled design. Participants were recruited from social sciences-related programs and engineering/business programs of a state university in the Philippines. Recruitment was conducted through emails and online communication. After exclusions, 107 (84 females) students with a mean age of 20.2 (SD = .87) qualified as participants. Fifty-nine students from social science-related degree programs were assigned to the intervention group (mean age of  $20.4 \pm .98$ ), whereas 48 students from engineering/business degree programs were assigned to the control group (mean age of  $19.9 \pm .66$ ). Participants were removed due to drop out ( $n = 64$ ), problems with internet connection on the day of the webinar ( $n = 27$ ), unaccomplished questionnaire ( $n = 4$ ), or different course levels from the ones assigned to this analysis ( $n = 18$ ).

On the day of the baseline assessment, participants received informed consent forms containing information about the procedure, research purpose, and voluntary participation. They were informed that in case of withdrawal or absence, their decision would not have any impact on academic scores. All the participants gave consent to participate. In addition, the educational seminar was an approved activity, and the conduct of research was given an ethical clearance by a state university ethics board. It was clear that the students' participation or withdrawal from the activity shall not affect their grades in any of the subjects taken during the semester when the study was conducted. Data was anonymized using codes, and it was confidentially stored.

### *Procedure*

The main purpose of this research was to assess the effect of an educational webinar on university students' negative stereotypes towards aging, as measured by the Expectations Regarding Ageing (ERA-12) survey. The control group's data was also used to evaluate

the possibility of using the ERA-12 for longitudinal assessment of young Filipinos.

Students were invited to participate in the study as part of the class activities. The control group was invited with the instruction that it would be a study to test the reliability of the questionnaire and they did not receive any information about the intervention.

The ERA-12 and a socioeconomic questionnaire were uploaded as a single Google Forms file to the student's online platform. First, the intervention group's participants were asked to answer the questionnaire one week before the educational webinar. The questionnaire response time was about 15 minutes. Then, the intervention group attended the three-hour educational webinar while the control group continued with their normal academic activities. One week after the webinar, students of both groups were invited to answer the post-intervention survey.

### *Intervention*

Education-focused interventions, like educational webinars, is a form of formal socialization for college students in preparation for their profession or work life. This kind of campaign focuses on information provision about population aging and ageism as one of the greatest challenges to fostering healthy aging. After college, the students will pursue their careers in various settings and work with individuals from different age groups, especially older people. This intervention can educate the students in creating productive work relations among colleagues regardless of age by enabling a more positive awareness about aging. An education-focused intervention on intergenerational contact can help reduce anxiety toward aging (Hwang & Kim, 2021), hence leading to better communication and relations with people outside a university.

The webinar elaborated for the current study consisted of a three-hour educational intervention about ageism and the phenomenon of aging population. It included lectures, discussions, videos, and a QA session. The lectures included the following topics: what is ageism, its origins and sources, its determinants, ageism towards young people, and strategies to combat ageism. Information about ageism during the COVID-19 pandemic was also included in the lectures. Videos from campaigns to combat ageism and stories of successful aging were used as supporting material in between the presentation of each topic. Finally, questions such as "What is ageism for you?"



“Explain ageism in one word,” and “Have you ever been a victim of ageism? How?” were used as starters for discussions.

The structure and materials of the webinar were based on the course “Healthy Ageing for Impact in the 21st Century” offered online by WHO’s open platform in the second semester of 2020. The WHO’s report on ageism was also a core material for the webinar (WHO, 2021).

### **Instruments**

The ERA-12 survey is a short version of ERA-38 that was created to measure the extent to which individuals expect to experience an age-related decline (Sarkisian, Hays, et al., 2002; Sarkisian, Steers, et al., 2005). The long version of the questionnaire was indicated as the only among 11 ageism scales to achieve minimum requirements for psychometric validation (Ayalon et al., 2019), and the shorter version captures 88% of the variation in the ERA-38 (Sarkisian, Steers, et al., 2005). The ERA-12 consists of 12 questions related to three different scales: expectations regarding physical health (Items 1 to 4), expectations regarding mental health (Items 5 to 8), and expectations regarding cognitive function (Items 9 to 12). Sentences such as “I expect that as I get older, I will become more forgetful” are judged in a 4-level likelihood scale: definitely true, somewhat true, somewhat false, and definitely false. Higher scores indicate higher expectations regarding aging, and lower scores indicate expected health decline. As sentences are negative stereotypes, “definitely true” is coded as 1, whereas “definitely false” is coded as 4. Internal consistency (Cronbach’s coefficient alpha) for the scales measured by ERA-12 exceeded 0.75 in a population of older adults (Sarkisian, Steers, et al., 2005).

A three-week test-retest conducted with subjects of our control group indicated an acceptable reliability of the scale for longitudinal measurement ( $r = .74$ ). Cronbach’s alpha ( $\alpha = .82$ ) indicated a good internal consistency of the overall ERA-12 and moderate consistency for each scale ( $\alpha > .60$ ). For analyses, mean scores for the ERA-12 were transformed linearly to a 0-100 range.

Participants also reported their age, gender, number of siblings, and mother and father’s level of education. Based on previous research (i.e., Sum et al., 2016), they also completed four items about intergenerational contact, “Are you living with your

grandparents?” “How frequently have you met any of your grandparents in the last 10 days?” “How frequently have you talked to any of your grandparents in the last 10 days?” and “How frequently do you talk with friends 10 years older or younger than you?”. The last three questions were evaluated on a 5-point Likert scale of frequency.

### **Results**

Associations between sociodemographic characteristics and ERA-12 were measured through Spearman’s rank correlation analyses and *t*-tests. A positive, marginally significant association between the ERA-12 scores and the father’s level of education,  $r(105) = .188$ ,  $p = .053$  was found, whereas no association was found between ERA-12 scores and other sociodemographic variables.

Groups did not significantly differ in ERA-12 baseline scores, gender, number of siblings, as well as mother’s level of education. Father’s level of education was significantly different between groups, with the control group having a higher level than the intervention group,  $t(105) = 2.55$ ,  $p = .012$ . As this result may reflect possible differences in family income and engagement with children’s education, this variable was statistically controlled in the further analysis. Groups also differed in age  $t(105) = -2.917$ ,  $p = .004$ . Although previous studies suggest an influence of age on ageism levels, the small difference (less than one year) observed in our sample did not show any correlation with ageism levels; thus, we opted not to control it in the analysis.

Groups did not differ in intergenerational contact. In the intervention group, 30.5% live with their grandparents, and in the control group, 29.2%. In the previous 10 days before completing the survey, 51% of the intervention group and 58.3% of the control group always or often met their grandparents, 47.4% of the intervention group and 50% of the control group always or often talked to at least one of their grandparents. Finally, 50.8% of the intervention and 45% of the control group were in contact with friends of different generations. In contrast to previous studies, we could not find any association between intergenerational contact and ageism scores. It is important to notice that these results may account for the measures of social distance due to the COVID-19 pandemic.

**Table 1**

*Pretest Means, Adjusted Posttest Means, Standard Deviations, and Analysis of Covariance Results for the Effects of the Educational Webinar on Different Health Dimensions and Overall ERA-12 Scores*

	Intervention				Control				<i>F</i> (1, 103)	<i>η</i> <sup>2</sup>
	Pretest		Posttest		Pretest		Posttest			
	M	SD	M	SD	M	SD	M	SD		
Physical	29.24	16.9	37.85	2.32	32.46	18.53	28.13	2.58	7.583*	.069
Mental	43.07	19.15	50.74	1.96	49.47	20.94	46.48	2.18	2.028	.019
Cognitive	25.99	17.38	34.76	2.13	27.26	14.67	22.55	2.37	14.230**	.121
ERA-12	32.77	14.75	41.17	1.86	36.4	15.05	32.32	2.07	9.747*	.086

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

Analysis of covariance (ANCOVA) controlling for father's level of education revealed a significant group effect on the ERA-12 scores (see Table 1). Moreover, when analyzing the results for each dimension of ERA-12, results indicate a significant effect on expectations toward cognitive and physical health but not for mental health. Expectations toward mental health were significantly higher at baseline for both groups, whereas expectations towards cognitive health was the lowest.

## Discussion

Identifying effective interventions to reduce negative stereotypes among young adults is an essential step to combat ageism. As far as we are concerned, this is the first study to assess the efficacy of a short educational webinar to combat negative stereotypes about aging among young Filipino students. Based on previous studies that tested the efficacy of educational interventions to reduce ageism (e.g., Burnes et al., 2019; Chonody, 2015; Sum et al., 2016), we hypothesized that a three-hour educational webinar would be effective in reducing ageist stereotypes among participants. Our data supported this hypothesis as the scores of ERA-12 significantly improved among the webinar participants compared to a control passive group. The accurate information and participative discussions of the webinar probably created enough cognitive dissonance (Festinger, 1957).

However, there is much room for improvement as evidence suggests a strong acceptance of negative stereotypes among students, especially related to physical and cognitive health. For example, around 40% of the participants believed it to be definitely true that "forgetfulness is a natural occurrence just from growing old" and "having more aches and pains is an accepted part of aging" (see Table 2). The students have been socialized from their childhood through online media (Lustañas, 2019) and television product advertisements (Handog, 2021), holding negative stereotypes of aging on physical health and cognitive function. This may explain the students' strong acceptance of negative stereotypes relating to the physical and mental health of older adults.

Turning to the analysis of each dimension of the ERA-12 score, results indicated a strong intervention effect on the expectations toward cognitive and physical health but not on the expectations toward mental health. As the level of expectations toward mental health was relatively higher at baseline (see Table 1), one possible explanation is that this type of short intervention may have some limitations. Although a short online webinar may be effective in combating strong negative thoughts, it may not be enough to make participants reject them completely. That is, to understand that they are "definitely false." In this sense, online webinars may be used as the starting point or as part of longer educational interventions. Further studies with longer intervention periods will be necessary to understand this issue.

**Table 2***Percentage of Answers for Each Question of ERA-12, Pre- and Post-Intervention*

	Group	Definitely true		Somewhat true		Somewhat false		Definitely false	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
1. When people get older, they need to lower their expectations of how healthy they can be.	I	30.5	16.9	39	40.7	22	30.5	8.5	11.9
	C	20.8	22.9	37.5	43.8	33.3	29.2	8.3	4.2
2. Having more aches and pains is an accepted part of aging.	I	42.4	44.1	49.2	37.3	8.5	13.3	0	5.1
	C	45.8	50	47.9	39.6	6.3	10.4	0	0
3. The human body is like a car: When it gets old, it gets worn out.	I	30.5	22	61	52.5	6.8	16.9	1.7	5.1
	C	27.1	27.1	60.4	60.4	10.4	10.4	2.1	2.1
4. Every year that people age, their energy levels go down a little more.	I	15.3	15.3	30.5	66.1	35.6	13.6	18.6	5.1
	C	16.7	20.8	54.2	62.5	29.2	16.7	0	0
5. I expect that as I get older, I will spend less time with friends and family.	I	15.3	8.5	30.5	39	35.6	33.9	18.6	18.6
	C	12.5	4.2	31.3	37.5	41.7	43.8	14.6	14.6
6. Being lonely is just something that happens when people get old.	I	15.3	10.2	47.5	47.5	28.8	23.7	8.5	18.6
	C	6.3	10.4	37.5	29.2	35.4	45.8	20.8	14.6
7. As people get older, they worry more.	I	42.4	22	37.3	52.5	20.3	15.3	0	10.2
	C	31.3	22.9	45.8	62.5	14.6	10.4	8.3	4.2
8. It's normal to be depressed when you are old.	I	11.9	6.8	45.8	47.5	22	28.8	20.3	16.9
	C	6.3	10.4	35.4	33.3	45.8	41.7	12.5	14.6
9. I expect that as I get older, I will become more forgetful.	I	32.2	23.7	49.2	62.7	15.3	10.2	3.4	3.4
	C	33.3	39.6	52.1	54.2	14.6	6.3	0	0
10. It's an accepted part of aging to have trouble remembering names.	I	44.1	28.8	44.1	50.8	11.9	13.6	0	6.8
	C	31.3	43.8	60.4	47.9	8.3	8.3	0	0
11. Forgetfulness is a natural occurrence just from growing old.	I	49.2	30.5	42.4	50.8	8.5	13.6	0	5.1
	C	39.6	43.8	54.2	52.1	6.3	4.2	0	0
12. It is impossible to escape the mental slowness that happens with aging.	I	27.1	22	50.8	44.1	22	27.1	0	6.8
	C	25	25	50	58.3	22.9	12.5	2.1	4.2

*Note.* This table shows the percentage of participants for each answer of ERA-12. I = intervention (n = 52), C = control (n = 48).



Notwithstanding, it was interesting to notice a higher baseline level of expectations toward mental health among participants. According to a study conducted by Hechanova et al. (2022), young Filipinos between 16 and 35 years old had greater depression, anxiety, and stress symptoms during the pandemic, whereas older adults demonstrated higher resilience and ability to cope with the period of crisis. It is possible that the demonstration of resilience by older adults during the COVID-19 pandemic was decisive in promoting positive changes in the expectations of mental health of students. Strong cultural values of filial piety in the Philippines (Badana & Andel, 2018) and the traditional extended family may have reduced isolation among older adults. In addition, traditional values of respect for older generations may have served as a catalyst to reduced ageism (Ragan & Bowen, 2001).

It is important to notice that the extended familiar structure is not always positive for older adults, especially if we consider gender differences (Ang & Malhotra, 2022). The same is true for traditional values of filial piety found in Asian societies, which may be increasingly hiding a form of compassionate patronage. According to Lustañas (2019) emphasizing the necessity to take care of older family members may transmit the underlying message that older adults are dependent and fragile. Thus, the country cannot rely only on filial piety and traditional family structure to safeguard the well-being of older adults. It is essential for society to support the autonomy of older adults, especially considering that the number of older adults living alone tends to increase in the next decades due to modernization and demographic changes, a trend that has been seen in many Asian countries (Meemon & Paek, 2020).

In contrast to previous research (Marques et al., 2020; Rababa & Hammouri, 2023; Sum et al., 2016) that indicated a link between ageism and intergenerational contact, we could not find any association between intergenerational contact and ERA-12 scores. One possible explanation is that the current study was conducted during the COVID-19 pandemic. Mobility was restricted, which probably affected the frequency of contact between students and older family members. It would be interesting for further research to assess how the pandemic affected the families in the Philippines and how this change is related to the level of ageism and well-being of family members.

Another interesting finding of this research is that the father's level of education was associated with higher expectations towards aging. A possible explanation might be that participants with fathers holding higher educational degrees had more access to information about aging, had better economic positions, and consequently were exposed to healthier examples of aging. Previous research suggests that there is a link between education and health literacy (Friis et al., 2016; Jansen et al., 2018), as well as socioeconomic status (Galobardes, 2006). If the family of fathers with higher educational attainment indeed have higher levels of health literacy and economic status, it is also possible that the aging experience of older family members was better and consequently was internalized by students as a positive model (Tariga & Utamora, 2016). However, further research with a higher number and diversity of Filipino participants is necessary to explore the association between these variables.

Due to difficulties with logistics and the costs required to facilitate an educational campaign on ageism, the current study could not randomly assign the participants. The intervention and control groups were assigned respectively from social sciences and engineering/business courses; hence, results may reflect potential differences between groups that could not be addressed in the current study. Moreover, our sample was mainly female (almost 78%). This may explain why we could not find any association between gender and ageism as in previous studies (Joshi et al., 2010; Sum et al., 2016). The unbalanced gender distribution cannot be overlooked, as ageism can be experienced in different ways by people of different genders (Rochon et al., 2021).

Thus, current results should be interpreted with caution, and we indicate that before concluding on the effect of educational intervention to reduce ageism, there are important limitations that should be addressed. We suggest that further studies would benefit from blind randomization, higher number of male participants, and the inclusion of other types of interventions for comparison, such as intergenerational contact. Finally, it would be interesting to test if the effects can be maintained in the long term with a follow-up assessment and include instruments to measure other dimensions of ageism (prejudice and discrimination).

## Conclusion

The current study was designed to determine the effect of an online webinar about aging and ageism on the expectations about the aging of young Filipinos. Results suggest that the intervention was effective in improving the expectations of young university students. This finding is encouraging as it indicates that ageism can be effectively reduced among the targeted population, and this can be done with affordable interventions.

However, the participants' baseline level of ageism is concerning. Results indicate that most students hold negative stereotypes about some aspects of aging, such as physical and cognitive health. On top of that, ageism is a subject still scarcely studied in the Philippines, and education about aging and ageism is rare in the curriculum of academic courses.

Thus, there is a definite need for further research to better understand the level of ageism among young Filipinos and how it interacts with other social factors. If academia works together with politicians and related stakeholders to foster educational activities, we believe that ageism can be significantly reduced, and this would be an important step to promote age-friendly environments in the Philippines.

## Declaration of Ownership

This report is our original work.

## Conflict of Interest

None.

## Ethical Clearance

This study was approved by our institution.

## References

- Allen, J. O. (2016). Ageism as a risk factor for chronic disease. *The Gerontologist*, 56(4), 610–614. <https://doi.org/10.1093/geront/gnu158>
- Ang, S., & Malhotra, R. (2022). The filial piety paradox: Receiving social support from children can be negatively associated with quality of life. *Social Science & Medicine*, 303, Article 114996. <https://doi.org/10.1016/j.socscimed.2022.114996>
- Arcinas, M. M., Tolentino, M. P., Lituañas, C. R. A., Cadeliña, J. S., & Obayashi, Y. (2019). E-health and healthy aging among the participating countries in JST Sakura Science Exchange Program 2019. *Asia-Pacific Social Science Review*, 20(2), 149–157.
- Ayalon, L. (2014). Perceived age, gender, and racial/ethnic discrimination in Europe: Results from the European social survey. *Educational Gerontology*, 40(7), 499–517. <https://doi.org/10.1080/03601277.2013.845490>
- Ayalon, L., Dolberg, P., Mikulionienė, S., Perek-Białas, J., Rapolienė, G., Stypinska, J., Willńska, M., & de la Fuente-Núñez, V. (2019). A systematic review of existing ageism scales. *Ageing Research Reviews*, 54, Article 100919. <https://doi.org/10.1016/j.arr.2019.100919>
- Ayalon, L., & Roy, S. (2022). Combatting ageism in the Western Pacific region. *The Lancet Regional Health - Western Pacific*, 35, Article 100593. <https://doi.org/10.1016/j.lanwpc.2022.100593>
- Badana, A. N. S., & Andel, R. (2018). Aging in the Philippines. *The Gerontologist*, 58(2), 212–218. <https://doi.org/10.1093/geront/gnx203>
- Black, K., & Lipscomb, V. B. (2017). The promise of documentary theatre to counter ageism in age-friendly communities. *Journal of Aging Studies*, 42, 32–37. <https://doi.org/10.1016/j.jaging.2017.06.001>
- Buaphet, P. (2019). Images of Thai women in magazines for older adults. *Manusya: Journal of Humanities*, 22(2), 197–221. <https://doi.org/10.1163/26659077-02202005>
- Burnes, D., Sheppard, C., Henderson, C. R., Wassel, M., Cope, R., Barber, C., & Pillemer, K. (2019). Interventions to reduce ageism against older adults: A systematic review and meta-analysis. *American Journal of Public Health*, 109(8), e1–e9. <https://doi.org/10.2105/AJPH.2019.305123>
- Butler, R. N. (1969). Age-Is: Another form of bigotry. *The Gerontologist*, 9(4 Part 1), 243–246. [https://doi.org/10.1093/geront/9.4\\_Part\\_1.243](https://doi.org/10.1093/geront/9.4_Part_1.243)
- Chang, E.-S., Kanno, S., Levy, S., Wang, S.-Y., Lee, J. E., & Levy, B. R. (2020). Global reach of ageism on older persons' health: A systematic review. *PLoS ONE*, 15(1), Article e0220857. <https://doi.org/10.1371/journal.pone.0220857>
- Chonody, J. M. (2015). Addressing ageism in students: A systematic review of the pedagogical intervention literature. *Educational Gerontology*, 41(12), 859–887. <https://doi.org/10.1080/03601277.2015.1059139>
- Commission on Human Rights of the Philippines. (2017). *Guiding questions for the "A" status NHRIs, GANHRI and its Regional Networks Eight Session-Working Group*. [https://www.ipsnews.net/Library/2020/06/Elder-Abuse-CommissionHumanRights\\_Philippines.pdf](https://www.ipsnews.net/Library/2020/06/Elder-Abuse-CommissionHumanRights_Philippines.pdf)
- Dwyer-Lindgren, L., Bertozzi-Villa, A., Stubbs, R. W., Morozoff, C., Mackenbach, J. P., van Lenthe, F. J.,

- Mokdad, A. H., & Murray, C. J. L. (2017). Inequalities in life expectancy among US counties, 1980 to 2014: Temporal trends and key drivers. *JAMA Internal Medicine*, 177(7), 1003–1011. <https://doi.org/10.1001/jamainternmed.2017.0918>
- Fearnley, M. R., & Malay, C. A. (2021). Assessing students' online learning readiness: Are college freshmen ready? *Asia-Pacific Social Science Review*, 21(3), 249–259.
- Festinger, L. (1957). *A theory of cognitive dissonance* (pp. xi, 291). Stanford University Press.
- Friis, K., Lasgaard, M., Rowlands, G., Osborne, R. H., & Maindal, H. T. (2016). Health literacy mediates the relationship between educational attainment and health behavior: A Danish population-based study. *Journal of Health Communication*, 21(sup2), 54–60. <https://doi.org/10.1080/10810730.2016.1201175>
- Galobardes, B. (2006). Indicators of socioeconomic position (part 1). *Journal of Epidemiology & Community Health*, 60(1), 7–12. <https://doi.org/10.1136/jech.2004.023531>
- Gee, G. C., & Payne-Sturges, D. C. (2004). Environmental health disparities: A framework integrating psychosocial and environmental concepts. *Environmental Health Perspectives*, 112(17), 1645–1653. <https://doi.org/10.1289/ehp.7074>
- Goldenberg, M. (2018). The invention of a beautiful old age: In search of a freer, happier life. *Revista Brasileira de Geriatria e Gerontologia*, 21(5), 511–512. <https://doi.org/10.1590/1981-22562018021.180177>
- Gum, A. M., & Ayalon, L. (2018). Self-perceptions of aging mediate the longitudinal relationship of hopelessness and depressive symptoms. *International Journal of Geriatric Psychiatry*, 33(4), 591–597. <https://doi.org/10.1002/gps.4826>
- Han, J. (2018). Chronic illnesses and depressive symptoms among older people: Functional limitations as a mediator and self-perceptions of aging as a moderator. *Journal of Aging and Health*, 30(8), 1188–1204. <https://doi.org/10.1177/0898264317711609>
- Handog, M. C. (2021, July 13). *How bad is ageism in PH? Survey says 1 in 2 women refuse to say age*. Rappler. <https://www.rappler.com/brandrap/health-beauty-and-wellness/reasons-women-do-not-like-talking-about-age/>
- Hechanova, M. R., Valentin, A. P., & Alampay, K. P. (2022). Age, COVID-19, and mental health in the Philippines: A multidimensional perspective. *Asia-Pacific Social Science Review*, 22(1), 142–157.
- Hudson, J., Waters, T., Holmes, M., Agris, S., Seymour, D., Thomas, L., & Oliver, E. (2019). Using virtual experiences of older age: Exploring pedagogical and psychological experiences of students. In *Proceedings of the Virtual and Augmented Reality to Enhance Learning and Teaching in Higher Education Conference 2018* (pp. 61–72). IM Publications Open LLP. <https://doi.org/10.1255/vrar2018.ch7>
- Hwang, E. H., & Kim, K. H. (2021). Quality of gerontological nursing and ageism: What factors influence on nurses' ageism in South Korea? *International Journal of Environmental Research and Public Health*, 18(8), Article 4091. <https://doi.org/10.3390/ijerph18084091>
- Ingelhart, R., Haerpfer, C. W., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano, J., Lagos, M., Norris, P., Ponarin, E., & Puranen, B. (2014). *World values survey wave 6 (2010-2014)* (Version 20180912) [dataset]. World Values Survey Association. <https://doi.org/10.14281/18241.8>
- Jansen, T., Rademakers, J., Waverijn, G., Verheij, R., Osborne, R., & Heijmans, M. (2018). The role of health literacy in explaining the association between educational attainment and the use of out-of-hours primary care services in chronically ill people: A survey study. *BMC Health Services Research*, 18(1), Article No. 394. <https://doi.org/10.1186/s12913-018-3197-4>
- Joshi, V. D., Malhotra, R., Lim, J. F. Y., Østbye, T., & Wong, M. (2010). Validity and reliability of the expectations regarding aging (ERA-12) instrument among middle-aged Singaporeans. *Annals of the Academy of Medicine, Singapore*, 39(5), 394–398.
- Kornadt, A. E., Voss, P., & Rothermund, K. (2017). Age stereotypes and self-views revisited: Patterns of internalization and projection processes across the life span. *The Journals of Gerontology: Series B*, 72(4), 582–592. <https://doi.org/10.1093/geronb/gbv099>
- Krekula, C., Nikander, P., & Wilińska, M. (2018). Multiple marginalizations based on age: Gendered ageism and beyond. In L. Ayalon & C. Tesch-Römer (Eds.), *Contemporary perspectives on ageism* (Vol. 19, pp. 33–50). Springer International Publishing. [https://doi.org/10.1007/978-3-319-73820-8\\_3](https://doi.org/10.1007/978-3-319-73820-8_3)
- Lee, B., Kim, B.-C., & Han, S. (2006). The portrayal of older people in television advertisements: A cross-cultural content analysis of the United States and South Korea. *The International Journal of Aging and Human Development*, 63(4), 279–297. <https://doi.org/10.2190/ELLG-JELY-UCCY-4L8M>
- Leung, A. Y. M., Chan, S. S. C., Kwan, C. W., Cheung, M. K. T., Leung, S. S. K., & Fong, D. Y. T. (2012). Service learning in medical and nursing training: A randomized controlled trial. *Advances in Health Sciences Education*, 17(4), 529–545. <https://doi.org/10.1007/s10459-011-9329-9>
- Levy, B. (2009). Stereotype embodiment: A psychosocial approach to aging. *Current Directions in Psychological Science*, 18(6), 332–336. <https://doi.org/10.1111/j.1467-8721.2009.01662.x>
- Levy, B. R., Slade, M. D., Kunkel, S. R., & Kasl, S. V. (2002). Longevity increased by positive self-



- perceptions of aging. *Journal of Personality and Social Psychology*, 83(2), 261–270. <https://doi.org/10.1037/0022-3514.83.2.261>
- Levy, B. R., Zonderman, A. B., Slade, M. D., & Ferrucci, L. (2009). Age stereotypes held earlier in life predict cardiovascular events in later life. *Psychological Science*, 20(3), 296–298. <https://doi.org/10.1111/j.1467-9280.2009.02298.x>
- Levy, B. R., Pilver, C. E., & Pietrzak, R. H. (2014). Lower prevalence of psychiatric conditions when negative age stereotypes are resisted. *Social Science & Medicine*, 119, 170–174. <https://doi.org/10.1016/j.socscimed.2014.06.046>
- Levy, B. R., Chang, E.-S., Lowe, S. R., Provolo, N., & Slade, M. D. (2022). Impact of media-based negative and positive age stereotypes on older individuals' mental health. *The Journals of Gerontology: Series B*, 77(4), e70–e75. <https://doi.org/10.1093/geronb/gbab085>
- Levy, B. R., Pietrzak, R. H., & Slade, M. D. (2023). Societal impact on older persons' chronic pain: Roles of age stereotypes, age attribution, and age discrimination. *Social Science & Medicine*, 323, Article 115772. <https://doi.org/10.1016/j.socscimed.2023.115772>
- Lill, D. J., & Peterson, R. T. (2001). Older adult portrayal in television commercials by pharmaceutical manufacturers: An analysis. *Journal of Pharmaceutical Marketing & Management*, 14(1), 81–96. [https://doi.org/10.3109/J058v14n01\\_04](https://doi.org/10.3109/J058v14n01_04)
- Lloyd-Sherlock, P., Lasco, G., McKee, M., Perianayagam, A., & Sempé, L. (2021). Does vaccine ageism amount to gerontocide? *The Lancet*, 398(10304), 952–953. [https://doi.org/10.1016/S0140-6736\(21\)01689-5](https://doi.org/10.1016/S0140-6736(21)01689-5)
- Lustañás, B. M. (2019). Against the old?: A critical discourse analysis of Philippine online news articles' ageist ideologies. *Asian Journal of English Language Studies*, 7, 83–108.
- Lytle, A., & Levy, S. R. (2017). 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., Macdonald, J., Apriceno, M., & Levy, S. R. (2021). Reducing ageism with brief videos about aging education, ageism, and intergenerational contact. *The Gerontologist*, 61(7), 1164–1168. <https://doi.org/10.1093/geront/gnaa167>
- Marques, S., Mariano, J., Mendonça, J., De Tavernier, W., Hess, M., Naegel, L., Peixeiro, F., & Martins, D. (2020). Determinants of ageism against older adults: A systematic review. *International Journal of Environmental Research and Public Health*, 17(7), Article 7. <https://doi.org/10.3390/ijerph17072560>
- Meemon, N., & Paek, S. C. (2020). Older adults living alone in Thailand: Socioeconomic inequality and its relation to unmet health needs. *Asia-Pacific Social Science Review*, 20(4), 17–31.
- Mellor, D., McCabe, M., Rizzuto, L., & Gruner, A. (2015). Respecting our elders: Evaluation of an educational program for adolescent students to promote respect toward older adults. *American Journal of Orthopsychiatry*, 85(2), 181–190. <https://doi.org/10.1037/ort0000041>
- Officer, A., Thiyagarajan, J. A., Schneiders, M. L., Nash, P., & de la Fuente-Núñez, V. (2020). Ageism, healthy life expectancy and population ageing: How are they related? *International Journal of Environmental Research and Public Health*, 17(9), Article E3159. <https://doi.org/10.3390/ijerph17093159>
- Park, M. H., & Kweon, Y. (2014). Testing the validity and reliability of Korean version of the Expectations Regarding Aging (ERA-12) instrument among middle-aged and elderly women. *Journal of Korean Public Health Nursing*, 28(3), 460–470. <https://doi.org/10.5932/JKPHN.2014.28.3.460>
- Philippine Statistics Authority. (2023). *Census of population and housing 2020*. Retrieved September 21, 2023, from <https://psada.psa.gov.ph/catalog/231>
- Rababa, M., & Hammouri, A. M. (2023). Association of nurses' sociodemographic and professional characteristics with positive ageism toward older adults: A cross-sectional study. *Ageing International*, 48, 146–156. <https://doi.org/10.1007/s12126-021-09466-2>
- Ragan, A. M., & Bowen, A. M. (2001). Improving attitudes regarding the elderly population: The effects of information and reinforcement for change. *The Gerontologist*, 41(4), 511–515. <https://doi.org/10.1093/geront/41.4.511>
- Rochon, P. A., Kalia, S., & Higgs, P. (2021). Gendered ageism: Addressing discrimination based on age and sex. *The Lancet*, 398(10301), 648–649. [https://doi.org/10.1016/S0140-6736\(21\)01636-6](https://doi.org/10.1016/S0140-6736(21)01636-6)
- Rodríguez-Rivas, M. E., Cangas, A. J., & Fuentes-Olavarria, D. (2021). Controlled study of the impact of a virtual program to reduce stigma among university students toward people with mental disorders. *Frontiers in Psychiatry*, 12, Article 632252. <https://doi.org/10.3389/fpsy.2021.632252>
- Rowe, J. W., & Kahn, R. L. (1987). Human aging: Usual and successful. *Science*, 237(4811), 143–149. <https://doi.org/10.1126/science.3299702>
- Rupp, D. E., Vodanovich, S. J., & Crede, M. (2006). Age bias in the workplace: The impact of ageism and causal attributions. *Journal of Applied Social Psychology*, 36(6), 1337–1364. <https://doi.org/10.1111/j.0021-9029.2006.00062.x>
- Sarkisian, C. A., Hays, R. D., Berry, S., & Mangione, C. M. (2002). Development, reliability, and validity of

- the expectations regarding aging (ERA-38) survey. *The Gerontologist*, 42(4), 534–542. <https://doi.org/10.1093/geront/42.4.534>
- Sarkisian, C. A., Steers, W. N., Hays, R. D., & Mangione, C. M. (2005). Development of the 12-item Expectations Regarding Aging Survey. *The Gerontologist*, 45(2), 240–248. <https://doi.org/10.1093/geront/45.2.240>
- Scott, A. J. (2021). Achieving a three-dimensional longevity dividend. *Nature Aging*, 1(6), 500–505. <https://doi.org/10.1038/s43587-021-00074-y>
- Shiovitz-Ezra, S., Shemesh, J., & McDonnell/Naughton, M. (2018). Pathways from ageism to loneliness. In L. Ayalon & C. Tesch-Römer (Eds.), *Contemporary perspectives on ageism* (Vol. 19, pp. 131–147). Springer International Publishing. [https://doi.org/10.1007/978-3-319-73820-8\\_9](https://doi.org/10.1007/978-3-319-73820-8_9)
- Sum, S., Emamian, S., & Sefidchian, A. (2016). Aging educational program to reduce ageism: Intergenerational approach. *Elderly Health Journal*, 2(1), 33–38.
- Tariga, J. A., & Utamora, J. C. C. (2016). Assessment of the common predictors and their correlation in subjective wellbeing among elderly in Bohol, Philippines. *The Malaysian Journal of Nursing*, 8(1), Article 1.
- Tolentino, M. P., & Kakihara, M. S. (2021). The challenges of population ageing in the Philippines and Brazil. *Journal of Asian Societies*, 1(1), 69–82.
- United Nations, Department of Economic and Social Affairs, Population Division. (2015). *World population ageing 2015* (ST/ESA/SER.A/390). United Nations. [https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015\\_Report.pdf](https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf)
- United Nations, Department of Economic and Social Affairs, Population Division. (2022). *World population prospects 2022, online edition*. <https://www.population-trends-asiapacific.org/data/JPN>
- Whatley, M. C., & Castel, A. D. (2020). Improving expectations regarding aging in younger adults: A classroom study. *Educational Gerontology*, 46(12), 785–795. <https://doi.org/10.1080/03601277.2020.1826088>
- World Health Organization. (2015). *World report on ageing and health*. World Health Organization. <https://apps.who.int/iris/handle/10665/186463>
- World Health Organization. (2021). *Global report on ageism*. World Health Organization. <https://apps.who.int/iris/handle/10665/344701>
- Yamashita, T., Hahn, S. J., Kinney, J. M., & Poon, L. W. (2018). Impact of life stories on college students' positive and negative attitudes toward older adults. *Gerontology & Geriatrics Education*, 39(3), 326–340. <https://doi.org/10.1080/02701960.2017.1311884>