



MESSAGE MATTERS

Using Messages about Aging to Promote Wellness among Older Adults



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EXECUTIVE OVERVIEW

People's views of aging can impact their health, and evidence suggests that shifting older adults' views of aging has the potential to promote healthy behaviors, such as greater physical activity. However, research on optimal content of age messages is limited. Public messaging on aging could take different approaches, including messages to (1) emphasize diversity in aging as a way to reduce stereotype reliance, (2) promote positive views of aging, and (3) reduce negative views of aging. To address this gap, two experiments were conducted with senior center attendees to examine the effectiveness of those three types of messages on promoting interest in wellness-related programming at senior centers. (See Table 1 for the specific messages.)

SPECIFIC AIM 1: Determine which of three messages is most appealing and believable to independent older adults.

SPECIFIC AIM 2: Assess whether the messages promote wellness by affecting motivation to attend programs at senior centers and whether the messages impact motivation differently.

In Study 1, 349 participants age 50 to 92 were randomly assigned to read one of three age messages or to a no-message control group. People who read any of the three age messages reported greater motivation to participate in physically active programs compared to the control group, and this difference was found primarily among participants age 72 or older. The effects of the age messages were more limited for other types of programs. Participants rated the age messages as similarly appealing on measures of liking, agreement, and helpfulness.

In Study 2, 397 participants age 50 to 96 read descriptions of a variety of health-related and socially engaging programs at senior centers and rated their interest in attending. The three different age messages or a control statement were incorporated into the program descriptions. Participants displayed greater interest in health programs when the program description included a message to reduce negative views of aging, and they reported greater interest in social programs when the description included a message that emphasized diversity in aging.

These findings suggest that public health messaging that addresses views of aging may promote increased engagement in healthy behaviors.

These findings suggest that public health messaging that addresses views of aging may promote increased engagement in healthy behaviors. The similarity in findings for the three age messages suggests that there is some flexibility in the content and framing of these messages. Yet, it is still important to tailor the messages for the target audience. Initial evidence suggests that the age messages may be more effective for people in their 70s or older, and the messages may be more effective at promoting increased engagement in programs related to physical health rather than other types of wellness programs. In addition, there is some indication that promoting positive views of aging may be less effective (and potentially backfire) among middle-aged senior center attendees; however, additional research is needed to confirm this effect.

Table 1. Study 1 Age Messages

MESSAGE 1

EMPHASIZING DIVERSITY IN AGING

What do you think about when you hear the word “aging”? Aging is complex. Some things get better, some get worse, and some stay pretty much the same over time.

How fast people think and respond can slow, but people also gain experience and have larger vocabularies as they age. Older adults tend to have fewer social connections, but they often are less lonely and more satisfied with their remaining relationships than younger adults.

Aging looks different for different people. As people get older they have more time to have had different experiences than their peers. This variety in life experience means two people age 80 will often be more different from each other than two 20-year-olds. Older adults are diverse! Although overall people notice it gets harder to do some physical activities as they get older, some people at age 80 are healthier and more fit than some people half their age.

To summarize, aging is complex and differs from person to person.

MESSAGE 2

PROMOTING POSITIVE VIEWS OF AGING

What do you think about when you hear the word “aging”? Many good things happen as people get older. For example, people gain knowledge and experience as they age. They have larger vocabularies too.

As people get older, they also tend to be better at noticing and remembering positive things compared to negative things. So they often end up feeling as good or better than young adults. Their social connections are satisfying. Older adults tend to have a small group of meaningful and rewarding relationships. This is because they have often kept their closest, dearest friends and stopped spending time with people who they didn't care about as much. It's quality over quantity.

Many older adults are able to stay physically active through the end of their lives by walking or continuing to exercise in ways that put less stress on their bodies, like swimming or biking. Some even compete in Senior Olympics!

To summarize, there are many positive things that people experience as they age.

MESSAGE 3

REDUCING NEGATIVE VIEWS OF AGING

What do you think about when you hear the word “aging”? Many common beliefs about aging are exaggerated or wrong. Even though older people can have more memory problems, they still remember things that are important or valuable to them. In fact, they remember this information about as well as college students do. People think and respond more slowly with age, but the medical conditions of dementia and Alzheimer's are not normal parts of aging! These conditions should be treated by a doctor.

Although it can get harder to do some physical activities as people get older, many of these changes can be slowed or stopped by staying active and taking care of yourself.

People who think of older adults as sad or lonely are wrong. People under age 30 are usually the most lonely. Also, depression is not more common among older adults in the United States.

To summarize, many of the bad things you may have heard about aging are exaggerated or wrong.



ISSUE IN FOCUS

A substantial body of research suggests a link between negative views of aging and worse health. A more positive perception of aging may be more adaptive for older adults. For example, older adults with more positive views of aging tend to report more favorable health outcomes:

- better self-reported health (Wurm, Tomasik, & Tesch-Römer, 2008)
- greater engagement in preventive health behaviors, such as going to the doctor for regular physical examinations, eating a balanced diet, and exercising (Levy & Myers, 2004)
- greater physical activity, including walking and participating in sports more often (Wurm, Tomasik, & Tesch-Römer, 2010)
- lower occurrence of risk factors associated with Alzheimer's disease (Levy, Ferrucci, Zonderman, Slade, Troncoso, & Resnick, 2016)



Despite the importance of positive views of aging, few studies have examined ways to shift perceptions of aging to promote health. Two studies found that combining physical activity programs with education to change older adults' views of aging was linked to greater increases in physical activity (Sarkisian, Prohaska, Davis, & Weiner, 2007; Wolff, Warner, Ziegelmann, & Wurm, 2014). The educational component of one study focused on correcting negative age stereotypes and reducing the tendency to misattribute sedentary behavior to age (Sarkisian et al., 2007). The other study focused on clarifying common misconceptions about aging, promoting positive views of aging, and avoiding automatic negative thoughts (Wolff et al., 2014).

Different approaches can be used in public messaging to change views of aging. A common approach is to focus on addressing myths and negative views of aging, such as disseminating educational messages that dementia is not a normal part of aging. In addition, promoting positive views of aging, such as highlighting engagement in meaningful activities across the life span, may be beneficial. However, overly positive views of aging may be rejected if they appear unrealistic (Fung, Li, Zhang, Sit, Cheng, & Isaacowitz, 2015). Yet another strategy is to reduce reliance on age stereotypes by emphasizing diversity in aging. There has been no direct comparison of the appeal and effectiveness of these different strategies for framing age messages.

A recent online study from the Reframing Aging Initiative found that reading brief framed messages about aging can improve people's implicit (or unconscious) attitudes toward older adults (Busso, Volmert, & Kendall-Taylor, 2019). The framed messages used in that study focused on (1) building momentum and creating change with age, (2) explaining implicit age bias and its impact on actions, and (3) contributing to communities through intergenerational activities. Ages of participants ranged from 18 to 92, and additional research is necessary to understand whether these messages are equally helpful for adults of all ages, or how messages may need to be tailored to the audience's age.

The purpose of this project was to compare the appeal and efficacy of three types of public messaging about aging for middle-aged and older adults, including messages aimed at (1) Emphasizing Diversity in aging as a way to reduce stereotype reliance, (2) Promoting Positive views of aging, and (3) Reducing Negative views of aging.

The purpose of this project was to compare the appeal and efficacy of three types of public messaging about aging for middle-aged and older adults, including messages aimed at (1) Emphasizing Diversity in aging as a way to reduce stereotype reliance, (2) Promoting Positive views of aging, and (3) Reducing Negative views of aging. Two studies were conducted to address this research question. The first study explored older adults' perceptions of the age messages and the impact of the messages on motivation to attend programs at the senior center. The second study, building upon results of the first, applied these principles to a more real-world scenario by incorporating the age messages into senior center program descriptions to examine the impact on motivation to attend wellness programs. This report describes the methods and results of each study, followed by implications and recommendations for senior living and aging services providers.

STUDY 1

The objectives of Study 1 were to evaluate the appeal of three types of age messages (Emphasizing Diversity in aging, Promoting Positive views of aging, and Reducing Negative views of aging) and to determine whether the age messages affected participants' motivation to participate in wellness programs.

STUDY 1 METHODOLOGY

WHO PARTICIPATED?

A total of 349 participants in this study were randomly assigned to one of three message groups or to a control group: Emphasizing Diversity in aging ($n = 86$), Promoting Positive views of aging ($n = 89$), Reducing Negative views of aging ($n = 84$), or a control group ($n = 90$). Participants' average age was 72, and ages ranged from 50 to 92 years. The sample was predominately female (80%) and racially/ethnically diverse, with 43% black/African American, 36% white, and 21% other non-white



race/ethnicity. In addition, 43% of respondents completed a bachelor's degree or higher education. Most participants attended their senior centers regularly; 79% attended their center for over a year, and 69% visited the center more than once a week.

HOW WAS THE STUDY CONDUCTED?

Data collection sessions were conducted at seven senior centers in the Chicago (3 sites, $n = 173$) and Los Angeles (4 sites, $n = 176$) metropolitan areas. Senior center attendees who were ages 50+ and able to complete a written survey in English were eligible to participate in this study. Participants provided informed consent, and then they randomly received one of the four versions of the survey (i.e., Emphasizing Diversity, Promoting Positive views, Reducing Negative views, or a no-message control group). The surveys took approximately 15 minutes, and participants received a \$20 incentive (cash or gift card) for their time.

At the beginning of the survey, participants in the three message groups read a message about aging. Table 1 displays the three messages used in Study 1. After the age message, participants rated how much they liked and agreed with the statement (Liking: 1 = *Not at all*, 5 = *Very much*; Agreement: 1 = *Not at all*; 5 = *Completely agree*). They also rated how helpful it would be for more people to know the information from the statement (1 = *Not at all helpful*; 5 = *Extremely helpful*). Participants in the control group read and rated one of the three age messages at the end of the survey instead of the beginning to keep the surveys the same length.

In addition, the survey included questions that assessed participants' motivation to attend different senior center programs. Participants rated their likelihood of attending 16 types of activities or programs at the center on a 5-point scale (1 = *Not at all likely*;

5 = *Extremely likely*). Two scores were calculated using the activity ratings. Responses to the five physically active programs, including dancing, exercise class, yoga, walking club, and tai chi, were averaged together into a score reflecting interest in participating in physically active programs. The remaining 11 programs, such as art class, mah-jongg, computer class, and book club, were averaged into a composite score reflecting interest in participating in other types of activities. The survey also included questions that assessed participants' beliefs about aging and their demographic characteristics.

HOW WERE THE DATA ANALYZED?

Responses from members of one senior center may be more similar to each other than they are to members of other senior centers for a variety of reasons, including shared experiences at the senior center, differences in program offerings, and neighborhood characteristics. Therefore, the data were analyzed using techniques that statistically account for variation in responses associated with senior centers (i.e., multilevel modeling or analyses with clustered standard errors).

For most analyses, a p -value of .05 was the threshold for statistical significance; however, adjusted p -values using Bonferroni corrections were used for analyses with multiple comparisons, such as comparisons between message groups. The adjusted p -values are more conservative, and they are used to offset the likelihood of detecting false positives in a series of comparisons.

Averages and valid percentages (i.e., percentages calculated excluding missing responses) are reported. Percentages are rounded to the nearest whole number, so total percentages may not always add up to 100% due to rounding error.



People who received the Promoting Positive message were less likely to say they completely agreed with it.

STUDY 1 KEY FINDINGS

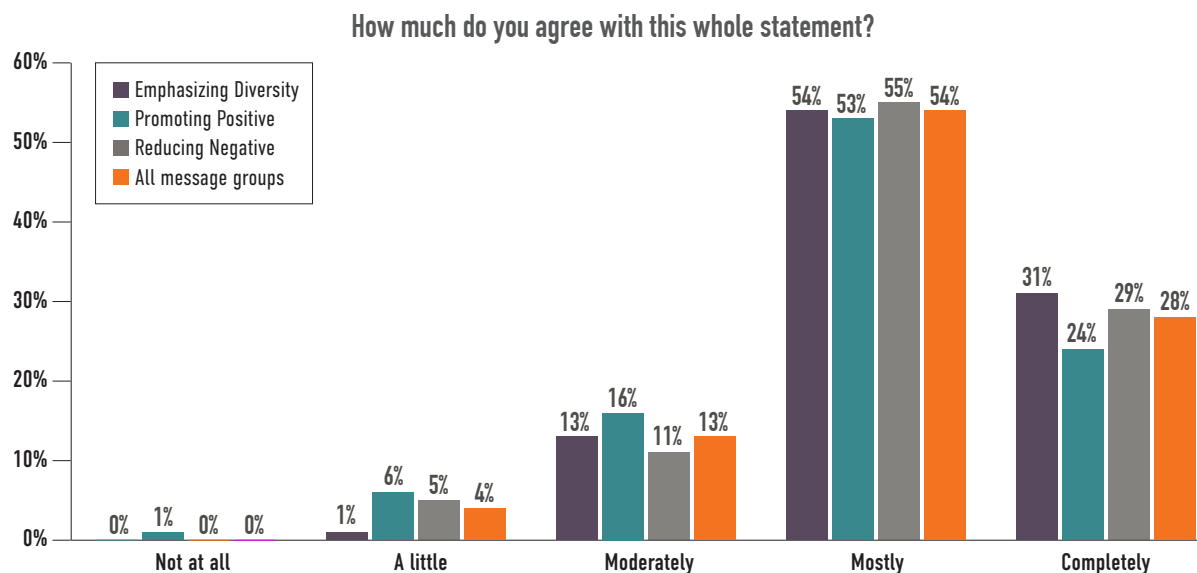
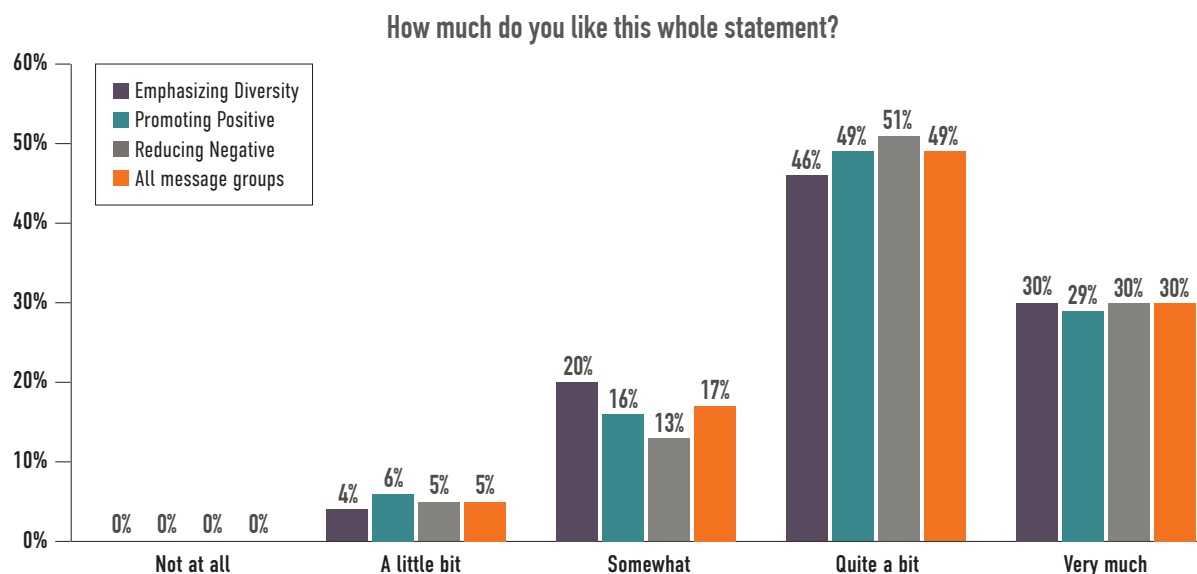
FINDING 1: THE AGE MESSAGES WERE SIMILARLY APPEALING.

The first set of analyses examined whether there were any differences in the appeal of the three age messages to senior center attendees. Overall, participants in all groups rated the age messages positively (see Figure 1). Specifically, most participants liked the age message “quite a bit” (49%) or “very much” (30%), and they tended to “mostly” (54%) or “completely” (28%) agree with the message. In addition, participants indicated that it would be “very” (41%) or “extremely” (44%) helpful for more people to know the information presented in the message.

This pattern of results was largely consistent across the three age message types. Table 2 displays the average ratings of liking, agreement, and helpfulness for each age message. Analyses testing whether participants in some age message groups were more likely to rate the message most favorably (i.e., selecting the top score) suggest that although there were no differences in how much people liked the messages, people were more likely to have some reservations about the Promoting Positive message. Specifically, people who received the Promoting Positive message were less likely to say they completely agreed with it and were less likely to rate it as extremely helpful, compared to people who received the Reducing Negative message. People who received the Emphasizing Diversity message did not differ from the others; so, despite the minor variations, overall the messages were similarly appealing.

Figure 1. Participant ratings of liking, agreement, and helpfulness for each aging statement.

...although there were no differences in how much people liked the messages, people were more likely to have some reservations about the Promoting Positive message.



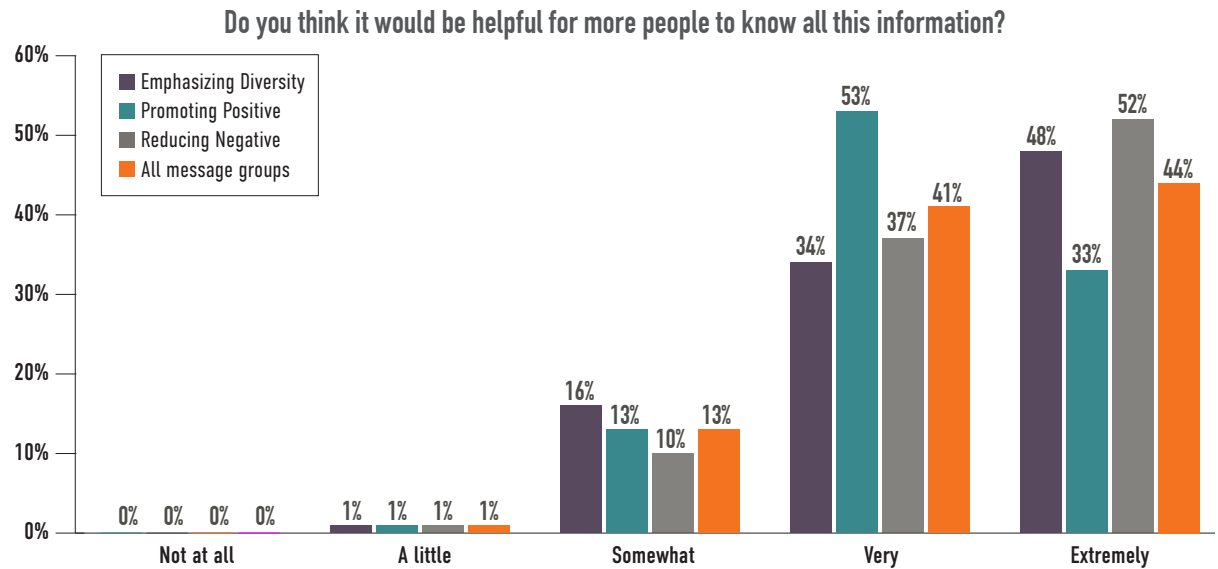


Table 2. Average Ratings by Age Message

| GROUP | LIKING | AGREEMENT | HELPFULNESS |
|-----------------------|--------|-----------|-------------|
| Emphasizing Diversity | 4.0 | 4.2 | 4.3 |
| Promoting Positive | 4.0 | 3.9 | 4.2 |
| Reducing Negative | 4.1 | 4.1 | 4.4 |

FINDING 2: AGE MESSAGES AFFECTED MOTIVATION TO PARTICIPATE IN PHYSICALLY ACTIVE PROGRAMS.

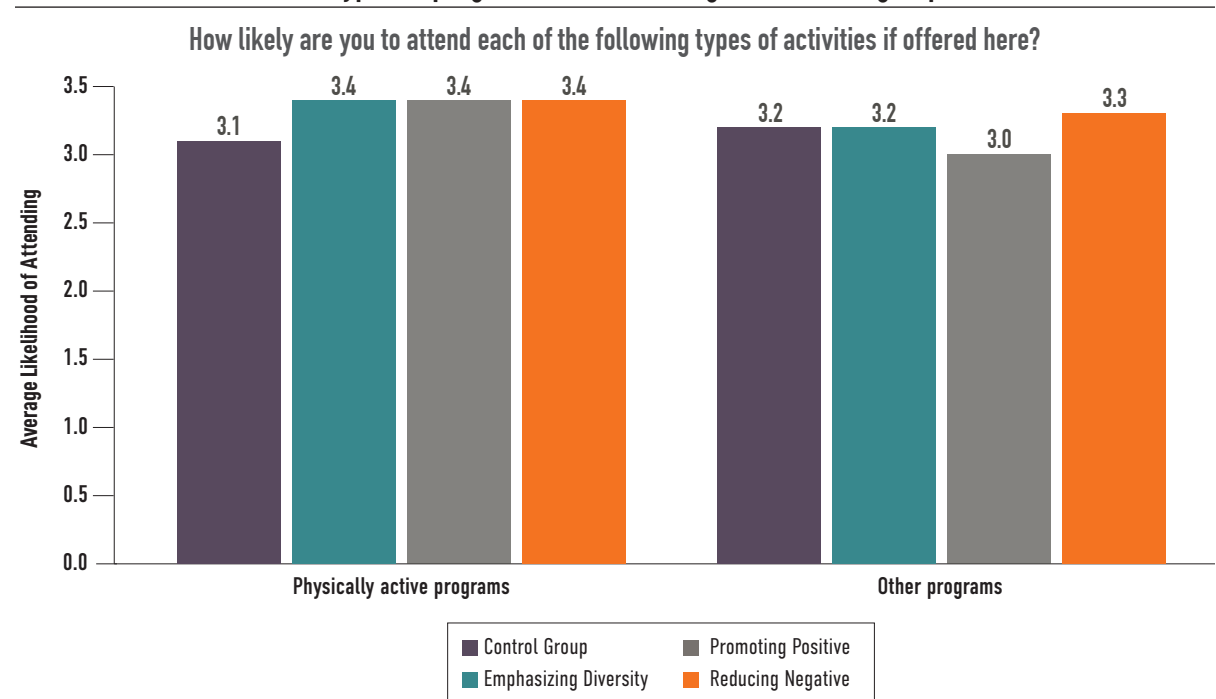
The next set of analyses tested the effect of the age messages on interest in programming at the senior centers, separately for physically active programs and other types of programs. The analyses examined differences between the message groups and the control group as well as differences between the three message groups.

Analyses revealed statistically significant differences between the message and control groups in their interest in physically active programming (see Figure 2). Participants in

the message groups reported greater interest; the average likelihood of participating in physically active programs was 3.4 for the message groups and 3.1 for the control group, based on a 5-point scale. There were no significant differences in interest in physically active programs among the message groups (i.e., comparing Emphasizing Diversity, Promoting Positive, and Reducing Negative groups).

In contrast, there was no significant difference between the message groups and control group in their interest in attending other, less physically active, types of programming. The average likelihood of attending other types of programming was 3.2 for both the combined message groups and the control group. In addition, there were no significant differences between the message groups on interest in other types of programs.

Figure 2. Interest in attending physically active and other types of programs for the message and control groups.

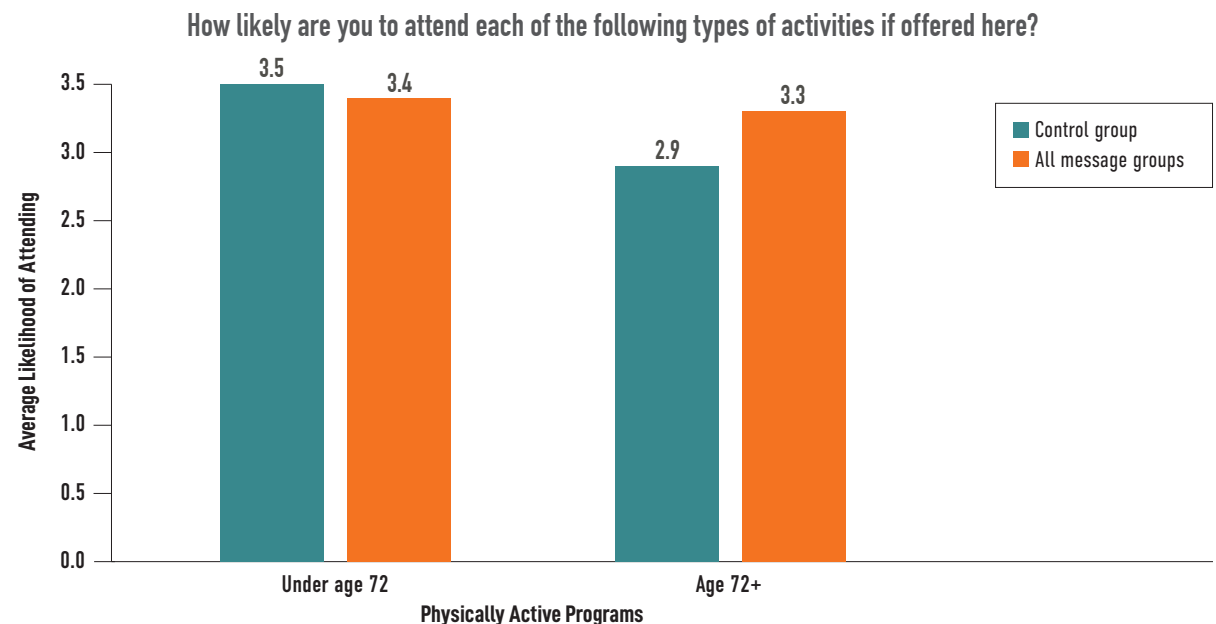


The effects of the age messages... differed depending on the age of the participants.

FINDING 3: AGE MESSAGES MAY BE MORE EFFECTIVE AMONG OLDER SENIOR CENTER ATTENDEES.

Follow-up analyses indicated that the effects of the age messages on interest in programming differed depending on the age of the participants (see Figure 3). Among participants age 72+, those who were assigned to read an age message reported greater likelihood of attending physically active programs at the senior centers than those in the control group (averages = 3.3 vs. 2.9). However, there was no comparable effect among participants under age 72; participants in the message and control groups reported similar interest in physically active programs (averages = 3.4 vs. 3.5, respectively). There was no evidence that interest in physically active programs differed between the three message groups at any age.

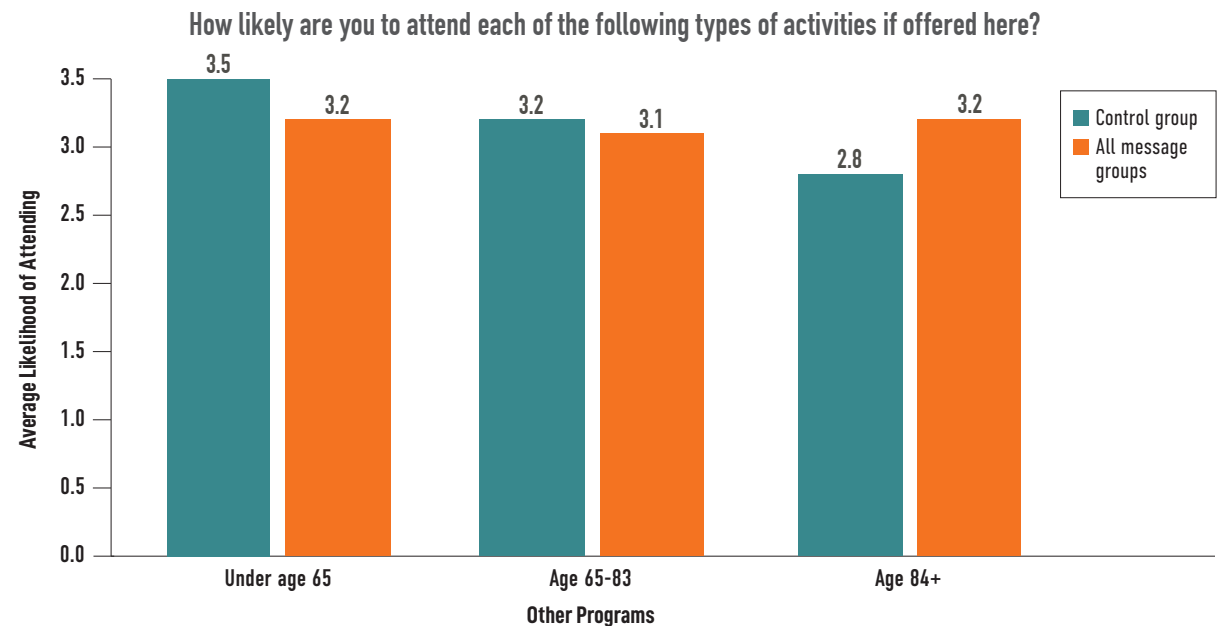
Figure 3. Age differences in interest in attending physically active programs for the message and control groups.



The effects of age messages on interest in other types of activities also depended on the age of the participants (see Figure 4). For participants under age 65, participants who

read the age messages reported less interest in other activities compared to the control group; however, participants age 84 and older who read the age messages reported greater interest compared to the control group. The lower levels of interest in participants under age 65 appears to be driven by responses from people who read the Promoting Positive message. Among the youngest participants, only the Promoting Positive group reported significantly lower interest in other programs compared to the control group (averages = 3.1 vs. 3.5). This suggests that younger senior center attendees may be less receptive or have a worse response to the Promoting Positive message; however, these findings are somewhat tentative given the relatively small number of participants at the youngest and oldest ages. In addition, it's possible that some of the participants under age 65 may have differed qualitatively from the other participants, such as caregivers or adult children who attend programs with an older adult.

Figure 4. Age differences in interest in attending other types of programs for the message and control groups.





**Public health messages
addressing age stereotypes
may promote physical activity.**

STUDY 1 CONCLUSIONS

Overall, these findings suggest that public health messages addressing age stereotypes may promote physical activity. Participants who read the age messages reported greater interest in physical activity programs compared to the control group; however, the age messages had limited effects on interest in other types of programming. Age messaging may be most effective among people ages 72+. The messages may have seemed less relevant to younger participants, especially those who do not think of themselves as older adults.

There was little variability between message groups. In most cases, whether participants read an age message that specifically emphasized diversity in aging, promoted positive views of aging, or reduced negative views of aging mattered less than whether they read an age message at all. This suggests that there is some flexibility in the content and framing of these messages. However, it is important to note that middle-aged participants in the Promoting Positive group (vs. control group) displayed less interest in attending programming that did not focus on physical activity. For all ages, the Promoting Positive message was also less appealing than the Reducing Negative message (i.e., participants were less likely to completely agree or find it extremely helpful). These findings indicate that promoting positive views of aging may be less effective or less appealing in some contexts.



STUDY 2

Building upon the results of Study 1, the longer aging statements were refined into very brief messages. Study 2 sought to test whether incorporating these brief age messages into descriptions of senior center wellness programs affected attendees' interest in participating in each program.

STUDY 2 METHODOLOGY

WHO PARTICIPATED?

A sample of 397 senior center attendees participated in this study. Ages of participants ranged from 50 to 96 years (average = 74 years), and the sample was predominantly female (74%). Approximately 47% of participants received a bachelor's degree or higher. The sample was racially/ethnically diverse: 52% white, 16% black or African American, 15% Asian, 13% Latinx/Hispanic, and 5% indicated they were multiracial or another race. Most participants were regular attendees of the senior centers where they completed the survey; 76% visit the center multiple times a week, and 76% have been coming to the center for over a year.

HOW WAS THE STUDY CONDUCTED?

Surveys were administered in person at 11 senior centers in the Chicago (3 sites, $n = 120$), Los Angeles (4 sites, $n = 157$), and Washington, DC, (4 sites, $n = 120$) metropolitan areas. People were eligible to participate in the study if they were age 50+ and able to complete a written survey in English. The researchers obtained informed consent and then distributed surveys to participants. Participants completed the survey in approximately 15 minutes, and they received a \$20 incentive (cash or gift card).

Two sets of program advertisements were developed for the survey: one for health activities (i.e., brain health, total body workout, yoga, and heart health) and one for social activities (i.e., comedy improv, walking group, singing, and book club). Each

program advertisement included one of four brief aging statements (i.e., Emphasizing Diversity, Promoting Positive, Reducing Negative, or a control statement) paired with one of four program descriptions. The different combinations of aging statements and program descriptions were counterbalanced across participants, with each participant viewing four physical program advertisements and four social program advertisements. Table 3 provides an example of the program advertisements.

For each program, participants rated whether the class was a good fit for them, their motivation to attend the class, and their likelihood of signing up for the class if it were offered (1 = *Not at all*, 5 = *Extremely*). These three ratings were averaged together into composite scores for overall interest in health programs and overall interest in social activities.

HOW WERE THE DATA ANALYZED?

As with Study 1, the data were analyzed using techniques that statistically accounted for participants clustered within senior centers (i.e., multilevel modeling or analyses with clustered standard errors). A p -value of .05 was the threshold for statistical significance for analyses except when adjusted p -values using Bonferroni correction were used for analyses with multiple comparisons, such as comparisons between message groups.

Analyses focused on comparing the effects of message type on interest in attending the program. Interest in the programs differed across types of programs; for instance, participants were more interested in brain health than yoga. The analyses controlled for type of program to distinguish between the effect of age message type and program type on overall interest.

Table 3. Examples of Age Message and Course Description Pairings

HEALTH PROGRAMS

PROMOTING POSITIVE VIEWS OF AGING – BRAIN HEALTH: Continue building skills as you age. There are things you can do to maintain and improve your health and well-being at any age. Learn how lifestyle impacts brain health as well as how to train your brain to remember things better, be more organized, and pay closer attention.

EMPHASIZING DIVERSITY IN AGING – TOTAL BODY WORKOUT: Age is just a number. It looks different for different people. The things you do affect your health and well-being at any age. This is a total body workout designed for everyone, with seated and standing exercises. Start with some light cardio moves, then work your muscles at your pace, to strengthen and tone.

REDUCING NEGATIVE VIEWS OF AGING – YOGA: Aging doesn't mean everything gets worse. There are things you can do to help avoid declines in health and well-being at any age. Yoga is wonderful for muscle tone, strength, and flexibility. Through breathing exercises, special poses, relaxation, and meditation, feel more calm and serene.

CONTROL – HEART HEALTH: Anyone can get something out of this great class. Don't miss it. You don't need any past experience or background knowledge. Learn the hows and the whys of improving your heart health and well-being through practical exercise, nutrition, lifestyle management support, and more.

SOCIAL PROGRAMS

PROMOTING POSITIVE VIEWS OF AGING – COMEDY IMPROV: Continue to enjoy meaningful relationships at any age. Taking part in activities with others is one way to feel connection as you get older. Comedy Improv classes are fun and loaded with benefits. They can help improve memory, speaking skills, build self-confidence, and improve interactive skills. Share some laughter and make new friends.

EMPHASIZING DIVERSITY IN AGING – WALKING GROUP: Aging is complex. Different people experience getting older quite differently. Taking part in activities with others is one way to maintain social connection at any age. Make new friends and start your day off right with our walking group! Everyone is welcome to join in for this great exercise and social program to promote health and well-being.

REDUCING NEGATIVE VIEWS OF AGING – SINGING: Getting older doesn't mean you will get lonelier. Taking part in activities with other people can help avoid loneliness and isolation at any age. Singing with others fills the soul. Come fill yours with song each week. Studies have shown that singing can increase self-confidence and improve the quality of life and of interactions with people in social settings.

CONTROL – BOOK CLUB: You will want to make sure this class is on your calendar. Come take part in this great activity with others at our community center. Reading inspires, uplifts, motivates, keeps the mind alive and active. Please join us at the table and lend your voice as we discuss our summer selections. Our discussions create a community of readers.



STUDY 2 KEY FINDINGS

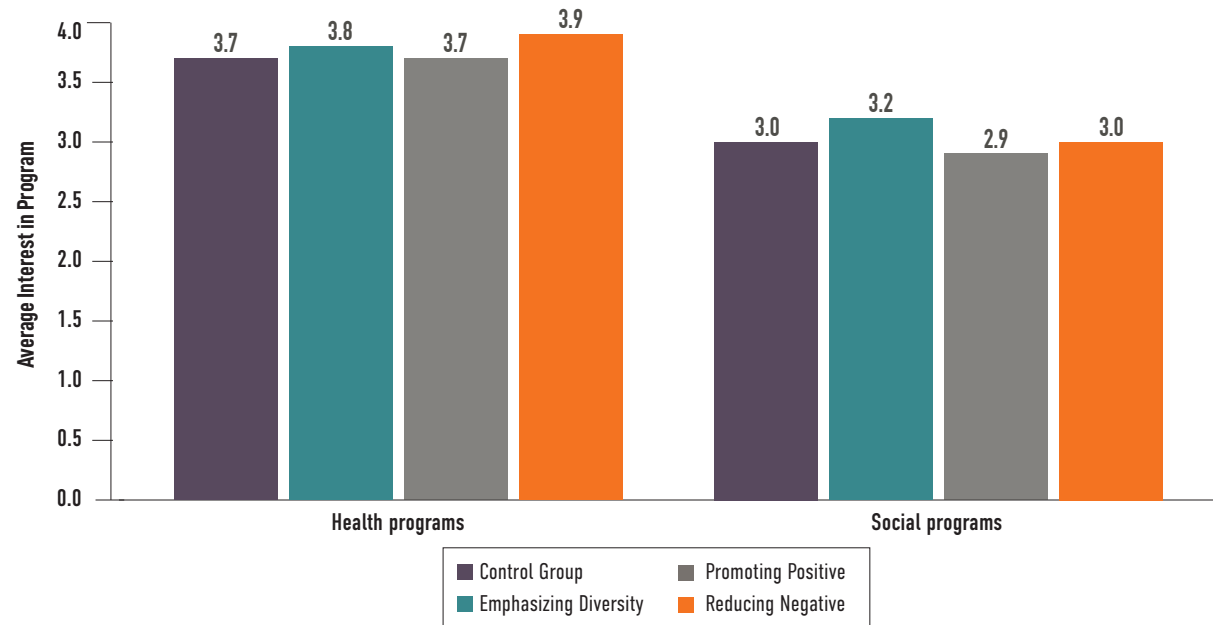
FINDING 4: THE REDUCING NEGATIVE VIEWS OF AGING MESSAGE LED TO SMALL INCREASES IN INTEREST IN HEALTH PROGRAMS.

In Study 2, participants were exposed to each of the four message types within a set of program descriptions. Analyses revealed that participants expressed significantly more interest in health programs when the description included a message aimed at Reducing Negative views of aging, relative to the control message (see Figure 5). There were no significant differences in interest in health programs when participants viewed the messages focused on Emphasizing Diversity and Promoting Positive views of age (compared to the control group). These findings suggest that messages designed to reduce reliance on negative age stereotypes may motivate senior center attendees to participate in health-related programs.

FINDING 5: THE EMPHASIZING DIVERSITY MESSAGE LED TO SMALL INCREASES IN INTEREST IN SOCIAL PROGRAMS.

A different pattern of results was found for social programs (see Figure 5). Participants indicated significantly greater interest in social programs when the program description was paired with a message that emphasized diversity in aging (vs. control message). There were no significant differences in interest when the program descriptions included messages promoting positive or reducing negative views of aging, compared to the control statement. These results suggest that messaging that highlights the diversity and complexity of aging experiences may motivate older adults to participate in social programs.

Figure 5. Effect of age message on interest in health and social programs.



STUDY 2 CONCLUSIONS

Overall, Study 2 provides initial support that incorporating age messages into program descriptions may increase interest in programs. However, the effectiveness of the age message varied based on the type of message and the types of programs. Messages that reduced negative views of aging were more effective at promoting interest in health programs, and messages that emphasized diversity in aging were more effective at promoting interest in social programs.

Compared to Study 1, the effects of the age messages on interest in participating in the programs were smaller. The difference in interest between the effective age messages and the control messages in Study 2 was 0.2. Study 2 was a step toward implementing the aging statements in more of a real-world situation by incorporating the aging



statements into program descriptions. Older adults may consider many factors when they decide to participate in programs at a senior center, such as familiarity with the program and encouragement from others. Incorporating aging statements in program descriptions is a subtle change; nevertheless, when implemented across a community, age messages may have a positive impact on promoting healthy behaviors.

IMPLICATIONS FOR PRACTICE

The findings from both studies indicate that age messages could be an effective strategy for promoting healthy behaviors among older adults. Although the studies focused on promoting interest in programs among senior center attendees, these findings could extend to senior living communities and other aging services as well. Age messages are a relatively low-cost way to potentially impact the behaviors of a large group of people. As Study 2 demonstrated, the brief age messages could easily be incorporated into existing program descriptions. Age messages could also be delivered in other promotional materials, such as posters in fitness centers and activity calendars. Another way of communicating age messages is to incorporate brief educational segments or discussions about views of aging into existing programs.

Although this study focused on in-person programs, age messages could also be incorporated into promotional materials for, or even the content of, physical activity and social programs delivered online.

As with other forms of communication, it's important to tailor age messages to the intended audience:

- The impact of the age message may differ by age. The results of Study 1 indicated that the age messages were more effective among older participants, but the effects of the brief age messages did not vary by age in Study 2. The age messages may be more self-relevant, and consequently more impactful, for people in their 70s and older.

Different age messages may be more effective at increasing motivation for different types of programs.

- Messages that promote positive views of aging may backfire among middle-aged audiences. In Study 1, participants under 65 were less interested in non-physically active programs after viewing the Promoting Positive message compared to those who did not read anything. It's possible that these younger participants were attending activities at the senior center to stave off age-related declines in wellness, and promoting positive views of aging without any mention of negative aspects of aging may have reduced their motivation to participate. Alternatively, these relatively younger participants may not have identified as older adults, and as a result, may not have felt like they belonged in the social activities. Given the smaller number of participants under age 65 in the control group, their responses may not be representative of their age group.
- Initial evidence suggests that messages aimed at countering negative views of aging or emphasizing diversity in aging may be more effective than messages promoting positive views of aging. The messages focused on Reducing Negative views and on Emphasizing Diversity both include a mixture of positive and negative statements, while the Promoting Positive message only included positive statements. The more balanced messages had a greater impact on motivation to attend programs, in some contexts. In addition, people were least likely to completely agree with or find the Promoting Positive message helpful, which suggests that some participants may have found the exclusive emphasis on positive aspects of aging to be unrealistic (e.g., Fung et al., 2015).
- Different age messages may be more effective at increasing motivation for different types of programs. Messages aimed at countering negative views of aging (i.e., Reducing Negative) increased interest in health programs, which could be due to the message activating thoughts about age-related declines while also emphasizing control over aging. In contrast, messages that reduce reliance on age stereotypes (i.e., Emphasizing Diversity) promoted interest in social programs. The Emphasizing



Age messages may be more effective at promoting engagement in physically active programs than other types of programs.

Diversity message most directly addressed the experiences and views of other older adults, which may have increased participants' openness to opportunities for social interactions. In addition, the results of Study 1 suggest that age messages may be more effective at promoting engagement in physically active programs than other types of programs.

The current studies did not examine the effects of exposure to age messages over time. Exposure to age messages may increase motivation to participate in healthy behaviors at that moment, but the effect of the message is likely to fade over time. It is important that the age message is communicated frequently and in different ways, so that people don't become habituated to the message, yet not so frequently that people reject the message.

It is also important to measure the effect of the age message once it is implemented. One approach is to track enrollment and attendance rates and compare scores before and after the messaging begins. If the records exist, participation rates could be compared to the previous year in order to account for seasonal differences.



CONCLUSION

Based on the results of two studies, messages addressing views of aging have the potential to increase older adults' motivation to engage in healthy behaviors, particularly interest in participating in physical activities. The age messages are customizable, and there are many opportunities for delivering these messages in senior centers and other community settings. Age messages provide a scalable, low-cost approach to promoting healthy behaviors in older adults.

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Staffed by researchers, Mather Institute is an award-winning resource for research and information about wellness, aging, trends in senior living, and successful industry innovations. In order to support senior living communities and others that serve older adults, the Institute shares its cutting-edge research in areas including effective approaches to brain health, ways to enhance resilience, and successful employee wellness programs. Mather Institute is part of Mather, a nearly 80-year-old not-for-profit organization dedicated to creating Ways to Age Well.SM

University of California, Los Angeles (UCLA) is the second-oldest campus of the UC system. UCLA has the largest enrollment in the UC system and is the most applied to university in the world with over 102,000 applications for fall 2017. For over a quarter century, UCLA's Division of Geriatrics and its affiliated institutions have been recognized as leaders in advancing knowledge of the aging process through cutting-edge research. In addition to the physicians who see patients within the UCLA system and researchers from across campus, UCLA has a number of award winning research centers and programs with a focus on aging. These centers conduct research on everything from clinical epidemiology, diagnosis and treatment of diseases of older persons, to health services delivery, the physiology of age-related changes and the basic cellular and molecular biology of aging.