ORIGINAL RESEARCH

Beyond p-values: A qualitative evaluation of the Aging Mastery Program implementation in Los Angeles County

*Lourdes R. Guerrero, EdD, MSW¹
Josephine A. Menkin, PhD²
Laura Trejo, MSG, MPA³
Nicole D. Wachter, MPH⁴
Catherine A. Sarkisian, MD, MSPH^{1,5}

*Corresponding author:
David Geffen School of Medicine at UCLA
Division of Geriatric Medicine
1100 Glendon Ave, Ste 700
Los Angeles, CA 90024
310-267-5147

Conflict of Interest Statement: The researchers involved with this study received no payment from NCOA for this analysis. NCOA was not involved in data analysis or interpretation of results. Dr. Guerrero is currently serving on the National Evaluation Advisory Board of the Aging Mastery Program® for NCOA. These data were collected prior to her serving in this capacity. All other authors declare that there is no conflict of interest.

Funding: Dr. Guerrero and Dr. Sarkisian received support from the University of California, Los Angeles (UCLA), Resource Center for Minority Aging Research/Center for Health Improvement of Minority Elderly (RCMAR/CHIME) under NIH/NIA Grant P30-AG021684, and received support from the UCLA Clinical and Translational Science Institute (CTSI) under NIH/NCATS Grant Number UL1TR001881. Dr. Sarkisian received support from NIH/NIA Mid-career Award in Patient-Oriented Research (1K24AGO47899).

¹Division of Geriatrics, David Geffen School of Medicine at the University of California, Los Angeles, Los Angeles, CA

² SCAN Health Plan, Long Beach, CA

³Los Angeles Department of Aging, Los Angeles, CA

⁴ Department of Neurology, Emory School of Medicine at Emory University, Atlanta, GA

⁵ Veteran Affairs Greater Los Angeles Healthcare System

IRB protocol/human subjects approval: Received from UCLA Institutional Review Board (#18-001101).

Acknowledgements: We would like to acknowledge Hyoung Kye, MSSW, PMP from NCOA for her expertise on the content of AMP and her contributions to this manuscript. During the time of this research, Dr. Josephine Menkin's affiliation was with the Division of Geriatrics, Department of Medicine, David Geffen School of Medicine at UCLA. The views expressed in this publication are the author's own and do not purport to reflect the views of the author's employer.

Submitted 1 December 2020, revised 28 August 2021, accepted 7 November 2021.

ABSTRACT

Background: The National Council on Aging's Aging Mastery Program® (AMP) aims to help older adults implement health behavior and lifestyle changes to promote healthy aging. The purpose of this community-partnered evaluation was to assess the effectiveness of the implementation in Los Angeles, and understand participant outcomes beyond the findings of a randomized waitlist controlled trial (RCT).

Objectives: The purpose of this qualitative process evaluation was to deepen our understanding of participant outcomes and potential site-level implementation issues with the RCT, as participant and site lead satisfaction ratings were very high.

Methods: After the intervention was completed, interviews were conducted with site directors to understand potential challenges or barriers in the implementation of AMP, participant feedback were reviewed for common themes, and focus groups were conducted to elicit additional insight feedback.

Results: Analysis of interviews with site directors revealed that the study design was characterized by its complexity, but that the overall AMP program was very compatible with the sites' goals and met the needs of the participants. The participants reported greater interest in nutrition and healthy eating, the importance of exercise and 'preparing' for important life decisions, which were not captured through the measures used in the RCT.

Conclusions: Future evaluations of the AMP should continue the use of mixed methods evaluation designs in order to understand both the quantitative and qualitative outcomes of the program, and consider including measures of other constructs, such as socialization, that have been identified by the participants.

KEYWORDS: Health promotion, Behavior, Evaluation Studies, Age Factors, Aging, Health Care Surveys, Mixed Methods

Introduction

The National Council on Aging's (NCOA) Aging Mastery Program® (AMP) aims to help older adults implement health behavior and lifestyle changes to promote healthy aging. NCOA developed AMP as an evidence-informed program with engaging education and behavior change modules for aging well. Since there is large-scale interest in developing, and documenting impacts of, community-based programs to enhance quality of life for diverse older adults, AMP was implemented in the greater Los Angeles (LA) area as a randomized waitlist controlled trial (RCT) in 2017-2018. Five City of Los Angeles (City of LA) and LA County senior service sites implemented the AMP intervention and recruited participants. Results of the experimental, intention-to-treat analyses indicated that AMP assignment did not affect any measured outcomes: quality of life, physical health, mental health, or patient activation.

The purpose of this qualitative process evaluation was to deepen our understanding of participant outcomes and potential site-level implementation issues with the RCT, as participant and site lead satisfaction ratings were very high for the program. Evaluations of the implementations of evidence-based practices and clinical trials in real-world settings are important to the field of implementation science⁶ and our findings contribute to these efforts. Our research aims were two-fold: 1) assess the outcomes of the AMP implementation in LA from the participants' perspectives, using their written and oral feedback, and 2) obtain feedback from the site and workshop leads on the implementation of the RCT and AMP curriculum, using the Consolidated Framework for Implementation Research (CFIR) constructs as our guide.⁷

Methods

Partnership Description

The University of California Los Angeles (UCLA) is a partner in the Los Angeles Community-Academic Partnership for Research in Aging (LA CAPRA). This partnership group is founded on the principles of community-based participatory research, in which academic and community partners are equal members of the study team and participate together in shared decision-making on the design, implementation, evaluation, and dissemination of research findings. The implementation of AMP in LA was facilitated though LA CAPRA, with participation of NCOA leaders, LA Department of Aging leaders (LT), City of LA senior service center directors, LA County senior service center directors, and UCLA staff and researchers. Members of LA CAPRA and NCOA leaders approached UCLA researchers (CS and JM) for guidance on how to ensure that the implementation of AMP in LA included a rigorous evaluation. Thus, the implementation and process evaluation of AMP in LA was a collaborative effort between NCOA, UCLA researchers, senior service center directors and their appointed site leads. NCOA was responsible for providing the AMP materials and training for each site. This included the distribution of their program binders for participants and their program specific evaluation questionnaire. Senior service center site leads were responsible for identifying AMP workshop leads who would deliver the AMP curriculum and recruitment of 40 participants from their site. UCLA researcher staff consented, enrolled, and collected baseline data from all AMP participants at each site once they were recruited. Site participants were then randomized by UCLA staff into one of two treatment conditions - intervention arm (about half), and waitlist control (about half). Site leads implemented the AMP workshops for each of the two groups. UCLA staff administered the NCOA AMP program evaluations on the last day of the AMP

sessions at each of the sites for both groups. LG lead the 9-12 month post-implementation process evaluation study.

Intervention

The AMP curriculum consists of different weekly topics, including: 1) navigating longer lives, 2) exercise and you, 3) sleep, 4) healthy eating and hydration, 5) financial fitness, 6) advance care planning, 7) healthy relationships, 8) medication management, 9) community engagement, and 10) falls prevention. It incorporates learning objectives from published research on each topic, in-class activities promoting skill building, opportunities for expert community speakers, and incentives for participants to practice the skills and tools learned in class (action steps). Since social activity, active participant engagement, and/or support within a group format are hallmarks of effective interventions, 8 AMP in-class activities are designed to facilitate group discussion and peer support. NCOA provides sites with detailed implementation guides to facilitate the delivery of the AMP classes, and participants each receive a large binder curriculum with relevant AMP resources and materials. For this implementation, site and workshop leads were provided with two training sessions in preparation of implementing the AMP. The first session consisted of a 2-hour online training session with NCOA staff on how to implement AMP curriculum, and the second was a 1-hour session conducted by UCLA staff focused on how to implement the randomized waitlist controlled trial. Site leads had 4-6 weeks to recruit participants after completing the NCOA and UCLA trainings.

Study Design

We used an explanatory sequential design using an implementation science orientation 9-12 months post-intervention to understand the immediate and potential longer-term outcomes of participating in the AMP program. 9,10 To understand participant level outcomes, we reviewed AMP participant responses collected through the RCT⁵ to two open-ended questions on the NCOA program evaluations and conducted three focus groups with AMP participants approximately 12 months post-intervention. To understand how the implementation of the AMP in LA as an RCT might have influenced outcomes, we also conducted interviews with site directors and AMP workshop leads from the implementing sites approximately 9 months postintervention. The lead author (LG) confirmed eligibility of study participants for both the focus groups and site lead interviews using a screening consent script. The script asked about availability to participate in a focus group or interview, and confirmed involvement with the implementation of AMP. Oral informed consent for participating in the study was obtained at the time of the focus groups or interviews by reviewing a research study information sheet that was provided. The UCLA Institutional Review Board (#18-001101) approved all study protocols and processes.

Participant written responses to the following questions "What did you enjoy the most about the AMP?" and "What is one change you have made in your life as a result of AMP?" were transcribed from the hand-written, paper-based program evaluations collected by UCLA at the end of the AMP sessions. AMP program evaluation responses were collected anonymously, and sent to NCOA for analysis. NCOA staff provided all site leads and UCLA the results from the evaluations, including the transcribed comments to the open-ended questions. All authors on this manuscript reviewed the results and comments. LG and JM completed a content analysis of the comments, from which themes emerged.⁹

All five implementing site leads were asked to host a focus group with the AMP participants at their location. The leads were encouraged to use recruitment flyers and personal communication to promote participation (i.e., speaking directly with participants in person or calling them). The participants were asked three main questions during the focus groups: "Tell me what you liked most about the program," "Are there any lifestyle changes you've made or implemented in your life that you learned from AMP?" and, "In your opinion, what was the main thing you learned from participating in AMP?" The focus groups were conducted in English and Spanish by LG, a trained, bilingual researcher with a master's degree in social work, experienced in working with groups. Focus groups were audiotaped and recordings were analyzed by LG and NW using the Rigorous and Accelerated Data Reduction (RADaR) technique (Watkins, 2017). The RADaR technique is a team-based approach for organizing, reducing, and analyzing the data, and it lends itself well for reporting program outcomes. Unlike traditional qualitative data analysis that may focus on finding meaning from the narratives, this technique focuses on "data reduction" to develop all-inclusive data tables with condensed and concise presentations of textual data. The systematic analysis of the data that occurs at each the process reduces the time required to produce reports, as the focus is on content and less on "becoming one" with the data. The RADaR analytical steps are: 1) ensuring the data transcripts are formatted similarly, 2) formatted data is put into an all-inclusive data table, 3) data is reduced to using open codes, 4) data is reduced to produce more data tables using focused codes and on how the data addresses the research question, and 5) the project deliverables are drafted using the final phase of the data tables. Analysis was focused on both the 'big ideas' as well as specificity of responses, with particular attention paid to comments that supported or contradicted the general written feedback received. 11 The focus group conducted in Spanish was transcribed and analyzed using the

original Spanish-language text. The focus group participants received a \$25 grocery store gift card honorarium.

Lastly, 12 individuals involved with the AMP implementation in LA (five site directors, five workshop leads, and 2 overall AMP leads) were invited to participate in interviews to obtain their perceptions and feedback on the AMP itself, and to identify potential facilitators and/or barriers with implementation of the RCT approximately 9-months post-implementation. These interviews were conducted by LG and participants received a \$40 e-gift card. We used selected Consolidated Framework for Implementation Research (CFIR) constructs to design the interview protocol and analyze the results due to its breadth of available constructs across various implementation domains (see Table 1). The interview protocol included questions focused on four specific CFIR domains: intervention characteristics, which includes complexity, adaptability, and relative advantage of this intervention versus another; outer setting, which is about the extent to which the intervention meets patient needs; inner setting, which encompasses implementation climate and compatibility at the local level; and process, which includes planning and executing the intervention. The interviews with the leads were recorded and transcribed, and the transcripts were analyzed by LG and NW using the Rigorous and Accelerated Data Reduction (RADaR) technique (Watkins, 2017) explained previously. Each researcher independently coded the interview transcripts using the CFIR constructs selected for this evaluation. The coded passages were reviewed, discussed, and consensus was found where there were differences in coding. All qualitative analysis was completed using Dedoose, Version 8.2.14.

Results

The characteristics of the Los Angeles AMP RCT study⁵ and this study's sample are described in Table 2. A total of 180 participants from the LA area were recruited for the RCT across all five implementing sites. The overall sample was predominantly female, with less than half the sample being non-Latinx White, and participant ages ranging from 52-93 years old.

Of the RCT participants, 69 (38 %) responded to at least one of two open-ended questions on the AMP program evaluation focused on what they enjoyed about the AMP and changes they may have made as a result of AMP (Tables 3a and 3b). Results of the content analysis of the participant responses to the question "What did you enjoy the most about the AMP?" revealed three common themes: the interaction with other older adults (n=30), the class content provided (n=25), and the class leaders themselves (n=21). The 30 written comments that were categorized as interacting with other older adults included comments such as, "The interaction with fellow students," "Association with other people who have similar goals and expectations from life at senior ages," and "Camaraderie with other participants." Comments associated with the class topics and information included statements such as, "Discover so many new aspects of aging ideas that I had never thought about exploring," "I enjoyed the different topics," and the "Explanation of each topics." The comments about the presenters and professionals who gave the classes included "Speakers gave very helpful advice," "The instructors: enthusiasm, the information, the structure and how well organized," and "Outstanding instructor; very positive." (See Table 3a for more examples).

On their written responses to the question, "What is one change you've made from participating in AMP?" the most common responses were related to doing more exercise (n=12) and having better health and well-being (n=11). Additional comments included better nutrition

(n=7), increased social activity or feel more outgoing (n=6), improved sleep (n=5), paying attention to legal and financial decisions (n=4), and increased home safety (especially for falls prevention) (n=3).

Of all the RCT AMP participants, 22 'graduates' participated in the focus groups. They were predominantly female (n=18) and from three AMP sites. No additional demographic data from the focus group participants was collected. There were 13 participants in the first focus group, three in the second, and six in the last. Each focus group session lasted about an hour. Results of the 'big ideas' that emerged from the focus groups are in Table 4.

The results from the focus groups 12 months post-implementation were very similar to those in the written comments, and no contradictory comments were made during the sessions. When prompted to tell the interviewer what they had liked the most about the AMP, the participants overwhelmingly made comments such as, "I liked everything!," "It was all very helpful," and "It was great." Hence, the participants' overall reactions point to their enjoyment of the program and convey a sense that the topics covered in the AMP were appropriate and comprehensive. Notable comments from all three focus groups included how valuable the class on advance directives (outlining your "five wishes") was and how they felt empowered to "write things down" (like preparing a will). When asked about specific lifestyle changes they may have learned from AMP, the participant responses were varied, yet very specific to the topics covered in the modules. Participants spoke about improving their diets, exercising more, and about realizing the importance of sleep. Again, their comments alluded to being pleased with the comprehensive nature of the program, and how each topic added to their knowledge on "how to live better." In addition, the participants were very appreciative and complementary about the

actual materials that were distributed (i.e., the binder and handouts) and felt thankful to have information for future reference. Some participants brought their binders to the focus group, and described using them as a "reference" to look back through when they wanted to review certain topics.

In order to better understand the implementation of the AMP RCT in LA, there were nine interviews conducted with site leads – four were AMP workshop leads (3 males, 1 female), two were senior center site directors (1 male, 1 female), and two were both the workshop leads as well as the site directors (2 females). One interviewee was the overall AMP lead for LA County. Analysis of the transcribed interviews using CFIR constructs are in Table 5.

Analysis of the interviews with site leads revealed three top CFIR constructs that were most relevant to this implementation: complexity, compatibility, and patient needs and resources. There were 59 excerpts related to the complexity of the AMP implementation, with two subthemes emerging. The AMP implementation in Los Angeles County was deemed "complex" due to the randomized waitlist controlled trial aspect of the implementation, and the limited time that was provided to recruit the necessary cohorts. The sites also had to implement the program twice (for each arm of the study), and they were not used to this type of programming. It was also deemed as complex in terms of finding space to hold the classes and in finding speakers for the various topics. Implementing the program was especially difficult for sites that depended on outside speakers to cover the ten topics, or where the site leads had to cover most of the topics themselves. Despite these complexities, the site leads saw the AMP program as having high levels of compatibility with their organization. There were 35 excerpts alluding to this and noting how well the curriculum aligned with the interests of the older adults. Moreover, the AMP

content was aligned with the overall goals of the senior service centers: to provide meaningful programming for the older adults. Hence, the site leads definitely felt that the AMP "meets patient needs." As one site lead stated,

It was very well received by all seniors. When the program ended for both cohorts, they were asking if we could bring it back or if there were additional types of follow-up classes that could happen. So it was very well received by all the participants. I believe the topics really connected with some of the issues that they were working on, and because the way they have been set up was with a presentation and a discussion, so people were engaged.

In addition, the interviews revealed that many of the county sites were planning future implementations of the AMP at their centers, pointing to the high level of acceptability of the program at both the site and greater LA level. As one site lead shared, "In terms of [AMP] being a good fit for LA, absolutely. I kind of started to think about it a little bit ... that this is kind of like an awesome kind of like little mini University for the senior centers."

Discussion

Results from this qualitative, process evaluation point to participant outcomes that were not reflected in the randomized waitlist controlled trial results. The participants perceived greater interest in nutrition and healthy eating, the importance of exercise, and 'preparing' for important life decisions as a result of participating in the AMP, which were not captured through the patient activation or mental health measures used in the RCT. Another interesting outcome of the program that was captured through this analysis was the importance of socialization that participating in AMP provided to the participants. Both the written and verbal feedback from the participants pointed to social interactions as an important outcome of their AMP experience. This presents an interesting question - would socialization alone (without a set curriculum) have the

same or similar qualitative results? The specific feedback about the various topics covered in the AMP point to perceived knowledge gains from participating (like "preparing" for important life decisions or managing medications) which would not be possible solely through socialization. Nonetheless, these are remarkable findings that warrant further analysis, as it may be beneficial to document process measures such as these when trying to document clinical outcomes. Leaders at NCOA have noted these findings and are considering different outcomes measures for future evaluations of the program.

It is unclear why some of the perceived health gains did not appear on the quantitative pre or post data that was collected. Clearly, the choice of measurement tools may have contributed to the negative quantitative findings, as their focus was on changes in health outcomes and patient activation rather than changes in specific knowledge or psychosocial constructs. In addition, both the written responses collected in the RCT and the feedback provided during the focus groups may be biased, as respondents might be more willing to report positive outcomes rather than negative or neutral ones. The discrepancy between researcher-based measures of healthy aging has been found to be different from self-rated factors in other studies. ^{12,13} This study emphasizes the importance of considering participant-generated and participant self-described outcomes when measuring the effectiveness of successful aging programs. In addition, these self-perceived outcomes could be tested in studies with the constructs actually measured pre-post (and with a control group) to assess how real or perceived these outcomes are.

The analysis of interviews with site directors using the CFIR constructs revealed that the site leads were able to administer the AMP program using the implementation guide and by accessing guest speakers when necessary. The implementation of the RCT design was the main reason the AMP implementation was characterized as complex. Recruitment difficulties directly

led to deviations from the planned RCT design and accommodations such as using a cohort based, non-equivalent control group at one site and assigning all participants to the intervention at another site. To facilitate RCT data collection in the future, it may be helpful to allow more, smaller classes to ease recruitment challenges. Thus, despite the planning meeting and training efforts provided to the sites prior to implementation, the limited time provided to recruit the necessary cohorts, and the multiple demands placed on site leads to implement the program on a condensed time schedule contributed to this characterization. Overall, the AMP program itself – not the research component - was noted as being very compatible with the sites' goals and as meeting the needs of the participants.

Limitations

This study analyzed participant feedback on the longer-term outcomes of a community-based intervention to inform the results of an RCT. Due to the explanatory nature of the study, we did not have longitudinal data collection mechanisms in place to ensure participation among all the sites. In addition, we are unable to report demographics of the participants who provided comments or participated in the focus groups to assess representativeness of the group. We cannot make firm conclusions that the comments analyzed are truly reflective of the full sample. Despite our efforts to host focus groups at all five implementation sites, only three centers participated. These sites may have been more motivated to participate due to having a positive experience with the program. Similarly, there were only 22 participants in the focus groups, which may not make them a representative sample of all the AMP participants. The lag in interviews post-intervention also may have also introduced bias. Lastly, the comments that were analyzed in this study may be inherently biased towards positive responses, as the prompt was

"what did they enjoy" about the program. Those who provided feedback were clearly motivated to give positive comments.

Conclusion

Qualitative analysis of written feedback and focus groups was used to understand participant outcomes of the AMP, and Consolidated Framework for Intervention Research constructs were used to analyze interviews with site leads to understand implementation facilitators and barriers. Analysis of written feedback and focus group comments noted that AMP participants enjoyed interacting with other older adults and learning from the class topics and information provided by the AMP. Analysis of interviews with site and workshop leads revealed that although this particular implementation that involved RCT evaluation was complex, they felt the AMP program overall met the needs of the population in their centers. Future evaluations of the AMP should continue the use of mixed methods evaluation designs in order to understand both the quantitative and qualitative outcomes of the program, and consider including measures of other constructs, such as socialization, that have been identified by the participants as meaningful into the randomized trial design in order to determine if the intervention caused the perceived improvements.

References

- 1. Aging Mastery Program Research and Evidence-Base. (2019). Retrieved from https://www.ncoa.org/healthy-aging/aging-mastery-program/aging-mastery-program-qualifications-evidence-based-designation/
- 2. Belza, B., Altpeter, M., Smith, M. L., & Ory, M. G. (2017). The Healthy Aging Research Network: Modeling Collaboration for Community Impact. *American Journal of Preventive Medicine*, *52*(3, Supplement 3), S228-S232. Retrieved from http://www.sciencedirect.com/science/article/pii/S0749379716305025. doi:https://doi.org/10.1016/j.amepre.2016.09.035

- 3. Davitt, J. K., Greenfield, E., Lehning, A., & Scharlach, A. (2017). Challenges to Engaging Diverse Participants in Community-Based Aging in Place Initiatives. *Journal of Community Practice*, 25(3-4), 325-343. Retrieved from https://doi.org/10.1080/10705422.2017.1354346.
- 4. Pruchno, R. (2015). Successful Aging: Contentious Past, Productive Future. *The Gerontologist*, 55(1), 1-4. Retrieved from http://dx.doi.org/10.1093/geront/gnv002.
- Guerrero LR, Menkin JA, Carrillo CA, Kye H, Trejo L, Banks C, Herrera-Venson A, Sarkisian CA. 2020). Community-Partnered Evaluation of the Aging Mastery Program in Los Angeles Area Senior Centers. *Health Education & Behavior*, 47(1), 57–66. doi.org/10.1177/1090198119882992
- 6. Bauer, M. S., Damschroder, L., Hagedorn, H., Smith, J., & Kilbourne, A. M. (2015). An introduction to implementation science for the non-specialist. *BMC psychology*, *3*(1), 32. https://doi.org/10.1186/s40359-015-0089-9
- 7. Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science*, 4(1), 50. Retrieved from https://doi.org/10.1186/1748-5908-4-50.
- 8. Dickens, A. P., Richards, S. H., Greaves, C. J., & Campbell, J. L. (2011). Interventions targeting social isolation in older people: a systematic review. *BMC public health*, 11(1), 647.
- 9. Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*: Sage publications.
- 10. Curry, L., & Nunez-Smith, M. (2014). *Mixed methods in health sciences research: A practical primer* (Vol. 1): Sage Publications.
- 11. Krueger, R. A. (2014). Focus groups: A practical guide for applied research: Sage publications.
- 12. Cosco, T. D., Prina, A. M., Perales, J., Stephan, B. C. M., & Brayne, C. (2013). Lay perspectives of successful ageing: a systematic review and meta-ethnography. *BMJ Open, 3*(6), e002710. Retrieved from https://bmjopen.bmj.com/content/bmjopen/3/6/e002710.full.pdf. doi:10.1136/bmjopen-2013-002710
- 13. Gu, D., Feng, Q., Sautter, J. M., Yang, F., Ma, L., & Zhen, Z. (2016). Concordance and Discordance of Self-Rated and Researcher-Measured Successful Aging: Subtypes and Associated Factors. *The Journals of Gerontology: Series B*, 72(2), 214-227. Retrieved from https://doi.org/10.1093/geronb/gbw143. doi:10.1093/geronb/gbw143

Table 1. Selected Consolidated Framework for Implementation Research (CFIR) constructs explored in post-Aging Mastery Program interviews

Domain	Construct	Brief Description
Intervention Characteristics	Complexity	Perceived difficulty of implementation, reflected by duration, scope, radicalness, disruptiveness, centrality, and intricacy and number of steps required to implement.
	Adaptability	The degree to which an intervention can be adapted, tailored, refined, or reinvented to meet local needs.
	Relative advantage	Stakeholders' perception of the advantage of implementing the intervention versus an alternative solution.
Outer Setting	Patient Needs & Resources	The extent to which patient needs, as well as barriers and facilitators to meet those needs, are accurately known and prioritized by the organization.
Inner Setting	Implementation Climate	The absorptive capacity for change, shared receptivity of involved individuals to an intervention, and the extent to which use of that intervention will be rewarded, supported, and expected within their organization.
	Compatibility	The degree of tangible fit between meaning and values attached to the intervention by involved individuals, how those align with individuals' own norms, values, and perceived risks and needs, and how the intervention fits with existing workflows and systems.
Process	Planning	The degree to which a scheme or method of behavior and tasks for implementing an intervention are developed in advance, and the quality of those schemes or methods.
	Executing	Carrying out or accomplishing the implementation according to plan.

Table 2. Sample characteristics of participants in the Aging Mastery Program randomized waitlist controlled trial (RCT) and evaluation focus groups

Characteristics	RCT Study N=180	Focus Groups N=22
Mean Age (SD)	73.8 (10.0)	
Female $(n, \%)$	121 (67.2)	18 (78.3)
Race/ethnicity $(n, \%)$		
White	81 (45.0)	5 (21.7)
Hispanic, Latinx, or	49 (27.2)	16 (69.6)
Spanish		
Black or African	24 (13.3)	1 (16.7)
American		
Asian	14 (7.8)	1 (16.7)

Other or mixed race/ethnicity

10 (5.6)

Table 3a. Results to the open-ended post-intervention evaluation survey question 'What did you enjoy the most about the Aging Mastery Program (AMP)?

Theme	Sample comments	
Interactions with	"The interaction with fellow students."	
other older	"Association with other people who have similar goals and expectations from	
adults (n=30)	life at senior ages."	
	"Camaraderie with other participants."	
	"Meeting new friends. Learning together."	
	"Being with other senior so I know I am not alone."	
	"Getting up with a purpose; interactions with other people."	
	"The people we were in class with."	
The class topics	"Subjects that were pertinent."	
and information	"Each subject was presented clearly and concisely."	
provided (n=25)	"The variety of the classes-topics, etc."	
	"Discover so many new aspects of aging ideas that I had never thought about	
	exploring."	
	"I enjoyed the different topics."	
	"Explanation of each topics."	
The presenters	"My teacher."	
and professionals	"Speakers gave very helpful advice."	
who gave the	"The instructors: enthusiasm, the information, the structure and how well	
classes (n=21)	organized."	
	"I was able to ask questions from different professional personnel that I did not	
	normally have access to."	
	"Outstanding instructor; very positive."	
	"I especially enjoyed when we had guest speakers."	
	"I enjoyed the speakers to gain information on various subjects."	

Table 3b. Results to the open-ended post-intervention evaluation survey question 'What is one change you've made from participating in the Aging Mastery Program (AMP)?

Theme	Sample comments
More exercise (n=12)	"Trying to exercise more."
	"Take a walk."
	"More exercise."
	"Walking."

Better health and well-	"Improve my quality of life."
being (n=11)	"I am more in control of my feelings, and more aware of how to
	express them more positively."
	"Taking charge of my health."
	"Managing my meds as well as being an advocate for my own health."
	"Encouraged to take steps to change - stop bad habits/ideas to move
	forward."
Better nutrition (n=7)	"Better food choices."
	"AMP has helped me to think and make positive changes in my
	eating."
	"Making big changes in eating habits. Drinking more water."
Increased social activity	"Going out more and doing more things."
or feel more outgoing	"Becoming more self assured to participate in group activities."
(n=6)	"Becoming more outgoing."

Table 4. Results of post-intervention evaluation focus groups with Aging Mastery Program (AMP) participants (n=22)

Question	Theme	Sample comments
Tell me what you liked most about the program.	The topics that were covered	"Todos los temas para mi fueron muy importantes." ("All the topics were important to me.") "I thought the curriculum was well-organized and each of the presenters were well-prepared." "When I started the program, it opened up my eyes to a lot of things."
Are there any lifestyle changes you've made or implemented in your life that you learned from AMP?	[varied comments, specific to the topics]	"Comer porciones mas puequenas, con medida." ("Eating smaller, measured portions.") "Tomarnos las medicinas como son – somo nos indica el doctor." ("Taking medications according to prescribed orders.") "The "exercise and you" class for me was most helpful because I'm aging and it's ok to slow down and to do things in a different way that are still productive." "I mostly liked the financial side You should prepare early. About getting ready." "I think it was good that a lot of people are not educated on advanced directives, and they don't know about how to set things up. They leave it all up the family and it should it should not be up to the family to decide what you want happening to you at your end time. It should be your decision."
In your opinion, what was the main thing you learned from participating in AMP?	How to live a happier and healthier life	"Tiene uno que ser valiente para vivir la vejezhay que hacer la lucha." (You have to be strong to age well you have to work on it.") "Everything When I first retired, I didn't know what to do with myselfretiring was a shock to me. We need to be educated about what retirement is We think we're going to work forever The aging process should be discussed. It's not the gray hair or the wrinkles. The pain of aging is a reality that I had no idea there's so much that we don't teachinside you don't feel different." "How to balance your life out. The whole book was about balancing your lifestyle to a healthier lifestyle."

Table 5. Results of post-intervention interviews with Aging Mastery Program (AMP) site leads using Consolidated Framework for Implementation Research (CFIR) constructs

CFIR Construct	Sample quotes
Complexity – wait list controlled trial design	"It was difficult for them to control the first, the control group from the experimental group. I think that the participants who were more savvy found ways of getting into the first one, and the ones that were less connected, less involved with the community center, with the senior center, I think they were more likely to be in the second group."
	"I mean, I completely understand that it was needed, but it was tough because there were certain people that wanted to take it but only if their friend would take it with them. And they wanted to do the second one, not the first one. Or they wanted to do the first one, not the second one."
	"That was much harder because bringing back those other 20 who didn't get selected for the That's where we found some barriers and some resistance because they didn't like the fact that they had to wait so long to participate."
Complexity – coverage for space and topics	"At a busy senior center, carving out time and space to do these classes, I have ongoing 45 activities that we have to work around, plus our lunch program and our other services, so to carve out special time for evidence-based or for AMP, that is a big commitment. That's one of the things that's going to be looked at by everybody is, can we really make this work?"
	"So all of my speakers kind of fell through because none of them wanted to drive that far, and then I had very little time to actually find new speakers, and the director of the senior center where it was eventually scheduled, she helped me a lot to find some people."
	"We had already a relationship with certain organizations and service providers, and so those were relatively easy. The challenge was with one or two topics that was very specific, and we didn't have a connection with service providers that were geographically close to those areas because the county was so large. We might be having a speaker available, but would not be able to make it all the way to [omitted], so that was one of the challenges, the geography."

	"So having the curriculum book was huge. I knew it was going to be a struggle and some of it's just relative to me, like, okay, well, I haven't taught anything in a while. I'm getting dropped into something that I'm not a subject matter expert on. And so, that's going to be a big challenge. If you just kind of have your routine like any prof does of like, okay, I got to prep all the material, start thinking about the questions that I immediately come up with, start thinking about how I might respond to certain general questions."
Compatibility	"Overall, the participants enjoyed the program. They were really engaged and felt like they got a lot out of it, and then on my own as a facilitator, I enjoyed interacting with the participants as well. So I felt like it was a learning process for myself as well as we went through the materials and connecting them with the subject matter was in place, what the experts were saying about healthy living, and so that interaction was very useful."
	"[This site] is very excited to just try new things and this was something completely new and of course if [the county representative] asked us to help her out with something, we would 100% be available and happy to help."
	"In terms of yeah, being a good fit for LA, absolutely. I kind of started to think about it a little bit that this is kind of like an awesome kind of like little mini University for the senior centers."
Patient Needs and Resources	"I think its very relatable. That's why its important to have good speakers that come in that know the subject for that week well, and make it relatable to wherever we're at in the County. I think that's the most important thing, to be able to have that information, but also relatable to wherever we're at."
	"Because they don't get too many opportunities to reflect upon how their lives are. So the whole outlook of AMP of not looking at singular issues independent of others, but looking at it having a holistic view. I think that was a very good change for them. They weren't really used to reflecting back onto their existing conditions."
	"You know, it was pretty spot on. Nothing jumps out that I thought was inappropriate or not a good match for our participants and it really was because there was 10 different or basically 9 different topics. It was pretty diverse. It ran the spectrum, so I was pleased with that."