

Modifiability of Middle-Aged and Older Adults' Views on Aging

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**APA Symposium: 45 Years of Influence of the
Life-Span Developmental Approach**

A Bit Of History

- The life-span developmental approach has a long and rich history.
- Indeed, several historical reviews (Groffmann, 1970; Reinert, 1979; Baltes, 1983) suggest that the major historical precursors of scientific developmental psychology were all *life-span oriented* rather than child-centered in their approach.

A Bit Of History

- *European precursors:*

- (1) **Johann Nikolaus Tetens** (1777): “Human Nature and its Development” (2 Volumes).
- (2) **Adolphe Quetelet** (1835): Major contributions to developmental methodology.
- (3) **Charlotte Bühler** (1933): “The Human Life Course as Psychological Problem”
- (4) **Carl Gustav Jung** (1933): Individuation as the “developmental task” in the second half of life.
- (5) **Hans Thoma** (1959): German “Handbook of Psychology”; “Vita Humana” (today “Human Development”); International Society for the Study of Behavioral Development (ISSBD) founded in 1970.

A Bit Of History

- *North-American precursors:*

- (1) **G. Stanley Hall** (1922): “Senescence”
- (2) **Robert J. Havighurst** (1948): “Developmental Tasks and Education” → developmental task concept
- (3) **Pressey & Kuhlen** (1957): First American textbook “Psychological Development Through the Life Span”
- (4) **Erik H. Erikson** (1959): “Childhood and Society”; psycho-social crises in middle adulthood and old age
- (5) **James E. Birren** (1959): “Handbook of Aging and the Individual”
- (6) **Institute of Human Development** at the University of California at Berkeley

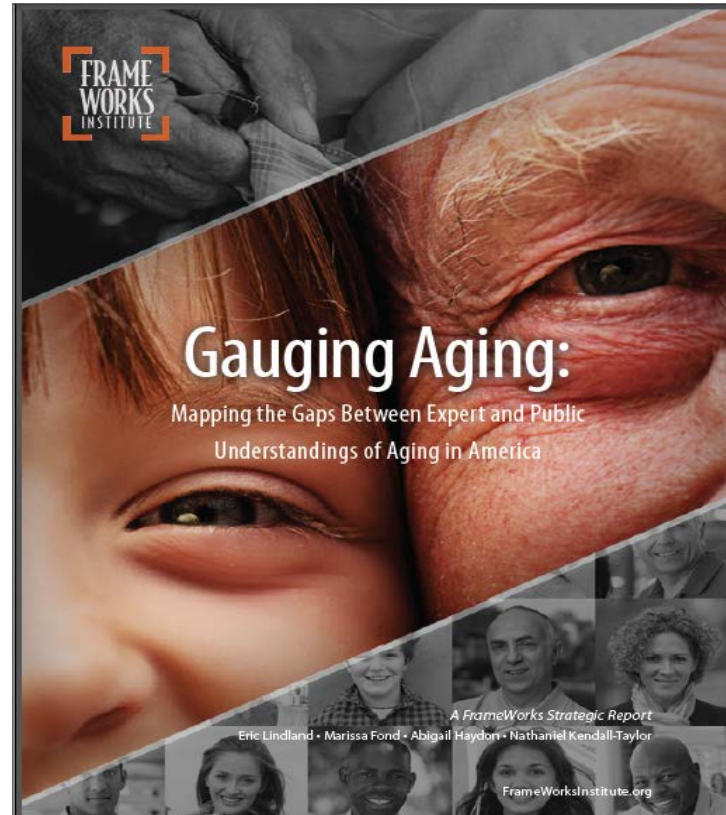
A Meta-Theoretical Framework

- The overall objective of life-span developmental psychology is “... *to obtain knowledge about general principles of life-long development, about individual differences and similarities in development, as well as about the degree and conditions of individual plasticity or modifiability of development*” (Baltes, 1987, p. 611).
- *Within-person modifiability* as a key proposition of life-span developmental psychology.

Why Focus on Views on Aging?

- Two primary reasons:
 - (1) Views on aging influence how adults *approach their own aging* and whether or not they engage in behaviors that are known to promote healthy aging (e.g., engaging in physical activity).
 - (2) There is a *big discrepancy* between the public's views on aging and experts' views.

Public Knowledge vs. Expert Knowledge



http://frameworksinstitute.org/assets/files/aging_mtg.pdf

The Public's View On Aging

- Changes that come with aging
 - ... are all *negative* (“going downhill”);
 - ... are not amenable to *intervention* (“they run their course”); and
 - ... are *irreversible* (“age-related losses are permanent”).

The Experts' View On Aging

- In contrast, experts emphasize that aging ... is a *lifelong* and *cumulative process*; ... is *distinct* from disease and decline; ... comes with *challenges* and *opportunities*.
- With the right contextual and social support, older adults can remain (mostly) healthy and *maintain high levels of functioning*.

The Aging^{PLUS} Program

- We have developed the *Aging^{PLUS}* program to address adults'
 - *negative views on aging (NVOA);* and
 - *low internal control beliefs.*
- Both of these factors are well-documented *attitudinal barriers* to healthy aging, and showing that they can be modified may open new avenues for intervention.

Negative Views on Aging (NVOA)

- NVOA refer to a person's *negative attitudes and self-perceptions about growing old(er)*, including the attitudes that aging is all negative, uncontrollable, and irreversible (for a review, see Hess, 2006).
- NVOA, including negative age stereotypes, take on critical significance in midlife and old age because they lead to *negative self-stereotyping* and thereby undermine adults' motivation and behavior (Levy, 2009).

Negative Views on Aging (NVOA)

- NVOA predict a host of *negative outcomes*:
 - poorer memory performance (Levy, 1996), slower walking speed (Levy & Leifheit-Limson, 2009), or reduced will to live (Levy et al., 2000);
 - greater decline in physical and cognitive functioning over time (Kotter-Grühn et al., 2009; Robinson et al., 2016; Sargent-Cox et al., 2012);
 - slower recovery from disability (Levy et al., 2012);
 - more pronounced biomarkers of Alzheimer's disease (Levy et al., 2016); and
 - reduced longevity (Kotter-Grühn et al., 2009; Levy et al., 2002).

Internal Control Beliefs

- Individuals with low internal control beliefs *engage less in health-promoting behaviors*, such as
 - ... exercising regularly;
 - ... eating a healthy diet; or
 - ... having regular doctor visits (see Lachman et al., 2011).
- In contrast, individuals with a high sense of personal control tend to have *better health* and are *less likely to become disabled* (Fauth et al., 2007).

Why Focus on Physical Activity?

- Engagement in physical activity is the *most promising non-pharmacological, non-invasive, and cost-effective method of health promotion* (e.g., Kohl et al., 2012; Powell et al., 2011).
- However, *the majority of adults do not engage in regular physical activity* (Ashe et al., 2009).
- Moreover, *persons over the age of 50 are the most sedentary segment of the adult population*, and engagement in physical activity tends to decline with age (Harvey et al., 2013).

The Aging^{PLUS} Program

- *Aging^{PLUS}* is an 8-week program consisting of:
 - an *educational component* (Weeks 1-4), and
 - a *behavioral component* (Weeks 5-8).
- *Educational Component:*
 - 2-hour group meetings/week discussing NVOA, behavioral plasticity, and internal control beliefs.
 - Homework assignments for next week.
 - In Week 3, participants choose a physical activity goal, which they practice for 1 week.

The Aging^{PLUS} Program

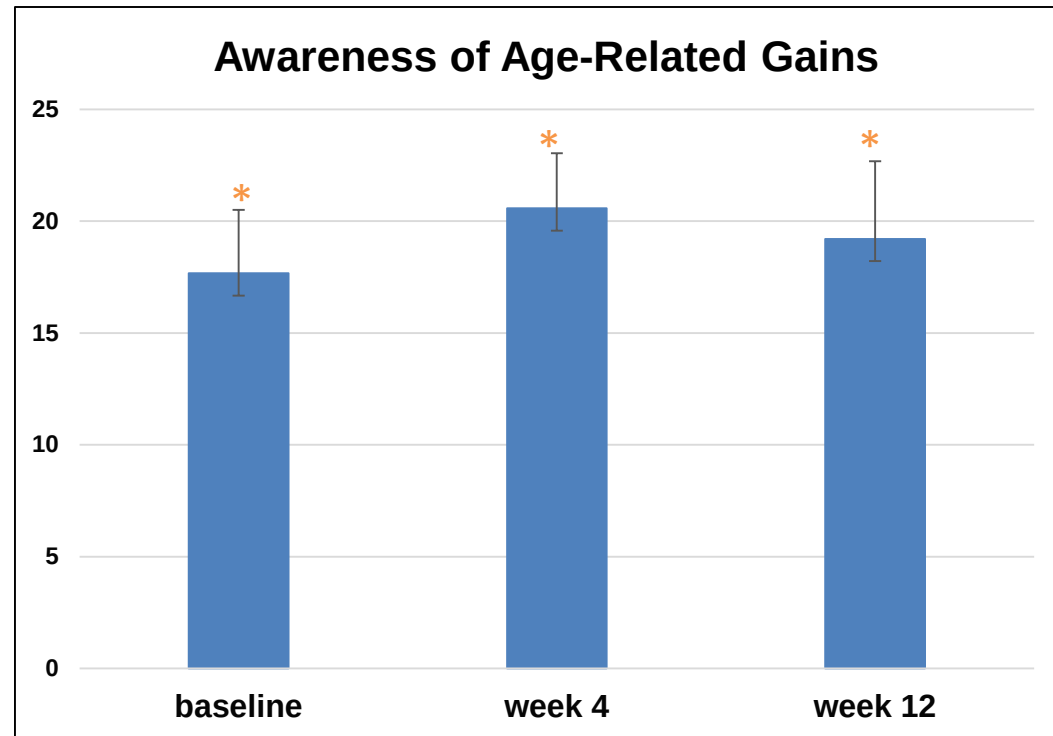
- **Behavioral Component:**

- Participants practice their chosen physical activity as much as possible.
- Record their exercise in a daily activity log (type, amount, intensity, enjoyment).
- Receive a weekly phone call to talk about successes and setbacks.
- Phone calls provide support and encouragement.

Program Feasibility

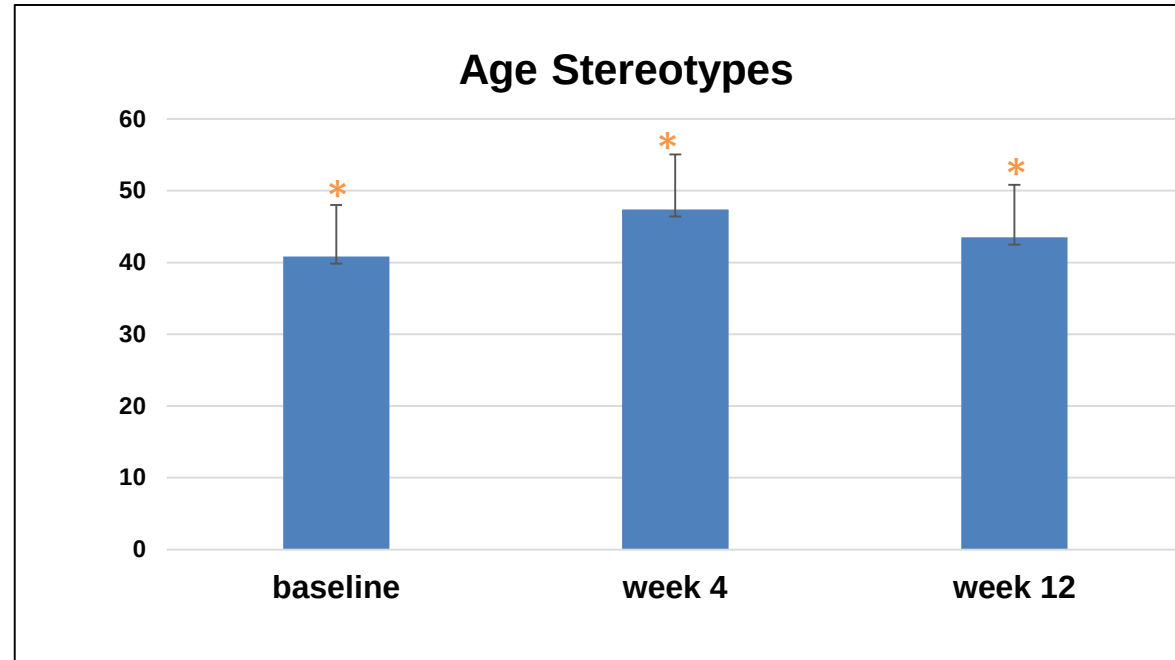
- Conducted a *feasibility study* with 62 middle-aged and older adults (mean age = 64.7 years; 68% currently not exercising) to assess the *acceptability and efficacy of the program*.
- Average *attendance* was 93.6 %.
- *Drop-out rate* was low:
 - 11.3 % after Week 4
 - 16.1 % (cumulative) after Week 8
- *Acceptability* of and *satisfaction* with the program were very high (85-100 % positive response depending on question).

Program Efficacy: Views on Aging



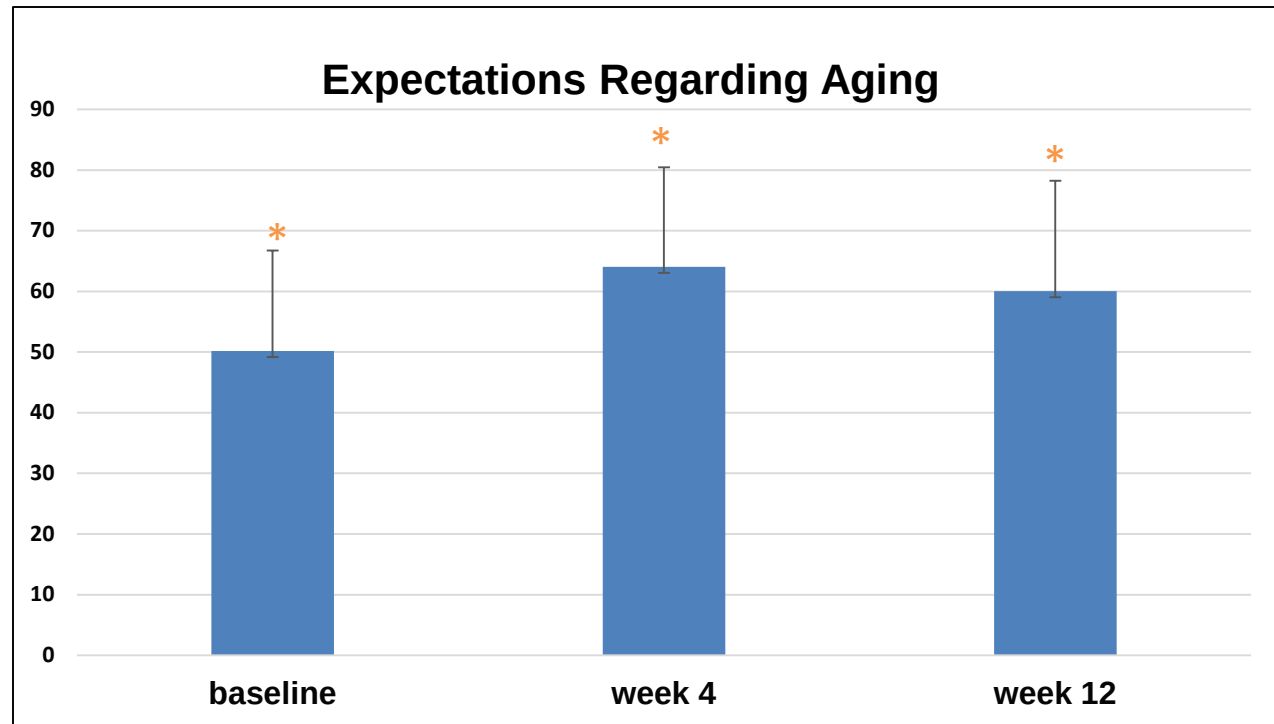
$F(2, 102) = 24.32, p < .001, \eta_p^2 = .32$

Program Efficacy: Views on Aging



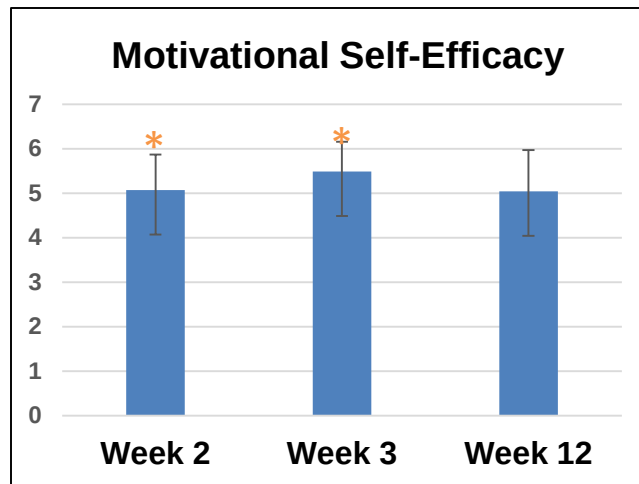
$F(2, 102) = 22.70, p < .001, \eta_p^2 = .31$

Program Efficacy: Views on Aging

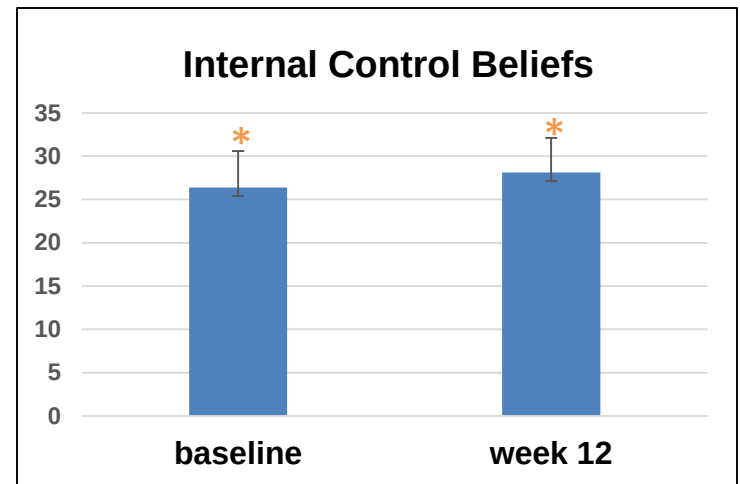


$F(2, 102) = 22.70, p < .001, \eta_p^2 = .31$

Program Efficacy: Control Beliefs

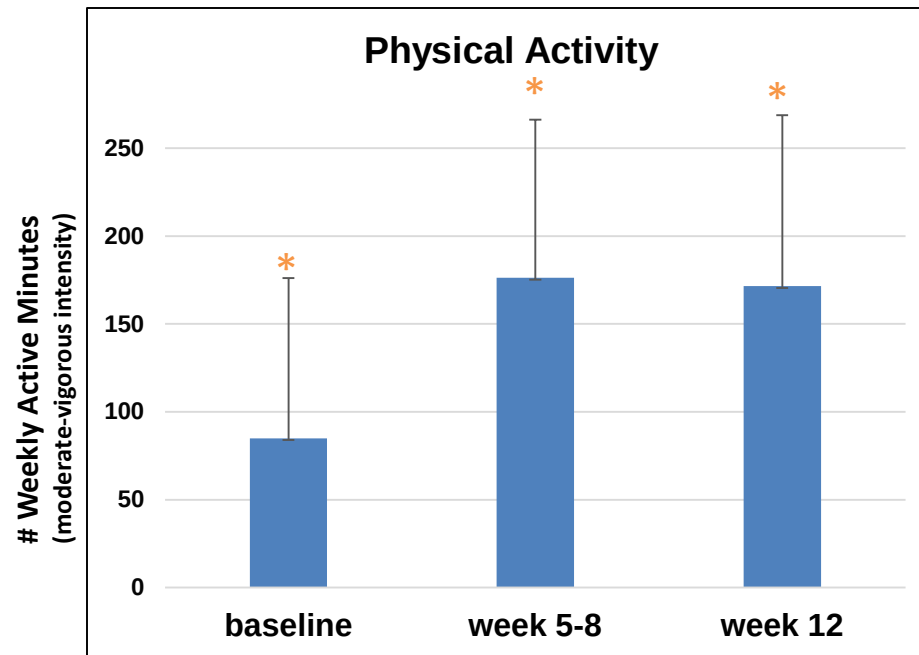


$F(2, 102) = 6.46, p < .01, \eta_p^2 = .11$



$F(1, 51) = 14.48, p < .001, \eta_p^2 = .22$

Program Efficacy: Physical Activity



$F(2, 98) = 24.70, p < .001, \eta_p^2 = .34$

Summary

- The *Aging^{Plus}* program resulted in:
 - significant improvements adults' *views on aging*;
 - significant improvements in *control beliefs*; and
 - increased engagement in *physical activity*.
- We consider these *very promising findings* in terms of the feasibility and efficacy of the program.
- Overall, these findings show that middle-aged and older adults' NVOA and low control beliefs are *not cast in stone but can be modified*.
- Focusing on these *social-cognitive and motivational factors* holds promise for the development of new interventions to promote healthy and successful aging.

Limitations

- Several limitations need to be acknowledged:
 - The study did not include a *control group*.
 - Outcome measures were all based on *self-report*.
 - The *follow-up period* was rather short.
- We have addressed two of these limitations in a second study that we are just finishing up.
- A grant application to the National Institute on Aging to secure funding for a randomized controlled trial (RCT) is pending.

Acknowledgments

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