

## Intergenerational Programs: Evidence and Outcomes

Mary Maley, Harry Yau, Monica Wassel, John Eckenrode, and Karl Pillemer

### Research Question

What evidence do we have for the effectiveness of intergenerational programs between youth and older people?

### Bottom Line

Some studies have reported positive results but more rigorous evaluation studies are needed to better understand the ways that intergenerational programs can benefit both youth and older adults..

### Background

Intergenerational programs between adolescents and older adults have been implemented in a variety of settings to enhance connectedness for both groups. To inform the research agenda and strengthen future program implementation, researchers from the Cornell Program for Research on Youth Development and Engagement (PRYDE) and the Cornell Institute for Translational Research on Aging (CITRA) requested a Systematic Translational Review (STR) to examine the empirical literature on intergenerational program outcomes. The specific focus of interest was evidence for positive changes in attitudes toward, or comfort level with, young people or older people as a result of participation in such programs.

While some research has involved pre-school and elementary students with older people, or has focused on college students with older people as service learning or professional preparation, this review focuses on middle and high school students with older adults, because these youth are most closely aligned with the PRYDE program's research interests.

The aim of the STR is to identify and describe the evidence for intergenerational program outcomes to support researchers' efforts to conduct rigorous evaluation studies of such programs in the future, and apply best practices for implementation in the field.

### Methods

The search was conducted in fall 2016 on five selected electronic databases (Academic Search Premier, AgeLine, ERIC, PsycINFO, & SocINDEX with Full Text) using Ebscohost. These databases were selected by the research team because they included academic journals most likely to have published studies in the focus area (e.g. Gerontologist, Journal of Intergenerational Relationships, etc.). Search parameters included empirical studies using at least a pre- and post-test to evaluate outcomes, published in peer

reviewed journals, conducted in the US between 1980 and 2017. The population focus was youth between ages 13 and 18 (or 6th- 12th grade) interacting with adults over age 55. An initial scoping search was conducted to identify key words and any relevant additional sources. Those results were used to develop the final search string ("Intergenerational Program OR Activity OR Contact") AND ("Experiment" OR "Pre Test" OR "Post Test" OR "Control" OR "Review") NOT ("Dementia" OR "Service-learning" OR "Mentor" OR "Elementary" OR "College").

Initially 186 articles were obtained from the search. All articles were screened by title and abstract, and 140 articles were excluded for the research method criteria or age group of youth participants. In addition, fifteen review articles were identified that focused on outcomes of intergenerational programs on both youth and older adults, and described the structures of intergenerational programs. Citations from those reviews were hand searched by the team for empirical studies that met the inclusion criteria. All papers were abstracted into a shared spreadsheet. These studies were reviewed and coded by the team to assure inter-rater reliability for inclusion. An initial cohort of 13 empirical studies were selected.

Given this limited number of qualified articles, the team decided to rerun the search without country restriction. Citations from the 15 review articles were also searched again and the same inclusion procedures were conducted. As a result of this process, 5 additional studies were included, for a final total of 18.

The research team coded each of the included empirical studies for quality based on the methods used to assess the effectiveness of intergenerational programs. Those using only a pre-test and post-test design with no comparison group were graded as low quality, those using quasi-experimental designs with a comparison group were graded as medium quality, and randomized control trials were graded as high quality.

## Findings

Of the 18 studies that were included (See **Table 1**), 6 were high quality, 7 were medium quality, and 5 were low quality. Participant ages were reported inconsistently for both youth and older adults. Some used school grade level and some reported youth ages. Three of the included studies included youth both inside and outside of our focus on middle and high school students ages 13-18. One included younger 5th grade students, and two included secondary students older than 18. When ages of the older adults were provided, all were 55 or older.

Fourteen studies assessed the groups' attitudes toward each other, and 12 of these reported positive results in at least one participating age group. Two of the studies (Barton, 1999; Doka, 1986) reported negative changes in attitudes after the intergenerational program. Both of these studies used only a pre-/post-design, and were coded as low quality by the research team. Proller (1989) assessed attitudes of 5th and 6th grade students toward older adults in a quasi-experimental study and reported no significant changes after the program, but after modification with more frequent contact, reported positive changes in attitudes in both groups.

Other outcomes reported included improved psychosocial wellbeing of older adults (Herrmann, Sipsas-Herrmann, Stafford & Herrmann, 2005), increased generativity in older adults and more prosocial behavior in youth (Kessler & Staudinger, 2007), and improved interaction between the two groups after knowledge exchange (Gamliel, 2014). de Souza and Grundy (2007) assessed cognitive components of social capital of both age groups, and reported positive change in self-rated health for youth and helpfulness rating

of neighbors for older adults. Two studies focused on "Across the Ages" (LoScituo, 1996; Taylor, 1999), an intergenerational drug prevention program, and reported positive outcomes for youth in substance abuse knowledge, behavior, and related life skills in addition to improvements in attitudes toward older adults.

## Conclusion

Practitioners and researchers interested in intergenerational programs hope to see positive benefits for both youth and older adults. While many of the empirical studies included in this review reported positive outcomes, others found negative, mixed, or no effects (Barton, 1999; Doka, 1986; Proller, 1989). Overall, the body of rigorous evidence on intergenerational program outcomes with middle- and high-school youth is small. Very few of the original 186 studies used at least a pre-test/post-test design and small sample size in many cases limited the generalizability of the results. Of the 186 studies identified in the initial scoping search for this review, only 25% were eligible for inclusion based on study method or age of participants. However, the 5 high-quality studies using a randomized control design all reported positive effects, providing some support for the value of intergenerational programs. The low number of studies using validated and reliable instruments, comparison groups, and randomization highlights the need for more rigorous empirical research to objectively measure the degree and direction of the effects of intergenerational programs. Further high-quality research would add valuable evidence to demonstrate both the benefits and the best practices of intergenerational programs.

**Table 1. Intergenerational program outcomes**

First Author/Year Title	Sample Size Study Method Quality Grade	Outcomes Measured Results Reported
<b>Aday, 1993</b> <i>Impact of an intergenerational program on black adolescents' attitudes toward the elderly</i>	19 students (11th - 12th grade) Adults (age 60-80) 8-week summer program with 2-group quasi-experimental pre-/post-test design <b>Quality: Medium</b>	Black adolescents' perceptions of the elderly The paired t-test found significant positive attitude change in the experimental group as measured by the Children's Perceptions of Aging and Elderly (CPAE) inventory and a semantic differential attitude scale.
<b>Barton, 1999</b> <i>Effects of an intergenerational program on the attitudes of emotionally disturbed youth toward the elderly</i>	9 emotionally disturbed boys (age 14-17) 36 older adults Classroom visits with pre-/post-test <b>Quality: Low</b>	Attitudes Youth attitudes toward older people were less positive after the intergenerational experience. However, their evaluations of the program were favorable.

**Table 1. Intergenerational program outcomes - cont.**

<b>First Author/Year Title</b>	<b>Sample Size Study Method Quality Grade</b>	<b>Outcomes Measured Results Reported</b>
<b>Chapman, 1990</b> <i>The effects of intergenerational experiences on adolescents and older adults</i>	90 youth (13.9 - 15.7 mean age) 87 adults (70.7 - 75.3 mean age) Pre-/post-test <b>Quality: Low</b>	Attitudes Adolescents who helped older people showed more enjoyment in being with older people, decreased social distance, and a more positive perception of older people's attitudes toward the young.
<b>Chorn Dunham, 2009</b> <i>Children's attitudes and classroom interaction in an intergenerational education program</i>	380 elementary and junior high students 12 older adults Older volunteers in classrooms Pre-/post-test with control group <b>Quality: Medium</b>	Children's attitudes toward elderly; how attitudes were related to intention to seek out older volunteers for help There was a significant increase in positive attitudes toward aging in the experimental group; most important predictors of students' intentions to ask for help from senior volunteers were specific attitudes about the adults in the classroom rather than more general attitudes toward older people.
<b>Chua (2013)</b> <i>Let's play together: Effects of video-game play on intergenerational perceptions among youth and elderly participants</i>	Video game youth (age 16-18) Non-video game youth (age 16-19) Older adults (age 60-89) Randomized trial, pre-/post-test <b>Quality: High</b>	Attraction, attitudes, intergroup anxiety Participants in the video-game condition reported more positive changes in intergroup anxiety and attitudes, compared to participants in the non-video-game condition. In addition, game enjoyment played an important role in developing positive intergenerational perceptions for the elderly, but not for the youth participants in the video-game condition.
<b>Couper, 1991</b> <i>Attitude toward old people: The impact of an intergenerational program</i>	91 5th and 6th graders 29 high school students 39 adults (age 60+) Quasi-experiment with post-test control group design and cluster sampling <b>Quality: Medium</b>	Attitudes There was significant improvement in young people's attitudes and acceptance of older people in the intervention group vs. the control group.
<b>Darrow, 1994</b> <i>The effect of participation in an intergenerational choir on teens' and older persons' cross-age attitudes</i>	27 high school students 24 older persons (participant age range 16-85) Pre-/post-test <b>Quality: Low</b>	Attitudes Attitudes of both teens and seniors toward the other group moved in a positive direction, however only the positive change in attitudes of male seniors toward male teens was statistically significant.
<b>de Souza (2007)</b> Intergenerational interaction, social capital and health: Results from a randomised controlled trial in Brazil	253 adolescents 266 adults (age 60+) Randomized control, pre-/post-test <b>Quality: High</b>	Cognitive components of social capital, family relationships, and self-rated health Adolescents in the intervention group were nearly three times more likely to rate their health as good than those in the control group. In the elderly sample, those from the intervention group were over twice as likely as those from the control group to report positively on the helpfulness of neighbors, judge most people to be honest, or consider their family relationships as good. There were no significant differences between groups on other outcome measures of social capital, family relationship, or self-rated health.

**Table 1. Intergenerational program outcomes - cont.**

<b>First Author/Year Title</b>	<b>Sample Size Study Method Quality Grade</b>	<b>Outcomes Measured Results Reported</b>
<b>Doka, 1986</b> <i>Adolescent attitudes and beliefs toward aging and the elderly</i>	24 youth (age 12-16) With older adults  Oral history project Pre-/post-test  <b>Quality: Low</b>	Attitudes and beliefs  Participation in the project did not significantly impact upon beliefs and attitudes toward aging or the elderly.
<b>Dooley (1990)</b> <i>Improving attitudes toward elderly people: Evaluation of an intervention program for adolescents</i>	Secondary school students, age not reported. Experimental group: 21 secondary school students, control group 22 students from a secondary school; older adults not reported.  Quasi-experimental design with pre-/post-test.  <b>Quality: Medium</b>	Attitudes  Contact with a specific elderly person leads to significant positive changes in attitudes toward elderly people in general. In addition, greater positive perceptions of the elderly person were associated with greater improvements in youth attitudes related to dimensions of elderly autonomy and personal acceptance of older persons.
<b>Gamliel (2014)</b> <i>Knowledge exchange, social interactions, and empowerment in an intergenerational technology program at school</i>	32 children (age 11-12) 29 older adults (age 66-77)  Mixed methods, pre-/post-test  <b>Quality: Low</b>	Effect of digital education on intergenerational empowerment and social interaction between participants  Intergenerational knowledge exchanges empowered both groups and improved their perceptions of each other.
<b>Herrmann, 2005</b> <i>Benefits and risks of intergenerational program participation by senior citizens</i>	6th graders in groups of 8-12 (total number not reported) 62 adults (age 60-81)  Pre-/post-test, quasi-experimental design  <b>Quality: Medium</b>	Seniors' psychosocial well-being  Significantly higher levels of positive psychosocial change were observed at post-test time compared to control.
<b>Kassab, 1999</b> <i>An assessment of the effectiveness of an intergenerational program for youth</i>	25 youth (ages 12-17) Adults (ages not reported)  Youth interviewed and interacted with older adults. Quasi-experimental, pre-/post-test  <b>Quality: Medium</b>	Attitude, knowledge  The youth in the contact group had more favorable attitudes toward the elderly and more knowledge of the aging process than youth in the control group.
<b>Kessler (2007)</b> <i>Intergenerational potential: Effects of social interaction between older adults and adolescents</i>	90 adolescent girls (age 14–15) 90 older women (age 70–74)  Randomized control (3 conditions) Quasi-baseline and post-test  <b>Quality: High</b>	Prosocial behavior  Intergenerational settings characterized by high support of generativity and identity formation resulted in more prosocial behavior in adolescents.
<b>LoSciuto, 1996</b> <i>An outcome evaluation of Across Ages: An intergenerational mentoring approach to drug prevention</i>	562 6th graders with adults (age 55+)  Randomized pre-/post-test control group design  <b>Quality: High</b>	Stress, anxiety, self-perception, and knowledge and attitudes about older people  The intervention group saw positive changes in youth knowledge, attitudes, and substance abuse behavior and related life skills compared with the control group.

**Table 1. Intergenerational program outcomes - cont.**

<b>First Author/Year Title</b>	<b>Sample Size Study Method Quality Grade</b>	<b>Outcomes Measured Results Reported</b>
<b>Meshel, 2004</b> <i>Intergenerational contact, attitudes, and stereotypes of adolescents and older people</i>	63 youth (age 11-13) 17 adults (age 60-75)  Random assignment to cross-age contact, didactic instruction, or control conditions  <b>Quality: High</b>	Attitudes and stereotypes  Relative to the control group, the contact group adolescents' attitudes toward older people became more positive. There was no change in the didactic group. Following contact, the older people showed more positive attitudes toward younger people and scored higher on a measure of life satisfaction.
<b>Proller, 1989</b> <i>The effects of an adoptive grandparent program on youth and elderly participants</i>	52 5th and 6th graders 52 adults in nursing home  Quasi-experiment  <b>Quality: Medium</b>	Youth self-esteem and attitude toward the elderly, as well as the elderly's level of depression, self-esteem, and attitudes toward aging  Study results were not significant, however with modification to increase contact from monthly to weekly, positive results were observed in attitudes of both groups toward the other.
<b>Taylor, 1999</b> <i>The mentoring factor: Evaluation of the Across Ages' intergenerational approach to drug abuse prevention</i>	562 6th graders with adults (age 55+)  Randomized pre-/post-test control group design  <b>Quality: High</b>	Knowledge and attitudes  Program Group participants showed significant improvement in their sense of well-being, knowledge about elders, reactions to situations involving drug use, and attitudes toward community service. Participants in the Mentoring Group also improved in their attitudes toward school, the future, and elders.

**Mary Maley** is an extension associate in the Bronfenbrenner Center for Translational Research (BCTR).  
For more information email [mm153@cornell.edu](mailto:mm153@cornell.edu)

**John Eckenrode** is an associate director of the BCTR.

**Karl Pillemer** is director of the BCTR.

**Harry Yau** is a graduate research assistant in the BCTR.

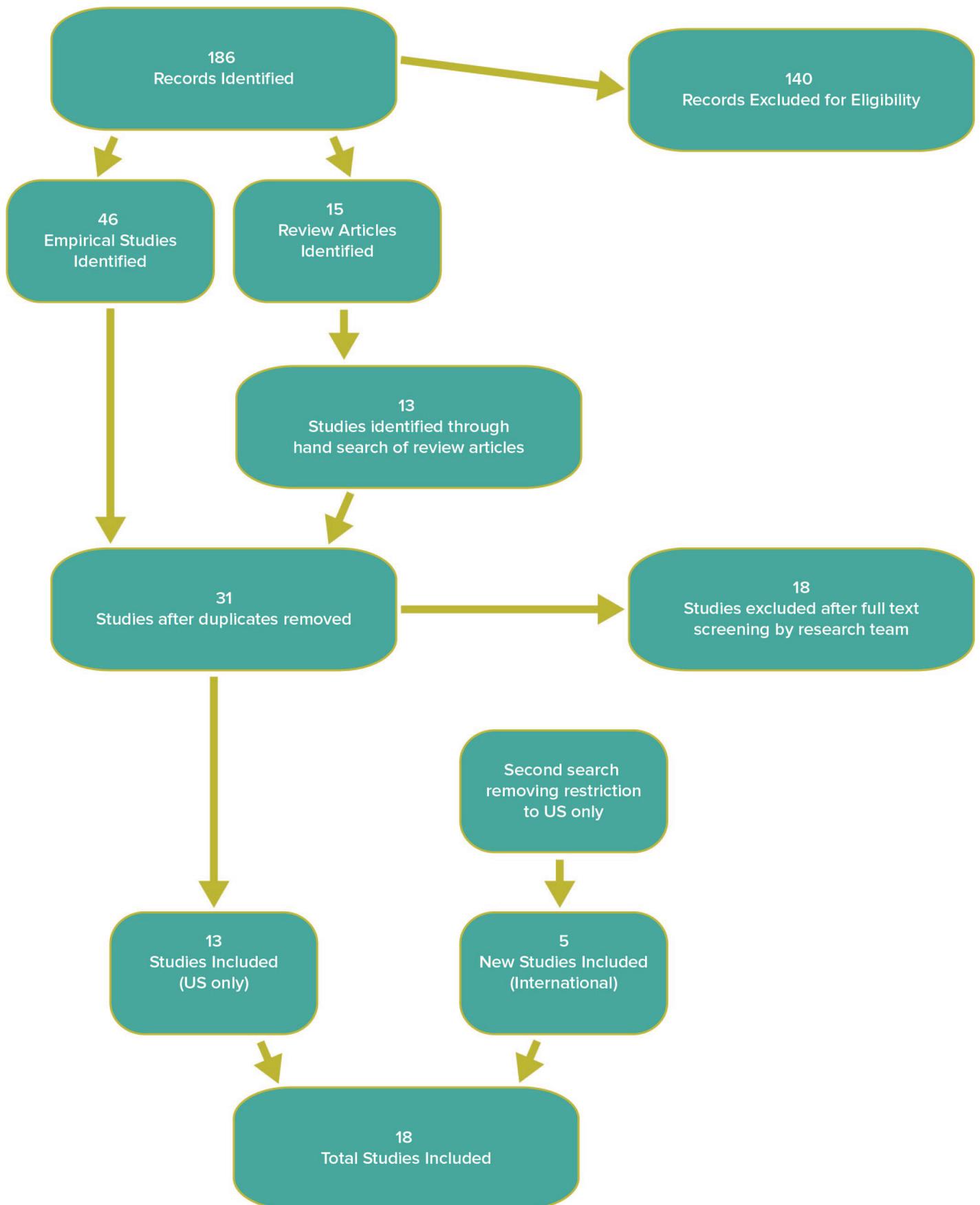
**Monica Wassel** is a PRYDE Scholar in the BCTR.

For an overview of the review process, please see [Systematic Translation Review Description](#) at [www.bctr.cornell.edu/?attachment\\_id=3965](http://www.bctr.cornell.edu/?attachment_id=3965)

This material is based upon work supported by Smith-Lever funds from the National Institute of Food and Agriculture (NIFA), U.S. Department of Agriculture, under Agreement No. 2015-16-178. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

## Appendix 1

### Search Flow Diagram



**Bibliography**

- Aday, R. H., McDuffie, W., & Sims, C. R. (1993). Impact of an intergenerational program on black adolescents' attitudes toward the elderly. *Educational Gerontology, 19*(7), 663–673. <https://doi.org/10.1080/0360127930190707>
- Barton, H. (1999). Effects of an intergenerational program on the attitudes of emotionally disturbed youth toward the elderly. *Educational Gerontology, 25*(7), 623–640. <https://doi.org/10.1080/036012799267503>
- Chapman, N. J., & Neal, M. B. (1990). The effects of intergenerational experiences on adolescents and older adults. *The Gerontologist, 30*(6), 825–832. <https://doi.org/10.1093/geront/30.6.825>
- Chorn Dunham, C., & Casadonte, D. (2009). Children's attitudes and classroom interaction in an intergenerational education program. *Educational Gerontology, 35*(5), 453–464. <https://doi.org/10.1080/03601270802605473>
- Chua, P.-H., Jung, Y., Lwin, M. O., & Theng, Y.-L. (2013). Let's play together: Effects of video-game play on intergenerational perceptions among youth and elderly participants. *Computers in Human Behavior, 29*(6), 2303–2311. <https://doi.org/10.1016/j.chb.2013.04.037>
- Couper, D. P., Sheehan, N. W., & Thomas, E. L. (1991). Attitude toward old people: The impact of an intergenerational program. *Educational Gerontology, 17*(1), 41–53. <https://doi.org/10.1080/0360127910170105>
- Darrow, A.A., Johnson, C. M., & Ollenberger, T. (1994). The effect of participation in an intergenerational choir on teens' and older persons' cross-age attitudes. *Journal of Music Therapy, 31*(2), 119–134. <https://doi.org/10.1093/jmt/31.2.119>
- de Souza, E. M., & Grundy, E. (2007). Intergenerational interaction, social capital and health: Results from a randomised controlled trial in Brazil. *Social Science & Medicine, 65*(7), 1397–1409. <https://doi.org/10.1016/j.socscimed.2007.05.022>
- Doka, K. J. (1986). Adolescent Attitudes and Beliefs toward Aging and the Elderly. *The International Journal of Aging and Human Development, 22*(3), 173–187. <https://doi.org/10.2190/MKYY-7VGG-J1EL-MKQ4>
- Dooley, S., & Frankel, B. G. (1990). Improving attitudes toward elderly people: Evaluation of an intervention program for adolescents. *Canadian Journal on Aging / La Revue Canadienne Du Vieillessement, 9*(4), 400–409. <https://doi.org/10.1017/S0714980800007509>
- Gamliel, T., & Gabay, N. (2014). Knowledge exchange, social interactions, and empowerment in an intergenerational technology program at school. *Educational Gerontology, 40*(8), 597–617. <https://doi.org/10.1080/03601277.2013.863097>
- Herrmann, D. S., Sipsas-Herrmann, A., Stafford, M., & Herrmann, N. C. (2005). Benefits and risks of intergenerational program participation by senior citizens. *Educational Gerontology, 31*(2), 123–138. <https://doi.org/10.1080/03601270590891522>
- Kassab, C., & Vance, L. (1999). An assessment of the effectiveness of an intergenerational program for youth. *Psychological Reports, 84*(1), 198–200. <https://doi.org/10.2466/pr0.1999.84.1.198>
- Kessler, E.-M., & Staudinger, U. M. (2007). Intergenerational potential: effects of social interaction between older adults and adolescents. *Psychology and Aging, 22*(4), 690–704. <https://doi.org/10.1037/0882-7974.22.4.690>
- LoSciuto, L., Rajala, A. K., Townsend, T. N., & Taylor, A. S. (1996). An outcome evaluation of across ages: An intergenerational mentoring approach to drug prevention. *Journal of Adolescent Research, 11*(1), 116–129. <https://doi.org/10.1177/0743554896111007>
- Meshel, D., & Mcglynn, R. (2004). Intergenerational contact, attitudes, and stereotypes of adolescents and older people. *Educational Gerontology, 30*(6), 457–479. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ692142&site=ehost-live>
- Proller, N. L. (1989). The effects of an adoptive grandparent program on youth and elderly participants. *Journal of Children in Contemporary Society, 20*(3-4), 195–203. [https://doi.org/10.1300/J274v20n03\\_20](https://doi.org/10.1300/J274v20n03_20)
- Taylor, A. S., Losciuto, L., Fox, M., Hilbert, S. M., & Sonkowsky, M. (1999). The mentoring factor: Evaluation of the across ages' intergenerational approach to drug abuse prevention. *Child & Youth Services, 20*(1-2), 77–99. [https://doi.org/10.1300/J024v20n01\\_07](https://doi.org/10.1300/J024v20n01_07)

A full bibliography is available online at:  
<https://www.bctr.cornell.edu/wp-content/uploads/2017/06/Systemic-Translational-Review-intergenerational-programs-bibliography.pdf>