

**Adverse Childhood Experiences (ACE) among poor older adults: Coping mechanisms and consequences**  
**Principal Investigator: Heather Larkin, PhD**

**Background, Problem Statement, and Purpose:** This study will extend and enhance ACE research that has been carried out with a middle class population in a medical setting with a much more vulnerable poorer population of people over the age of 55. In addition to providing information about the extent of ACEs and ACE correlates among this population, this study will explore moderating protective and coping resources. For example, ACE prevalence rates will be evaluated for their link with service access and utilization history, social networks, depression and anxiety, health problems, and coping skills. This is a pioneering study because it is the first to study ACEs among older people living in poverty and has great promise to attract additional funding.

Recent research by Kaiser Permanente and the Centers for Disease Control and Prevention (CDC) has already found ACEs in a middle class population to be highly correlated with depression, alcoholism, health risk behaviors (such as smoking, substance abuse, and sexual risk-taking) and serious health problems (including heart disease, COPD, multiple types of cancer, obesity, and liver disease). ACE study authors have been able to conduct mass ACE screenings in the medical setting and report that screening contributes to early identification and enhanced ability to help people rather than simply addressing symptoms. This study extends existing ACE research to the very important problem of the correlates of ACEs for older people living in poverty. Information from this study will identify how some older people are able to use coping strategies to avoid the many negative long-term consequences of ACEs while others suffer from the sequela of ACEs. It will also help to inform intervention strategies that can be put in place in the Troy Housing Authority where this research will be conducted.

This study includes many of Healthy People 2010's leading health indicators: substance abuse, mental health, injury and violence, environmental quality, physical activity, and access to health care. This pilot study lays the groundwork for future studies to further understand and address these leading health indicators: program evaluation, intervention and services research, and extending the study to community samples. Results from this study would be very appealing to external funders, such as NIH. For example, this study will shed light on the connection between ACEs and alcohol problems, as well as service use, social networks, and coping skills. Since Troy Housing Authority is building its programming around this research, this project could lead to funding for future intervention research by the National Institute of Alcohol Abuse and Alcoholism (NIAAA). This research could also lead to a survey of a larger community sample relevant to National Institute on Aging (NIA) concerns to

build knowledge of aging processes in relation to health and disease that can be used for future intervention research. In addition, the Robert Wood Johnson foundation calls for “Fresh Ideas: Community Based Approaches to Improve Care for Vulnerable Populations” and accepts unsolicited proposals, relevant to studying comprehensive ACE responses promoting resilience and recovery, which could support program evaluation. Furthermore, since ACEs are an identified World Health Organization (WHO) concern, and the UAlbany School of Social Welfare has been highlighted for ACE response knowledge across the lifespan by the World Health Organization (WHO), this study will provide pilot data that could lead to the implementation and evaluation of programming in other countries, supporting pursuit of a Fogarty International Research Training Award (NCD-Lifespan).

The Director of Troy Housing Authority is a member of the ACE Think Tank & Action Team Meeting Steering Committee which I lead. He will involve interns and staff in survey administration so that this project can be completed in a timely fashion with a high level of support. He is seeking further knowledge to inform programming for seniors and interested in future program evaluation inclusive of intervention and services research (letter of support attached).

**Brief Literature Review:** Existing data demonstrates the importance of exploring correlates of ACEs among older adults in poverty. ACEs are associated with adult health risk behaviors, psychosocial problems, substance abuse, and biomedical diseases in a large middle class population (Felitti et al, 1998) and constitute high risk for homelessness (Burt, 2001; Herman et al, 1997; Larkin & Park, 2009). In-depth interviews of people living in poverty in Australia suggest that a complex process involving adverse and abusive childhood experiences lead people into poverty (Rutter, 2000; Seth-Purdie, 2000). Poverty predicts child neglect (Slack et al, 2004), while poverty, race, oppression, social violence, and lack of support and services are connected to health disparities (Copeland, 2005; Eiraldi et al, 2006; Gee et al, 2007; Rivaux et al, 2008; Timberlake, 2007). Aspects of poverty are connected to mental disorders (Lund et al, 2010), and Canadian longitudinal research found chronic poverty a significant factor, as well as individual and family stressors, predicting maltreatment of girls under 18 years (Bagley & Kanka, 2000). Research connects ACEs to health challenges among older adults (Krause et al, 2004; Shaw, 2006; Shaw et al, 2003; Shaw et al, 2004; Shaw & Krause, 2002), and there is a need for knowledge of ACE prevalence and moderating resources for older adults living in poverty.

**Theoretical Framework:** ACEs, subsequent substance abuse, and other health risk behaviors may be detrimental to development, potentially hindering a person's ability to successfully resolve one stage of development and move onto the next (Larkin & Records, 2007). Integral theory (Wilber, 2000) explains that development is inseparable from a person's health and behaviors as well as their interactions within culture and social systems. The PI of this proposed study has co-developed an intervention model, Integral Restorative Processes (IRP) and written an article discussing its application to ACEs (Larkin and Records, 2007). A current article provides a case study of ACE-informed programming to mobilize resilience and recovery (Larkin, Beckos, & Shields, in revision). Thus, this proposed study will not only gather pioneering data about the prevalence and reaction of older poor people to ACEs, but will also be used to inform intervention programming and lay the groundwork for future research.

**Methodology:**

Research Hypotheses: It is hypothesized that poor older public housing residents will have higher ACE scores than the middle class younger population studied by Kaiser Permanente and the CDC. It is also hypothesized that they will use fewer coping skills and have higher rates of depression, anxiety, alcohol use, health problems, and medication use. Social networks are hypothesized to moderate correlates of high ACE Scores, contributing to better coping skills and lower rates of depression, anxiety, health problems, and medication use. It is also hypothesized that access to helpful services will moderate correlates of high ACE Scores, contributing to better coping and lower rates of depression, anxiety, health problems, and medication use. It is hypothesized that recreation and self care activities will moderate correlates of high ACE Scores, contributing to lower rates of depression, anxiety, health problems, and medication use. Participants: The participants of this study will be 250 older adults served by Troy Housing Authority. These include residents over the age of 55 recruited from Corliss Park (567 people), John P. Taylor (225), Arnold E. Fallon (144), Catherine M. Sweeney (83), Margaret W. Phelan (215), Martin Luther King (411), Griswold Heights (1,015), Grand Street (58), Edward A. Kane (63), Conway Court (45), and John F. Kennedy Towers (144 people) apartments, all located in Troy, NY. Design: The study is a cross-sectional survey. Three MSW interns, one BSW intern, and one research assistant, all supervised by the Troy Housing Authority Director, will be provided with training to administer the in-person survey. They will operate out of an on-site research office and administer questionnaires in person to assure a high response rate. An informed consent provides the researcher's contact information as well as information about supportive services. Questionnaires will

be placed in a locked file cabinet in the on-site research office and will be transferred to a locked file cabinet in the PI's University office.

Sample: This will be a stratified random sample of 250 older adults from the 405 older adults in Public Housing apartments and the 246 older adults in Section 8 housing, with an anticipated response rate of 85%, or 212 (stratified by public housing and section 8 participants). The extensive engagement and support of staff at Troy Housing Authority and the in-person interviews are expected to facilitate the high response rate. We would also like to offer participants \$5 gift cards. Three first year MSW interns from UAlbany and one BSW intern from St. Rose will administer in-person surveys. These interns are each in the field 16 hours per week. All are eager to work on ACE research amid their clinical duties and can each devote half of their field time to this research project. One research assistant can assist with survey administration, as well as answering questions and offering support, while engaging in data entry. If each intern completes 4 surveys per week, this is 16 total per week, or approximately 60 per month. Thus, questionnaire administration can be completed by May. If needed, the Director of Troy Housing Authority has supervised interns during the summer months in past years and is willing to arrange this with the SSW field office again for the summer of 2011.

Instrument: We have pilot-tested a questionnaire with 135 questions, which takes approximately 40 minutes to complete. A bi-lingual MSW intern at Troy Housing Authority will translate and administer a Spanish version. The questionnaire includes the following measures:

- 1) ACE Study questions with documented good test-retest reliability (Dube et al, 2004).
- 2) The Brief COPE assesses emotion- and problem-focused coping with 14 subscales that have alpha reliabilities ranging from .64 to .90 (Carver et al 1989).
- 3) The CAGE questionnaire, a reliable and valid screening tool for alcohol problems (Ewing, 1984).
- 4) The Lubben Social Network Scale (LSNS) abbreviated version, a valid and reliable for the assessment of social supports and networks among older adults (Lubben, et al, 2006).
- 5) Questions developed from the Anderson-Aday model explore health, mental health, substance abuse, and social service access and utilization (Phillips et al, 1998).
- 6) Centers for Disease Control (CDC) list of leading causes of death in the United States.
- 7) The Patient Health Questionnaire (PHQ-9), a reliable and valid measure of depression (Kroenke et al, 2001).

8) The GAD-7 is a short scale derived from the PHQ-9, found sensitive for anxiety (Kroenke et al, 2007).

9) Transportation questions adapted from The Eastern Maine Transportation Collaborative's (EMTC) Health Services Initiative Needs Assessment Research (2005).

10) Additional scales were developed to assess unmet social service, mental health, and health needs, as well as recreational activities. Other questions elicit household and personal information.

Data analysis: Univariate analysis will be done to assess for skewness and heteroscedasticity, as well as to identify outliers. Bivariate analysis will be done to assess for auto correlation. Path analysis will be done by using a series of multiple regression analyses to test whether hypothesized links between and among variables achieve significance.

Glenn Dean, with whom I have worked in the past, will serve as a statistical consultant.

**Work Schedule and Resources Needed:** Staff orientation will begin in November and survey administration in January. With 32 total weekly intern hours, 60 surveys can be administered per month, and all 212 surveys completed by May 2011. If needed, summer interns can complete questionnaire administration. Analysis of findings and generation of articles will take place during the 2011 – 2012 academic year.

<i>Dates</i>	<i>Tasks</i>
Nov – Dec 2010	Orient Troy Housing Authority to the Project, educating staff on adverse childhood experiences and informed consent
Nov – Jan 2010	Hire research assistant and consult with senior research faculty regarding data procedures
Nov 2010 – September 2011	Collect data from Troy Housing Authority (completed by May). Identify and meet with other agencies serving people in poverty and describe project. Offer in-service learning opportunities. Complete data entry.
September 2011 – January 2012	Analyze findings. Identify conferences for presentation and write abstracts.
February – June 2012	Write up findings and present at conferences
June - November 2012	Prepare NIH or other grant

Resources needed. Please see attached budget details (questionnaire administration, on-site office space and file cabinet, research assistance, \$5 gift cards, food budget, photocopying, Spanish translation-checking, consultant services – programming, NIAAA proposal, statistical consultation).

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