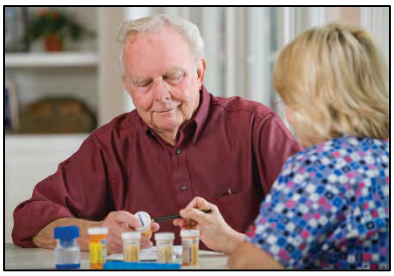

Enacted as part of the Patient Protection and Affordable Care Act in March of 2010, the Elder Justice Act represents the most comprehensive federal elder abuse prevention law to date, calling national attention to the millions of vulnerable older Americans who are victims of abuse, neglect, and exploitation. The Elder Abuse Prevention Interventions demonstration, authorized by the Elder Justice Act and funded by the Administration on Aging (AoA), U.S. Department of Health and Human Services (HHS) in FY 2013, provided funding to five state grantees to test interventions designed to prevent elder abuse, neglect, and exploitation. The HHS Office of the Assistant Secretary for Planning and Evaluation has contracted with NORC at the University of Chicago to design and conduct an evaluation of the interventions being tested through this demonstration. The purpose of the evaluation is to study the development and implementation of the state grantees' elder abuse interventions and report findings on the characteristics of victims and perpetrators of elder abuse or those at-risk, the use of prevention services, and outcomes.

The states participating in the demonstration and evaluation are: Alaska Division of Senior and Disabilities Services; New York State Office for the Aging; University of Southern California; University of Texas Health Science Center at Houston; and Texas Department of Family and Protective Services and WellMed Charitable Foundation. This Research Brief is one of five summarizing the tested interventions and findings to date.

Medication Self-Adherence Prevention Intervention for Community-Dwelling Elders Who Self-Neglect

University of Texas Health Science Center

OVERVIEW

The University of Texas Health Science Center (UTHealth) at Houston, in partnership with Adult Protective Services (APS), the Texas Department of Aging and Disability Services (DADS), and the Houston area justice system is pilot testing an intervention to increase medication adherence in older adults who have chronic health conditions and who neglect themselves. The tailored health promotion intervention implemented by UTHealth is aimed at increasing the active participation of elder self-neglecters in managing their chronic disease medications, reducing their level of social isolation, and implementing environmental supports to increase medication adherence.

KEY FINDINGS TO DATE [1]

Theoretical/Clinical Basis of Prevention Intervention

Medication non-adherence is prevalent among older adults with chronic diseases,[2] particularly among self-neglecting elders, and is linked to increased morbidity and mortality. Interventions to date have not addressed this population.

UTHealth is implementing a two-year community-based intervention that targets older adults who have a substantiated report of self-neglect. The intervention is modelled on an effective home-based treatment protocol using environmental cues and supports to improve medication adherence with a population of adults with severe mentally illness.[3] Adapted to self-neglecting elders with multiple chronic conditions, the prevention intervention involves a comprehensive assessment of knowledge, capacity, and risk factors that guide weekly home visits by a registered nurse (RN) and research associate (RA).

Prevention Intervention

The intervention involves a one month education period using tailored approaches and environmental supports to reduce non-adherence behaviors, followed by five-months of reinforcement. After six months, the team provides educational reinforcement if there is a safety concern or a participant requests guidance or assistance.

Outcomes

The short and long-term outcomes of the intervention are to increase medication adherence and reduce adverse outcomes associated with elder self-neglect, including social isolation, dependence, health problems, and likelihood of re-referral to APS.

INFRASTRUCTURE

The prevention intervention is housed within the Texas Elder Abuse and Mistreatment (TEAM) Institute, located at the Quentin Mease Community Hospital. In 1997, UTHealth formed the TEAM Institute with the Texas Department of Family and Protective Services and its Adult Protective Services (APS) unit, the Harris County Hospital District, and the Baylor College of Medicine. The TEAM Institute is the first medical school, public hospital, and state APS collaboration in the United States. Key partners involved in implementing the prevention intervention are UTHealth and APS Region VI. APS is the referral source for the self-neglecting elders and provides access to administrative data. The Area Agency on Aging serves on the project advisory committee along with APS.

ELDER ABUSE

The UTHealth prevention intervention takes place in APS Region VI, which has 13 counties. According to the *2014 Annual Data Book* the population age 65 or older in this region is 647,612.[4] The incidence of maltreatment per 1,000 adults is 10.2 (the statewide incidence is 11.4). Each year there are more than 15,000 reports to APS regarding elder abuse and neglect. In Fiscal Year 2014, there were 10,178 validated in-home investigations (54,731 statewide).[5] Elder self-neglect crosses economic and ethnic lines. Self-neglecting elders tend to experience high rates of poverty (although some are "well-off"), have limited education, live in substandard housing (sometimes without electricity or utilities), have untreated mental health issues (e.g., depression), may lack medical coverage, and have low levels of health literacy. Home environments can be unsafe or unsanitary.

INTERVENTION

Target Population

The target population are self-neglecting elders who meet the following inclusion criteria: 1) 65 years of age or older; 2) English or Spanish speaking; 3) community living (i.e., personal residence); 4) APS substantiated self-neglect (with no other substantiated allegations). Additional criteria are: 1) currently taking medications for a chronic disease; 2) demonstrates capacity (i.e., able to provide informed consent); and 3) within a reasonable driving distance. UTHealth enrolled 34 elders.

Medication Adherence Prevention Intervention

The prevention intervention includes multiple components: referral and intake; informed consent; a six-month medication adherence intervention; and a six-month follow-up phase.

Referral and Intake: The three step enrollment process involves both APS and the UTHealth team.

- Step 1: The APS caseworker conducts a home visit with a substantiated self-neglecting elder and asks if s/he is interested in the medication adherence intervention. (They carry a laminated card with the inclusion criteria and instructions). If so, the caseworker obtains the elder's signature on a DFPS release form (in English and Spanish) and faxes it to UTHealth in order to contact the elder.
- Step 2: The research staff calls the elder to verify eligibility. If the inclusion criteria are met, a home visit is scheduled within one week.
- Step 3: Research staff lead the participant through the informed consent process. Elders must demonstrate their understanding of the purpose of the study, its risks and benefits, as well as the nature of their participation and the research team's involvement. This can take up to 1 ½ hours. During the consent process, research staff read the entire consent form aloud while the elder reads a paper copy. Each elder must repeat key elements of the study and intervention back to the research staff before signing the consent and being enrolled.

Intervention: The 6 month intervention focuses on social support and medication management through monthly, one-hour home visits, premised on communication and engagement.

- In Months 1 and 2, activities focus on the baseline assessment, the medication safety assessment, and education. Research staff—a registered nurse (RN) and research associate (RA)—make a joint home visit to conduct the baseline evaluation, including a medical history and comprehensive assessment on knowledge and behaviors associated with medication adherence, cognitive capacity, functioning, motor skills, social support, depression, and environmental stressors. They take an inventory of all medications, documenting quantity, dosage, refills, and adherence.
- Following the visit, the geriatrician conducts a medication safety assessment, evaluating each medication on 10 criteria: drug indications; effectiveness for the condition; correct dosage; correct directions; practical directions; clinically-significant drug-drug interactions and drug-disease/conditions interactions; unnecessary duplication with other drug(s); acceptable duration of therapy; and whether the drug is the least expensive alternative compared to others of equal utility. Based on the MAI, Beers, and Micromedex findings, the medication is either approved or disapproved. The geriatrician completes the medication approval within a week.

Education: Next, the Research Team tailors the education component to each elder's knowledge and personal efficacy skills. Priority areas for intervention and education are: medication adherence; knowledge deficiencies (label reading, dosage, purpose, frequency, and effects); self-efficacy (scenarios where the elder is not confident); skills (filling a glass with water, opening pill container, counting, sipping and swallowing); and possible placement for environmental cues (central location of medications in the home, pillbox, alarm clock, and post-it note reminders).

- Education and reinforcement involves home visits over a three-week period. The RN and RA work with each elder to review medicines, symptoms and side effects, and their personal goals. They set up a daily schedule for each elder, provide medication alert reminders, and teach elders on making the environmental cues part of their daily routines. A "pill count" of medications taken for each prescription is done twice in the first month. Research staff also make weekly phone contact with the elders. Urgent medical needs identified during home visits that require immediate attention are communicated to the elders' primary care physician. Research staff hold team debriefings to alleviate stress and secondary traumatic stress.
- During months 2-6, the RN and RA make joint home visits to provide further education and troubleshoot medication management concerns. The RN takes vitals and checks on adherence to the prescribed regimen. Weekly calls continue. The RA conducts the monthly medication review.
- During Months 3-6, the RN obtains medical and social history data. Participants receive $25 compensation during month 6.
- Actual implementation of these steps can vary for participants due to their situations.

Follow-up: In Months 6-12, the RN and RA schedule home visits, monitor medication adherence through usage data, and provide educational reinforcement if there is a concern. In Months 9-12, the RN again obtains medical and social history data and reassesses the baseline to determine any regression of medication adherence. All data are entered into the study database.[6] Participants receive $25 compensation in month 12.

IMPLEMENTATION

The medication adherence prevention intervention has been fully implemented as intended with 34 participants enrolled as of December 2014, with no significant changes to the study protocol.

No unintended consequences have been observed. No adverse events have occurred.

Research staff stated that elders are grateful for the services provided. Elders said participating in the intervention "made a difference," helping them to keep to a "normal schedule" and "improving sleep patterns." One simply noted, "It saved my life."

A key facilitator to the sound implementation of the prevention intervention was use of *Intervention Mapping* to target critical components to achieve the desired behavioral outcomes. Engagement of the research staff in developing the study protocols and manualizing the intervention, along with consistency in staffing, facilitated consistent implementation.

As is common with similar interventions, and with this vulnerable population, some elders were initially hesitant to participate which affected initial recruitment and enrollment.

UTHealth brings a strong record of research and leadership to the field of elder self-neglect, as well as resources within the University to draw upon. Its long-standing partnership with APS Region VI is a key facilitator to both the development and implementation of the prevention intervention.

LESSONS LEARNED

The population has medications that are either contraindicated for older adults or are dangerous in combination with other medications. Thus, there needs to be a strong screening process of the medications before implementing an adherence protocol in order to ensure participant safety.

Developing a helping relationship with vulnerable elders and becoming a needed, dependable presence in their lives is a "huge responsibility." Implementation takes strong rapport building skills to initiate contact with elders and sustain their engagement over time. It requires compassion, patience, professionalism, and constant mindfulness of ethical practice and research. Balancing elder autonomy and safety is an ever-present concern.

An interesting realization is that the weekly contact and home visits may be a contributing factor to participants' improved adherence to the medication regimen and their physical and mental well-being. Whether and how social visits mediate outcomes will be an important analytic question to explore.

FOR MORE INFORMATION CONTACT

The University of Texas Health Science Center at Houston

- Principal Investigator: Carmel B. Dyer, MD
- Co-PI: Jason Burnett, PhD Jason.Burnett@uth.tmc.edu 713.873.4685

Suggested Citation: Hafford, C. Nguyen, K. & Henning, S. June 2015. *Medication Self-Adherence Prevention Intervention for Community-Dwelling Elders who Self Neglect.* Elder Abuse Prevention Intervention Program. Washington, DC: Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services: NORC at the University of Chicago.

[1] Findings to date are based on a two-day site visit to UT Health in December 2014 to learn about planning, infrastructure and implementation of the prevention intervention and progress to date. Program documents were reviewed and key informant interviews conducted with the research team, APS, and geriatrician. NORC accompanied staff on a home visit. NORC thanks UTHealth for hosting the visit.
[2] Bodenheimer, T, Lorig. K., Holman; H. et al. (2002). Patient Self-management of Chronic Disease in Primary Care. *JAMA*; 288(19):2469-2475; Dunbar-Jacob, J. & Mortimer-Stephens, M-K. (2001). Treatment adherence in chronic disease. *Journal of Clinical Epidemiology* 54: S57–S60.
[3] Velligan, D.I. et al. (2008). The Use of Individually Tailored Environmental Supports to Improve Medication Adherence and Outcomes in Schizophrenia. *Schizophrenia Bulletin* May; 34(3): 483–493.
[4] *2014 Data Book*, page 12. Retrieved from http://www.dfps.state.tx.us/About_DFPS/Data_Books_and_Annual_Reports/2014/default.asp
[5] *2014 Data Book*, page 13.
[6] All data collected will be analyzed in mid-2015 when the intervention phase ends.