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Project Title: Piloting a Comprehensive Caregiver Intervention: A Pathway to Preventing Elder Mistreatment

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Summary of the Project

Elder mistreatment (EM) takes a devastating toll on the independence, health, and wellbeing of millions of older adults. While all older Americans deserve to be safe and secure, over six million people aged 60 and older, or 1 in 10, are estimated to be victims of EM annually.^{1,2} EM may lead to devastating consequences for victims, including physical injuries,⁶ emotional and physical pain,⁷ eroded trust, financial devastation,⁸ exacerbated illness, functional decline,^{2,9} and increased risk of institutionalization, hospitalization,^{10,11,12} and mortality.^{11,13,14}

Although EM harms individuals, families, communities, and society as a whole, research on treatment is lagging,^{1,21,22,23} and no rigorous studies on prevention have been published. Systematic reviews show a need to vastly expand EM research efforts.^{3,4,5} Because evidence on prevention is advancing in other fields of family violence, including child maltreatment and intimate partner violence, these areas offer approaches to consider in EM prevention.²⁴ Therefore, as part of the planning activities for the EM prevention intervention and in preparation for this study, we reviewed and summarized the literature related to interventions in other types of family violence. This work, published in *The Gerontologist*,²⁵ informed the intervention detailed below. Although no effective primary or secondary prevention strategies have been published,^{23,26,27} several approaches have been suggested, including: educating caregivers (CGs),^{23,28,29} educating older adults about risks,^{23,29} and comprehensive assessment of needs, care planning, and support.^{28,29}

Major Goal

Because the field of EM lacks evidence-based prevention interventions, the goal of the "Comprehensive Older Adult and Caregiver Help" (COACH) intervention study was to pilot and

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evaluate an elder mistreatment prevention intervention using a rigorous, randomized controlled trial research design and evidence-informed intervention developed during a 24-month

planning phase. Prevention includes both primary prevention, defined here as keeping participants who did not experience EM at baseline free from EM at two follow-up time points, as well as secondary/tertiary prevention, defined here as reducing the occurrence or severity of EM in those participants who were experiencing EM at baseline.

Research Questions

In this report, we address the following questions:

- 1) How many of those approached agree to participate?
- 2) What is the attrition rate and when does it occur?
- 3) How many intervention sessions do people use?

The following hypotheses were tested: As measured at the end of the intervention and at 3-month follow-up, CGs in the intervention (COACH) group compared to CGs in the control group will have:

- 1) lower self-reported EM of the care recipient (CR)
- 2) higher self-rated quality of life (QoL)
- 3) lower caregiver burden

Research Design

The research employed a randomized controlled trial design to evaluate the impact of the COACH Program on EM among CGs of older adults. The COACH intervention is a

multicomponent person-centered, strengths-based home visitation program designed to educate, support, and link caregiving dyads (CG/CR) with services and supports.

The COACH Program intervention was designed to offer 3-12 in-home visits provided by a professional care coach, and included support and services based on a toolkit of eight components that have previously been shown to support CGs. Coaches' home visits provided education, skill building, and linkages to additional support based on the elements of healthy caregiving; sessions also included a ten-minute discussion of how the care is going, what issues/problems have come up since the previous visit, and how these issues might be explored/addressed in the session. Two of the four coaches were bilingual Spanish speakers.

Information provided in the toolkit was also made available as a notebook to the control group. This allowed for our test of the intervention to focus specifically on the impact of the home-visit coach rather than simply providing the dyads with more information.

It should be noted that the piloting of the COACH intervention spanned two grant periods. When the period of the initial award was unexpectedly ended six months early, we were asked to submit a new proposal to cover the last six months of work (7-1-2020 to 12-31-20, later extended to 12-31-21). This report covers activities performed under the new award; the new award's activities included continuing the COACH pilot test and analyzing data from the entire pilot period (2-1-2020 onward).

Participants and Other Collaborating Organizations

Research partners included the University of Southern California's Leonard Davis School of Gerontology and the Keck School of Medicine of USC. USC partnered with a nearby Kaiser Permanente (KP) location, the Los Angeles Medical Center. Just west of downtown LA, this medical center serves over 235,000 people aged 65 and over each year and includes a strong program in geriatrics as well as a memory clinic (cognitive impairment assessment clinic).

Recruitment

Participants were recruited from KP patients treated at the LA Medical Center by primary care physicians, palliative care, hospital discharge planning, and providers in the memory clinic. Recruitment began February 2020; within less than a month, COVID-19 stay-at-home orders required us to conduct the study and the intervention remotely.

Following clinician referral, recruitment and screening were conducted by staff from KP's research division. Inclusion criteria were family caregiving dyads with CRs aged 65 and older needing assistance with ADLs or IADLs, with care provided primarily by a family member or friend either living with the care recipient or providing in-home care multiple times each week. Care receivers who were in hospice, living in custodial nursing care facilities, or homeless were excluded, as were those with a geographically distant CG, defined as residing outside of Los Angeles County or more than 50 miles from the CG. Participants were asked to complete 3 surveys: one baseline pre-test, one follow-up post-test at the end of the intervention (treatment group) or at a randomly selected timeframe to mirror the intervention duration (control group), and one follow-up 3 months after the post-test. Each survey took 60-90 minutes.

Retention

Those who met criteria and consented verbally were referred to the USC study team for further screening and to undergo a more formal consent process. Of the 636 CGs of older adults who were referred to the KP research division by clinicians, 110 met initial screening criteria and were referred to the USC study team. Of these, 92 met all inclusion criteria, and 87% (n=80) agreed to participate. Of the 80 who participated in a baseline survey (40 CGs in each arm), 80% (*n*=64) completed a post-test follow-up survey (32 in each arm). Reasons for non-completion are presented in the CONSORT diagram (Figure 1). 55 CGs (68.8% of participants who completed a baseline survey) completed a 3-month follow-up survey.

The intervention included 12 possible sessions, with participants expected to engage in at least the first 3. As shown in Table 2, most (87.5%) had three or more sessions.

Changes in Approach

As noted above, shortly after the launch of the study, the COVID-19 pandemic required that the home assessment and intervention of home visits by the COACH change to virtual assessments and phone meetings with the coach. Assessments were planned to be done with a computer and headsets and a protocol was completed that included audio assisted responses. Assessors were available to help as needed. Given the public health responses to the pandemic, assessors were no longer permitted to enter older adults' homes. Data collection was changed to a cumbersome use of hard copy paper and pencil assessments or phone interviews. Coach visits were done by phone. In addition, clinicians were less able to refer patients to research while implementing rapidly changing procedures for both remote and in-person patient interaction, and the KP research team that had started to recruit was shifted to work on high priority emergency research related to the pandemic. As a result, recruitment was delayed by several months. Shifting the protocol was time consuming and further delayed the study.

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Study Design

Randomization was done through REDCap after recruitment and prior to baseline assessment, stratified by primary language (English or Spanish). Assessors administered data collection and were blind to the treatment condition throughout the study.

The intervention was designed to offer home visits by a Coach, with implementation beginning in February of 2020. By mid-March, in response to the COVID-19 pandemic, the design was changed to a virtual assessment and intervention. Participants had the option of online, phone, or home-delivered paper surveys, with assistance provided by the study's assessors, as needed.

Outcomes: Activities/Accomplishments

Despite the delays and design changes that were required due to the pandemic, the study enrolled over 100 participants. Data were collected and the phone intervention was carried out.

Data Analysis

After randomization, treatment and control groups were compared on basic demographics and baseline assessment scores. As shown in Table 1, there were no significant differences between the treatment and control group on variables identified as important for the study. Caregiver burden, quality of life, and EM were compared at pre-test baseline, post-test followup, and 3-month follow-up. SAS 9.4 was used for all data analyses.

Results and Findings

As shown in Table 3, H1 (lower EM experienced by the CR) at 3-month follow-up was supported and H2 (higher CG quality of life) at post-test follow-up was partially supported. H3 (lower caregiver burden) was not supported at either follow-up time point.

At baseline pre-test, there was no significant difference between the treatment and control groups on any of the outcome measures (EM, quality of life, and caregiver burden); the treatment group had a higher rate of EM (22.5% compared to 15.4%; p=0.42), but this difference was not significant. At post-test follow-up, there was a reduction in EM in the treatment group, but it was still not significantly different from the control group. At 3-month follow-up, however, there was no EM in the treatment group (22.5% baseline to 0.0% 3-month; p=.008), while the rate of EM had increased slightly but not significantly in the control group (15.4% baseline to 23.1% 3-month; p=.43). The difference between the two groups at 3-month follow-up was significant (0.0% treatment compared to 23.1% control; p=.008).

Similarly, there was a significant increase in social quality of life in the treatment group from pre-test baseline to post-test follow-up (M=15.9, SD=3.0 to M=16.7, SD=2.2; p=.04), at a level that was sustained at 3-month follow-up (M=16.4, SD=2.7). While social quality of life for the treatment group was significantly higher than in the control group at post-test follow-up (M=16.7, SD=2.2 compared to M=14.1, SD=4.3; p=.005), this difference reduced and was no longer significant at 3-month follow-up (M=16.4, SD=2.7 compared to M=15.5, SD=3.6; p=.31).

Caregiver burden declined in the treatment group, but the decline was not statistically significant. No significant differences in burden emerged between the burden of the treatment and control groups at any time point.

Limitations

The study had two major limitations stemming from the pandemic. First, changes to the intervention delivery were necessary due to Los Angeles' stay-at-home orders, implemented in late March 2020, and subsequent pandemic control and participant safety protocols. The in-home intervention, which had been painstakingly developed based on evidence from other forms of family violence, had to be abandoned and replaced by phone contact. The second limitation was the small sample size, also a result of the pandemic. Study recruitment was delayed while new protocols were developed to accommodate changes in the approach as well as temporary changes in KP research division staff.

Expected Application of the Research

This study was designed as a pilot study with the potential for a larger implementation study across multiple sites at a later time, contingent on the pilot study results. Although the pilot's sample size was limited due to COVID-related referral and recruitment challenges, the strong design and encouraging findings—particularly the complete absence of EM in the intervention group—provide a good base from which to conduct further research. The findings are important given the lack of prevention studies and lack of evidence about the effectiveness of EM interventions.

Dissemination Activities

Activities include presenting at conferences and submitting papers for publication in academic journals as well as posting information about the study on The Secure Old Age website. In addition, the research team works with a variety of EM providers, policy makers, and

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researchers by serving on task forces, workgroups, and interest groups. A one-page fact sheet is in preparation and will provide an additional means to disseminate findings widely to these and other groups.

Artifacts

Publications and presentations related to this project, as funded under Award No. 2020-75-CX-

0001 & 2016-ZD-CX-K008, include:

Journal articles and published conference abstracts

• Meyer, K., Yonashiro Cho, J., Gassoumis, Z. D., Mosqueda, L., Han, S. D., Wilber, K. H. (in press). What can elder mistreatment researchers learn about primary prevention from family violence intervention models? *The Gerontologist*. doi:10.1093/geront/gnx179

• Yonashiro-Cho, J., Gassoumis, Z. D., & Wilber, K. H. (2018). Strengthening individual and community capacities to combat age-related vulnerability. *The Gerontologist*, 2(Suppl. 1), 604-605. doi:10.1093/geroni/igy023.2248

• Wilber, K. H. (2019). Combating elder mistreatment: Still muddling – not yet transformed. *J Am Geriatr Soc, 67:* 1117-1119. doi:<u>10.1111/jgs.15874</u>

Other publications and presentations

Dr. Mosqueda presented information about elder abuse in general and this project more specifically to the KP Regional Family Violence Prevention Program, a consortium of the entire Southern California KP system, on Feb 16, 2017.

• Research team presented a project overview to the Social Medicine department of KP's Los Angeles Medical Center on June 14, 2017

• American Society on Aging 2018 symposium on person-centered approaches to elder mistreatment San Francisco (3/26/2018-3/29/2018)

Gassoumis, Z. D. Financial exploitation of older persons: A perspective from the U.S. Presented at the meeting of the International Network for the Prevention of Elder Abuse. San Francisco, CA. 7/23/2017.

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• Yonashiro-Cho, J., Meyer, K., Gassoumis, Z. D. & Wilber, K. H. STOP EM Elder Abuse Prevention Intervention. Presented at the American Society of Aging Annual Meeting in San Francisco, CA. 3/28/2018.

Mosqueda, L. "Disrupting the Silent Winter: Geriatric Role in Stopping Elder Abuse" Presented as Henderson State-of-the-Art Lecture at the American Geriatrics Society Annual Scientific Society in Portland, OR, May 2019

• Meyer, K. and Gassoumis, Z. "Person-Centered Approaches to Preventing Elder Mistreatment" Presented at Society for Social Work and Research, San Francisco, CA January 2019

Products available on the Secure Old Age Website (<u>https://gero.usc.edu/secure-old-age/</u>) include:

- COACH Toolkit (provided to both intervention and control group)
- COACH Workbook (used during Coach-CG interactions)
- Assessment instruments

Figure 1: Consort Diagram



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	Control (<i>n</i> =40)	Treatment (<i>n</i> =40)	
	M(SD) or %	M(SD) or %	р
Caregiver Characteristics			•
Age	59.8 (14.4)	62.7 (13.7)	0.358
<55	37.5	20.0	0.377
55-64	30.0	35.0	
65-74	17.5	25.0	
75+	15.0	20.0	
Female (Gender)	80.0	72.5	0.431
Race/Ethnicity			0.602
White	22.5	34.2	
Hispanic/Latino	45.0	29.0	
Black/African American	15.0	21.1	
Asian/Pacific Islander	15.0	13.2	
Other	2.5	2.6	
Education			0.158
Less than High School	2.5	12.5	
High School Graduate	7.5	10.0	
Some College or AA	42.5	32.5	
Bachelor's Degree	32.5	17.5	
Graduate Degree	15.0	27.5	
Screened in Spanish	12.5	12.5	1.000
Relationship to CR			0.907
Spouse/Partner	30.0	37.5	
Child/Grandchild	55.0	47.5	
Other Family	10.0	10.0	
Other	5.0	5.0	
CG Lives with CR	75.0	72.5	0.799
ACEs			0.184
0 ACEs	50.0	30.0	
1 ACE	20.0	40.0	
2-3 ACEs	12.5	10.0	
4+ ACEs	17.5	20.0	

Table 1. Sample characteristics, by treatment status

Note: Data are missing for CG race/ethnicity (intervention n=2), CR age (control n=1, intervention n=1), CR gender (intervention n=1), & CR race/ethnicity (intervention n=1).

		Treatment	
	Control (<i>n</i> =40)	(<i>n</i> =40)	
	M(SD) or %	M(SD) or %	р
Care Receiver Characteristics			
Age	81.8 (8.3)	82.1 (8.2)	0.891
65-74	23.1	23.1	0.967
75-84	38.5	41.0	
85+	38.5	35.9	
Female (Gender)	47.5	53.9	0.573
Race/Ethnicity			0.938
White	25.0	23.1	
Hispanic/Latino	42.5	41.0	
Black	17.5	23.1	
Asian/Pacific Islander	15.0	12.8	
Other			
Education			0.956
Less than High School	21.6	27.0	
High School Graduate	27.0	21.6	
Some College or AA	18.9	16.2	
Bachelor's Degree	24.3	24.3	
Graduate Degree	8.1	10.8	
Screened in Spanish	15.0	12.5	0.745
Needs Constant Monitoring			0.896
No	7.5	5.0	
Sometimes	27.5	27.5	
Yes	65.0	67.5	

Table 1 (cont'd). Sample characteristics, by treatment status

Note: Data are missing for CG race/ethnicity (intervention n=2), CR age (control n=1, intervention n=1), CR gender (intervention n=1), & CR race/ethnicity (intervention n=1).

	M(SD) or %			
Number of Sessions	4.9 (2.9)			
1	3.1			
2	9.4			
3	25.0			
4	25.0			
5	12.5			
6	3.1			
7	9.4			
10	3.1			
12	9.4			

Table 2. Participant use of intervention (*n*=32)

	Pre-t	est/Baseline		Post-test/Follo				3-montl	h Post-test/Fo	llow-up	,
	Control (n=40) M(SD) or %	Treatment (n=40)		Control (n=32) M(SD) or %	Treatment			Control	Treatment (n=27) M(SD) or %	р	
					(n=32)			(n=28)			
		M(SD) or %	р		M(SD) or %	р		M(SD) or %			
Caregiver burden	15.6 (9.4)	14.7 (9.5)	0.673	16.7 (9.1)	14.2 (9.5)	0.291		14.1 (9.8)	13.2 (9.0)	0.736	
Caregiver depression			0.553			0.480				0.201	
Minimal	59.0	65.0		65.6	58.1			60.7	69.2		
Mild	33.3	20.0		28.1	25.8			32.1	11.5		
Moderate	5.1	10.0		6.3	9.7			7.1	15.4		
Moderately severe	2.6	2.5		0.0	6.5			0.0	3.9		
Severe	0.0	2.5		0.0	0.0			0.0	0.0		
Caregiver anxiety			0.396			0.885				0.341	
Minimal	61.5	60.0		71.9	74.2			71.4	73.1		
Mild	25.6	30.0		21.9	16.1			14.3	23.1		
Moderate	10.3	2.5		3.1	6.5			14.3	3.9		
Severe	2.6	7.5		3.1	3.2			0.0	0.0		
Caregiver QoL - physical	15.4 (2.2)	15.2 (2.0)	0.655	15.5 (2.3)	15.0 (2.4)	0.473		15.6 (2.4)	15.3 (2.3)	0.678	
Caregiver QoL - psychological	14.7 (3.1)	14.9 (2.6)	0.771	15.0 (3.5)	14.5 (3.0)	0.615		14.8 (3.0)	14.3 (3.0)	0.577	
Caregiver QoL - social	15.1 (3.9)	15.9 (3.0)	0.363	14.1 (4.3)	16.7 (2.2)	0.005	**	15.5 (3.6)	16.4 (2.7)	0.311	
Caregiver QoL - environmental	14.3 (1.6)	13.9 (1.5)	0.308	14.3 (1.4)	13.9 (1.9)	0.305		14.0 (1.9)	14.2 (1.7)	0.657	
Elder mistreatment	15.4	22.5	0.420	15.6	16.7	0.911		23.1	0.0	0.008	

Table 3. Sample outcomes, by treatment status

Note: ***p*<.01. Data are missing for CG race/ethnicity (intervention n=2), CR age (control n=1, intervention n=1), CR gender (intervention n=1), & CR race/ethnicity (intervention n=1).

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