

ORIGINAL RESEARCH

A Mixed-Methods Comparison of Interventions to Increase Advance Care Planning

Caroline K. Tietbohl, PhD, Carly Ritger, MS, Sarah Jordan, MA, Prajakta Shanbhag, MPH, Rebecca L. Sudore, MD, and Hillary D. Lum, MD, PhD

Purpose: Although interventions can increase advance care planning (ACP) engagement, it remains unclear which interventions to choose in primary care settings. This study compares a passive intervention (mailed materials) to an interactive intervention (group visits) on participant ACP engagement and experiences.

Methods: We used mixed methods to examine ACP engagement at baseline and six months following two ACP interventions. Eligible patients were randomized to receive mailed materials or participate in two ACP group visits. We administered the 4-item ACP Engagement survey (n = 110) and conducted interviews (n = 23). We compared mean scores and percent change in ACP engagement, analyzed interviews with directed content analysis to understand participants' ACP experiences, and integrated the findings based on mailed materials or group visits intervention.

Results: All participants demonstrated increased ACP engagement scores. At six months, group visit participants reported higher percent change in mean overall score compared with mailed materials participants (+8% vs +3%, $P < .0001$). Group visits participants reported that being prompted to think about end-of-life preferences, gaining knowledge about ACP, and understanding the value of completing ACP documentation influenced their ACP readiness. While both interventions encouraged patients to start considering and refining their end-of-life preferences, group visits made patients feel more knowledgeable about ACP, highlighted the importance of completing ACP documentation early, and sparked further ACP discussions with others.

Conclusions: While primary care patients may benefit from mailed ACP materials, patients reported increased readiness after ACP group visits. Group visits emphasized the value of upstream preparation, ongoing conversations, and increased knowledge about ACP. (J Am Board Fam Med 2024;37:215–227.)

Keywords: Advance Care Planning, Advance Directives, Aging, Clinical Trial, Communication, End of Life Care, Evaluation Studies, Geriatrics, Medical Decision-Making, Primary Health Care, Qualitative Research

Introduction

Advance care planning (ACP) – the process of planning for future care based on a person's values and

preferences – is associated with benefits for patients, families, and the health care system.^{1,2} For example, ACP confers improved end-of-life communication, reduced stress for surviving family, and decreased use of intensive medical treatments.^{1,2}

This article was externally peer reviewed.
Submitted 16 May 2023; revised 12 September 2023; 28 September 2023; accepted 9 October 2023.

From the Department of Family Medicine, University of Colorado School of Medicine, Aurora, CO (CKT); Adult and Child Center for Outcomes Research and Delivery Science, University of Colorado School of Medicine and Children's Hospital Colorado, Aurora, CO (CKT, CR); Division of Geriatric Medicine, Department of Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO (SJ,PS,HDL); Division of Geriatrics, Department of Medicine, University of California, San Francisco, San Francisco, CA (RSL).

Funding: This work is funded by a National Institute on Aging grant (R01 AG066804, K76 AG054782). The sponsor had no role in the design, methods, subject recruitment, data collection, analysis, or preparation of the article. This

content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health's National Institute on Aging or the United States Government. Dr. Sudore is funded in part by the National Institute on Aging, National Institutes of Health (K24AG054415).

Conflict of interest: None.

Corresponding author: Caroline K. Tietbohl, PhD, MA, Assistant Professor, ACCORDS (Adult and Child Center for Health Outcomes Research & Delivery Science), University of Colorado School of Medicine, Children's Hospital Colorado, Department of Family Medicine, Mailstop F443, 1890 North Revere Court, Aurora, CO 80045 (E-mail: caroline.tietbohl@cuanschutz.edu).

Yet, even with recommendations and reimbursements for engaging older adults in ACP, prior work has found that only 59% of older adults have talked to someone about their medical care preferences if they become seriously ill, and less than half have completed a medical durable power of attorney (MDPOA) and/or advance directive.^{3–6} One reason that ACP rates remain low is that ACP is complex and involves coordinating multiple behaviors (including discussions, decisions, and documentation) over time.^{7–11} Patients' readiness to engage in these behaviors also varies,^{12,13} making it important to choose interventions that assess and can be tailored to a patient's level of readiness.

Given the heterogeneity of ACP trial characteristics and heterogeneity of outcomes that are measured, the literature on ACP interventions provides mixed evidence regarding the efficacy of different interventions. Research suggests that a range of promising interventions are associated with increases in different ACP outcomes, including both interactive interventions (eg, facilitated discussions such as Respecting Choices, group visits) and passive interventions (eg, written-only materials, video-only materials).^{14,15} However, other studies suggest that interactive interventions are more effective than passive interventions.¹⁶ Without evidence demonstrating the superiority of one type of intervention over another, scholars have called for head-to-head comparisons that might help answer this question¹⁵ and inform the choice of ACP interventions that are implemented into primary care settings.

In the recent (anonymized) randomized trial, we found that group visits resulted in higher 4-item ACP engagement scores than written-only ACP; however, the written-only group also experienced improved engagement from baseline.¹⁷ The current study expands on these findings to examine if and how participants who received mailed materials or participated in ACP group visits differed in their ACP engagement and experiences. This mixed methods study integrates survey and interview data to understand participant changes in ACP engagement and to provide guidance regarding when each intervention type may be most appropriate.

Methods

Study Design

This study draws on interview and survey data collected for a two-arm randomized clinical trial

comparing ACP group visits and mailed materials. Patients were recruited from a primary care clinic and randomized to: 1) (anonymized) Group Visits, including two ACP group visits conducted one month apart with ACP resources including PREPARE videos¹⁸ on flexibility in decision making and a state-specific MDPOA form, or 2) mailed materials, including a two-page version of the Conversation Starter Kit,¹⁹ state-specific MDPOA form, and a letter from the patient's primary care clinician about ACP that encourages follow-up. Further details about the (anonymized) clinical trial are described elsewhere, including registration at ClinicalTrials.gov (anonymized).¹⁷ The study was approved by the university's Institutional Review Board.

Participants

Patients were eligible to participate if they were age 60 years or older and if their primary care clinician determined that they were appropriate for group visits. Patients were excluded based on preferred language other than English; diagnosis of cognitive impairment or dementia; diagnosis of deafness; living out of state/unable to travel to clinic; or living with someone already in the study - dyads were not enrolled because they needed to be independently randomized to minimize contamination. All patients provided informed consent. Participants received a \$25 gift card for completing the survey and interview.

Data Collection

Surveys measured patients' ACP engagement at baseline and six months using the 4-item validated ACP Engagement Survey²⁰ (Appendix A). The survey focuses on patient readiness within the ACP domains of surrogate decision makers, medical wishes, and documentation of medical wishes. The items assess readiness on a 5-point Likert scale and were averaged to create the overall ACP Engagement score, with higher scores indicating a higher degree of readiness. There was less than 10% missingness.

Semistructured interviews were conducted at six months with a subset of participants to expand on survey findings. A purposeful sample from the group visits and mailed materials arms were interviewed about their experiences. Group visits participants were oversampled to ensure adequate understanding of the group visits experience. Participants from both

study arms agreed to participate in the interviews at equivalent rates. The interview guide (Appendix B) included questions about patients' reasons for participating, personal goals around ACP, group visits content and delivery, and how the study impacted the ACP process. Interviews were conducted between March 2018 and May 2019 by a research assistant with qualitative experience, who was independent of the broader clinical study activities such as recruitment and intervention implementation. All interviews were audio-recorded and professionally transcribed. Based on simultaneous data analysis during data collection, thematic saturation was reached around 20 participants, and the additional three interviews were conducted as confirmatory and because they were already scheduled.²¹

Data Analysis

Descriptive statistics were calculated for participant demographics (self-reported). Mean overall and individual ACP readiness scores were calculated and compared between baseline and 6-month follow up for each study arm, using a difference-in-differences method. Since less than 10% of ACP engagement survey data were missing at random, we chose to exclude these data from the 6-month time point. In addition, we calculated percent change for overall score and individual items between baseline and 6-month follow up and compared them using Student's *t* test. These findings were contextualized with results from qualitative interview data. For interview data, directed content analysis was used.²² We developed a list of codes that captured the concepts and ideas. Codes were identified both inductively (based on multiple rounds of reading transcripts) and deductively (informed by the ACP behavior change constructs in the survey). The codes were then applied to every interview transcript. Coded data were analyzed within and across cases to identify major themes. ATLAS.ti software and SAS version 9.4 was used to facilitate data management.

Matrix analysis²³ was used to integrate findings from the interview and survey data sets, comparing patients' readiness scores to interview findings. This allowed us to elaborate on the survey findings in greater detail. We used a multiple triangulation approach to establish the trustworthiness of findings, including investigator triangulation (multiple investigators with multiple areas of expertise) and method triangulation (multiple methods of data

collection).²⁴ The multidisciplinary team included physicians, a sociologist, qualitatively trained research analysts, and an epidemiologist. We used the Consolidated Criteria for Reporting Qualitative Health Research (COREQ) as a framework to report findings for this study (checklist available on request).²⁵

Results

A total of 110 patients enrolled in the (anonymized) trial, with 55 participants per study arm. All 110 participants completed the baseline ACP Engagement survey, 100 completed 6-month follow up surveys (91% retention rate), and 23 participants were interviewed. There were 15 group visits interviewees and eight mailed materials interviewees. Table 1 shows participant demographics; there were no significant differences in demographic characteristics.

Both participants who received mailed materials and group visits participants reported increased levels in overall ACP engagement score. Group visits participants reported a greater percent change across all survey items (8% in group visits vs 3% in mailed materials, $P < .0001$). Compared with patients who received mailed materials only, group visits participants experienced a 4% greater increase in readiness to sign paperwork naming a decision maker (7% vs 3%, $P = .015$), 12% greater increase in readiness to talk to the doctor (15% vs 3%, $P < .0001$), and 6% greater increase in readiness to sign official paperwork putting wishes in writing (11% vs 5%, $P < .0005$). These self-reported items were aligned with rates of advance directives at 6-month follow up, where participants in the group visits, compared with those receiving mailed materials, had a higher rate of advance directives in the electronic health record (71% vs 45%, $P < .001$).¹⁷

Findings from interviews expanded on these differences by highlighting factors that influenced patients' readiness scores and how readiness changed after participating in either intervention. Participants reported being prompted to think about end-of-life preferences, gaining knowledge about ACP, and understanding the value of completing ACP documentation were upstream factors that influenced how ready they felt to carry out the ACP actions measured in the survey. Interviewees also discussed the downstream effects after either intervention, including feeling more ready to complete ACP documents, actually completing documents, and having

Table 1. Participant Characteristics

	Survey Participants (n = 110)	Interview Participants (n = 23)	p-Value
Mean Age (SD)	77.3 (5.7)	76.9 (5.6)	
Gender			0.57
Women	66 (60%)	15 (65%)	
Men	44 (40%)	8 (35%)	
Race/ethnicity			0.56
White	87 (79%)	20 (87%)	
Black or African American	11 (10%)	2 (8.7%)	
Latino/Hispanic	4 (3.6%)	0 (0.0%)	
Asian/Pacific Islander	1 (0.01%)	0 (0.0%)	
American Indian/Native American	2 (2%)	1 (4.3%)	
Multiethnic/Other	5 (4.5%)	0	
Caregiver in past 12 months	24 (22%)	4 (17%)	0.56
Relationship status			0.43
Married	69 (63%)	12 (52%)	
Widowed	22 (20%)	5 (22%)	
Divorced or separated	9 (8%)	2 (8.7%)	
Single	10 (9%)	4 (17%)	
Education			0.26
High school graduate	8 (7.3%)	0	
Some college	26 (24%)	7 (30%)	
College graduate	20 (18%)	6 (26%)	
Any postgraduate or professional education	56 (51%)	10 (44%)	
Insurance type*			
Medicare	108 (98%)	23 (100%)	0.46
Medicare supplement	61 (55%)	11 (48%)	0.41
Medicaid	2 (1.8%)	1 (4.3%)	0.31
Tricare	23 (21%)	2 (8.7%)	0.11
Self-pay	0 (0.0%)	0 (0.0%)	0.00
Other	19 (17%)	7 (30%)	0.06

*Multiple options, such that total does not equal to 100%.

Abbreviation: SD, standard deviation.

discussions with decision makers. Participants' responses to survey items and interviews are summarized in Table 2 (group visits) and Table 3 (mailed materials). Next, we describe how the upstream factors and downstream effects of ACP readiness differed among mailed materials participants and group visits participants.

Upstream Factors: Thinking about End-of-Life Preferences

Participants in both ACP interventions were prompted to think about their end-of-life preferences. For some participants, especially in the mailed materials arm, these interventions led them to consider their personal wishes for the first time:

"I never gave it much thought until I got the questionnaire. And then looking at [the materials] I kind of

knew what I wanted to do, but then I had no idea when I really put my mind to it. I thought, 'What would I do? How would I do that and who would be the one who would decide?' And the one who would decide and I talked it over and over and over and we've been thinking about it all this time." (Mailed Materials, Participant 27)

Even though group visits participants had completed some ACP documentation before enrolling in the study (44% at baseline),¹⁷ these participants described that the group visits helped them reflect on and improve the quality of their current documentation.

"We sharpened a few statements to be more precise with respect to some of the discussions we had in the group, which I think made for a better document. . . [The group visits] certainly caused us to. . .[revise] the wishes. . . It also motivated us to do some revisions

Table 2. Group Visit Participants' Changes and Experiences Related to ACP Readiness

ACP Readiness Questions	Survey Data			Interview Data (n = 15)	
	Baseline Mean (n = 110)	6 Months Mean (n = 100)	% change	Description of findings	Supporting Quotes
How ready are you to sign official papers naming a medical decision maker to make medical decisions for you?	4.49	4.80	7% (p-value: 0.046)	Intervention participants described being ready to name decision makers. Participants used the intervention as an opportunity to update or confirm previous choices, while those without existing documentation reported assigning decision makers afterwards.	“All of my kids are very responsible people, but the one that I had chosen lives in [another state] and she has her own business that really needs her pretty tied down. I thought that’s not very practical to have to expect her to come to Denver to take care of all of these things if I fall into bad health or upon my death and so forth. I ended up changing it to a daughter that lives here.” (Intervention, Participant 27)
How ready are you to talk to your decision maker about the kind of medical care you would want if you were very sick or near the end of life?	4.65	4.74	2% (p-value: 0.59)	Participants reported having brief discussions with their decision makers. They did not involve decision makers in discussions about preferences. Rather, they informed them of their responsibility as decision maker once they had completed ACP documentation.	“We had one big talk and now it’s their responsibility. I’ve given them everything I can. Carrying them anymore as adult children is useless and it really—it isn’t my job. I’ve done my part and I have had expert input and so my point is, well, this is up to you now. I took care of all my business so you can take care of me. That’s it.” (Intervention, Participant 21)
How ready are you to talk to your doctor about the kind of medical care you would want if you were very sick or near the end of life?	3.47	3.99	15% (p-value: 0.039)	Participants reported feeling ready to discuss ACP with their doctor and that the primary purpose of doing so was to get their documents on record at the locations where they are likely to receive care. However, participants were unlikely to initiate a conversation about ACP during clinic visits focused on more pressing health concerns.	“We had a brief conversation on it. I appreciate [my doctor’s] view and his thoughts on all of this. Other than that, we didn’t get into any of the particulars. He made certain that he made copies and gave me back what I gave to him. He put it in my medical chart. He acknowledged what I had written. . . it was a positive acceptance of what I had prepared.” (Intervention, Participant 45)

Continued

Table 2. Continued

ACP Readiness Questions	Survey Data			Interview Data (n = 15)	
	Baseline Mean (n = 110)	6 Months Mean (n = 100)	% change	Description of findings	Supporting Quotes
How ready are you to sign official papers putting your wishes in writing about the kind of medical care you would want if you were very sick or near the end of life?	4.24	4.69	11% (p-value: 0.015)	Group visits helped patients confirm, revise, and expand existing ACP documentation. Patients reported an improvement in both quantity and quality of ACP documentation.	“We sharpened a few statements to be a little more precise with respect to some of the discussions we had there in the group, which I think made for a better document” (Intervention, Participant 45)
Overall ACP engagement scores:	4.21	4.56	8% (p-value: 0.021)		

in our will which needed to be done. We had been procrastinating on doing that.” (Group Visits, Participant 45)

Upstream Factors: Gaining Knowledge about ACP

Level of ACP knowledge was found to affect patient readiness to engage in ACP. Although both study arms encouraged patients to think about end-of-life preferences, patients who received mailed materials required more information before they could initiate discussions with family or complete documentation:

“I have a lot of questions about [ACP] because I’m not knowledgeable about it. I planned to be [more knowledgeable] when I talk to the kids so that I can ask questions with them [and] they can understand why I’m hesitant.” (Mailed Materials, Participant 69)

To answer lingering questions about ACP, many participants turned to their primary care clinicians. However, patients in both study arms reported that finding time to discuss ACP with their primary care clinicians was challenging because other health concerns took priority during appointments.

“I don’t think I’ve actually discussed it with my primary care provider. . . I’m going to see her again pretty soon. I’m scheduled to have an operation. I’m having my knee replaced. To me, [ACP is] not very important to me right now.” (Group Visits, Participant 65)

Group visits participants reported that the intervention addressed this ACP knowledge gap and clarified the primary care clinician’s role in ACP beyond serving as an information resource.

Conversely, many patients who received mailed materials perceived ACP as a legal matter and expressed uncertainty about whether ACP discussions were the primary care clinician’s responsibility. As one participant explained, *“I do not think that is [the doctor’s] job. And I’d just as soon go to the attorney.” (Mailed Materials, Participant 54)*. Notably, group visits participants reported the greatest percent change on the “readiness to talk to doctor” item (15% increase in group visits arm vs 3% increase in mailed materials arm).

Upstream Factor: Understanding the Value of Completing ACP Documentation

Another factor that influenced participants’ readiness to engage in ACP was their perceived value of doing so. Although participants in both arms reported some engagement with ACP at follow up, group visits participants were more prepared to sign paperwork because they understood its purpose. For example, group visits participants described the significance of learning that ACP is separate from their current state of health:

“I’m surprised that we need to think about it sort of so soon. I’m only 75 and in pretty good health, and, even so, we feel like it’s a little more immediate for us to pay attention to these things now.” (Group Visits, Participant 36)

Some of the ACP knowledge that group visits participants learned also contributed to their perceived value of completing documentation. Group visits participants reported a greater increase in

Table 3. Mailed Materials Participants' Changes and Experiences Related to ACP Readiness

Readiness Questions	Survey Data			Interview Data (n = 8)	
	Baseline Mean	6 Months Mean	% change	Description of findings	Supporting Quotes
How ready are you to sign official papers naming a medical decision maker to make medical decisions for you?	4.25	4.39	3% (p-value: 0.54)	Mailed materials prompted participants to identify a decision maker and discuss ACP. While many have selected a decision maker, they had not formalized in writing. Participants expressed uncertainty about where this should be documented.	“Well, I never gave it much thought until I got the questionnaire. And then over looking at them I kind of knew what I wanted to do, but then I had no idea when I really put my mind to it. I thought, “What would I do? How would I do that and who would be the one who would decide?” (Control, Participant 27)
How ready are you to talk to your decision maker about the kind of medical care you would want if you were very sick or near the end of life?	4.25	4.28	1% (p-value: 0.89)	Many participants found ACP easy to discuss with their decision makers. Most had engaged in some discussion about ACP preferences, but the level of detail varied. Many note a degree of informality in these discussions, as the conversations are not detailed and sometimes decision makers were not yet formally appointed.	“Getting the advance directive and discussing things [caused us to have] a conversation with our daughter, granddaughter, and grandson and his girlfriend. They all sat around and we talked about, you know, ‘We’re getting older. Things are going wrong. We need to be prepared for eventualities.’ And everybody was seemed to be open about that and encouraged us to do things.” (Control, Participant 55)
How ready are you to talk to your doctor about the kind of medical care you would want if you were very sick or near the end of life?	3.47	3.59	3% (p-value: 0.64)	Many participants had not talked to their doctor about ACP and expressed uncertainty regarding whether ACP is within doctor’s scope (e.g. perceived ACP as a legal issue). Participants were comfortable discussing ACP with their doctor, but were unsure what doctor’s role would be.	“I don’t think that’s their [a doctor’s] job. And I’d just as soon go to the attorney that we went to when my husband got sick and ask him questions.” (Control, Participant 54)
How ready are you to sign official papers putting your wishes in writing about the kind of medical care you would want if you were very sick or near the end of life?	4.04	4.26	5% (p-value: 0.30)	Participants varied in the amount and type of documentation completed, but were more likely to have completed legal rather than medical documents. Reasons for delaying included good health and being intimidated by ACP. Reported desire for guidance (like group visit).	“When you get to a certain age it’s kind of a day to day thing. And I believe in preventive care. So far – cross my fingers – things have been going well for me. And so probably that’s why I haven’t really considered filling out the paperwork as yet.” (Control, Participant 54)
Overall ACP engagement scores:	4.00	4.13	3% (p-value: 0.45)		

readiness to sign official paperwork detailing wishes (11%) and naming a decision maker (7%) compared with those who received mailed materials (5% and 3%, respectively). In contrast, many participants who received mailed materials had not signed ACP documents by the six-month follow-up interview. Some described that ACP was not prioritized due to a belief in the sufficiency of preventative care and their good health:

“When you get to a certain age it’s kind of a day to day thing. And I believe in preventive care. So far—cross my fingers—things have been going well for me. And so probably that’s why I haven’t really considered filling out the paperwork as yet.” (Mailed Materials, Participant 54)

Downstream Effect: Discussions with Decision Makers

As a downstream effect, patients in both arms showed little change on the “readiness to talk to decision makers” survey item (2% for group visits and 1% for mailed materials). Some patients attributed this lack of change to having already initiated ACP discussions with family members before participation (consistent with high baseline scores of readiness to talk with a decision maker). However, interviews revealed some participants who received mailed materials had not had these conversations because their *decision maker* was not ready. One participant described her adult child’s reaction to ACP: “You are not going to die tomorrow, Mom. We can talk about it the next day, or the next visit,” (Mailed Materials, Participant 74). Although group visits participants did not describe this sense of ACP inertia, even those who attempted to engage decision makers reported that these conversations were sometimes unproductive because decision makers did not value ACP:

“I had all of [my ACP documents] and I met with my daughters. But the problem was they kind of blew it off like, ‘Oh, you’re fine. You don’t need this, blab, blab, blab.’ And it wasn’t out of disrespect, it was about not wanting to deal with the fact that I may die.” (Group Visits, Participant 21)

For participants who received mailed materials, these conversations felt informal due to both decision makers’ resistance and because most had not completed documentation. Conversely, group visits participants reported being prepared for formal discussions with decision makers because many had

completed ACP documentation and wanted to review their decisions. Group visits participants characterized discussions with decision makers as more of a “handoff” than a back-and-forth exchange or coming to consensus. As one participant explained, this is because “*there were no ifs, ands, or buts; this was my decision*” (Group Visits, Participant 78). That is, participants viewed the purpose of discussions with family members as *separating* their responsibility regarding ACP from their decision maker’s role, not *collaborating* to come to an agreement together. One participant explained ACP as a shared responsibility between patients and decision makers where there is a clear division of labor:

“We had one big talk in the conference call and now it’s their responsibility. I’ve given them everything I can. . . I’ve done my part and I have had expert input and so my point is, well, this is up to you now. I took care of all my business so you can take care of me.” (Group Visits, Participant 21)

Though group visits participants reported that these conversations tended to be short, they had a “ripple effect.” Patients shared their ACP documentation with a wide circle of family members, sparking subsequent ACP conversations between other family members. For example, one group visit participant began thinking about her husband’s ACP; another reported that her daughter-in-law began speaking to her own mother about ACP:

“[The conversation] was short and brief, except with our daughter-in-law who is more interested in learning what we did up here. She was taking note because she thought some of this would be helpful to her own mother down in [another state]. . . . So, I think it prompted discussions with her. In turn, she went on to proceed to talk with her mother about what the [family name] were doing. So, it had a ripple effect.” (Group Visits, Participant 45)

Discussion

This study compared an interactive, group visits intervention to a passive, mailed materials intervention and revealed that, a) group visits increased patients’ readiness to complete documentation more effectively than mailed materials, but b) both interventions had positive impacts on multiple aspects of the ACP process. Combining survey and interview data, we identified key factors that influenced patients’ readiness to complete ACP: thinking about end-of-life preferences, gaining knowledge about

ACP, and understanding the value of ACP documentation. While both arms encouraged patients to start considering end-of-life preferences, group visits conferred more knowledge about ACP and highlighted the importance of completing ACP documentation early. Together, these benefits helped more group visits participants feel ready to complete – and actually complete – ACP documentation at six-month follow up.¹⁷ Further, group visits participants reported sharing their ACP documents with a wider network of people, prompting additional ACP conversations.

Although ACP knowledge can be conveyed through mailed materials, our findings show that printed information alone cannot replace an interactive discussion about ACP. Without a dedicated appointment focused on ACP, participants in the mailed materials arm missed an opportunity to fill knowledge gaps related to completing ACP documentation. Participants reported that these knowledge gaps were not sufficiently addressed during visits that primarily focused on other concerns, highlighting the need for interactive interventions that create space to talk about ACP.

Creating space to discuss ACP with loved ones was also a challenge. Participants encountered resistance to discussing death, making these conversations brief across both arms. For group visits participants, these conversations represented a formal “passing of the baton” that was aided by sharing completed ACP documents. For participants who received mailed materials, however, discussions were either informal or avoided altogether due to uncertainty about their decision maker’s comfort discussing death. Prior work has documented this reluctance around end-of-life communication,²⁶ and our findings suggest that group visits could help by equipping patients with knowledge and completed ACP documents. Future work should explore additional approaches to end-of-life communication between patients and family that could be incorporated into ACP interventions, including ACP group visit curriculum.

This study also addresses questions raised by prior work on ACP engagement and behavior change. For example, prior research found that neither the PREPARE website with an easy-to-read advance directive (AD) nor the AD-only interventions improved actions related to asking clinicians questions.²⁷ Our findings suggest that certain action-oriented ACP behaviors, like discussion with

clinicians, might not improve without an interactive intervention because patients may lack sufficient knowledge to initiate the discussion or formulate questions and because primary care visits often focus on pressing health concerns. Still, our findings also suggest that *any* intervention is better than *no* intervention since all patients reported some increase in ACP engagement.

Scholars have advocated for research involving interventions that are tailored to local resources and contexts, rather than global recommendations.^{14,28} This study highlights the relative advantage of two ACP approaches in a primary care setting so that future work can address when one might be more fitting. For example, group visits are more effective at engendering change and facilitating ACP documentation but mailed materials are inexpensive and could be used broadly as an initial nudge to patients that could be followed by additional ACP interventions, including group visits.

This study has specific limitations. Our sample was recruited from one health care organization and only focuses on two ACP approaches (ie, mailed materials only vs ACP group visits). In addition, ACP engagement scores were a secondary outcome and reflected participants with a relatively high baseline level of ACP readiness, potentially contributing to a smaller relative and absolute increase from group visits. Future work should expand on these exploratory outcomes. Further comparison between – and testing combinations of – approaches to increase ACP engagement will allow clinical champions to maximize the intervention’s effectiveness by tailoring the intervention to the setting, population, and available resources. For example, depending on resources, clinics could assess ACP readiness through an integrated article or patient portal-based questionnaire. When screening across all patients and visits is not feasible, clinics could offer multiple ACP interventions simultaneously or sequentially to enable patients to opt-in to the interventions of their choosing. Because this study represents one patient population, future work should investigate how patients from varying backgrounds perceive action-oriented behaviors that may be less preferred or acceptable in some cultures or communities.

In conclusion, this study supports the idea that all patients may benefit from support regarding ACP decisions and discussions with clinicians, family members, and decision makers. However, given

that patients' readiness to engage in these behaviors varies,^{12,13} choosing interventions like ACP group visits that can assess and be tailored to a patient's level of readiness is crucial. In the future, tailoring these interventions appropriately should include adaptations suited to the cultural preferences of the populations served by each clinic, including input from patient and family advisory councils.

The authors thank the participants who contributed to this work by sharing their perspectives. Thank you to Samantha Farro and Robin Otto for assistance with critical review and preparation of this manuscript.

To see this article online, please go to: <http://jabfm.org/content/37/2/215.full>.

References

1. Sudore RL, Lum HD, You JJ, et al. Defining advance care planning for adults: a consensus definition from a multidisciplinary delphi panel. *J Pain Symptom Manage* May 2017;53:821–32.e1.
2. Hickman SE, Lum HD, Walling AM, Savoy A, Sudore RL. The care planning umbrella: the evolution of advance care planning. *J Am Geriatr Soc* 2023;71:2350–6.
3. Bischoff KE, Sudore R, Miao Y, Boscardin WJ, Smith AK. Advance care planning and the quality of end-of-life care in older adults. *J Am Geriatr Soc* 2013;61:209–14.
4. Silveira MJ, Kim SYH, Langa KM. Advance directives and outcomes of surrogate decision making before death. *N Engl J Med* 2010;362:1211–8.
5. Yadav KN, Gabler NB, Cooney E, et al. Approximately one in three US adults completes any type of advance directive for end-of-life care. *Health Aff (Millwood)*. 2017;36:1244–51.
6. Perumalswami C, Burke J, Singer D, et al. *Older adults' experiences with advance care planning*. 2021. National Poll on Healthy Aging. Available at: <http://hdl.handle.net/2027.42/167012>.
7. AAFP. Shared medical appointments/group visits. AAFP. Accessed August 10, 2023. Available at: <http://www.aafp.org/about/policies/all/shared-medical.html>.
8. Park EJ, Jo M, Park M, Kang SJ. Advance care planning for older adults in community-based settings: An umbrella review. *Int J Older People Nurs* 2021;16:e12397.
9. Jaber R, Braksmajer A, Trilling JS. Group visits: a qualitative review of current research. *J Am Board Fam Med* 2006;19:276–90.
10. Lorentz PA, Swain JM, Gall MM, Collazo-Clavell ML. Combined group and individual model for postbariatric surgery follow-up care. *Surg Obes Relat Dis*. 2012;8:220–4.
11. Sikon A, Bronson DL. Shared medical appointments: challenges and opportunities. *Ann Intern Med* 2010;152:745–6.
12. Cherniack EP. The use of shared medical appointments in the care of the elderly. *J Ambul Care Manage* 2014;37:32–7.
13. Vaughan EM, Johnston CA, Arlinghaus KR, Hyman DJ, Foreyt JP. A narrative review of diabetes group visits in low-income and underserved settings. *Curr Diabetes Rev* 2019;15:372–81.
14. McMahan RD, Tellez I, Sudore RL. Deconstructing the complexities of advance care planning outcomes: what do we know and where do we go? A scoping review. *J Am Geriatr Soc* 2020;69:234–44.
15. Walczak A, Butow PN, Bu S, Clayton JM. A systematic review of evidence for end-of-life communication interventions: who do they target, how are they structured and do they work? *Patient Educ Couns* 2016;99:3–16.
16. Ramsaroop S, Reid MC, Adelman RD. Completing an advance directive in the primary care setting: what do we need for success? *J Am Geriatr Soc* 2007;55:277–83.
17. Anonymized.
18. Sudore RL, Knight SJ, McMahan RD, et al. A novel website to prepare diverse older adults for decision making and advance care planning: a pilot study. *J Pain Symptom Manage* 2014;47:674–86.
19. Improvement IfH. The Conversation Project. Accessed August 10, 2023. Available at: <https://theconversationproject.org/get-started>.
20. Sudore RL, Heyland DK, Barnes DE, et al. Measuring advance care planning: optimizing the advance care planning engagement survey. *J Pain Symptom Manage* 2017;53:669–81.e8.
21. Hennink MM, Kaiser BN, Marconi VC. Code saturation versus meaning saturation: how many interviews are enough? *Qual Health Res* 2017;27:591–608.
22. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res* 2005;15:1277–88.
23. Averill JB. Matrix analysis as a complementary analytic strategy in qualitative inquiry. *Qual Health Res* 2002;12:855–66.
24. Denzin NK. *The research act: a theoretical introduction to sociological methods*. 1970.
25. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19:349–57.
26. Im J, Mak S, Upshur R, Steinberg L, Kuluski K. “Whatever happens, happens” challenges of end-

- of-life communication from the perspective of older adults and family caregivers: a qualitative study. *BMC Palliat Care* 2019;18:113.
27. Lum HD, Barnes DE, Katen MT, Shi Y, Boscardin J, Sudore RL. Improving a full range of advance care planning behavior change and action domains: the PREPARE Randomized Trial. *J Pain Symptom Manage* 2018;56:575–81.e7.
28. Jimenez G, Tan WS, Virk AK, Low CK, Car J, Ho AHY. Overview of systematic reviews of advance care planning: summary of evidence and global lessons. *J Pain Symptom Manage* 2018;56:436–59.e25.

Appendix A.

ACP Engagement Survey

1. How ready are you to sign official papers naming a person or group of people to make medical decisions for you?
 - I have already done it
 - I am definitely planning to do it in the next 30 days
 - I am thinking about doing it in the next 6 months
 - I have thought about it, but am not ready to do it
 - I have never thought about it
 - Missing/not answered

2. How ready are you to talk to your doctor about the kind of medical care you would want if you were very sick or near the end of life?
 - I have already done it
 - I am definitely planning to do it in the next 30 days
 - I am thinking about doing it in the next 6 months
 - I have thought about it, but am not ready to do it
 - I have never thought about it
 - Missing/not answered

3. How ready are you to sign official papers putting your wishes in writing about the kind of medical care you would want if you were very sick or near the end of life?
 - I have already done it
 - I am definitely planning to do it in the next 30 days
 - I am thinking about doing it in the next 6 months
 - I have thought about it, but am not ready to do it
 - I have never thought about it
 - Missing/not answered

4. How ready are you to talk to your decision maker about the kind of medical care you would want if you were very sick or near the end of life?
 - I have already done it
 - I am definitely planning to do it in the next 30 days
 - I am thinking about doing it in the next 6 months
 - I have thought about it, but am not ready to do it
 - I have never thought about it
 - Missing/not answered

Appendix B.

Interview Guide

Follow-up Interview for Patients

Organizational & Patient Characteristics

1. Thinking back to before the study, what had you already done as far as ACP?
2. When you started the study, what were your goals related to ACP?
 - How did the study help or hinder you achieving those goals?
3. In your own words, tell me about what the benefit of the study was for you.
 - Were there any disadvantages?
4. Do you have any ACP goals or next steps that are unmet?
 - What would be helpful to achieve these?
 - Have any of your goals changed? Have you added any new goals?
5. Have you discussed ACP with someone close to you since being in the study?
 - Tell me about that discussion.
6. Have you discussed ACP with a health care provider since being in the study?
 - Tell me about that discussion.

Intervention Content

7. For MAILED CONTROL ARM: Do you remember the mailed materials we sent you?
 - Tell me about them (what did you think, what did you do, how did you feel).
8. For GROUP VISITS ARM: Thinking back to the group visits you came to, what did you think about...
 - Content? Topics covered, education
 - Format? Group style, length of session, 2 visits
 - Environment? Room, supplies, materials, videos
 - Facilitators? Doctor, SW, volunteer, PRA, etc.
 - Your care plan, including what is part of your medical record? Did you review this? What did you think of this?
9. Tell me what you learned from the study.

Sustainability

10. What should we do differently?
11. Anything else you'd like to share about this study overall?