Title

Using behavioral theory to adapt advance care planning for homeless-experienced older adults in permanent supportive housing

Journal

Journal of the American Geriatrics Society, 71(8)

ISSN

0002-8614

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Publication Date

2023-08-01

DOI

10.1111/jgs.18314

Title: Using Behavioral Theory to Adapt Advance Care Planning for Homeless-Experienced Older Adults in Permanent Supportive Housing (124/125)

Short Running Title: Behavioral Determinants of ACP in PSH

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Funding and Support: S. Pajka was supported by the Medical Student Training in Aging Research program and the National Institute on Aging, National Institutes of Health (T35AG026736). Dr. Sudore is funded in part by the National Institute on Aging, National Institutes of Health (K24AG054415). Dr. Kushel is funded in part by the National Institute on Aging, National Institutes of Health (K24AG046372). Drs. Sudore, Kushel, and Handley are funded in part by the National Institute of Health (R34AG065600).

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Key Points

- Older adults experiencing chronic homelessness have low rates of advance care planning (ACP) despite high rates of morbidity and mortality.
- Permanent supportive housing (PSH) is subsidized housing with voluntary supportive services for individuals (PSH residents) experiencing chronic homelessness (i.e., prolonged homelessness and a disabling health condition) and may provide an opportunity to introduce ACP.
- Using the Capability (C), Opportunity (O), Motivation (M), Behavior (COM-B) framework (COM-B) within the Behavior Change Wheel model, we elicited PSH residents and staff reported barriers to ACP including lack of PSH resident and staff ACP knowledge, variable relationships with family/peers and PSH staff, pessimism about ACP outcomes, and lack of staff resources and training.
- Facilitators to ACP in PSH include the belief that ACP is impactful, the potential for strong relationships with family/peers and PSH staff, stability of housing in PSH, and use of easy-to-use materials, including the PREPARE for Your Care ACP program and easy-to-read advance directives.
- Suggestions for implementation of ACP in PSH include continued use of easy-to-use PREPARE materials, capitalizing on trusted relationships, PSH staff trainings and conversation guides, and providing ACP in facilitated groups or one-on-one sessions.

Why Does This Paper Matter?

Older adults experiencing chronic homelessness have high rates of morbidity and mortality, a high likelihood of being socially isolated, and of not having their wishes honored at the end of life. Permanent Supportive Housing represents an opportunity to introduce ACP to help honor the medical preferences of this marginalized population.

Impact Statement: We certify that this work is novel and important to advance the discussion and implementation of advance care planning processes among marginalized and vulnerable populations.

Word counts: Abstract (249/250), Main text (3594/3500)

Number of tables/figures: 2 tables, 1 figure

ABSTRACT (word count 249/250)

Background: Older adults experiencing chronic homelessness (i.e., prolonged homelessness and a disabling condition) have low rates of advance care planning (ACP) despite high rates of morbidity and mortality. Rehousing of homeless-experienced individuals into Permanent Supportive Housing (PSH) may present an opportunity to introduce ACP; but this is unknown. Therefore, we explored staff and resident perceptions of conducting ACP in PSH.

Methods: We conducted semi-structured interviews with PSH staff (n=13) and tenants (PSH residents) (n=26) in San Francisco. We used the Capability (C), Opportunity (O), Motivation (M), Behavior (COM-B) framework within the Behavior Change Wheel model and the Theoretical Domains Framework (TDF) to inform interviews, categorize themes, and guide qualitative thematic analysis.

Results: The mean age of PSH residents was 67 (SD = 6.1) years and 52% were women. Of staff, 69% were women. Important COM-B barriers included ACP complexity (C), complicated relationship dynamics (O), resource limitations (O), pessimism (M), variable staff confidence (M), and competing priorities (M). Facilitators included easy-to-use documents/videos, including the PREPARE for Your Care program (C), stability with housing (O), exposure to health crises (O), potential for strong relationships (O), and belief that ACP is impactful (M). Recommendations included adapting materials to the PSH

setting, providing staff trainings/scripts, and using optional one-on-one or group sessions.

Conclusions: We identified behavioral determinants related to ACP for formerly chronically homeless older adults in PSH. Future interventions should include using easy-to-use ACP materials and developing resources to educate PSH residents, train staff, and model ACP in groups or one-on-one sessions.

Keywords: advance care planning, permanent supportive housing, older adults, homelessness, implementation science

INTRODUCTION (3594/3500)

Over half a million people experience homelessness in the United States, with a growing percentage of older adults.[1,2] Older adults who are currently or recently homeless (homeless-experienced), have worse health status, earlier onset of geriatric conditions at younger ages (i.e., 50 years and older) and increased rates of mortality compared to the general population.[3,4] Geriatric conditions, such as functional impairment, falls, and urinary incontinence, typically first occur in housed adults aged 75 and older.[5] Despite high rates of morbidity and mortality, homeless-experienced older adults have low rates of advance care planning (ACP) – a process designed to prepare people for serious illness communication with family, friends, and clinicians, and medical decision making.[6,7] Although there has been recent discussion about the utility of ACP in relation to healthcare utilization, there is consistent evidence that ACP positively effects other meaningful outcomes, such as improved patient/surrogate satisfaction with medical care and communication and decreased surrogate/clinician distress.[8-11] Only 20% of older adults experiencing homelessness report discussing their wishes for medical care and fewer than 10% report documenting their wishes.[6,7] Interventions to increase completion of advance directives in homeless shelters have had some success, but had limited retention of participants.[12] People experiencing homelessness have reported that, given competing priorities, they prefer to engage with ACP after they have regained housing.[13]

Permanent supportive housing (PSH) is subsidized housing with voluntary supportive services for individuals experiencing chronic homelessness (i.e., prolonged homelessness and a disabling condition).[14,15] PSH is the evidence-based means to achieve and maintain housing stability for individuals experiencing chronic homelessness with moderate and high levels of need.[14,16,17] Individuals living in PSH (PSH residents) still have high mortality rates; however, with improved stability, they have fewer competing life demands and additional support and resources, which may help facilitate ACP.[13,16] However, no prior work has examined the factors influencing ACP engagement in PSH. An easy-to-use, person-directed ACP program (i.e., PREPARE for Your Care program with video stories and easy-to-read advance directives) has been shown to be efficacious in safety net settings; however, it is unclear if it is appropriate for use in PSH.[18,19] Therefore, we aimed to explore barriers and opportunities to introducing ACP in PSH.

METHODS

We conducted a cross sectional study using a convenience sample of PSH residents and staff from 6 PSH buildings in the San Francisco Bay Area. The University of California, San Francisco Institutional Review Board granted IRB approval. The IRB waived written consent, and we obtained verbal consent from all participants. A Community Advisory Board (CAB) comprised of PSH residents and staff guided our recruitment efforts.

Setting and Participants

We used snowball sampling from PSH management, staff, and PSH residents. Staff were eligible if they were English-speaking and employed at a PSH site. PSH residents were eligible if they were age 50 and older, English-speaking, and living in PSH. We excluded PSH residents who scored in the moderate-to-severe cognitive impairment range on the short portable mental status questionnaire, or if they self-reported deafness, severe vision impairment, or a diagnosis of dementia.[20] We gave participants a $25 gift card for participation.

Procedures

We recruited and conducted one-on-one interviews by video, telephone call, or in person, based on participant preference and COVID-19 guidelines, in two waves from April 2020-June 2021. Interviews were audio-recorded and transcribed by an independent transcriptionist. All interviews lasted 60-90 minutes.

We provided the first wave (10 PSH staff and 10 PSH residents) with the easy-to-read advance directive (5th grade reading level) from PREPAREforyourcare.org (PREPARE).[21] We showed the second wave (3 PSH staff and 13 PSH residents) videos from the PREPARE online video guide and provided a corresponding workbook.[18,19] Three PSH residents participated in both waves. Video examples showed brief clips with individuals engaging in ACP (choosing a surrogate, communicating future wishes). We asked

participants to explore perceived barriers and facilitators to ACP and use of the PREPARE video and advance directives (ADs) in PSH. We asked about appropriate timing and effectiveness of ACP in facilitated group and one-on-one sessions.

We used the Behavior Change Wheel (BCW) and the Theoretical Domains Framework (TDF) to develop a semi-structured interview guide which probed for barriers, facilitators, and behavioral determinants to ACP in PSH. [22-24] The BCW is an implementation framework centered around the understanding of behavior as an outcome related to Capability (C) (i.e., physical or intellectual ability to perform the task), Opportunity (O) (i.e., factors in the physical and social environment that make a behavior possible), and Motivation (M) (i.e., reflective processes or automatic impulses or feelings that drive actions). The TDF is a classification of 14 domains identified through expert synthesis of behavioral theory which maps directly to COM-B and can help identify targets for future interventions (Table 1).[22,24,25]

Analysis

We used the BCW and TDF frameworks to describe and categorize themes and guide recommendations for intervention strategies.[22-24,26] We took an iterative and inductive approach to analysis.[27] We developed and refined a codebook to standardize thematic content analysis and trained study staff through two virtual live training sessions. Trained study staff independently reviewed and coded interview transcripts. We reviewed and compared coded

transcripts during team meetings of at least three study staff to derive themes. We resolved rare disagreements by consensus between study staff and expert review (author MH) and kept a record of changes. We identified barriers, facilitators, and potential behavioral determinants and mapped each to the COM-B system within the BCW.[22-24,28] We refined themes by classifying them into TDF domains related to each COM-B category (Table 1, Figure 1).[22,24,29,30] We then identified BCW strategies for the TDF domains identified.[23-26,28] The CAB met twice during the study period to discuss prominent themes and provide feedback. We continued interviews until we reached thematic saturation.

RESULTS

We recruited 13 staff and 23 PSH residents from 6 PSH buildings. Staff included 5 managers/directors, 5 resident services leaders and case managers, 1 behavioral health specialist, and 2 registered nurses. Sixty-nine percent of staff were female with median length of PSH employment of 1.9 years (IQR = 0.8-9.8). Fifty-two percent of PSH residents were female, with a median of 67 years of age (SD = 6.1) and a median 4.3 years (IQR = 2.8-6.3) in PSH. Sixty-five percent of PSH residents were non-white (48% Black/African American, 4% Latinx, 13% Mixed Ethnicity). We described the barriers (Table 2) and facilitators (Table 3) to ACP based on the COM-B system and TDF framework (see Figure 1). We identified themes in 5 of 6 COM-B subcategories and 10 of 14 TDF domains. All themes were mapped

onto the COM-B model, TDF domains, and BCW strategies. A few selected TDF domains, themes and quotes from the tables are presented below.

Barriers

Capability

Psychological Capability: *Lack of ACP knowledge or experience, length and complexity of the ACP process*

Both staff and PSH residents reported a lack of knowledge about ACP. Staff stated that they did not know how to begin ACP conversations or answer medical questions. Many PSH residents reported poor understanding of the process, said that they didn't know who or which questions to ask, or questioned the legality and permanence of ADs. Two PSH residents described hospital visits where they were given a standard AD and were unable to engage because they did not understand the language or implications.

Many PSH residents appreciated the self-guided PREPARE videos and easy-to-read ADs. However, both staff and PSH residents remarked upon difficulties with resident memory, attention, and mental health disorders which might restrict engagement with complex documents independently or in long facilitated sessions. One PSH resident noted that if he was given too much information at once, "remembering the first part, it goes out the window sometimes."

Opportunity

Social Opportunity: *Complex resident-staff relationships, interpersonal relationships, and group dynamics*

Participants described variable and dynamic PSH staff/resident relationships. Staff said PSH residents “maybe trust one person in the building one day and the next day they might not.” PSH residents said they did not “feel comfortable” or “close” to case managers and others cited turnover, lack of PSH staff experience, or lack of trust as potential barriers to ACP discussions. PSH staff and residents described complex and variable inter-resident relationships, which could hinder group introduction or discussion of ACP. Some PSH residents described close connections with peers, while others preferred to keep to themselves. PSH residents said that peer relationship dynamics were complicated by lack of trust because information “can become a tool they use to manipulate the other person.” Participants listed challenges with conflicting personalities, difficulty staying on task, and frequent interruptions, particularly with large group activities. These dynamics could negatively impact motivation for PSH residents to participate in large groups or engage in conversations they suspect might put them at risk.

Physical Opportunity: *Lack of standardized processes for ACP, limited resources*

Staff reported that there were no standardized processes, prompts, or guides to facilitate ACP conversations or completion of detailed ADs. Even when

they did discuss ACP with PSH residents, one staff member said, “It’s very infrequent that a conversation would result in me saying, ‘Hold on a second, I’m going to reach into this filing cabinet and pull an advanced directive.” Other staff mentioned that if ACP occurred, it was initiated through individual rather than institutional efforts. Staff noted that while prompts exist to update emergency contacts at specific intervals, similar reminders for ACP do not exist in their workflow. In addition, while some PSH residents were willing to share their ACP wishes and documents, others expressed concerns about privacy, safe storage, and the forwarding of sensitive information in the event of a health crisis. Participants listed concerns that regular staff turnover and limited resources exacerbate the demands on staff and restrict availability for lengthy conversations, saying, “people are feeling really under-resourced” and ACP could be seen as “one more thing”. PSH residents described not having “any place to sit down” to write and lack of computers to access the online video guide.

Motivation

Reflective Motivation: *Competing priorities for PSH residents, beliefs about capabilities and lack of a medical decision maker*

Staff and residents voiced concerns that PSH residents’ social isolation might “make it difficult to plan any of this,” citing resident estrangement, lack of strong support networks, and difficulty naming even one emergency contact. PSH residents said that the medical decision maker (MDM) section was “the

hardest part” of the AD and staff believed that residents did not think it possible to complete the form without naming someone. PSH residents and staff also noted that the MDM conversation might serve as an emotional reminder of social isolation, further limiting motivation. In addition, PSH staff and residents described competing priorities for residents including attending medical appointments, financial concerns, and substance use. Some PSH residents didn’t see ACP as a priority because they doubted their wishes would be respected, “[if] I said I don’t want no extenuating circumstances… I feel a doctor…[wouldn’t] let me die….” Others said they were “just looking to the next couple of hours” and hadn’t thought about the future or death.

Reflective Motivation: *Competing priorities for PSH staff, beliefs about capabilities and variable confidence*

PSH staff said that the ACP conversation is “incredibly challenging” and cited their lack of familiarity with medical jargon, lack of confidence navigating conversations about death, and lack of training in ACP. Some PSH staff suspected that others might avoid engaging due to concerns they might “trigger” PSH residents or make them feel “afraid,” and others said they preferred trained facilitators take on the responsibility. Additionally, staff said that competing professional responsibilities such as managing acute crises and assisting PSH residents with financial, social, and other needs takes priority and that there likely “wouldn’t be much interest” in ACP. As

one staff member said, “even if the client is willing to sit down and go over the form…clients will just tell us, “I don’t care, when I die, I die, you figure it out, like you make the decisions.”

Automatic Motivation*: Emotion, fear of death*

While some PSH residents were able to discuss their own attitudes and experiences, many felt their peers might resist talking about death because “a lot of people die here.” PSH residents and staff primarily believed that others, such as family and peers, were uncomfortable with end-of-life conversation, even if they themselves were not.

Facilitators

Capability

Psychological Capability: *Easy-to-read advance directive and video guides are accessible*

PSH staff and residents described the easy-to-read PREPARE AD as “inviting” and “self-explanatory.” During interviews, PSH residents were able to read and describe the meaning of each page to the interviewer, demonstrating an appropriate level of understanding. In addition, PSH residents liked the PREPARE videos, saying they “brought to mind a lot of questions” and helped them “write down directly what [they] wanted to say.”

Opportunity

Physical Opportunity: *Physical context, PSH provides stability, PSH residents exposed to health crises*

Several PSH residents described a “shift” after "going from a system that does everything within its power to undermine you [shelters] to a place that does everything they can to help you [PSH].” Some cited a new ability to look toward the future, make long-term goals, and move past a mindset of daily survival, with a new desire to “live my life to the fullest.” Participants said PSH provides a unique opportunity for ACP discussion “on a good day,” when both PSH staff and residents have time, energy, and attention to address the topic, so residents can “go through it at their own pace.” CAB members suggested staff give PSH residents six months to one year to establish themselves in PSH before asking to discuss ACP. Additionally, while fear of death might be a barrier to some, to others it can be a facilitator. PSH staff and residents described unique exposure to health crises, chronic illness, and death, due to their prevalence in this setting. They described leaving the building “in an ambulance on a stretcher” or witnessing as a deceased resident was “wrapped in a plastic bag” and taken away. Others listed the prevalence of substance use and the COVID-19 pandemic in the PSH setting as “reminders” about the end of life.

Social Opportunity: *Potential for close relationships in PSH*

While relationship dynamics were a barrier for some, for others they were an important facilitator. Some participants listed examples of strong personal

relationships in PSH, calling PSH staff and residents “family.” Some said that PSH staff were the best people to engage PSH residents in ACP because they “become your friend” and could bring “feeling in it” that a primary care clinician could not. Although some strongly preferred one-on-one conversations, others were hopeful about groups, saying “we have a good group and people don’t go blabbing.” Some PSH residents also believed that listening to peers with shared experiences might “break the ice” and encourage deeper engagement.

Motivation

Reflective Motivation: *Belief that ACP is important and impactful*

PSH residents said it means “a whole lot” to have their wishes respected and many believed ACP could help them “die with respect and peace and dignity.” Some PSH residents stated that ACP could benefit family members who would otherwise be left to make difficult decisions without guidance. Others felt that ACP documentation was most important for isolated individuals because “if I have no one…the document will state what I want.” Additionally, PSH residents described the importance of naming preferences for pets and belongings and suggested we add these topics to the AD. Staff members agreed that ACP was important for resident autonomy and empowerment.

Automatic Motivation: *Emotion: Videos provide relatable examples*

PSH residents approved of the PREPARE ACP videos and several confirmed that they could identify with the narratives. One story showing a single man who described himself as a “loner” resonated with many PSH residents. Some said they appreciated that the videos showed options for those without family or close contacts. By delivering emotionally relatable stories, the video guides modelled the importance of ACP and appeared to provide reassurance that residents have the ability to engage and ask the necessary questions. One PSH resident said the PREPARE program “touches base with how they're feeling…sometimes people don't know how to ask questions so this kind of like spells it out for them.”

Implementation Recommendations for Behavior Intervention Techniques

In Figure 1, we mapped themes and listed recommendations for behavioral interventions based on the TDF, COM-B model, and BCW.

To address *capability* barriers of staff knowledge and skills, potential solutions suggested by PSH participants include educating PSH staff and residents about the key components and “impact” of ACP, “training staff members” to initiate and document these conversations, and modeling conversations with “simple” scripts for ACP conversations, such as those in the PREPARE for Your Care program. Such training could also address barriers to staff motivation and confidence. To address PSH resident *capability* barriers related to lack of knowledge and attention/memory for

lengthy conversations or documents, potential solutions suggested by PSH participants include restructuring the context of ACP educational activities by "breaking it down" into smaller segments and leveraging participant preferences for learning. *Opportunity* barriers related to limited resources and environmental context may be managed with efficient use of short "group sessions", "self-guided" programs like PREPARE, and creation of institutional prompts/procedures to standardize and simplify organizational processes. The use of outside facilitators may be an alternative consideration. Social *opportunity* barriers could be mitigated by restricting the influence of "difficult" social dynamics and leveraging existing close relationships. Participants suggested that "groups should be optional", self-selected, led by "trained" facilitators, and "limited" in size (4-5 people) or scope (i.e., ACP introduction only). To address additional *motivation* barriers, facilitated sessions should be "brief", "frequent," and easily accessible to enable participation when "[PSH] residents are ready" to engage. Incentives, such as "snacks" and other rewards could also be provided to encourage PSH resident participation.

DISCUSSION

In this study, PSH staff and older homeless-experienced PSH residents identified barriers and facilitators to ACP discussions and documentation in PSH. Tools such as the PREPARE easy-to-read AD and online video stories provided education and enhanced participants' *capability* to engage in ACP

conversation that might otherwise be unfamiliar or difficult to understand. Established housing and supportive services created greater *opportunity* for participants to consider ACP; yet lack of standardized procedures and complex relationships between PSH residents and staff complicated this potential. While barriers to *motivation* such as pessimistic beliefs, competing priorities, and anxiety about death were common, PSH residents felt more prepared to engage in ACP after obtaining housing. For staff, lack of confidence in their own abilities and negative outcome expectations hindered *motivation* to engage PSH residents, despite belief in the potential benefits. Staff were interested in obtaining more ACP training. We identified several strategies to target these barriers and facilitators using the BCW and TDF, including education, training, and ACP modeling using simple scripts for PSH staff. For PSH residents, these included enabling and modeling with easy-to-use materials, providing incentives, and optimizing the social environment through optional, self-selected groups.

Our work builds upon previously documented findings that PSH creates novel social and environmental opportunities for behavior change.[13] With safety and survival addressed, some PSH residents described greater optimism, a "shift" in priorities, and more motivation to plan. When provided with easy-to-use resources, PSH residents and staff described ACP as an empowering and dignifying process. PSH staff may be uniquely suited to reduce anxiety by introducing the subject over several months, individualizing the discussion, or simply choosing "a good day" for the PSH resident. Still,

interventions to strengthen variable relationships between PSH staff and residents or outside facilitators/trusted peer counselors may be needed in some cases.

The PREPARE easy-to-read AD and video guides appear to improve PSH residents' ability to engage by providing real-time education and step-by-step modeling of ACP. The existing PREPARE tools may be useful to model several ACP topics (i.e., discussions with surrogates and medical providers). Training staff how to use PREPARE tools may also improve staff confidence and motivation to facilitate. Suggestions for change include adding information about pets, belongings, and estranged family to the easy-to-read ADs and showing examples of PSH residents in the video stories.

The well-described familiarity with end of life and chronic illness among PSH residents and staff may create an opportunity to introduce ACP in a group setting. In primary care, groups have been shown to be effective in engaging patients in ACP.[31-34] Despite complex relationship dynamics in PSH, groups may be an important option in this resource-limited setting. Per PSH resident comments, restricting group size, allowing resident self-selection, and providing options for alternative one-on-one sessions may be important considerations to improve engagement. Future studies will explore the most effective role, scope of responsibility, and needed training methods for PSH staff in ACP.

Limitations

Generalizability of our findings is limited due to potential bias related to recruitment from a single region, the small sample size, and exclusion of participants who are non-English speaking or have hearing or vision impairment. Due to the COVID-19 pandemic, we used convenience sampling and recruited participants virtually. This may have led to selection bias in favor of participants with interest in ACP engagement and capability bias in favor of participants with greater technological ability, cognitive faculty, or psychosocial capacity.

CONCLUSIONS AND IMPLICATIONS

The population of older adults experiencing chronic homelessness is increasing with high rates of morbidity and mortality. Innovative and novel strategies for ACP engagement are needed. Future ACP interventions may improve success by addressing behavioral barriers and leveraging facilitators. Future studies should explore utilization of easy-to-use ACP materials, including PREPARE for Your Care, and development of resources to educate PSH residents, train staff, and model the ACP process in groups or one-on-one sessions.

ACKNOWLEDGEMENTS

We would like to express our sincere gratitude to the Community Advisory Board, who provided guidance and support during this study.

Financial conflicts: S. Pajka was funded by the Medical Student Training in Aging Research Program and the National Institute on Aging, National Institutes of Health (T35AG026736). Dr. Sudore is funded in part by the National Institute on Aging, National Institutes of Health (K24AG054415). Dr. Kushel is funded in part by the National Institute on Aging, National Institutes of Health (K24AG046372). Drs. Sudore, Kushel, and Handley are funded in part by the National Institute of Health (R34AG065600).

Author Contributions

SEP, RS, MK, MAH, PO, BL, and CE contributed to study design, results analysis, and implementation. SEP wrote the manuscript with contributions from RS, MK, MAH, LK, BL, and CE.

Sponsor's Role: None

REFERENCES

1. The annual homeless assessment report to Congress. In. *Part 1: Point-in-Time Estimates of Homelessness*. Washington, D.C.: U.S. Dept. of Housing and Urban Development, Office of Community Planning and Development; 2019:104.
2. Hahn JA, Kushel MB, Bangsberg DR, Riley E, Moss AR. BRIEF REPORT: the aging of the homeless population: fourteen-year trends in San Francisco. *J Gen Intern Med.* 2006;21(7):775-778.
3. Brown RT, Kiely DK, Bharel M, Mitchell SL. Geriatric syndromes in older homeless adults. *J Gen Intern Med.* 2012;27(1):16-22.
4. Fazel S, Geddes JR, Kushel M. The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. *Lancet.* 2014;384(9953):1529-1540.
5. Brown RT, Hemati K, Riley ED, et al. Geriatric Conditions in a Population-Based Sample of Older Homeless Adults. *Gerontologist.* 2017;57(4):757-766.
6. 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.* 2017;53(5):821-832 e821.
7. Sudore RL, Cuervo IA, Tieu L, Guzman D, Kaplan LM, Kushel M. Advance Care Planning for Older Homeless-Experienced Adults: Results from the Health Outcomes of People Experiencing Homelessness in Older Middle Age Study. *J Am Geriatr Soc.* 2018;66(6):1068-1074.
8. Morrison RS, Meier DE, Arnold RM. What's Wrong With Advance Care Planning? *JAMA.* 2021;326(16):1575-1576.
9. 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.* 2021;69(1):234-244.
10. Fried TR. Giving up on the objective of providing goal-concordant care: advance care planning for improving caregiver outcomes. *J Am Geriatr Soc.* 2022.
11. Rennels CF, Barnes DE, Volow A, Shi Y, Li B, Sudore RL. PREPARE for your care and easy-to-read advance directives increase real-time goal concordant care. *J Am Geriatr Soc.* 2022.
12. Song J, Wall MM, Ratner ER, Bartels DM, Ulvestad N, Gelberg L. Engaging homeless persons in end of life preparations. *J Gen Intern Med.* 2008;23(12):2031-2036; quiz 2037-2045.
13. Kaplan LM, Sudore RL, Arellano Cuervo I, Bainto D, Olsen P, Kushel M. Barriers and Solutions to Advance Care Planning among Homeless-Experienced Older Adults. *J Palliat Med.* 2020;23(10):1300-1306.
14. National Academies of Sciences E, Medicine. *Permanent Supportive Housing: Evaluating the Evidence for Improving Health Outcomes Among People Experiencing Chronic Homelessness.* Washington, DC: The National Academies Press; 2018.
15. Aubry T, Bloch G, Brcic V, et al. Effectiveness of permanent supportive housing and income assistance interventions for homeless individuals in high-income countries: a systematic review. *Lancet Public Health.* 2020;5(6):e342-e360.

16. Raven MC, Niedzwiecki MJ, Kushel M. A randomized trial of permanent supportive housing for chronically homeless persons with high use of publicly funded services. *Health Serv Res.* 2020;55 Suppl 2(S2):797-806.
17. Tsemberis S, Gulcur L, Nakae M. Housing First, consumer choice, and harm reduction for homeless individuals with a dual diagnosis. *American journal of public health.* 2004;94(4):651-656.
18. Sudore RL, Boscardin J, Feuz MA, McMahan RD, Katen MT, Barnes DE. Effect of the PREPARE Website vs an Easy-to-Read Advance Directive on Advance Care Planning Documentation and Engagement Among Veterans: A Randomized Clinical Trial. *JAMA Intern Med.* 2017;177(8):1102-1109.
19. Sudore RL, Schillinger D, Katen MT, et al. Engaging Diverse English- and Spanish-Speaking Older Adults in Advance Care Planning: The PREPARE Randomized Clinical Trial. *JAMA Intern Med.* 2018;178(12):1616-1625.
20. Erkinjuntti T, Sulkava R, Wikstrom J, Autio L. Short Portable Mental Status Questionnaire as a screening test for dementia and delirium among the elderly. *J Am Geriatr Soc.* 1987;35(5):412-416.
21. Sudore RL, Landefeld CS, Barnes DE, et al. An advance directive redesigned to meet the literacy level of most adults: a randomized trial. *Patient Educ Couns.* 2007;69(1-3):165-195.
22. Michie SA, L.; West, R. *The Behaviour Change Wheel: A Guide to Designing Interventions.* London: Silverback Publishing; 2014.
23. Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implement Sci.* 2011;6:42.
24. Cane J, O'Connor D, Michie S. Validation of the theoretical domains framework for use in behaviour change and implementation research. *Implement Sci.* 2012;7(1):37.
25. Atkins L, Francis J, Islam R, et al. A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. *Implement Sci.* 2017;12(1):77.
26. Michie S, Johnston M, Francis J, Hardeman W, Eccles M. From Theory to Intervention: Mapping Theoretically Derived Behavioural Determinants to Behaviour Change Techniques. *Applied Psychology.* 2008;57(4):660-680.
27. Thomas DR. A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation.* 2006;27(2):237-246.
28. Michie S, Johnston M, Abraham C, et al. Making psychological theory useful for implementing evidence based practice: a consensus approach. *Qual Saf Health Care.* 2005;14(1):26-33.
29. Flannery C, McHugh S, Anaba AE, et al. Enablers and barriers to physical activity in overweight and obese pregnant women: an analysis informed by the theoretical domains framework and COM-B model. *BMC Pregnancy Childbirth.* 2018;18(1):178.
30. Cowdell F, Dyson J. How is the theoretical domains framework applied to developing health behaviour interventions? A systematic search and narrative synthesis. *BMC public health.* 2019;19(1):1180.
31. Lum HD, Dukes J, Daddato AE, et al. Effectiveness of Advance Care Planning Group Visits Among Older Adults in Primary Care. *J Am Geriatr Soc.* 2020;68(10):2382-2389.

32. Lum HD, Jones J, Matlock DD, et al. Advance Care Planning Meets Group Medical Visits: The Feasibility of Promoting Conversations. *Ann Fam Med.* 2016;14(2):125-132.
33. Lum HD, Sudore RL, Matlock DD, et al. A Group Visit Initiative Improves Advance Care Planning Documentation among Older Adults in Primary Care. *J Am Board Fam Med.* 2017;30(4):480-490.
34. Zapata C, Lum HD, Wistar E, Horton C, Sudore RL. Feasibility of a Video-Based Advance Care Planning Website to Facilitate Group Visits among Diverse Adults from a Safety-Net Health System. *J Palliat Med.* 2018;21(6):853-856.
35. Handley MA, Harleman E, Gonzalez-Mendez E, et al. Applying the COM-B model to creation of an IT-enabled health coaching and resource linkage program for low-income Latina moms with recent gestational diabetes: the STAR MAMA program. *Implement Sci.* 2016;11(1):73.
36. Thompson LM, Diaz-Artiga A, Weinstein JR, Handley MA. Designing a behavioral intervention using the COM-B model and the theoretical domains framework to promote gas stove use in rural Guatemala: a formative research study. *BMC public health.* 2018;18(1):253.
37. Mangurian C, Niu GC, Schillinger D, Newcomer JW, Dilley J, Handley MA. Utilization of the Behavior Change Wheel framework to develop a model to improve cardiometabolic screening for people with severe mental illness. *Implement Sci.* 2017;12(1):134.
38. Ayakaka I, Ackerman S, Ggita JM, et al. Identifying barriers to and facilitators of tuberculosis contact investigation in Kampala, Uganda: a behavioral approach. *Implement Sci.* 2017;12(1):33.

LEGENDS

Figure 1. We applied the Capability Opportunity Motivation Behavior (COM-B) model to understand barriers and facilitators to ACP. Each of the qualitative themes are organized within five of the six COM-B subcategories (psychological capability, social opportunity, physical opportunity, automatic motivation, reflective motivation; not shown: physical capability). Barriers are represented with rounded rectangles and facilitators with dotted ovals. The COM-B model integrates with the Theoretical Domain Framework (TDF) and the Behavior Change Wheel model [25,35-38] to provide behavior change strategies for implementation. Solid lines connect identified barriers and facilitators to one or more TDF domain, and behavior change strategies to target the TDF domains are listed.