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Improving Advanced Care Planning Discussions at an Internal Medicine Clinic

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Abstract

Objective: The project aimed to standardize advanced care planning (ACP) at an internal medicine clinic by initiating physician-patient communication regarding the patient's knowledge, understanding, and openness to pursuing advanced medical directives.

Methods: Data collection was conducted from February 1 to April 1, 2024, with the study concluding on April 24, 2024. ACP was facilitated through an initial standardized six-question pre-intervention survey in both English and Spanish. This pre-survey included questions on prior survey exposure within the past three months, current age, existing or previous medical conditions, possession of an advance directive (e.g., living will or durable power of attorney for healthcare), and interest in learning more about advanced medical directives. For patients interested in learning more, standardized educational materials from the National Institute on Aging were provided, along with a Texas out-of-hospital do-not-resuscitate (OOH-DNR) order, a Medical Power of Attorney form, and instructions in both English and Spanish. Post-education, patients completed a post-intervention survey asking if they had previously discussed advanced medical directives with a physician. The survey also included Likert scale questions about the discussion's usefulness, comfort with end-of-life discussions, perceived importance of advanced directives, and likelihood of completing an advance directive.

Results: During the three months, 52 patients completed the pre-intervention survey, with an average age of 59 years. Hypertension, dyslipidemia, and diabetes were the most common conditions among participants. Statistical tests indicated no significant difference between patients' age or number of comorbidities and possession of an advance directive ($p > 0.05$), nor was there a significant association between these variables and interest in learning more about advanced directives ($p > 0.05$). However, post-intervention survey results showed a significant correlation between age and prior discussions about advanced directives ($p = 0.013$) and between the number of comorbidities and having had past discussions ($p = 0.025$). Only 1.2% of patients reported having advanced directives before this study, highlighting a substantial gap in documentation.

Conclusion: This project revealed a notable gap in ACP documentation among patients at the internal medicine clinic, with very few patients having advanced directives prior to the intervention. While age and comorbidity count were not significantly associated with interest in advanced directives, older patients and those with more comorbidities were more likely to have had previous discussions. This underscores the need for targeted efforts to encourage ACP, particularly among younger patients and those with fewer medical conditions. Standardized educational resources effectively facilitated discussions, raising awareness and promoting engagement in ACP.

Categories: Internal Medicine, Medical Education, Palliative Care
Keywords: advance care planning, general internal medicine, palliative care education, role of palliative care, supportive and palliative care

Introduction

The internal medicine clinic provides primary care to a diverse population, serving residents of neighboring nations near the border. Effective record-keeping is critical in this dynamic community to ensure continuity of care and facilitate decision-making during emergencies. Despite the importance of advanced care planning (ACP) and advanced medical directives in supporting informed decision-making, a meta-analysis from 2011 to 2016 found that only 36.7% of patients, and 38.2% of those with chronic illnesses, had documented directives [1]. The number of patients with such documentation at this clinic is unknown, and there is no standardized method to educate patients on ACP. This gap highlights the need for early physician-patient discussions and structured resources to improve patient care and preparedness for future healthcare decisions.

Materials And Methods

This study was conducted at the internal medicine clinic and aimed to address ACP and advanced medical directives with patients to improve overall patient care. The objective was to initiate discussions about ACP and provide advance medical directive instructions and resources to all willing patients. This aimed to enhance awareness, education, and the prevalence of advanced medical directives among clinic patients. The study included all patients aged 18 years and older with appointments at the clinic from February 1 to April 1, 2024. Patients under 17 years, those who refused to participate, those who did not complete the post-intervention survey before discharge, and those who answered “No” to Question 6 of the pre-appointment survey were excluded from the study. This single-group, cross-sectional study was conducted without patient randomization, with participants assigned to the study group based on inclusion and exclusion criteria.

Resident physicians conducted the study within the internal medicine residency program, and institutional board review (IRB) exemption was granted on January 31, 2024 (E24038), after initial submission on December 6, 2023, and necessary modifications. Data collection took place from February 1 to April 1, 2024. Data collected included the patient's age, comorbidities, advance medical directive completion status, and responses to a post-intervention survey when applicable. A numerical code was assigned to each patient, recorded separately in a Coded Identifier List to link pre-appointment and post-intervention surveys, without containing identifying information. The Excel (Microsoft Corp., Redmond, Washington, DC) file containing the data was saved on a secured, password-protected computer in the principal investigator's locked office. All personnel received training on proper data handling to minimize privacy risks, and data were stored on an encrypted device. Additionally, paper documents were destroyed after being digitized.

Data confidentiality was maintained by recording information in a Microsoft Excel document, with columns representing variables and each row representing individual participants. No identifiable information, such as names or biographical data, was recorded. Each patient received a random numerical code to link surveys, ensuring anonymity. The Excel document was stored on a secure device accessible only to IRB-approved personnel. Paper surveys were kept in the principal investigator’s (PI) locked office, and all documents identifying subjects were destroyed upon study completion per IRB procedures.

During the study, all eligible patients who agreed to participate received an anonymous pre-intervention survey in English or Spanish at intake to capture baseline information on ACP. This survey assessed whether the patient had an advance medical directive and whether they wanted to receive education on ACP (Appendix A). Patients had three to four minutes to complete this survey to establish baseline knowledge of ACP and determine if they had completed an advance medical directive. Patients could opt out of the study at any time. For those interested in additional information on ACP, internal medicine residents provided standardized education from the National Institute on Aging website. This educational material explained ACP, the nature and importance of advanced medical directives, and the process for completing them. Patients had five to 10 minutes to review the information during the visit.

Patients who expressed interest in learning about ACP received printed copies of an out-of-hospital do-not-resuscitate (OOH-DNR) order and a Medical Power of Attorney form, along with bilingual instructions for form completion (Appendices B, C). Following the educational intervention, patients completed a post-intervention survey in English or Spanish, providing feedback on the education and their opinions on end-of-life planning (Appendix D). This survey, completed within three to four minutes, allowed patients to express their views on the education provided, maintaining anonymity and excluding any identifying characteristics.

Results

During the three months, 52 patients completed the ACP pre-intervention survey. The average age of the responding patients was found to be 59 years. The survey revealed that the three most prevalent diseases were hypertension (n=28, 53.8%), dyslipidemia (n=28, 48.1%), and diabetes (n=22, 42.3%). These results, along with the other surveyed comorbidities, are represented in Figure *1*.

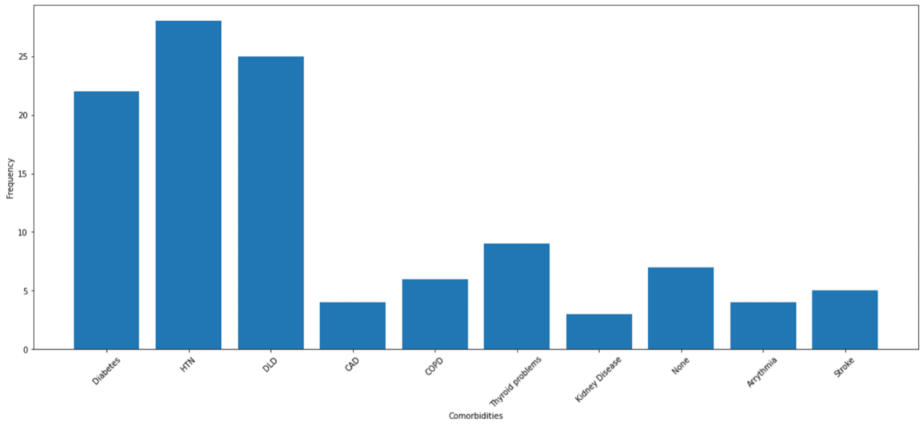

FIGURE 1: Distribution of diagnoses among patients

HTN: Hypertension; DLD: Dyslipidemia; CAD: Coronary Artery Disease; COPD: Chronic Obstructive Pulmonary Disease

The fourth question of the ACP pre-intervention survey asked if patients had advanced medical directives prior to the visit. Of the 52 responding patients, three reported having advanced directives (1.2%), 10 were unsure if they had advanced directives (19.2%), and 39 reported not having advanced directives (75%) (Figure *2*). A t-test was performed and found no statistically significant difference between patients' age or number of comorbidities and having an advance medical directive ($p > 0.05$).

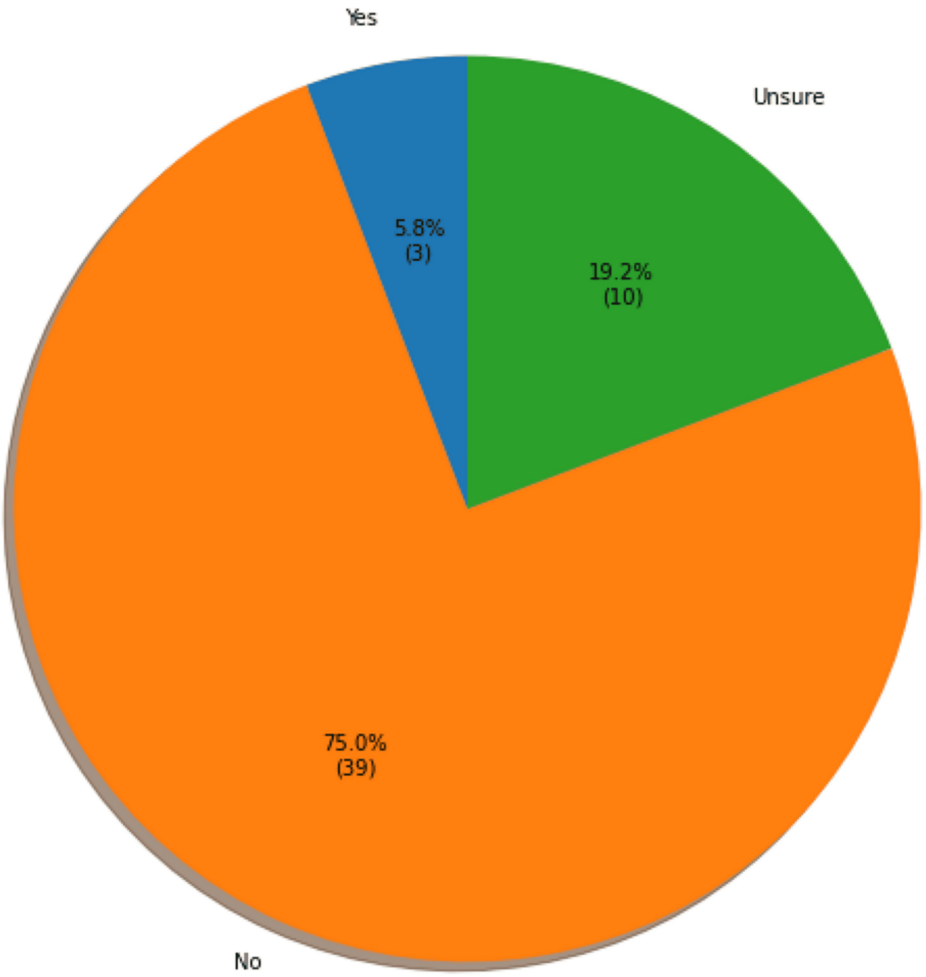

FIGURE 2: Patient responses on having advanced medical directives (N=52)

The ACP pre-intervention survey also captured patients' attitudes toward learning more about advanced medical directives during their appointments. Twenty-two patients expressed interest in learning more about advanced medical directives, while 30 declined (Figure 3). The performed t-test suggested no statistically significant difference between patients' number of comorbidities or age and their interest in learning more about advanced medical directives ($p > 0.05$).

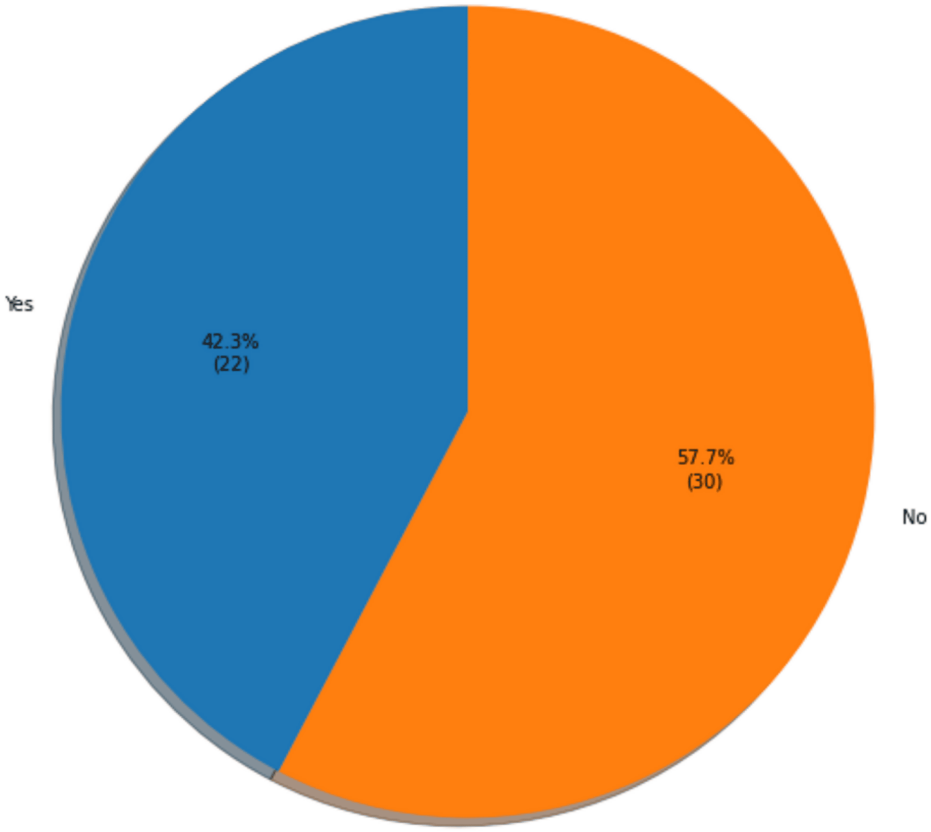

FIGURE 3: Patient interest in learning about advanced medical directives (N=52)

Of the 52 patients who completed the ACP pre-intervention survey, 23 completed the ACP post-intervention survey. The initial question in the survey asked if patients had ever had discussions about advanced medical directives with a physician prior to the visit. Ten patients (43.5%) reported having such discussions in the past, while 13 (56.5%) stated they had never had advance medical directive discussions before (Figure *4*). The performed t-test suggested a statistical significance between the patient's age and the likelihood of having had an advanced medical directives discussion prior to this study ($p = 0.013$). There was also a significant correlation between the number of comorbidities and having had past discussions ($p = 0.025$).

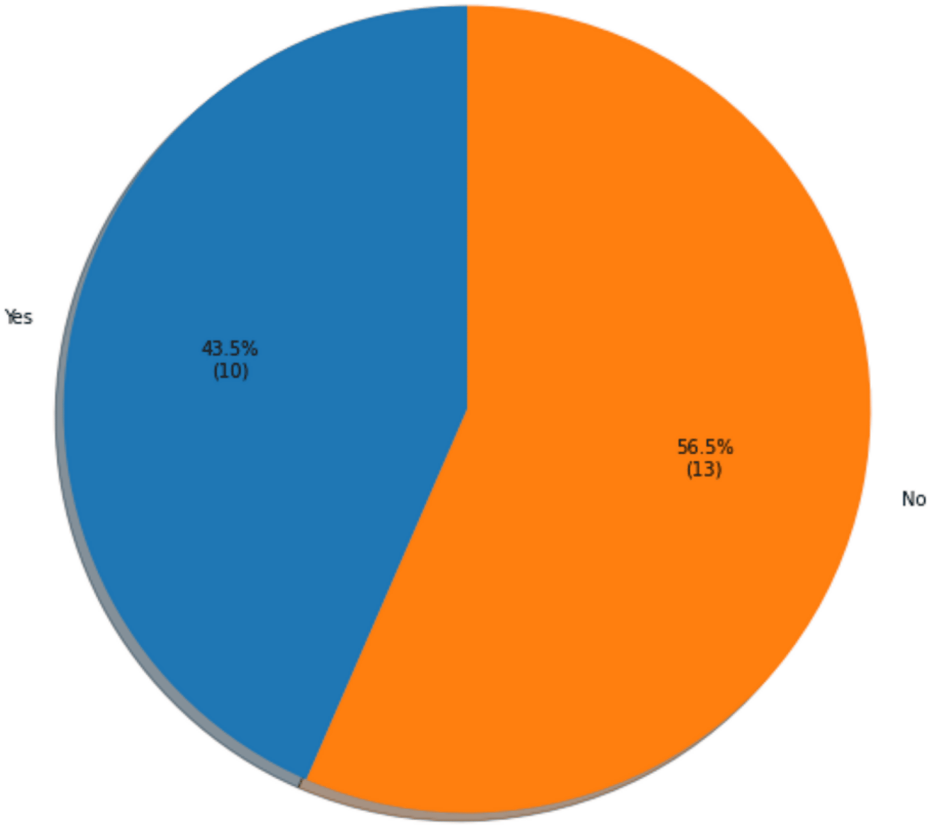

FIGURE 4: Previous discussions about advanced medical directives with a provider (N=23)

Questions 2 through 5 were Likert scale questions. Question 2, “This advance medical directive conversation was helpful,” had 15 patients (65.2%) respond “strongly agree,” seven (30.4%) respond “agree,” and one (4.3%) respond “neither agree nor disagree.” Question 3, “I am uncomfortable with end-of-life discussions," had six patients (26.1%) respond “strongly agree,” eight (34.8%) respond “agree,” two (8.7%) respond “neither agree nor disagree,” five (21.7%) respond “disagree,” and two (8.7%) respond “strongly disagree.” Question 4, “I see the importance of having advanced medical directives,” had 17 patients (73.9%) respond “strongly agree” and six (26.1%) respond “agree.” Question 5, “I now plan on completing my advanced medical directives in the future,” had 13 patients (56.5%) respond “strongly agree,” nine (39.1%) respond “agree,” and one (4.3%) respond “neither agree nor disagree.” These results are represented in Figure *5*. As for the reasons for not pursuing advanced directives, three patients (13.0%) responded that they did not know how to start, and one patient (4.3%) stated they did not find it necessary. The remaining patients did not respond.

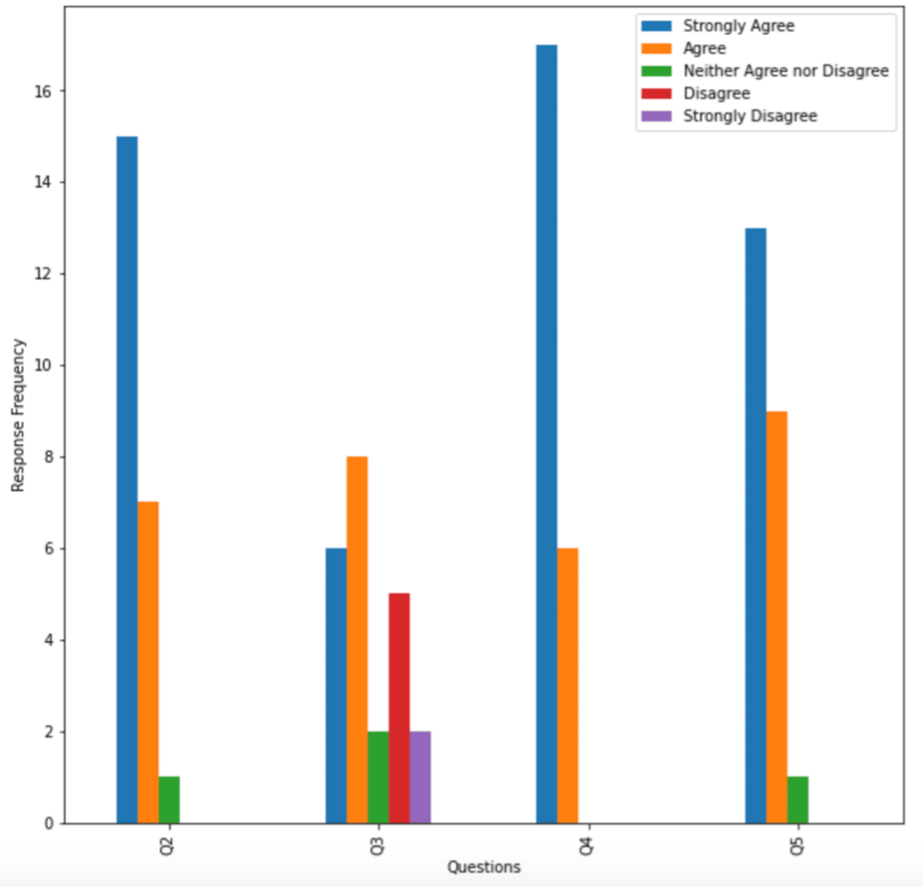

FIGURE 5: Patient responses to Likert-scale questions on advanced medical directives

Discussion

Publishing these findings is extremely significant for several reasons. Firstly, by standardizing ACP discussions, this study demonstrates a clear pathway to improving patient care through better preparation for end-of-life decisions [1]. Ensuring that patients' wishes are known and respected can reduce stress for both patients and their families during critical times, particularly when patients are unable to communicate their preferences [1]. This aligns with prior research by Silveira et al., which highlighted that patients with advanced directives are more likely to receive care consistent with their values and wishes, reducing the burden on surrogate decision-makers [1].

This intervention also provided valuable education to patients, many of whom may not have been previously aware of or understood advanced directives [2]. Education is a critical component in ACP, as demonstrated by Bravo et al., who found that structured educational interventions significantly increased the completion rates of advanced directives among community-dwelling older adults [3]. The inclusion of culturally and linguistically appropriate materials, as implemented in this study, is crucial for ensuring that diverse patient populations can fully engage in ACP discussions [4]. Sudore et al. emphasized the need for culturally sensitive ACP discussions, particularly in diverse populations similar to those served in this study [4].

Moreover, the project's methodology and findings can serve as a model for other clinics and healthcare institutions [5]. A systematic approach to ACP discussions promotes the integration of standardized practices into routine care, leading to widespread improvements in how advanced directives are handled across different healthcare settings [5]. Studies by Morrison et al. and Detering et al. have further supported that culturally tailored ACP interventions lead to higher engagement and completion rates among minority groups [6,7].

This is particularly important in primary care settings, where long-term patient-provider relationships can facilitate ongoing ACP discussions, as suggested by Tung et al. [8]. The standardized approach used in this study is in line with best practices outlined by Lund et al., who found that systematic implementation of ACP in clinical settings can lead to higher rates of advance directive completion and greater patient satisfaction [2]. Similar findings were reported by Jimenez et al., who highlighted the global lessons learned

from systematic reviews of ACP [9]. Rietjens et al. also emphasized the importance of continuity of care in successful ACP implementation [10].

The results of this study further highlight its significance to current literature on ACP [9]. During the three months, 52 patients completed the pre-intervention survey, with an average age of 59 years [1]. The survey revealed that hypertension, dyslipidemia, and diabetes were the most prevalent diseases among participants, conditions often associated with higher healthcare utilization and potential complications that necessitate clear advance care plans [1]. Notably, only 1.2% of patients reported having advanced directives prior to the study, underscoring a significant gap in ACP documentation in this population [1]. This finding is consistent with national data reported by Yadav et al., which showed that approximately one-third of U.S. adults have completed some form of advance directive [11]. Furthermore, a study by Rao et al. indicated that chronic conditions like those prevalent in this population often correlate with a higher desire for ACP, yet the completion rates remain low due to systemic barriers [12].

The post-intervention survey results showed a substantial increase in the number of patients who had discussed advanced directives, with 43.5% of participants engaging in these conversations [1]. A significant number of patients found the discussions helpful and recognized the importance of having advanced directives, which is supported by evidence from Jimenez et al., who demonstrated that ACP discussions improve patient and family satisfaction with end-of-life care [9]. These results align with findings by Wright et al., who demonstrated that early ACP discussions significantly reduced anxiety and depression among patients with serious illnesses [13]. Similarly, a randomized controlled trial by Houben et al. showed that ACP discussions are associated with better alignment of care with patients' wishes and fewer unwanted hospitalizations near the end of life [5].

Furthermore, the study addresses significant gaps in the literature regarding ACP in specific demographics, particularly older adults with multiple comorbidities [8]. Research by Tung et al. suggests that older adults with multiple comorbidities are more likely to engage in ACP discussions, a finding that was corroborated by this study's data, which highlighted the association between comorbidities and prior ACP discussions [8]. Additionally, studies such as those by Song et al. have shown that tailored interventions, like the ones implemented in this project, can significantly increase the completion rates of advanced directives among patients, particularly in populations with chronic illnesses [14]. Zhang et al. also noted that patients with multiple chronic conditions benefit most from ACP, as it helps align their complex care needs with their values [15].

The implications of these findings are broad, extending beyond individual patient care to inform policy and training programs for healthcare providers [5]. Integrating ACP discussions early in the patient care process, particularly in primary care settings, is critical for ensuring that patients' preferences are documented and respected throughout their healthcare journey [5]. Kavalieratos et al. found that early integration of palliative care, including ACP, is associated with improved patient and caregiver outcomes, including reduced hospitalizations and enhanced quality of life [16]. This is particularly pertinent in a clinic setting where continuity of care and clear communication are crucial for effective patient management. The importance of healthcare provider training in ACP was emphasized by Lum et al., who found that well-trained providers are more likely to initiate and complete ACP discussions [17].

The importance of addressing ACP during public health crises, such as the COVID-19 pandemic, has also been highlighted in recent literature. It was noted that the pandemic has brought ACP to the forefront, emphasizing the need for healthcare providers to engage in these discussions proactively [18]. This aligns with the findings from this study, which underscore the necessity of standardized ACP practices to prepare for unforeseen circumstances and ensure that patient's wishes are respected even during crises [18]. A study by Curtis et al. during the pandemic also highlighted the critical role of ACP in reducing the burden on healthcare systems by ensuring that patient care aligns with their preferences, particularly when resources are limited [18].

In addition to primary care and public health settings, ACP has been shown to have significant implications in specialty care. For instance, Mack et al. demonstrated that end-of-life discussions in oncology settings are associated with better patient outcomes and reduced distress [19]. Similarly, Mullick et al. highlighted the importance of integrating ACP into routine practice across various specialties to ensure that patients' wishes are consistently respected [20]. Studies in cardiology and nephrology settings, such as those by Schell et al., have further validated the positive impact of ACP on patient satisfaction and care quality [21].

This project on improving ACP discussions demonstrates a significant advancement in patient care practices [1]. The standardized approach not only educates and empowers patients but also provides a replicable model for other healthcare institutions [5]. The findings, supported by recent literature, underscore the importance of targeted ACP interventions and their positive impact on patient outcomes and healthcare practices [9]. Future research should explore the long-term effects of such interventions on healthcare utilization and patient satisfaction, particularly in diverse and underserved populations. Moreover, the ongoing development of ACP tools and resources, as discussed by Bristowe et al., will be essential in supporting both patients and healthcare providers in the future [22].

Limitations

This study has several limitations that should be acknowledged. First, the sample size was relatively small, with only 52 patients completing the pre-intervention survey and 23 patients completing the post-intervention survey. This small sample size may limit the generalizability of the findings to the broader population served by the internal medicine clinic. Larger studies with more diverse patient populations are needed to confirm these results and determine whether the observed improvements in ACP discussions can be replicated in different settings.

Second, the study was conducted over a short duration of only three months. This limited timeframe may not have been sufficient to capture the long-term effects of the intervention on patient behavior and outcomes. For instance, while the post-intervention survey indicated an increased likelihood of patients completing advanced directives, it remains unclear whether these intentions translated into actual behavior change over time. A longer follow-up period would be necessary to assess the sustainability of the intervention's impact.

Finally, the study relied on self-reported data from patients, which may be subject to response bias. Patients may have provided socially desirable answers, particularly regarding their comfort with end-of-life discussions and their intentions to complete advanced directives. Additionally, the study did not include a control group, making it difficult to determine whether the observed changes were solely attributable to the intervention or if other external factors may have influenced the results. Future studies should consider including a control group and using objective measures, such as the actual completion rates of advanced directives, to strengthen the validity of the findings.

Conclusions

This project on improving ACP discussions demonstrates a significant advancement in patient care practices. The standardized approach not only educates and empowers patients but also provides a replicable model for other healthcare institutions. The findings, supported by recent literature, underscore the importance of targeted ACP interventions and their positive impact on patient outcomes and healthcare practices.

Appendices

Appendix A

Advance Care Planning Pre-intervention Survey

You are being asked to take part in a research study about advance care planning discussions at Texas Tech University Health Sciences Center El Paso – Internal Medicine Clinic to improve advance care planning discussions between physicians and patients. Your responses are completely anonymous and cannot be linked back to you. Participation is voluntary. If you are a student or employee, your participation in this study will have no effect on your grades or employment status. Completing the two surveys will take about 2-3 minutes each to complete. By providing responses to the questions, you are providing consent to participate in the research study. If you have any questions or concerns, please contact the Principal Investigator at: Sarosiek, Irene/Irene.Sarosiek@ttuhsc.edu/9152155254. This protocol has been acknowledged by the Institutional Review Board under IRB # **E24038.**

Patient instructions: Circle the letter(s) or fill in the blank with the most appropriate answers after reading the following question(s).

1. I have been provided with this survey in the past 3 months?
    a. Yes (If yes, do not complete the remainder of the survey)
    b. No

2. Age: _____

3. Diagnoses (Circle all that apply to you):
    a. Diabetes
    b. Kidney Disease
    c. Peripheral Artery Disease
    d. Coronary Artery Disease (Previous Heart Attack)
    e. High blood pressure
    f. High cholesterol
    g. Arrythmia (Atrial Fibrillation, Atrial Flutter, Supraventricular Tachycardia, etc.)
    h. Stroke
    i. Thyroid problems
    j. COPD/Asthma/Breathing problems

4. Do you have advance medical directives?
    a. Yes
    b. No

IRB NUMBER: E24038
IRB APPROVAL DATE: 01/31/2024

FIGURE 6: Advance care planning pre-intervention survey English part 1 of 2

c. I am unsure

5. Advance medical directives are legal documents (living will and/or durable power of attorney for health care) that tells doctors and caregivers what you want them to do if you become seriously ill or unable to communicate your wishes. This can happen if you are in a coma, have a severe brain injury, or are otherwise unconscious or unable to communicate. They come in 2 forms. Do you have either one of these?

a. Living will: This document tells doctors what kind of medical care you want at the end of your life. For example, you might say that you do not want to be put on life support (CPR/Intubation) if you are terminally ill.
b. Durable power of attorney for health care: This document names a person to make decisions about your medical care if you are unable to do so yourself. This person is called your health care proxy.

6. Would you like to learn more about advance medical directives during this appointment?

a. Yes
b. No

FIGURE 7: Advance care planning pre-intervention survey English part 2 of 2

Appendix B

Figure: 25 TAC §157.25 (h)(2)

OUT-OF-HOSPITAL DO-NOT-RESUSCITATE (OOH-DNR) ORDER

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Print Form

STOP DO NOT RESUSCITATE

This document becomes effective immediately on the date of execution for health care professionals acting in out-of-hospital settings. It remains in effect until the person is pronounced dead by authorized medical or legal authority or the document is revoked. Comfort care will be given as needed.

Person's full legal name _____ Date of birth _____ ☐ Male ☐ Female

A. Declaration of the adult person: I am competent and at least 18 years of age. **I direct that none of the following resuscitation measures be initiated or continued for me: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Person's signature _____ Date _____ Printed name _____

B. Declaration by legal guardian, agent or proxy on behalf of the adult person who is incompetent or otherwise incapable of communication:

I am the: ☐ legal guardian; ☐ agent in a Medical Power of Attorney; OR ☐ proxy in a directive to physicians of the above-noted person who is incompetent or otherwise mentally or physically incapable of communication.

Based upon the known desires of the person, or a determination of the best interest of the person, **I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Signature _____ Date _____ Printed name _____

C. Declaration by a qualified relative of the adult person who is incompetent or otherwise incapable of communication: I am the above-noted person's:

☐ spouse, ☐ adult child, ☐ parent, OR ☐ nearest living relative, and I am qualified to make this treatment decision under Health and Safety Code §166.088.

To my knowledge the adult person is incompetent or otherwise mentally or physically incapable of communication and is without a legal guardian, agent or proxy. Based upon the known desires of the person or a determination of the best interests of the person, **I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Signature _____ Date _____ Printed name _____

D. Declaration by physician based on directive to physicians by a person now incompetent or nonwritten communication to the physician by a competent person: I am the above-noted person's attending physician and have:

☐ seen evidence of his/her previously issued directive to physicians by the adult, now incompetent; OR ☐ observed his/her issuance before two witnesses of an OOH-DNR in a nonwritten manner.

I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.

Attending physician's signature _____ Date _____ Printed name _____ Lic # _____

E. Declaration on behalf of the minor person: I am the minor's: ☐ parent; ☐ legal guardian; OR ☐ managing conservator.

A physician has diagnosed the minor as suffering from a terminal or irreversible condition. **I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Signature _____ Date _____

Printed name _____

TWO WITNESSES: (See qualifications on backside.) We have witnessed the above-noted competent adult person or authorized declarant making his/her signature above and, if applicable, the above-noted adult person making an OOH-DNR by nonwritten communication to the attending physician.

Witness 1 signature _____ Date _____ Printed name _____

Witness 2 signature _____ Date _____ Printed name _____

Notary in the State of Texas and County of _____. The above noted person personally appeared before me and signed the above noted declaration on this date _____.

Signature & seal: _____ Notary's printed name _____ *Notary Seal*

[Note: Notary cannot acknowledge the witnessing of the person making an OOH-DNR order in a nonwritten manner]

PHYSICIAN'S STATEMENT: I am the attending physician of the above-noted person and have noted the existence of this order in the person's medical records. **I direct health care professionals acting in out-of-hospital settings, including a hospital emergency department, not to initiate or continue for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Physician's signature _____ Date _____

Printed name _____ License # _____

F. Directive by two physicians on behalf of the adult, who is incompetent or unable to communicate and without guardian, agent, proxy or relative: The person's specific wishes are unknown, but resuscitation measures are, in reasonable medical judgment, considered ineffective or are otherwise not in the best interests of the person. **I direct health care professionals acting in out-of-hospital settings, including a hospital emergency department, not to initiate or continue for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Attending physician's signature _____ Date _____ Printed name _____ Lic# _____

Signature of second physician _____ Date _____ Printed name _____ Lic# _____

Physician's electronic or digital signature must meet criteria listed in Health and Safety Code §166.082(c).

All persons who have signed above must sign below, acknowledging that this document has been properly completed.

Person's signature _____ Guardian/Agent/Proxy/Relative signature _____

Attending physician's signature _____ Second physician's signature _____

Witness 1 signature _____ Witness 2 signature _____ Notary's signature _____

This document or a copy thereof must accompany the person during his/her medical transport.

FIGURE 8: Out-of-hospital do-not-resuscitate (OOH-DNR) form English part 1 of 2

INSTRUCTIONS FOR ISSUING AN OOH-DNR ORDER

PURPOSE: The Out-of-Hospital Do-Not-Resuscitate (OOH-DNR) Order on reverse side complies with Health and Safety Code (HSC), Chapter 166 for use by qualified persons or their authorized representatives to direct health care professionals to forgo resuscitation attempts and to permit the person to have a natural death with peace and dignity. This Order does NOT affect the provision of other emergency care, including comfort care.
APPLICABILITY: This OOH-DNR Order applies to health care professionals in out-of-hospital settings, including physicians' offices, hospital clinics and emergency departments.
IMPLEMENTATION: A competent adult person, at least 18 years of age, or the person's authorized representative or qualified relative may execute or issue an OOH-DNR Order. The person's attending physician will document existence of the Order in the person's permanent medical record. The OOH-DNR Order may be executed as follows:
Section A - If an adult person is competent and at least 18 years of age, he/she will sign and date the Order in Section A.
Section B - If an adult person is incompetent or otherwise mentally or physically incapable of communication and has either a legal guardian, agent in a medical power of attorney, or proxy in a directive to physicians, the guardian, agent, or proxy may execute the OOH-DNR Order by signing and dating it in Section B.
Section C - If the adult person is incompetent or otherwise mentally or physically incapable of communication and does not have a guardian, agent, or proxy, then a qualified relative may execute the OOH-DNR Order by signing and dating it in Section C.
Section D - If the person is incompetent and his/her attending physician has seen evidence of the person's previously issued proper directive to physicians or observed the person competently issue an OOH-DNR Order in a nonwritten manner, the physician may execute the Order on behalf of the person by signing and dating it in Section D.
Section E - If the person is a **minor** (less than 18 years of age), **who has been diagnosed by a physician as suffering from a terminal or irreversible condition**, then the minor's parents, legal guardian, or managing conservator may execute the OOH-DNR Order by signing and dating it in Section E.
Section F - If an adult person is incompetent or otherwise mentally or physically incapable of communication and does not have a guardian, agent, proxy, or available qualified relative to act on his/her behalf, then the attending physician may execute the OOH-DNR Order by signing and dating it in Section F with concurrence of a second physician (signing it in Section F) who is not involved in the treatment of the person or who is a representative of the ethics or medical committee of the health care facility in which the person is a patient.
In addition, the OOH-DNR Order must be signed and dated by two competent adult witnesses, who have witnessed either the competent adult person making his/her signature in section A, or authorized declarant making his/her signature in either sections B, C, or E, and if applicable, have witnessed a competent adult person making an OOH-DNR Order by nonwritten communication to the attending physician, who must sign in Section D and also the physician's statement section. Optionally, a competent adult person or authorized declarant may sign the OOH-DNR Order in the presence of a notary public. However, a notary cannot acknowledge witnessing the issuance of an OOH-DNR in a nonwritten manner, which must be observed and only can be acknowledged by two qualified witnesses. Witness or notary signatures are not required when two physicians execute the OOH-DNR Order in section F. The original or a copy of a fully and properly completed OOH-DNR Order or the presence of an OOH-DNR device on a person is sufficient evidence of the existence of the original OOH-DNR Order and either one shall be honored by responding health care professionals.
REVOCATION: An OOH-DNR Order may be revoked at ANY time by the person, person's authorized representative, or physician who executed the order. Revocation can be by verbal communication to responding health care professionals, destruction of the OOH-DNR Order, or removal of all OOH-DNR identification devices from the person.
AUTOMATIC REVOCATION: An OOH-DNR Order is automatically revoked for a person known to be pregnant or in the case of unnatural or suspicious circumstances.

DEFINITIONS

Attending Physician: A physician, selected by or assigned to a person, with primary responsibility for the person's treatment and care and is licensed by the Texas Medical Board, or is properly credentialed and holds a commission in the uniformed services of the United States and is serving on active duty in this state, [HSC §166.002(12)].
Health Care Professional: Means physicians, nurses, physician assistants and emergency medical services personnel, and, unless the context requires otherwise, includes hospital emergency department personnel. [HSC §166.081(5)]
Qualified Relative: A person meeting requirements of HSC §166.088. It states that an adult relative may execute an OOH-DNR Order on behalf of an adult person who has not executed or issued an OOH-DNR Order and is incompetent or otherwise mentally or physically incapable of communication and is without a legal guardian, agent in a medical power of attorney, or proxy in a directive to physicians, and the relative is available from one of the categories in the following priority: 1) person's spouse; 2) person's reasonably available adult children; 3) the person's parents; or, 4) the person's nearest living relative. Such qualified relative may execute an OOH-DNR Order on such described person's behalf.
Qualified Witnesses: Both witnesses must be competent adults, who have witnessed the competent adult person making his/her signature in section A, or person's authorized representatives making his/her signature in either Sections B, C, or E on the OOH-DNR Order, or if applicable, have witnessed the competent adult person making an OOH-DNR by nonwritten communication to the attending physician, who signs in Section D. Optionally, a competent adult person, guardian, agent, proxy, or qualified relative may sign the OOH-DNR Order in the presence of a notary instead of two qualified witnesses. Witness or notary signatures are not required when two physicians execute the order by signing Section F. One of the witnesses must meet the qualifications in HSC §166.003(2), which requires that at least one of the witnesses not: (1) be designated by the person to make a treatment decision; (2) be related to the person by blood or marriage; (3) be entitled to any part of the person's estate after the person's death either under a will or by law; (4) have a claim at the time of the issuance of the OOH-DNR against any part of the person's estate after the person's death; or, (5) be the attending physician; (6) be an employee of the attending physician or (7) an employee of a health care facility in which the person is a patient if the employee is providing direct patient care to the patient or is an officer, director, partner, or business office employee of the health care facility or any parent organization of the health care facility.
Report problems with this form to the Texas Department of State Health Services (DSHS) or order OOH-DNR Order/forms or identification devices at (512) 834-6700.

Declarant's, Witness', Notary's, or Physician's electronic or digital signature must meet criteria outlined in HSC§166.011

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FIGURE 9: Out-of-hospital do-not-resuscitate (OOH-DNR) form English part 2 of 2

Appendix C

MEDICAL POWER OF ATTORNEY
DESIGNATION OF HEALTH CARE AGENT
Advance Directives Act (see §166.164, Health and Safety Code)

I, _____ (insert your name) appoint:

Name: _____

Address: _____

_____Phone: _____

as my agent to make any and all health care decisions for me, except to the extent I state otherwise in this document. This medical power of attorney takes effect if I become unable to make my own health care decisions and this fact is certified in writing by my physician.

LIMITATIONS ON THE DECISION-MAKING AUTHORITY OF MY AGENT ARE AS FOLLOWS:

_____

_____

_____

_____

DESIGNATION OF AN ALTERNATE AGENT:
(You are not required to designate an alternate agent but you may do so. An alternate agent may make the same health care decisions as the designated agent if the designated agent is unable or unwilling to act as your agent. If the agent designated is your spouse, the designation is automatically revoked by law if your marriage is dissolved annulled, or declared void unless this document provides otherwise.)

If the person designated as my agent is unable or unwilling to make health care decisions for me, I designate the following person(s) to serve as my agent to make health care decisions for me as authorized by this document, who serve in the following order:

First Alternate Agent

Name: _____

Address: _____

_____ Phone: _____

Second Alternate Agent

Name: _____

Address: _____

_____ Phone: _____

The original of the document is kept at _____

_____

The following individuals or institutions have signed copies:

Name: _____

Address: _____

_____

Name: _____

Address: _____

_____

FIGURE 10: Medical power of attorney form English part 1 of 4

DURATION

I understand that this power of attorney exists indefinitely from the date I execute this document unless I establish a shorter time or revoke the power of attorney. If I am unable to make health care decisions for myself when this power of attorney expires, the authority I have granted my agent continues to exist until the time I become able to make health care decisions for myself.

(IF APPLICABLE) This power of attorney ends on the following date: _____

PRIOR DESIGNATIONS REVOKED

I revoke any prior medical power of attorney.

DISCLOSURE STATEMENT

THIS MEDICAL POWER OF ATTORNEY IS AN IMPORTANT LEGAL DOCUMENT. BEFORE SIGNING THIS DOCUMENT, YOU SHOULD KNOW THESE IMPORTANT FACTS:

Except to the extent you state otherwise, this document gives the person you name as your agent the authority to make any and all health care decisions for you in accordance with your wishes, including your religious and moral beliefs, when you are unable to make the decisions for yourself. Because "health care" means any treatment, service, or procedure to maintain, diagnose, or treat your physical or mental condition, your agent has the power to make a broad range of health care decisions for you. Your agent may consent, refuse to consent, or withdraw consent to medical treatment and may make decisions about withdrawing or withholding life-sustaining treatment. Your agent may not consent to voluntary inpatient mental health services, convulsive treatment, psychosurgery, or abortion. A physician must comply with your agent's instructions or allow you to be transferred to another physician.

Your agent's authority is effective when your doctor certifies that you lack the competence to make health care decisions.

Your agent is obligated to follow your instructions when making decisions on your behalf. Unless you state otherwise, your agent has the same authority to make decisions about your health care as you would have if you were able to make health care decisions for yourself. It is important that you discuss this document with your physician or other health care provider before you sign the document to ensure that you understand the nature and range of decisions that may be made on your behalf. If you do not have a physician, you should talk with someone else who is knowledgeable about these issues and can answer your questions. You do not need a lawyer's assistance to complete this document, but if there is anything in this document that you do not understand, you should ask a lawyer to explain it to you.

The person you appoint as agent should be someone you know and trust. The person must be 18 years of age or older or a person under 18 years of age who has had the disabilities of minority removed. If you appoint your health or residential care provider (e.g., your physician or an employee of a home health agency, hospital, nursing facility, or residential care facility, other than a relative), that person has to choose between acting as your agent or as your health or residential care provider; the law does not allow a person to serve as both at the same time. You should inform the person you appoint that you want the person to be your health care agent. You should discuss this document with your agent and your physician and give each a signed copy. You should indicate on the document itself the people and institutions that you intend to have signed copies. Your agent is not liable for health care decisions made in good faith on your behalf.

Once you have signed this document, you have the right to make health care decisions for yourself as long as you are able to make those decisions, and treatment cannot be given to you or stopped over your objection. You have the right to revoke the authority granted to your agent by informing your agent or your health or residential care provider orally or in writing or by your execution of a subsequent medical power of attorney. Unless you state otherwise in this document, your appointment of a spouse is revoked if your marriage is dissolved, annulled, or

FIGURE 11: Medical power of attorney form English part 2 of 4

declared void.

This document may not be changed or modified. If you want to make changes in this document, you must execute a new medical power of attorney.

You may wish to designate an alternate agent in the event that your agent is unwilling, unable, or ineligible to act as your agent. If you designate an alternate agent, the alternate agent has the same authority as the agent to make health care decisions for you.

THIS POWER OF ATTORNEY IS NOT VALID UNLESS:

(1) YOU SIGN IT AND HAVE YOUR SIGNATURE ACKNOWLEDGED BEFORE A NOTARY PUBLIC; OR
(2) YOU SIGN IT IN THE PRESENCE OF TWO COMPETENT ADULT WITNESSES.

THE FOLLOWING PERSONS MAY NOT ACT AS ONE OF THE WITNESSES:

(1) the person you have designated as your agent;
(2) a person related to you by blood or marriage;
(3) a person entitled to any part of your estate after your death under a will or codicil executed by you or by operation of law;
(4) your attending physician;
(5) an employee of your attending physician;
(6) an employee of a health care facility in which you are a patient if the employee is providing direct patient care to you or is an officer, director, partner, or business office employee of the health care facility or of any parent organization of the health care facility; or
(7) a person who, at the time this medical power of attorney is executed, has a claim against any part of your estate after your death.

By signing below, I acknowledge that I have read and understand the information contained in the above disclosure statement.

(YOU MUST DATE AND SIGN THIS POWER OF ATTORNEY. YOU MAY SIGN IT AND HAVE YOUR SIGNATURE ACKNOWLEDGED BEFORE A NOTARY PUBLIC OR YOU MAY SIGN IT IN THE PRESENCE OF TWO COMPETENT ADULT WITNESSES.)

SIGNATURE ACKNOWLEDGED BEFORE NOTARY

I sign my name to this medical power of attorney on _____ day of _____ (month, year) at

_____
(City and State)

_____
(Signature)

_____
(Print Name)

State of Texas

County of _____

This instrument was acknowledged before me on _____ (date) by _____ (name of person acknowledging).

_____
NOTARY PUBLIC, State of Texas

FIGURE 12: Medical power of attorney form English part 3 of 4

Notary's printed name:

_____

My commission expires:

_____

OR

SIGNATURE IN PRESENCE OF TWO COMPETENT ADULT WITNESSES

I sign my name to this medical power of attorney on _____ day of _____ (month, year) at

_____
(City and State)

_____
(Signature)

_____
(Print Name)

STATEMENT OF FIRST WITNESS

I am not the person appointed as agent by this document. I am not related to the principal by blood or marriage. I would not be entitled to any portion of the principal's estate on the principal's death. I am not the attending physician of the principal or an employee of the attending physician. I have no claim against any portion of the principal's estate on the principal's death. Furthermore, if I am an employee of a health care facility in which the principal is a patient, I am not involved in providing direct patient care to the principal and am not an officer, director, partner, or business office employee of the health care facility or of any parent organization of the health care facility.

Signature: _____

Print Name: _____ Date: _____

Address: _____

_____

SIGNATURE OF SECOND WITNESS

Signature: _____

Print Name: _____Date: _____

Address: _____

_____

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FIGURE 13: Medical power of attorney form English part 4 of 4

Appendix D

Advance Care Planning Post-intervention Survey

You are being asked to take part in a research study about advance care planning discussions at Texas Tech University Health Sciences Center El Paso – Internal Medicine Clinic to improve advance care planning discussions between physicians and patients. Your responses are completely anonymous and cannot be linked back to you. Participation is voluntary. If you are a student or employee, your participation in this study will have no effect on your grades or employment status. Completing the two surveys will take about 2-3 minutes each to complete. By providing responses to the questions, you are providing consent to participate in the research study. If you have any questions or concerns, please contact the Principal Investigator at: Sarosiek, Irene/Irene.Sarosiek@ttuhsc.edu/9152155254. This protocol has been acknowledged by the Institutional Review Board under IRB # **E24038.**

Patient instructions: Circle the letter(s) or fill in the blank with the most appropriate answers after reading the following question(s).

1. Has any provider ever discussed advance medical directives with you?
    a. Yes
    b. No

2. This advance medical directives conversation was helpful.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

3. I am uncomfortable with end-of-life discussions.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

IRB NUMBER: E24038
IRB APPROVAL DATE: 01/31/2024

FIGURE 14: Advance care planning post-intervention survey English part 1 of 2

4. I see the importance of having advance medical directives.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

5. I now plan on completing my advance medical directives in the future.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

6. If answer 5 is neither agree nor disagree, disagree, or strongly disagree, what is the reason?
    a. I don't feel that it is necessary at this time.
    b. I don't know how to start.
    c. I don't have the time to complete them.
    d. Other: _____

IRB NUMBER: E24038
IRB APPROVAL DATE: 01/31/2024

FIGURE 15: Advance care planning post-intervention survey English part 2 of 2

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

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Disclosures

Human subjects: Consent for treatment and open access publication was obtained or waived by all participants in this study. Institutional Review Board, Texas Tech University Health Sciences Center El Paso, El Paso issued approval E24038. **Animal subjects:** All authors have confirmed that this study did not involve animal subjects or tissue. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

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