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## Evidence of Palliative Care Stigma: The Role of Negative Stereotypes in Preventing Willingness to Utilize Palliative Care

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### Abstract

**Objectives:** Although palliative care is critical to managing symptoms, pain, and transitions to end-of-life care among those facing serious or chronic illness, it is often underutilized. This underutilization may be due to stigma associated with palliative care representing giving up or fighting one's illness. The goal of the present studies was to test the theoretical framework of stigma within the context of palliative care to inform future work on intervention development that addresses potential barriers to palliative care utilization.

**Methods:** In Study 1, participants ( $n=152$ ) read an oncologist describe two treatment options to a terminally ill cancer patient: 1) palliative care and 2) chemotherapy. Participants were then randomly assigned to read that the patient chose palliative care or chemotherapy. In Study 2, these stereotypes about those receiving palliative care were examined as a potential mediator between perceived palliative care stigma and prospective palliative care use. Participants ( $n=199$ ) completed self-report measures of palliative care stigma, negative stereotypes about palliative care users, and prospective use of palliative care. Mediation analysis tested the mediational effects of stereotypes on the relationship between palliative care stigma and prospective usage of palliative care.

**Results:** In Study 1, those in the palliative care condition endorsed significantly higher levels of negative stereotypes about the patient, viewed their decision more negatively, and saw the patient as less afraid of death. In Study 2, palliative care stigma was associated with less prospective usage of palliative care for self and for one's family member. This relationship was mediated by negative stereotypes about individuals receiving palliative care.

**Significance of Results:** Results suggest that palliative care stigma exists (Study 1) and that this stigma may be a barrier to the utilization of palliative care (Study 2). Future research should examine stigma reduction as a potential intervention target to improve palliative care utilization.

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**Ethics Statement:** All study procedures were approved at each Institution's IRB. All procedures were conducted in accordance with required ethical guidelines for protection of human subjects in research. Informed consent was obtained from each participant in the present study.

## Keywords

palliative care; stigma; stereotypes

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## Introduction

In the United States and globally, many individuals are facing or will face a serious illness that requires management of symptoms, pain, and potentially transitions to end-of-life care such as hospice for whom it is an appropriate treatment choice (Morrison and Meier 2004). One way to address and help reduce the severity of symptoms and improvement of care among individuals with serious illness is to receive palliative care (National Palliative Care Research Center 2013), yet most patients with serious illness do not receive palliative care until the final days of life (Cheng et al. 2005). One reason for this underutilization of palliative care might be the stigma surrounding palliative care as something that represents “giving up on the fight.”

Ideally, palliative care is given at the diagnosis of a serious illness and used throughout the trajectory of illness to improve quality of life (Zimmermann et al. 2016). This early integration of palliative care for those facing serious illness is advocated by the World Health Organization (World Health Organization 2008) and has been shown to be critical to symptom management (Higginson et al. 2002). Despite the effectiveness of palliative care (Hui et al. 2010), many patients facing a serious illness do not receive palliative care until the final days of life (Cheng et al. 2005). Because late integration of palliative care limits the effectiveness of palliation (Osta et al. 2008, Cheng et al. 2005, Morita et al. 2005), it is critical to focus on identifying and removing barriers to utilization of palliative care.

## Palliative Care Stigma: A Social Psychological Framework

One potential, yet heavily understudied, barrier to utilization of palliative care is the stigma thought to be associated with using palliative care. A stigmatized individual is someone who possesses an identity that is culturally devalued due to the perceived negative attributes (e.g. stereotypes) or failings of its members (Ablon 2002, Onyeka 2010, Major and O’Brien 2005, Goffman 2009, Heatherton et al. 2003, Crocker, Major and Steele 1998). Many health related stigmas exist including stigma surrounding cancer (Holland, Kelly and Weinberger 2010), mental health (Golberstein, Eisenberg and Gollust 2008), and HIV/AIDS (Chesney and Smith 1999). Similar to these health-related stigmas (Hamann et al. 2014, Goffman 2009), stigma surrounding palliative care users is also likely to exist.

Palliative care stigma is thought to be driven by palliative care’s negative association with death and dying (Smith et al. 2012), which is a heavily stigmatized concept in Western culture (Aries 1981). Currently, Western medicine is focused nearly exclusively on curing illness (e.g., “fight against cancer”) and prolonging life, rather than focusing on improving the quality of life and reducing suffering (Morrison and Meier 2004, Field and Cassel 1997). This false dichotomy of beliefs that treatment is either curative or palliative may contribute to perceptions that palliative care is care exclusively for those who are dying or “giving up.” While palliative care is designed to aid anyone facing a serious illness with symptom and

pain management as well as end-of-life transitions when appropriate (National Palliative Care Research Center 2013) if is often not viewed in that manner. The stigma surrounding the use of palliative care is likely to prevent some individuals from choosing to use this form of care.

To date, there is preliminary qualitative evidence that palliative care usage is stigmatized. Among individuals receiving palliative care, patients and physicians who transition to palliative care often experience feelings of guilt and shame for “quitting” (Reisfield and Wilson 2004) as well as devaluation and fear of abandonment or loss of care from others (Friedrichsen, Strang and Carlsson 2002). A recent qualitative study demonstrated that a group of advanced cancer patients and their caregivers perceived (at least initially) palliative care as being associated with death, hopelessness, dependency, and end-of-life care (Zimmermann et al. 2016). This perception may be due in part to martial metaphors, such as the “war on cancer,” that is frequently used in some forms of care for serious illness (Reisfield and Wilson 2004). Given this rhetoric, individuals may label those who use palliative care as being individuals who are “giving up” or “losing the battle.”

Although prior qualitative findings suggest it is likely that individuals who choose palliative care are negatively stereotyped as “giving up” or being “quitters,” no quantitative data has yet confirmed the presence of stigma towards palliative care. There is a current lack of evidence that an individual’s decision to use palliative care may be viewed negatively. To address these prior limitations and build off pre-existing research, the present studies aimed to examine stigma towards palliative care quantitatively.

Study 1 sought to provide initial experimental evidence that palliative care usage is stigmatized. We hypothesized that reading about a terminally ill patient who chose palliative care would lead to higher levels of negative stereotyping, more negative perceptions about the patient’s treatment choice, and a perception that the patient was less afraid of death than reading about a patient who chose chemotherapy. These two treatment options were chosen to examine attitudes towards individuals choosing a treatment option amongst the two commonly presented treatment options in medical care settings of palliative or curative. Study 2 examined the hypothesis that palliative care stigma is associated with a decreased willingness to utilize palliative care. The stigma associated with palliative care may also prevent individuals from wanting to utilize palliative care themselves or enroll family members. The mechanism driving less utilization might be perceived negative stereotypes about palliative care, which was tested as a potential mediator between stigma and willingness to utilize palliative care in Study 2.

Understanding both the possible existence of palliative care stigma and the potential role that stereotypes about those receiving palliative care play in mediating the relationship between palliative care stigma and prospective use of palliative care could provide insight in to how to target this stigma and increase palliative care utilization.

## Study 1

In this experiment, participants first read a scenario in which an oncologist described both palliative care and chemotherapy as different treatment options to an advanced cancer patient. These two treatment options were chosen to examine attitudes towards individuals choosing a treatment option amongst the two commonly presented treatment options in medical care settings of palliative or curative care. It is acknowledged that these may not reflect accurately the potential third option of receiving both treatments. However, the goal of the present study was to examine whether stereotypes exist in examining those who choose palliative care versus those who choose curative treatments. It should be noted that individuals were purposively randomly assigned to one condition or the other, rather than using a within subjects design, to determine if simply reading that a patient chose palliative or chemotherapy influenced their perceptions about that individual.

As noted above, after reading the scenario, individuals were then randomly assigned to either a palliative care condition (where the patient chose to use palliative care) or the chemotherapy condition (where the patient chose to use chemotherapy). After reading the scenario, participants' attitudes toward the patient in the scenario were assessed. These measures included negative stereotypes about the individual, negative perceptions about the patient's treatment choice, and the perception that the patient was not afraid of death. It was predicted that reading about a scenario in which a patient chose palliative care would lead to more negative stereotypes about the patient and negative perceptions about the patient's treatment choice as well as viewing the patient as being less afraid of death relative to reading about a scenario in which the patient chose chemotherapy. This hypothesis was grounded in prior research indicating that there is stigma associated with patients with advanced illness choosing palliative care treatment over what is perceived as curative treatment (e.g., chemotherapy) as well as a stronger association with death and dying (Zimmermann et al. 2016).

## Methods

**Participants**—A total of 152 participants were recruited through a TurkPrime (Litman, Robinson and Abberbock 2017) in exchange for \$0.75 (Age:  $M=34.43$ ,  $SD=11.45$ ). Participants had the following demographics: Race/Ethnicity: 4.6% Latino, 81.0% White, 7.2% Black or African American; 6.5% Asian, 2.0% Multi-Racial, 1.4%, Other; Gender: 49.7% Female; Sexuality: 85.6% Heterosexual; Household Income:  $MO=\$50,001$  to  $\$100,000$  (Range:  $<\$10,000$  to  $\$150,000+$ ). Participants were randomly assigned to the palliative care condition ( $n=86$ ) or the chemotherapy condition ( $n=67$ ).

**Procedure**—Participants read an oncologist describe two treatment options to a terminally ill, advanced cancer patient: 1) palliative care and 2) chemotherapy (see Appendix). Participants were then randomly assigned to read that the patient chose palliative care ( $n=86$ ) or chemotherapy ( $n=67$ ). Then participants then completed the measures below.

**Measures**—All measures included response options that were on a Likert scale anchored at “1= Strongly Disagree” to “7=Strongly Agree.”

**Negative stereotypes.:** Eight items measured the extent to which participants negatively or positively stereotyped patients in the scenario. All positive stereotypes were reverse coded to create a total negative stereotype measure, consisting of eight items. Participants were asked to indicate their level of agreement that the following words/phrases describe the patient they read about in the scenario: negative — “Lazy,” “Quitter,” “ClosedCminded,” “Hopeless,” “Weak willed,” and “Depressed;” and positive—”Giving” and “Brave” ( $\alpha = .82$ ,  $M = 2.84$ ,  $SD = 1.02$ ; Range: 1.00 to 5.71).

**Treatment decision.:** Three items measured the extent to which participants held negative attitudes toward the patient’s treatment decision. Participants were asked to indicate the degree to which they agreed with the following: “I feel the patient is making the right decision” (reverse coded); “I think the patient should seek a second opinion;” and “I think the patient should explore other treatment options.” The first item was reversed scored so that the total scale assessed the degree to which participants held negative attitudes toward the patient’s treatment decision ( $\alpha = .73$ ,  $M = 4.14$ ,  $SD = 1.25$ ; Range: 1.00 to 7.00).

**Fear of death.:** Participants were asked to indicate the degree to which they agreed the patient was “Not afraid of death.” This item was used to judgments about choosing palliative care as being associated with less fear of death and dying.

## Results

Participants in the palliative care condition held endorsed significantly higher levels of negative stereotypes (e.g., quitter, lazy, hopeless, weak-willed) ( $M=3.05$ ,  $SD=1.09$ ) than those in the chemotherapy condition ( $M=2.58$ ,  $SD=0.87$ ;  $t(151)=2.94$ ,  $p=.004$ ) (See Figure 1). Participants in the palliative care condition also viewed the patient’s treatment decision more negatively ( $M=4.33$ ,  $SD=1.30$ ) than the chemotherapy treatment decision ( $M=3.90$ ,  $SD=1.14$ ;  $t(151)=2.15$ ,  $p=.033$ ) (See Figure 2). Finally, participants in the palliative care condition rated the patient as being significantly more “not afraid of death” ( $M=4.93$ ,  $SD=1.36$ ) than those in the chemotherapy condition ( $M=3.27$ ,  $SD=1.32$ ,  $t(144)=7.41$ ,  $p<.001$ ) (see Figure 3).

Results indicate that a terminally ill person choosing palliative care is likely to be negatively stereotyped and derogated for their choice. Moreover, this person is more likely to be viewed as not afraid of death, indicating palliative care may be associated as being for those who are nearing death or dying. These finding highlights the existence of palliative care stigma by providing the first experimental evidence that individuals who use palliative care are stigmatized simply for their choice.

## Study 2

Study 2 aimed to build off of and illuminate the findings from Study 1. Namely, Study 2 was designed to examine the possible role of stereotypes in mediating the relationship between perceived palliative care stigma and prospective use of palliative care. The goals of Study 2 were twofold: 1) to examine if perceived palliative care stigma is associated with less prospective use of palliative care and 2) if negative stereotypes, such as those observed in Study 1 (e.g., “quitter,” “hopeless), mediate this relationship.

We theorized that the more palliative care stigma an individual perceives, the less likely they will be to report a willingness to use palliative care if they or a family member are dying and if an alternative, curative treatment is thought to be available. Based on the results from Study 1, we also suggest that one reason palliative care stigma influences prospective usage is because of the negative stereotypes associated with those who use palliative care.

We tested the theoretical model that negative stereotypes about individuals receiving palliative care mediated the relationship between perceived palliative care stigma and prospective use. To test our model, we examined the same negative stereotypes which were examined in Study 1 (lazy, quitter, closed-minded, hopeless, weak-willed, depressed) about individuals receiving palliative care as a mediator of palliative care stigma (e.g., giving up fighting one's disease, prevents curative treatment) and prospective use of palliative care for one's self or for one's family member.

We hypothesized that stereotypes would mediate the relationship between palliative care stigma and prospective use of palliative care. Namely, palliative care would predict a refusal of and lack of utilization of palliative care through negative stereotypes. Testing this model will allow for better understanding the relationship between palliative care stigma and prospective use as well as highlight potential targets for interventions designed to improve palliative care utilization (e.g., stereotypes about recipients).

## Methods

**Participants**—Participants were 235 individuals recruited through an undergraduate research participant pool in exchange for course credit. After removing individuals who failed attention checks and engaged in random clicking, 199 participants remained (Race/Ethnicity: 37.9% Latino, 25.1% White, 11.3% Multi-Racial, 8.7% Asian, 6.2% African American, 10.7%, Other; Gender: 87.4% Female; Sexuality: 92% Heterosexual; Household Income:  $M = \$20,000$ ,  $Range = < \$10,000$  to  $\$90,000$ )<sup>i</sup>.

**Procedure**—Participants were recruited to take part in a study titled, “Healthcare Beliefs Survey.” Participants were asked to complete basic demographic information followed by a measures of perceived palliative stigma, stereotypes (negative and positive) about individuals who use

palliative care, and prospective use of palliative care. Participants were then thanked for their time and awarded credit for their courses research requirement.

**Measures**—All measures included response options that were on a Likert scale anchored at “1= Strongly Disagree” to “7=Strongly Agree” unless otherwise noted.

**Perceived Palliative Care Stigma.** Four items measured the extent to which participants perceived palliative care use negatively; e.g. “I believe receiving palliative care represents giving up on fighting one's disease;” “I believe individuals who allow their loved ones to

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<sup>i</sup>Age was omitted by accident from the survey however based on previous research and the prescreen survey given the same quarter the makeup of sample is likely to be similar (Prescreen Age:  $M = 22.21$   $SD = 4.05$ ).

receive palliative care are bad spouses/sons/daughters/mothers/fathers;” “I believe receiving palliative care prevents you from receiving curative treatment (e.g., chemotherapy);” and “I believe individuals who allow their loved ones to receive palliative care are caring for their ill family member.”(Reverse Coded); ( $\alpha = .73$ ,  $M = 2.33$ ,  $SD = 1.08$ ; Range: 1.00 to 5.50).

**Negative Stereotypes.:** The same measure of negative stereotyping from Study 1 was used ( $\alpha = .80$ ,  $M = 2.63$ ,  $SD = .91$ ; Range: 1.00 to 6.25).

**Prospective Use of Palliative Care.:** Four separate items were used to examine prospective palliative care use. These items were examined individually within our model as they examine conceptually distinct responses. All questions were asked on the following Likert scale: “1=Very Unlikely” to “7=Very likely.” “How likely would you be to use palliative care if you were dying?” (Use if Dying;  $M = 5.60$ ,  $SD = 1.48$ ; Range: 1.00 to 7.00); “How likely would you be to enroll your family member in palliative care if they were dying?” (Enroll Family Member if Dying;  $M = 5.47$ ,  $SD = 1.47$ ; Range: 1.00 to 7.00); “How likely would you be to refuse palliative care and choose a curative treatment if there was limited chance the treatment would cure you?” (Refuse Treatment for Self;  $M = 4.24$ ,  $SD = 1.65$ ; Range: 1.00 to 7.00); “How likely would you be to refuse palliative care for your family member and choose a curative treatment if there was limited chance the treatment would cure your family member?” (Refuse Treatment for Family Member;  $M = 4.27$ ,  $SD = 1.70$ ; Range: 1.00 to 7.00).

## Results

**Analysis Strategy—**To examine the possibility of mediation hypothesis we used PROCESS (Model 4) (Hayes 2013). We used a biased-corrected 95% confidence interval to examine the direct and indirect effects based on 5,000 bootstrapped samples. A significant effect is indicated by a confidence interval that does not include zero. Separate models were conducted to examine the relationship between perceived palliative care stigma and each measure of prospective use with negative stereotypes as the mediator. Complete output is presented in Table 1.

**Palliative Care Stigma Model—**Perceived palliative care stigma exerted a significant indirect effect via negative stereotypes on each of our four prospective palliative care usage outcomes (see Table 1). There was also a significant negative direct effect of perceived palliative care on individuals’ prospective usage of palliative care for themselves if they were dying and their willingness to enroll a dying family member in palliative care. Our model suggests that palliative care stigma is a significant predictor of prospective palliative care usage and that this is in part due to the negative stereotypes associated with individuals who use palliative care.<sup>ii</sup>

<sup>ii</sup>An alternative models were examined where palliative care stigma was entered as a mediator of the relationship between stereotypes and utilization outcomes. While the models fit the data, there was only a significant indirect effect of negative stereotypes on the two prospective “use if dying” utilization items via palliative care stigma and these effects were smaller than those witnessed when stereotypes were included as the mediator. Given that our propose models demonstrates indirect effects on all prospective utilization items we retained the more parsimonious and theoretically consistent models. Full details of this model can be obtained from the authors.

Study 2 findings indicate that palliative care stigma predicted less prospective use of palliative care, including being *less* likely to use it or enroll a family member if dying and being *more* likely to refuse it or refuse to enroll a family member if curative treatment was an option. These findings support the conceptual framework for stigma that has been modeled in relation to specific medical illnesses, such as lung cancer stigma (Carter-Harris et al. 2014), HIV/AIDS stigma (Chesney and Smith 1999), and mental health stigma (Cooper, Corrigan and Watson 2003, Corrigan 2004, Schomerus and Angermeyer 2008). Namely, this prior research demonstrates that health-related stigmas present barriers to seeking and accessing certain forms of medical care. Similarly, the present study indicates that there is a stigma associated with receiving specific treatment regardless of specific medical condition.

## Discussion

Taken together, our results advance the research on palliative care stigma by providing experimental evidence that palliative care usage is stigmatized (Study 1) and that perceived palliative care predicts decreased prospective use (Study 2). Study 1 demonstrated that reading about a terminally ill cancer patient choosing palliative care (vs. chemotherapy) leads to increased negative stereotyping of the patient and more negative evaluations about their treatment decision as well as viewing them as being less afraid of death. Study 2 demonstrated that these same stereotypes about individuals who use palliative care mediate the relationship between perceived palliative care stigma and prospective palliative care use for one's self and one's family. Whereas palliative care stigma has been indicated in qualitative studies with advanced cancer patients and their caregivers (Zimmermann et al. 2016), the present results provide empirical support for the existence of palliative care stigma. These results help build a framework for what drives potential underutilization of palliative care commonly seen among patients who need it (Cheng et al. 2005).

Specifically, Study 1 results indicate that patients who choose palliative care are viewed with more negative stereotypes (e.g., lazy, quitter) and less positive stereotypes (e.g., brave, hero) than those who choose chemotherapy, highlighting the existence of stigma. This builds upon prior research which has demonstrated that "battle" language, such as referring to "fighting the battle against cancer" or "losing the battle," is prevalent in some forms of serious illness where palliative care is often needed, such as cancer (Reisfield and Wilson 2004). Providing further support for this, those who chose palliative care were viewed as being "not afraid of death," which suggests that palliative care is seen as being for those who are dying. Thus, these perceptions that those who choose palliative care are "losing the battle" or dying could be contributing to the negative stereotypes associated with palliative care use. Furthermore, as demonstrated in Study 2, these negative stereotypes may partially drive the relationship between palliative care stigma and less prospective use of palliative care for one's self and one's family members. Thus, the data seemingly indicate that being more likely to view someone who receives palliative care negatively (lazy, quitter) drives the relationship between palliative care stigma and prospective use. The concept that a medical treatment that is deemed valuable and beneficial is stigmatized illuminates a major barrier to providing treatments that may alleviate pain and improve quality of life.



The present results help provide support for the existence of palliative care stigma as well as a clearer conceptual framework for the association between palliative care stigma and prospective palliative care use. The model presented in Study 2 fits in line with prior social psychological theories and models of health-related stigma (Ablon 2002, Goffman 2009, Heatherton et al. 2003, Major and O'Brien 2005). This model can serve as a conceptual model and framework for testing palliative care as a predictor of actual utilization of palliative care.

Despite the present studies' many strengths, there are some limitations to consider in interpreting results. One limitation is that all scenarios were hypothetical rather than observing actual patients' decision making or actual palliative care use. It would be beneficial to test these concepts in a sample of individuals who are make an actual treatment choice or who are more likely to be in a situation in which they must actually determine if they will utilize palliative care such as those who are seriously ill. However, given the dearth of research into palliative care stigma, the present studies provide much needed empirical support for the existence of palliative care stigma. While the present studies utilized healthy individual samples, the purpose of the studies was to determine whether palliative care stigma existed (e.g., negative stereotypes) and if it was associated with lower prospective palliative care use. The current studies lay the foundation for future work to examine palliative care stigma among seriously ill patients and their caregivers to determine how palliative care stigma affects intended and actual palliative care use among those who are currently facing palliative care utilization issues. Finally, the present studies do not examine what the possible sources of stigma are (e.g., providers, media, etc.). Future studies could examine individuals' familiarity with and exposure to palliative care to determine where these stigmas have originated. This, in turn, may help guide future interventions designed to target and reduce palliative care stigma and improve utilization of palliative care.

Despite these limitations, the present studies help clarify and examine the largely understudied concept of palliative care stigma and its association with prospective palliative care usage. Both studies' results highlight the role that stereotypes play in palliative care stigma and its association with prospective usage. Understanding this can help inform future intervention targets. For instance, targeting false stereotypes about individuals receiving palliative care (as weak, quitter, etc.) might be an effective way to improve utilization of palliative care. Future research should examine and test these potential intervention targets. Moreover, future research should also examine whether it is most beneficial to develop palliative care stigma reducing interventions that target the general public or those facing serious illness. Understanding and reducing palliative care stigma has implications for improving the current underutilization of palliative care (Cheng et al. 2005). Given the many benefits afforded to individuals facing serious or chronic illness who use palliative care (Kelley and Morrison 2015, Zimmermann et al. 2016), it is critical to understand ways to improve utilization. As such, the present studies highlight a promising target for intervention to improve palliative care usage.

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## Appendix: Palliative Care and Chemotherapy Treatment Conditions

### Instructions:

Please read the following scenario about an individual's medical condition, treatment options, and final decision regarding treatment. You will later be asked questions about this scenario.

### Background:

A 50 year old patient has been diagnosed with Stage IV lung cancer. Up to this point in time, the patient has tried two different types of chemotherapy. The first attempt at chemotherapy did not successfully treat the cancer. After that first attempt failed, the patient's oncologist put the patient on a second type of chemotherapy to see if that might treat the cancer. The patient is now having a follow up appointment with the treating oncologist to discuss results of a recent staging scan the patient had to see if the cancer progressed or shrunk after this second type of chemotherapy finished.

### Communication from oncologist:

At the appointment, the oncologist communicates the following with the patient:

“Good morning. So today we are reviewing the scan results from your most recent staging scan to see where you are at in regards to your tumor size. As you know, your primary cancer tumor site was at the lung, and that cancer had metastasized to nearby sites, including your liver. We just finished this second round of chemotherapy in hopes that it would shrink the tumors. In looking at your scans here, unfortunately, the cancer seems to have progressed rather than shrunk as I had hoped. Given the results of this scan, it appears that your body is not being responsive to this second line of chemotherapy. Additionally, the cancer sites have now spread to your liver. Given how your body has responded to the chemo for first and second rounds of chemotherapy, the likelihood of curative treatment is now fairly low. That being said, we have a couple of options here. The first option is to continue with a new line of chemotherapy. This chemotherapy would be focused mostly on keeping the tumors from continuing to grow. This, we hope, would help manage your symptoms so that you don't experience too much pain. If we go this route, we would continue to manage the cancer with chemo for as long as we are able. The second option is to consider bringing in the palliative care team, which would be focused on managing your symptoms such as pain and transitioning to comfort care. Comfort care would be focused on making the remaining time you have left as comfortable as possible and to have as high of quality of life as possible. So, given these two options, I want to give you some time to think about it and let me know how you'd like to proceed.”

### Treatment Decision (Palliative Care condition):

After careful thought, the patient decides to choose palliative care.

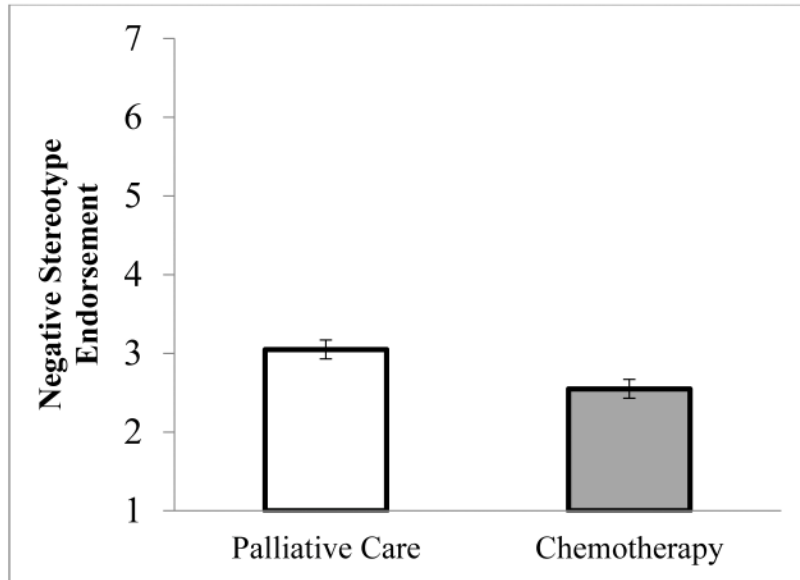
## Treatment Decision (Chemotherapy condition):

After careful thought, the patient decides to choose continuing chemotherapy.

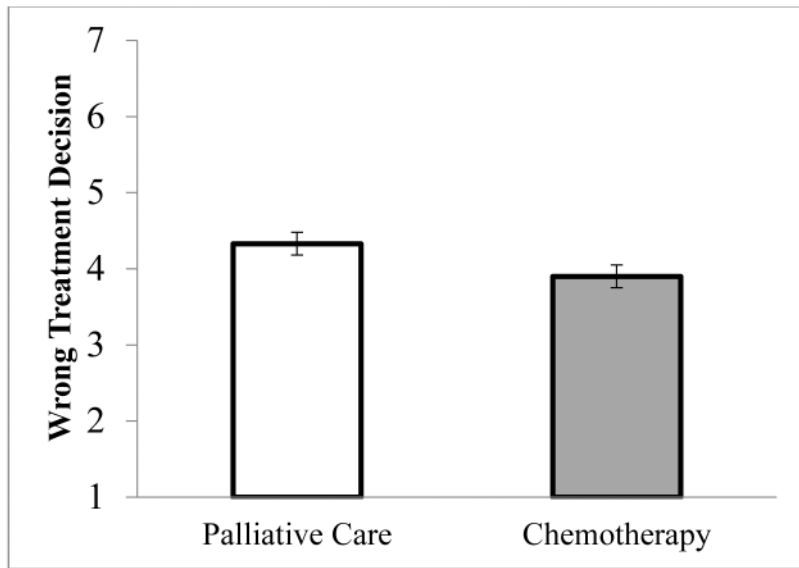
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**Figure 1.** Negative stereotype endorsement by decision condition (Study 1).  
NOTE: Error bars represent +/- 1 SE



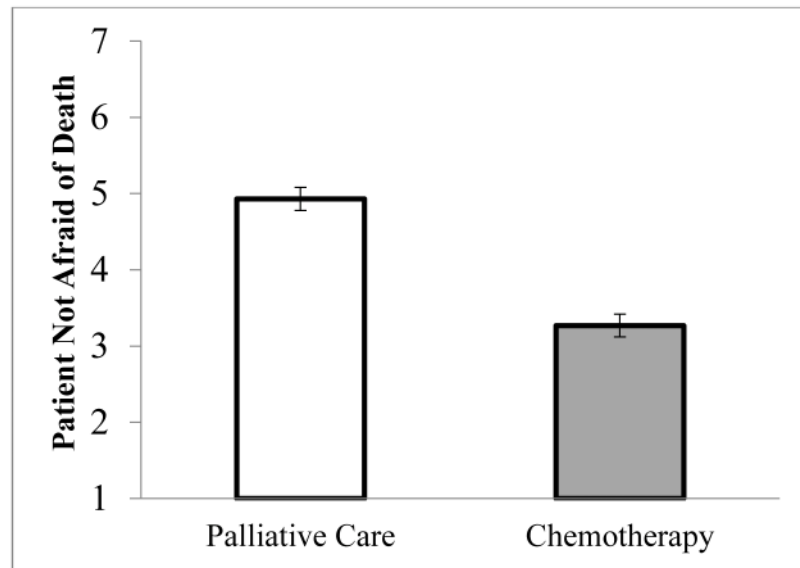
**Figure 2.**  
Perception of treatment decision by decision condition (Study 1).  
NOTE: Error bars represent +/- 1 SE

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**Figure 3.**  
Perception of patient as “not afraid of death” by decision condition (Study 1).  
NOTE: Error bars represent +/- 1 SE

**Table 1.**

Mediation model output for effects of palliative care stigma on prospective usage of palliative care for self or family members (Study 2,  $n=199$ ).

	Use if Dying	Enroll Family Member if Dying	Refuse Treatment for Self	Refuse Treatment for Family Member
Model Summary	b	b	b	b
Negative Stereotypes	-.32**	-.42**	.33**	.30*
Palliative Care Stigma	-.38*	-.36*	.15	.10
Model $R^2$	.15**	.19**	.05**	.04*
$F(2, 196)$	17.33	22.48	5.56	3.76
Indirect Effects	<b>-.09 (-.20 to -.03)</b>	<b>-.12 (-.22 to -.05)</b>	<b>.09 (.02 to .21)</b>	<b>.09 (.01 to .20)</b>
Direct Effects	<b>-.37 (-.56 to -.18)</b>	<b>-.36 (-.55 to -.18)</b>	.15 (-.07 to .37)	.10 (-.13 to .33)

Note:

\*  $p=.05$ ,

\*\*  $p=.01$ ; Bold text indicates significant effect

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