

Physician Information-Giving and Partnership-Building Behaviors: Possible Disparities in  
Health Communications

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## **ABSTRACT**

**YOLANDA WALL: Physician Information-Giving and Partnership-Building Behaviors:  
Possible Disparities in Health Communications  
(Under the direction of Dr. Barbara Germino)**

Localized prostate cancer, where an optimum treatment choice is characterized by uncertainty and ambiguity, often creates a situation in which patients need more information to make treatment decisions (Snow et al., 2007; Wilt et al., 2008).

The purposes of this study were: (1) to describe physicians' communication with African American and Caucasian men during treatment decision making consultations for localized prostate cancer, and (2) to examine whether there was a variation in physician communication patterns, specifically information-giving and partnership-building behaviors, by the race, education level, and age of the patient. This study was a secondary analysis of data from a larger completed study, Decision Making under Uncertainty in Men with Prostate Cancer Patients (R01 NR008144-01, Merle H. Mishel, PI and Barbara B. Germino, Co-PI). Eight physicians were subjects in this study. Forty-five men comprised the patient sample. Thirteen of the men were African American and 32 were Caucasian. Physicians in this sample used information-giving behaviors more often with patients who were less than or equal to 65 years old, who had 13 or more years of education, and with Caucasians (as compared to African Americans). Differences between the mean numbers of information-giving utterances by age, education and race using independent t-tests were significant by patient age, but not by patient education or race. Similar to information-giving, physicians were more apt to use partnership-building with Caucasian men (as compared to African

American men), those younger than 65, and those who had more than a high school education. Using independent t-tests, the differences between mean numbers of partnership-building utterances by age, education and race were not significant. Physicians used both facilitative and accommodative partnership-building with patients who were younger, more educated, and Caucasian. Physicians in this sample used both facilitative and accommodative partnership-building more often with men younger than 65, having 13 or more years of education, and with Caucasians (as compared to African Americans). Examination of differences between mean facilitative and accommodative partnership-building utterances by age, education and race of the patient using independent t-tests indicated that they were not significant. Overall, physicians were less engaged in partnership-building than information-giving in these consultations.

## **DEDICATION**

To my husband Mike, my daughters Brittany and Morgan, and my parents Leonard and Dorothy Hawkins, to my family and friends and to my family watching me from above

Granny, Roy and Peggy, I dedicate this work to you.

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## **CHAPTER 1**

### **INTRODUCTION**

The leading causes of cancer deaths in the United States are lung, prostate, breast, and colorectal cancers (American Cancer Society, 2008). For colorectal, breast, prostate, and male lung cancer, African Americans have a higher mortality rates than Caucasians. The mortality rate from prostate cancer in African American men (64%) is 2.4 times higher than in Caucasian men (26.2%) over five years (2000-2004) (American Cancer Society, 2008). This difference accounts for approximately 40% of the excess cancer mortality experienced by African American men as compared to Caucasian men.

At the state level, the burden of cancer in North Carolina is immense. Among the 50 states, North Carolina ranked in the bottom (worst) 50% for breast, lung, and prostate cancer deaths (UNC Lineberger Comprehensive Cancer Center et al., 2007). For prostate cancer, North Carolina ranks 45<sup>th</sup> among the 50 states in mortality rate differences between African American and Caucasian men (American Cancer Society, 2008). In North Carolina, the mortality rate for prostate cancer in African American men is 2.9 times higher than for Caucasian men.

In addition to race, there are age and education disparities in cancer mortality (American Cancer Society, 2008). Cancer risk increases with age; 77% of all cancers are diagnosed in persons 50 years old or older. Deaths from prostate cancer are higher in men over 50 than in younger men. Cancer mortality rates for breast, lung, colorectal, and prostate



cancers are higher for African American and Caucasian men and women with 12 or fewer years of education than for African American and Caucasian men and women with greater than 12 years of education. The highest cancer mortality rates for both men and women were for African American men with 12 or fewer years of education. Reducing and eventually eliminating these disparities are important issues for research and a challenge goal for the American Cancer Society for 2015 (American Cancer Society, 2008).

Disparities in morbidity and mortality for prostate cancer could reflect differences in health care communication, particularly for localized prostate cancer. The majority of men with localized prostate cancer are offered aggressive treatment with radical prostatectomy or radiation therapy. However, studies have generally indicated that African Americans were less likely than Caucasians to receive radical prostatectomy and more likely to receive watchful waiting (Hoffman et al., 2003; Talcott et al., 2007). Hoffman et al. (2003) also discussed that physicians may have been less likely to recommend aggressive treatment for African Americans if they perceived them to be at increased risk for poor outcomes. Peters and Armstrong (2005) completed a systematic review of prostate treatment outcomes between African Americans and Caucasians and found no differences between races after controlling for tumor and patient characteristics in 23 of the 29 studies.

A way to eliminate or reduce disparities in cancer outcomes is by ensuring that all patients become informed about the importance of screening and cancer diagnosis and receive optimal treatment (American Cancer Society, 2008). Some of this knowledge gain occurs through the media by professional education campaigns and other sources but knowledge may be most effectively communicated in the context of the provider-patient relationship (Cox & Amling, 2008). Effective communication is essential for this to happen.

The cancer experience also involves a complex process to determine disease stage. The majority of all prostate cancers in men are discovered in the local and regional stages (Wilt et al., 2008). Staging is one important factor reviewed by physicians in order to decide which treatment options would be best for the patient to consider. Treatment decision making by patients diagnosed with early stage prostate cancer poses a particular challenge because of the need for these patients to interpret complex medical information from staging, such as Gleason score and PSA level, and to make an informed treatment selection from a variety of treatment options, including several types of radiation, surgery and watchful waiting that may have comparable efficacy but differing side effects.

Physicians have a key role in explaining available treatment options and the benefits and risks of options for these patients in the larger context of their health status. The impact of treatments on the patient's quality of life and function also should be considered (Albaugh & Hacker, 2008). This discussion of all treatment options allows patients to participate actively in decision making and to make an informed decision.

In addition to the quality and quantity of the information given by the physician, the physician's use of partnership-building behaviors promotes the patient's trust, which leads in turn to more open communication by patients and the physician (Street, Gordon, Ward, Krupat, & Kravitz, 2005). Street and Millay (2001) define partnership-building behaviors as utterances by physicians that encourage patients to discuss their opinions, express feelings, ask questions, and participate in decision-making. In addition, partnership-building behaviors include physician utterances that explicitly agree with or affirm the patient's opinion, belief, or request. The available evidence indicates that utilization of partnership-building behaviors can improve patient health outcomes, such as treatment adherence and less decisional regret.

These behaviors can lower morbidity by facilitating active participation by patients in the treatment decision making process and promoting trust in the physician (Arora, 2003; Street et al., 2005). When patients actively participate in the visit, they ask more questions and openly discuss concerns. Active participation by patients gives the physician information that can be used in the diagnosis and treatment process. This active participation has also led to patients having increased comprehension, compliance, and satisfaction with treatment decisions and the physician (Arora, 2003).

In summary, localized prostate cancer is a special and difficult situation since treatment options have similar outcomes but may differ in their impact on quality of life. The physician's recommendation for patients is generally the most important determinant of the treatment option selected by the patient. However, there are problems in the way physicians communicate with patients during treatment decision-making discussions. Treatment options may not be fully discussed, or if the options are presented, the content or quality of the discussion could persuade patients from these treatments (Hoffman et al., 2003). Also, it is unclear whether physicians consistently assess patient understanding of the treatment options and the uncertainty surrounding prostate cancer. It is also not clear whether physicians consistently convey a supportive attitude and encourage the patient's active participation in decision-making.

#### *Purpose Statement*

The purposes of this study were: (1) to describe physicians' communication with African American and Caucasian men during treatment decision making consultations for localized prostate cancer, and (2) to examine whether there was a variation in physician

communication patterns, specifically information-giving and partnership-building behaviors, by the age, education level and race of the patient.

This study will add to knowledge about physician-patient communication patterns and possible disparities in communication during discussions of treatments for localized prostate cancer. This information is important to nursing, in that such information can assist nurses who work in cancer-related settings to identify ways to increase the patient's preparation for active participation in treatment decision making.

## **CHAPTER 2**

### **BACKGROUND AND SIGNIFICANCE**

Physicians usually talk with patients more often than they perform any other single medical procedure. For instance, physicians may perform up to 200,000 consultations during their career (Fallowfield, 2008). Because of the demand to be more productive by increasing patient workload, the average health care visit lasts from 10 to 15 minutes (Solomon, 2008). Physician-patient communication is likely to suffer because of meeting these caseload quotas. Both physicians and patients have reported problems with communication during the medical visit in the current time pressured environment. Physicians feel that they do not have adequate time for the consult visit; that some patients may not understand the information presented; and that some patients may not provide all the necessary information about themselves to enable the best treatment recommendation for the particular patient. Problems reported by patients include physicians using medical jargon, perceived physician insensitivity, and perceived inadequate time for the medical visit (Solomon, 2008; Williams et al., 2008).

Being diagnosed with prostate cancer is devastating, but digesting all the information that comes with the diagnosis, such as Gleason score, PSA level, staging of tumor, and treatment implications, in order to make a treatment decision, can be daunting. Treatment decisions have to be made in an environment of uncertainty about prostate cancer diagnosis, treatment, and prognosis. Effective communication is essential. Problems reported by early-

stage prostate cancer patients included lack of time to discuss the diagnosis, treatment and treatment outcomes, using medical jargon that patients did not understand, and variability in the content and style of information provided by physicians comprising a medical team (Winter, 2000). Patients diagnosed with prostate cancer, depending on the stage of disease, can be bombarded with treatment options, such as watchful waiting, radical prostatectomy, external beam radiotherapy, brachytherapy, cryotherapy, and androgen deprivation therapy. There is uncertainty about which treatment is definitive. One therapy cannot be considered the preferred treatment for localized prostate cancer since the evidence to date does not differentiate among their comparative effectiveness (Wilt et al., 2008). Moreover, not all patients experience the same side effects from any given treatment. All currently available treatment options except watchful waiting result in adverse effects, such as urinary incontinence, bowel incontinence, and erectile dysfunction, although the severity and frequency may vary among treatments. Therefore, physician recommendations, prognosis associated with options, and variations in adverse effects are likely to be important factors in patients' decision-making in an environment of uncertainty (Albaugh & Hacker, 2008; Gwede et al., 2005).

Physicians have a key role in helping patients understand their prostate cancer diagnosis and explaining treatment options and how these options fit patients' overall health state to lessen patients' uncertainty and form a cognitive schema about treatment decision making. Physicians also have a key role in explaining likely consequences of treatment choices.

Partnership-building and information-giving by the physician are two behaviors that can influence the effectiveness of physician-patient communication and help patients form a

cognitive schema about treatment decision making. Partnership-building behaviors and information-giving behaviors have been implicated in disparities in communications of physicians with African Americans and Caucasians. Street and Millay's (2001) definitions for partnership-building behaviors and information-giving by the physicians will be used for the proposed study. Partnership-building behaviors are utterances that encourage patients to discuss their opinions, express feelings, ask questions, and participate in decision-making. In addition, physician partnership-building behaviors include utterances that explicitly agree with or affirm the patient's opinion, belief, or request. In treatment discussions, the information given by physicians can include statements about diagnosis, description, rationales, risks, options, outlook, recommendation, control, and others. Research has shown that partnership-building behaviors and information-giving by physicians also have been shown to vary with the age, education, and race of patients (Gordon, Street, Sharf, Kelly, & Soucek, 2006a; Gordon, Street, Sharf, & Soucek, 2006b; Siminoff, Graham, & Gordon, 2006).

A literature search for studies concerning physicians' specific use of partnership-building behaviors in prostate cancer treatment discussions yielded no published studies. In contrast, a literature search for studies concerning information-giving during treatment decision making for prostate cancer resulted in 304 studies. When physicians' specific use of partnership-building behaviors and information-giving during treatment decision making for localized prostate cancer were combined into a search term, the literature search again resulted in no published studies. Thus, this study specifically focuses on the physician partnership-building and information-giving behaviors in treatment discussions with men diagnosed with localized prostate cancer. The data for this study come from a randomized

clinical trial of a nursing intervention designed to increase patients' knowledge about treatment options and their skills in communicating with their physician about treatment options (R01 NR008144-01, M. Mishel, PI and B. Germino, Co-PI). Specifically, transcripts of patient-physician treatment decision making consultations for the control (non-intervention) group will serve as the source of data.

### *Theoretical framework*

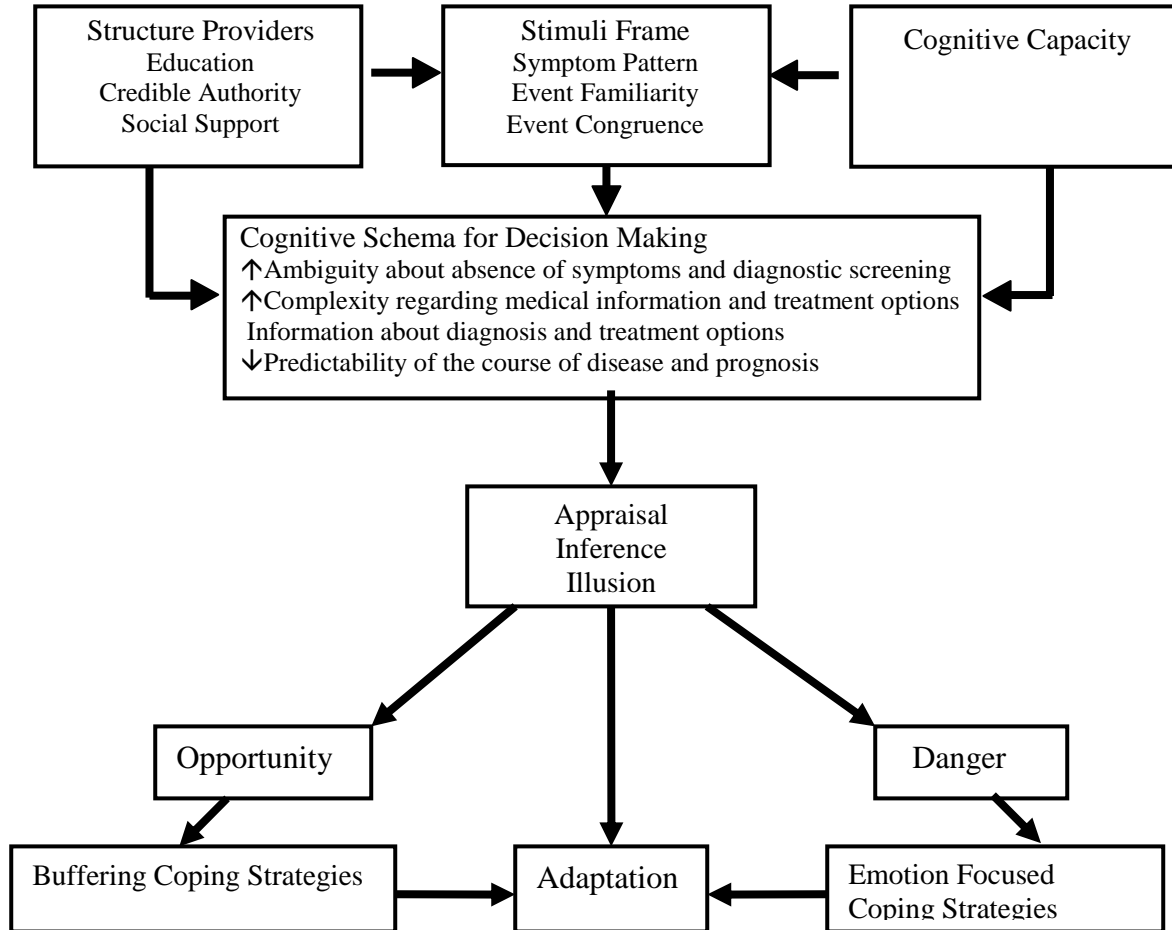
The environment in which treatment decision takes place is one of uncertainty. The conceptual model for this study is derived from the Uncertainty in Illness theory. Uncertainty is higher in new illness experiences (like the initial diagnosis) having ambiguous symptom patterns during which experiences lack familiarity (Mishel, 1988). Structure providers, which include patients' educational levels, trust and confidence in health care providers (credible authority), and amount of social support, have been identified as an influence on illness-related uncertainty. Cognitive capacity has also been identified as influences on illness-related uncertainty (Mishel, 1988). Uncertainty, cognitive schema and stimuli frame are central concepts of the theory. Uncertainty is defined as an inability to make sense of illness-related events when these events are ambiguous or highly complex or when there is a lack of information, or outcomes that cannot be predicted (Mishel, 1988). Cognitive schema is defined as the person's subjective interpretations of illness-related events. Five aspects help form the cognitive schema: ambiguity about the illness state; lack of information about an illness, its treatment and side effects and their management; complexity of available information; the health care system and relationships with health care providers; and unpredictability of the illness course and its ultimate outcome. Uncertainty occurs when patients lack the information needed to fully understand their illness, treatment and treatment



side effects. Uncertainty increases when patients cannot use their educational background, social support or relationships with health care providers to gain needed information. Uncertainty also increases when lack of information or understanding is heightened by fever, pain, or mind-altering medications (Mishel, 1988). When uncertainty exists, patients cannot form a cognitive schema for illness-related events. The two appraisal processes used to determine the value placed on the uncertain event or situation are inference and illusion. Inference refers to the evaluation of the uncertainty based on examples of related situations. Illusion refers to the construction of beliefs formed from uncertainty that have a positive outlook. If uncertainty is appraised as a danger, there is an expectation of the possibility of a harmful outcome, which results in coping strategies to reduce the uncertainty. As a result, people try to reduce uncertainty by using emotion focused coping strategies, such as avoidance and wishful thinking, rather than problem focused coping strategies, such as finding out information on the disease and learning new skills to manage their disease. If uncertainty is inferred as an opportunity, a positive outcome is considered to be possible and buffering coping strategies, such as optimism and seeking support, to maintain the uncertainty are implemented. If the coping strategies used in either appraisal are effective, then adaptation will occur. Figure 2.1 illustrates the antecedents of uncertainty based on the original Uncertainty in Illness theory (Mishel, 1988).

Figure 2.1

*Conceptual Model for Uncertainty in Treatment Decision Making for Early Stage Prostate Cancer*



The Uncertainty in Illness theory has been summarized but the antecedents of uncertainty will be discussed in detail since the focus of this study does not go beyond the cognitive schema.

#### *Antecedents of Uncertainty*

Three antecedents (stimuli frame, structure providers and cognitive capacity) precede uncertainty and provide the information processed by the individual. The major path to uncertainty is through the stimuli frame. The stimuli frame refers to the form, composition and structure of the stimuli that a person receives in relation to illness. The stimuli frame contains three components: symptom pattern, event familiarity and event congruence. These three components provide the stimuli structured by the individual into a cognitive schema in order to reduce uncertainty.

Symptom pattern refers to the degree to which symptoms are present with sufficient consistency to form a pattern or configuration (Mishel, 1988). Difficulty can occur in the normal process of symptom appraisal when symptoms are not clearly distinguishable. For example, the diagnosis of prostate cancer often occurs when the person has no symptoms. The diagnosis is based upon prostate-specific antigen levels and biopsy.

Event familiarity refers to patterns of experiences in the health care environment or with the health care system. These are developed over time and through experience in a setting. In the health care environment, the novelty and complexity of events impedes the development of event familiarity. Novelty occurs in new situations in which there are very few familiar cues, and complexity indicates a situation in which there are a great number of cues to be considered (Mishel, 1988). Being diagnosed with prostate cancer constitutes a huge change in everyday life for the person, catapulting them into a novel and complex

treatment setting. Patients are exposed to new physicians with different specialties. Patients consult urologists, radiation oncologists, or other specialists in order to make a treatment decision (Gwede et al., 2003). The diagnostic tests for prostate cancer including biopsies, lab work, digital rectal exam (DRE) and scans add to the complexity of the situation. Further complexity results from the number and variety of treatment options for early stage prostate cancer along with the side effects and prognosis of each treatment.

Event congruence refers to the predictability and stability of events in the illness experience (Mishel, 1988). Most men will not experience any symptoms in the localized stages of prostate cancer making it difficult for them to believe they have a serious illness. If they do have symptoms, those symptoms can also indicate the presence of other diseases or disorders and they may undergo a thorough work-up to determine the underlying cause of the symptoms (Shaha, Cox, Talman, & Kelly, 2008). Any of those scenarios may increase uncertainty.

Structure providers are the resources available to provide meaning and structure to illness-related events (Mishel, 1988). These resources are available to assist patients in the interpretation of the stimuli frame. Structure providers consist of a person's social support, the perception of credible authority, and their educational level and relevant knowledge. Structure providers decrease the degree of uncertainty directly and indirectly. Reduction of uncertainty occurs directly when patients depend on the structure providers to interpret situations or events. Reduction of uncertainty occurs indirectly when structure providers aid individuals in understanding the pattern of symptoms, the familiarity of events surrounding the prostate cancer diagnosis and the congruence of experiences.

Education provides meaning and context to illness events in the stimuli frame by enlarging the individual's knowledge base. To make a treatment decision effectively, men need to understand what the prostate cancer diagnosis means, what treatments will be like, short and long-term side effects, the benefits and risks of treatments, prognosis after treatment, and the possibility of recurrence. Individuals with more education form a cognitive state by researching information on illness events, using sources such as the internet, books, magazines and personal contacts with others who have had prostate cancer. Individuals with less education may need more time and more information to construct a meaning for events and may experience longer period of increased uncertainty than those with more education. Individuals with less education may use family and friends as sources for information rather than more credible sources (Chin, Polonsky, Thomas, & Nerney, 1998; Mishel, 1988).

The credible authority of health care providers results from the degree of confidence and trust that patients have in them and the degree to which they share information with patients about the disease trajectory (Mishel, 1988). Patients look to their physicians for interpreting, providing meaning, and explaining their illness. To help manage uncertainty and increase the credible authority of health care providers, brief descriptions of the roles of health care providers, information about common procedures and symptom patterns can provide the information needed to form cognitive structures to make sense of events in the health care environment (Brashers et al., 2003; Brashers, Hsieh, Neidig, & Reynolds, 2006).

Dimensions of social support that assist with uncertainty management are satisfaction with the support received, reciprocity of support, and support networks (Mishel, 1988). Social relations are transactional, in that individuals typically both give and receive support. Findings from research on uncertainty and social support suggest that uncertainty and social

support are significant predictors of adjustment to illness (Berkman & Glass 2000; Germino et al., 1998; Mishel & Braden, 1988).

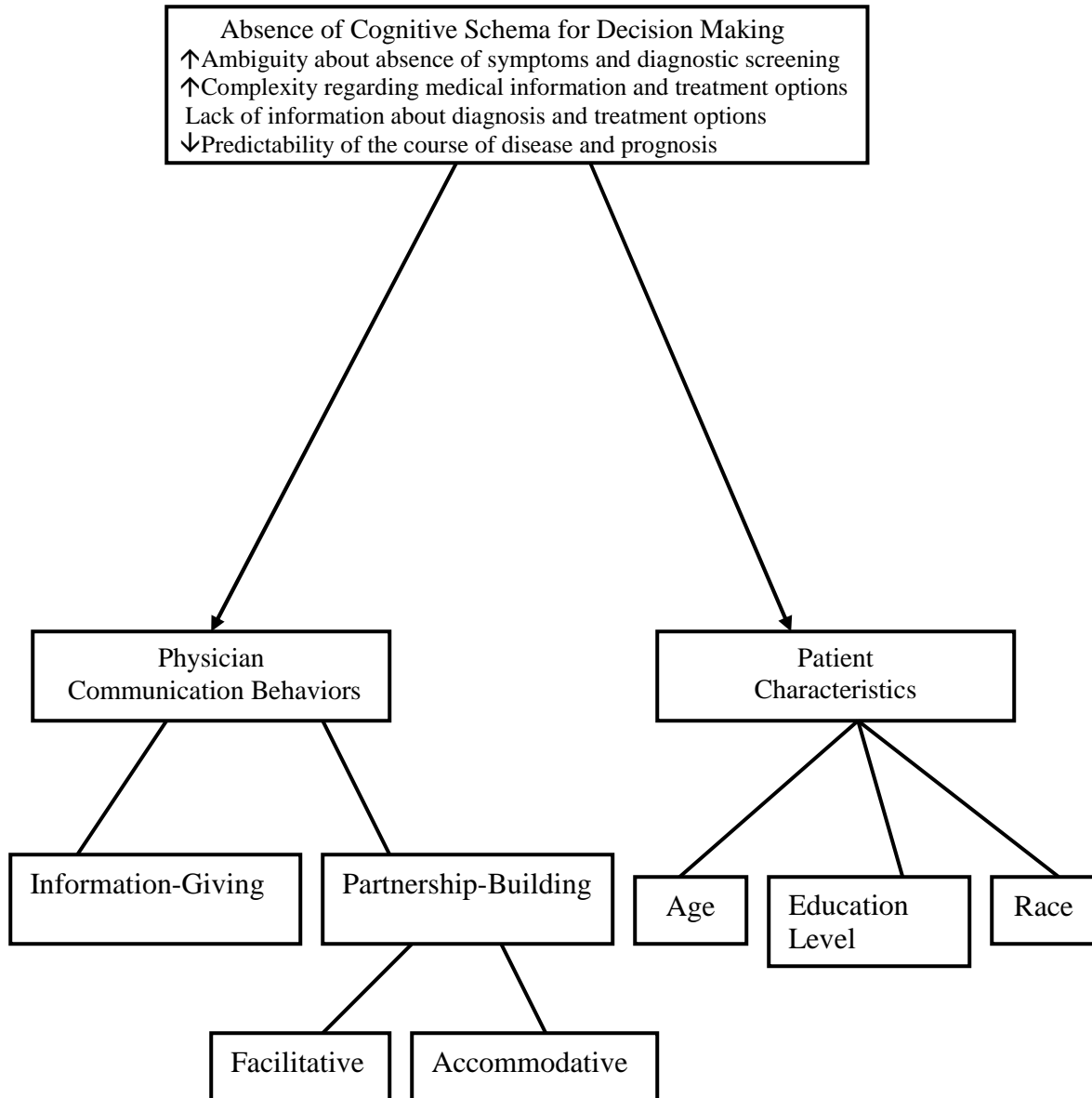
The third antecedent of uncertainty, cognitive capacity, is the individual's ability to process information in order to form a cognitive schema (Mishel, 1988). The information processing abilities most susceptible to disruptions are those requiring attentional resources needed for a cognitive task. Demands on attentional capacity disrupt stimuli frame formation inducing uncertainty (Mishel, 1988). The initial diagnosis of cancer may cause patients to feel numb or confused. In this state, patients may have difficulty listening, understanding and remembering information. Stress and anxiety about the unknowns including the future also fluctuate across the disease trajectory and may lead to diminished cognitive capacity.

This theory helps explain how patients cognitively process illness-related information and construct meaning associated with treatment decision making for prostate cancer. This theory will be the model for the environment in which treatment decision consultations occur.

In the conceptual model proposed for this study, communication takes place in an environment of uncertainty. Patients often come to the treatment consultation meeting with an absence of cognitive schema for decision making. Both physicians and patients affect the communication process. Figure 2.2 illustrates the conceptual model for the current study.

Figure 2.2

*Conceptual Model for Physician Communication Behaviors in a Context of Uncertainty:  
Treatment Decision Making Discussions in Localized Prostate Cancer*



The variables of the model are described as follows.

### *Variables*

The absence of cognitive schema can be attributed to multiple factors. Patients have increased ambiguity about absence of symptoms and diagnostic screening. There is complexity regarding medical information and treatment options. Physicians will present their patients with a variety of treatment options along with side effects and prognosis. Prostate cancer is unpredictable. The course of the disease and prognosis can vary with the patient. Wallace and Storms (2007) explored the psychosocial needs of 16 men with prostate cancer (15 Caucasian and 1 African American) in focus groups. Similar to breast cancer patients, the prostate cancer patients in this study went through three stages: taking in (diagnosis), taking hold (experience), and taking on (survival). In the taking in (diagnosis) stage, patients experienced emotions that come with being diagnosed with prostate cancer, such as fear, anger, and shock. During the taking hold (experience) stage, patients sought information about their diagnosis, discussed confusion over treatment options available and described treatment-related symptoms. During the taking hold (survival) stage, patients were learning to live with prostate cancer and managing side effects of treatment. If patients cannot form a cognitive schema, decision making about treatment can be hampered.

Physicians provide information to patients to make sense of their illness when there is no clearly preferred definitive treatment. When patients felt that physicians provided insufficient and/or contradictory information concerning symptoms, diagnoses, treatment options and prognoses, they experienced increased uncertainty and had less confidence in their physicians (Cunningham, Sohler, Korin, Gao, & Anastos, 2007). The utilization of physician partnership-building behaviors facilitates active participation by the patient in the



treatment decision making process, promotes trust in the physician, and improves health outcomes. Physicians are therefore the focus of the proposed study.

In summary, uncertainty can be present from the onset of diagnosis of prostate cancer. Localized prostate cancer, where an optimum treatment choice is characterized by uncertainty and ambiguity, often creates a situation in which patients need more information to make treatment decisions (Snow et al., 2007; Wilt et al., 2008). Some questions that could arise before and during the treatment decision process include the following: What does watchful waiting mean? Am I a candidate for surgery? What about radiation? Can I have surgery after radiation? Are the outcomes the same for all treatments? What is cryotherapy? What are the complications from treatments? During treatment, uncertainty may surround the onset and duration of treatment side effects. After treatment, patients may feel a sense of regret if they think they have made the wrong decision, particularly younger patients living more years with unfavorable side effects and complications. It is important that men regardless of race, age, and educational level understand the risks, benefits, and impact on quality of life of each treatment and are able to participate meaningfully in the decision making process.

### *Review of Literature*

#### *Information-giving*

Street and Millay (2001) define information giving by physicians during a medical visit as statements about the patient's diagnosis; descriptions of any aspect of their specific illness or treatment; recommendations for treatment and management; rationales for decisions, risks of side effects; options for treatment; and outlook or prognosis for the patient.

Physicians also use other kinds of information-giving statements, including clear “how to” instructions and taking control of conversation to direct discussion.

Health care providers have been reported, however, to be the least used as sources of information (Nivens, Herman, Weinrich, & Weinrich, 2001). Recent research findings indicated that a variety of patients used people in addition to their physicians for information. These sources of information included spouse, significant others, family members, and friends (Gwede et al., 2005; Nivens et al., 2001). Family members and friends aided the patient in decision making by providing information about success stories or complications of treatment options. Electronic media such as television, radio, and internet; and print media including books and pamphlets, were also used by patients as common sources of information.

Studies of physicians’ information-giving point out that physicians are no longer the most common source of information for patients (Grembowski et al., 2001; Gwede et al., 2005; Maliski, Connor, Fink, & Litwin, 2006; Nivens et al., 2001; Wallace & Storms, 2007). Physicians may have been the least used sources of information because they were not considered by many patients to be consistently helpful in making treatment decisions (Maliski et al., 2006). From the perspective of the physician and patient, this problem has intensified since managed care (Grembowski et al., 2003). Patients often describe feeling like a number and are not sure that the physician is communicating every option. This could be related to the fact that often the consulting physician, who usually specializes in one treatment area, for example surgery, was uncertain or less informed about the specifics of other treatment options, such as beam radiation and chemotherapy. Selection of treatments by

patients may be influenced by physician bias toward the specific treatments they provide (Gwede et al., 2005).

Patients have also reported that the information received from physicians about treatment options was not relevant to their concerns (Maliski et al., 2006; Wallace & Storms, 2007; Woods, Montgomery, Belliard, Ramirez-Johnson, & Wilson, 2004). Some men felt that they did not receive the information they needed to choose the best form of treatment for their prostate cancer (Maliski et al., 2006).

In addition, patients did not always feel that physicians addressed their psychological needs (Wallace & Storms, 2007). Especially at diagnosis and when choosing among treatment options, patients have uncertainty and anxiety that need to be addressed in order for them to process the information they are given (Wallace & Storms; Woods et al., 2004). Uncertainty and anxiety surrounding a prostate cancer diagnosis does not always decrease after the treatment consultation visit. For example, patients have attributed uncertainty about prostate cancer and its effect on sexuality to not receiving culturally appropriate and understandable health information during consultations (Woods et al., 2004).

Little research has been done that focused on physicians' perspectives on giving information to patients. One study looked at information-giving and the concept of uncertainty from the primary care physician's point of view (Grembowski et al., 2001).

A limitation of the studies on physician information giving was that designs were usually cross-sectional, often using focus groups. Most studies took place after the decision had been made. The content and delivery of information by physicians at these treatment consultations were not assessed--just patients' perceptions after the treatment decision had been made. The time since the prostate cancer diagnosis varied from 6 months to 12 years so

recall of how information was presented by physicians at the time of diagnosis could have been a problem.

Another limitation of the published research in this area was that there was little consistency in the theoretical basis of the research. Existing studies used social cognitive theory (Maliski et al., 2006; Wallace & Storms, 2007) and a conceptual model derived from the literature on physician satisfaction (Grembowski et al., 2001). None of the theories addressed communication that happens during the treatment decision making consultation. Some studies were atheoretical (Gwede et al., 2005; Nivens et al., 2001).

The samples for studies about information giving lacked ethnic or racial diversity. The majority of subjects in the samples were Caucasian except for the study by Nivens et al. (2001) whose sample was 72% African American. Sociodemographic diversity is also inconsistent or not reported (Maliski et al., 2006; Wallace & Storms, 2007; Woods et al., 2004).

Questions that are raised when reviewing these studies include whether the education and age of the patient affected the physician's delivery of information and the nature of the communication patterns of these physicians during consultations.

*Age.* Age of the patient has been found to affect the information about prostate cancer treatment options given by physicians to patients. Physicians may have the perception that the elderly have cognitive and/or functional limitations and these limitations could adversely influence their ability to respond to the proposed treatment (Gunderson, Tomkowiak, Menachemi, & Brooks, 2005). Older patients have been reported to lack information or understanding of their diagnosis and treatment option; they have also been shown to have less understanding about their stage of cancer after communication with the physician

(Santoso, Engle, Schaffer, & Wan, 2006). Santoso et al. (2006) concluded that for each year a patient ages, there is a 2.5% decrease in their ability to correctly identify the site of their cancer

Physicians also consider life expectancy in making treatment recommendations, and they may not present all the treatment options to patients because of the patient's age and their perception of the patient's life expectancy (Chapple et al., 2002; Wilt et al., 2008). In a systematic review of literature reporting randomized clinical trials for treatment of localized prostate cancer, Wilt et al. (2008) found that for men older than 70, radiation therapy and watchful waiting were more commonly used treatment options. Chapple et al. (2002) examined how treatment decisions were made in a sample of fifty men from 50-85 years old at different stages of prostate cancer. Most of the men had more than one treatment, with 32 men having hormone treatment and 20 having external beam radiation therapy to control the spread of prostate cancer. Only seven men reported having had a radical prostatectomy. Few men less than 70 years old remembered watchful waiting being presented as a possible treatment option. The men in the Chapple et al. (2002) study wanted all treatment options presented, although that had not been their perception of their actual experiences.

Studies addressing the effects of age on treatment recommendations and treatment decisions illustrated that information giving by physicians can vary for older patients. Published results should be considered in the context of several study limitations. Ages of patients were not always clear (Gunderson et al., 2005; Santoso et al., 2005). For example, one study compared physicians' perceptions and attitudes toward three groups: elderly population in general, elderly population older than 85, and nursing home patients. One study listed different age groups in the sample; however, comparisons between different age groups

were not possible due to unequal sample sizes and different stages of prostate cancer (Chapple et al., 2002). These studies also took place after the treatment decision was made so information exchange between the physician and patient during the treatment consultation could not be directly ascertained and some patients could have forgotten details of the conversations they had with their consulting physician.

*Education level.* According to some studies, physicians appear to have the perception that educational level and/or literacy may be related to access to and understanding of information about prostate cancer and treatment as well as disease status at presentation (Kane et al., 2003; Kim et al., 2001; Knight et al., 2007; Santoso et al., 2006). Men with lower education levels, especially those with less than high school education, have been described as a vulnerable group, even with equal access to health care settings. Compared with those who had attained more formal education, they experienced greater symptom burden and greater disruption in their ability to function in their daily lives due to prostate cancer and its treatments (Knight et al., 2007). There are several explanations offered by two investigators for the relationship of education and understanding of information (Kim et al., 2001; Knight et al., 2007). One explanation was that men with lower education may have experienced greater difficulty understanding written material about the disease, treatments, and posttreatment care. Also, men with less education may have greater work and family responsibilities that are adversely impacted by prostate cancer and treatments than men with more education. Because of study limitations, inferences about patient education and physicians' communication cannot be made.

There are some indications that patient education, age and physician communication are related. Physicians give more information about definitive treatment to older patients

with more years of education than to older patients with less years of education (Kane et al., 2003). Older men with more years of education were more likely to receive definitive therapy, such as radical prostatectomy and external beam radiation therapy, and less likely to have primary hormonal therapy than older men with less years of education (Kane et al., 2003). These authors used a database and consultations were not audiotaped so it is unclear whether older men with higher educational levels asked more questions during their consultations and what those questions addressed. It is possible that patient questions or other behaviors during treatment consultations affected physician treatment recommendations but this remains to be addressed.

In summary, the patient's education level appears to influence physicians' information giving. Findings should be interpreted in lieu of the limitations of these studies. The samples were convenience samples and patients who chose to participate could be systematically different from the patients who declined participation. The samples came from two kinds of settings: VA medical centers and an outpatient chemotherapy clinic. Most of the patients in this group of studies had a high school education or less. Results cannot be generalized beyond these samples. Also, two important questions remain unanswered: Did physicians know patients' educational levels before the treatment consultation; and how did patients' educational levels affect their physician's information-giving and treatment recommendation? Because of what appears to be a relationship between education and age, further study of physician communication in relation to these two patient characteristics is critical to understanding possible disparities in health communications in prostate cancer.

*Race.* Information-giving has also been demonstrated to vary with the race of the patient (Gordon et al., 2006b; Siminoff et al., 2006). Physician perceptions of minority

patients may have influenced whether they recommended screening tests for their African American patients. Physicians may have been less likely to recommend aggressive treatment for African Americans if they perceived them to be at increased risk for poor outcomes (Hoffman et al., 2003). Also, if physicians perceived African Americans as less intelligent and less rational, the physicians did not spend time explaining procedures or giving recommendations (van Ryn & Burke, 2000; Wee, McCarthy, & Phillips, 2005). For instance, a survey of 193 predominately Caucasian male physicians indicated that the patient's race was associated with physicians' perceptions of intelligence and beliefs about adherence to medical advice (van Ryn & Burke, 2000). Wee et al. (2005) showed that 64% of African American primary care patients reported that they were unaware that they needed a fecal occult blood test (FOBT) and 72% were unaware that they needed an endoscopy procedure. This lack of knowledge could have been related to the physicians' lack of thorough discussion about testing or to the patient's incomplete or inaccurate understanding.

At least two recent studies showed that physicians use information-giving with Caucasians more than with patients from other racial groups (Gordon et al., 2006b; Siminoff et al., 2006). In addition, where physicians and patients were of different races/ethnicities, African American patients were less active participants in patient/physician interactions and perceived physician communication to be less informative than did Caucasian patients (Gordon et al., 2006b). African Americans were not alone in this perception of physicians; small numbers of Filipino and Chinese subjects had similar views (Maliski et al., 2006). In the same study participants in all racial/ethnic groups expressed a lack of knowledge about prostate cancer and wanted more information about the disease, treatment, and treatment options (Maliski et al., 2006).



Published studies, then, indicate that physician information-giving tended to vary with the race of the patient. Also, the way in which the patient's participation varied in consultations seemed to depend on whether the race of the physician matched the patient's race. Limitations of these studies included a lack of sample diversity. The majority of the subjects in these studies were Caucasian and samples included only small numbers of patients from different racial groups. Convenience samples limited generalizability. While investigators measured perceptions of either the physician or patient after the consultation, what took place during the consultation was not adequately captured (Maliski et al., 2006; van Ryn & Burke, 2000; Wee et al., 2005). In two studies, the investigators did audiotape consultations with physicians and analyzed these data (Gordon et al., 2006b; Siminoff et al., 2006). However, these patients had either lung cancer or breast cancer where treatment options are not necessarily equally efficacious. There are no published data about what happens during prostate cancer treatment decision making consultations and whether physician information-giving varies consistently by patient race in discussions of treatment options for prostate cancer.

#### *Partnership-building Behaviors*

As discussed earlier, Street and Millay (2001) define partnership-building behaviors as utterances by physicians that encourage patients to discuss their opinions, express feelings, ask questions, and participate in decision-making. In addition, partnership-building behaviors include physician utterances that explicitly agree with or affirm the patient's opinion, belief, or request. Partnership-building behaviors can be facilitated or accommodative. Partnership-building behaviors that occur because the patient was actively participating are described as

accommodative. When partnership-building behaviors occur only because the physician initiated them, they are described as facilitative.

Studies have shown that patients who actively participated in the medical visit experienced more partnership-building behaviors by physicians than patients who were less active participants (Gordon, Street, Kelly, Soucek, & Wray, 2005; Street, Gordon, & Haidet, 2007). The use of partnership-building behaviors by physicians can also vary with the patient's age, educational level, or race. The variability in physicians' use of partnership-building behavior was first described when Hall, Roter, and Katz (1988) summarized studies of physician behavior. Physicians used partnership-building behavior more with patients from a higher social class, with females, and with Caucasians. Current evidence indicates the persistence of this pattern although the specific situation of prostate cancer treatment decision making has not been studied in relation to partnership-building behavior. One reason cited in the current literature for the variation in the use of partnership-building behaviors is the increasingly limited time allowed for the physician visit (Solomon, 2008; Street et al., 2005). In order to be more productive, the physician may spend less time with the patient, making it impractical to assess and respond to patients' concerns effectively. Even though these factors may affect physician-patient communication, they should be studied in the context of patients' age, education, and race, since those factors have repeatedly been associated with variations in physician partnership-building behaviors. The next sections will discuss partnership-building behaviors in relation to age, educational level and race.

*Age.* As with information-giving, studies have indicated that the use of partnership-building behaviors by physicians varies with the age of patients because physicians may have the perception that the elderly may have cognitive and/or functional limitations and that these

limitations would adversely influence their ability to participate in decision-making as well as adhering and responding to the proposed treatment (Gunderson et al., 2005; Kruger, Prohaska, & Furner, 2007). Gunderson et al. (2005), in a study of the perceptions and attitudes of 212 predominantly Caucasian rural Florida physicians who routinely provided care for the elderly, found that this group of physicians demonstrated ageist perceptions, especially when patients were older than 85 years and were part of the nursing home population. According to a survey instrument that measured perceptions and attitudes, physicians in Gunderson's study felt that these patients were not able to make informed decisions and learn new information.

Physicians have also been described as not adequately encouraging older patient to discuss their opinions, to express feelings, and to address preference for participation in decision-making (Kruger et al., 2007), indicating that they may not be alert to the degree of patient preference for involvement in decision-making. Results were unclear about whether patients' preferences were fulfilled during the medical encounter.

Studies of partnership-building behaviors by physicians and the relationship of the patient's age to the physician's behavior had limitations that need to be considered. The length of time of the physician-patient relationships was not known. An ongoing relationship may have indicated that the physician had more knowledge of the patient and their preferences for involvement in decisions. The length and nature of the relationship could have affected perceptions of physician or patient.

Methodological limitations may also have been important. One study used patients' self-report, which could have been subjected to the patient's recall because the study took place after the consultation (Kruger et al., 2007). Partnership-building behavior of physicians

with patients of differing demographic characteristics needs to be more systematically studied. The influence of patient age on physician partnership building behaviors is especially important with patients living longer and experiencing more choices about care.

*Education level.* Patients with more education have been reported to be more likely to participate in the treatment visit by asking questions and expressing concerns, which in turn increases the physician use of partnership-building behaviors (Gordon et al., 2005; Siminoff et al., 2006). Men with more years of education have been described as more able to apply the information gathered from the physician and other sources and be more proactive in their decision-making no matter what their age (Cox & Amling, 2008). These studies raise the issue of whether education level is a significant factor in determining the extent to which physicians encourage patients' partnership in decision making about treatments. One major limitation of this small group of studies is that none of the studies reported whether the physicians knew the patient's educational level before the visit. Since it was not reported that physicians were systematically informed about patient education or consistently sought this information, they may have been inferring patient educational level using cues like patient behavior, language, and questions.

*Race.* Research has suggested that patient participation in decision making is fostered when the physician establishes a trusting relationship with the patient. Minority patients' distrust can lead to lack of active participation in discussions with their physicians (Cooper et al., 2003; Street et al., 2005). The Tuskegee syphilis study and other historical ethical abuses of minorities in research have left a legacy of distrust and profound fear of mistreatment among African American men (Gamble, 1997; McCallum, Arekere, Green, Katz, & Rivers, 2006). Some African American men may bring this viewpoint to the medical visit and this

may influence the depth of their disclosure and ability to engage as a partner with their provider in the health care system. Studies have shown that African American men, young and old, have a tendency to distrust Caucasian health providers based upon their prior experiences with racism or unfair treatment (Sohler, Fitzpatrick, Lindsay, Anastos, & Cunningham, 2007; Woods et al., 2004; Woods, Montgomery, Herring, Gardner, & Stokois, 2006). For example, Gordon et al. (2006a) in a sample of 103 patients (78% Caucasian; 22% African American) and 18 providers (16 physicians and 2 physicians assistants; 2 Hispanics, 11 Caucasians, and 5 Asians) reported that African American patients had lower post-visit trust of physicians and perceived physician communication to be less supportive and less partnering than did Caucasian patients. This distrust can lead to less active participation by African American men. There are as yet no published studies testing whether one way to encourage active participation may be to increase trust through physician use of partnership-building behaviors and other active behaviors to promote positive engagement.

African American patients have been reported to perceive that Caucasian physicians communicate differently with their African American patients than with their Caucasian patients and this perception may contribute to a lack of active involvement in the medical visit by the patient (Gordon et al., 2006a). At least two recent studies showed that physicians were more verbally dominant with African American patients than with Caucasian patients; they also had less patient-centered communication with African Americans (Gordon et al., 2006a; Johnson, Roter, Powe, & Cooper, 2004). The results of these two studies also indicated that African American patients were not engaged and actively participating in visits; this lack of engagement may also have contributed to disparities in health

communications and lack of partnership-building behaviors by physicians (Gordon et al., 2006a; Johnson et al., 2004).

According to some investigators, the fear of cancer and cancer treatment related problems, such as impotence and incontinence, may have led to African American men with prostate cancer taking a passive role during the medical visit (Parchment, 2004; Woods et al., 2006). One study illustrated this fear in a sample of 277 African American men who attributed uncertainty about prostate cancer and its effect on sexuality to not receiving culturally appropriate and understandable health information (Woods et al., 2006). The patient's passivity during the visit may adversely influence the quantity of partnership-building behaviors used by the physician.

Another patient problem that has been reported in the literature is health care providers referring to African Americans informally by their first names instead of addressing them more formally (Jenkins, Lapelle, Zapka, & Kurent, 2005; Washington, Bickel-Swenson, & Stephens, 2008). Although health care providers may communicate with patients using informality thinking that they are promoting interpersonal relationships, African American patients may, in fact, view this lack of formality as being talked down to and may find such language insulting and disrespectful (Belgrave & Allison, 2006). For example, African Americans in a focus group study expressed that they wanted to be treated with respect (Jenkins et al., 2005). The importance of being treated with respect has also been mentioned in a recent review article and in a book about African American psychology (Belgrave & Allison, 2006; Washington et al., 2008). The importance of address as an indicator of respect may be an especially sensitive issue for older men who were historically addressed by Caucasians using their first names as a way to keep them in their

place (Belgrave & Allison, 2006). This lack of formality can be viewed by patients as less partnering and less supportive of their concerns and issues.

Since both patients and physicians contribute to the communication process, what appears to be physician bias and bias-based behavior with patients from different cultures must be considered as an influence on that communication. Patient attitudes and feelings about physicians and the health care system and their health care experiences are also potential influences. Limitations of the published studies include not having enough race/ethnicity concordant physician-patient pairs to compare with the non-concordant pairs and the lack of consideration of other components of the physician-patient relationships, such as communication styles and negative experiences. Designs of this body of studies varied but were usually cross-sectional, often using focus groups. There was little data from direct measurement or observation of interactions during visits because not all visits were audiotaped. Patients' recall of what happened during these visits could be different from physicians'. Physicians' perceptions were not assessed.

*Gender.* Even though all the physicians and all the patients in the current study are male, this literature review would be incomplete without briefly discussing gender and how it may affect partnership-building behaviors. Female physicians are more likely to engage in partnership-building behaviors than are male physicians (Roter & Hall, 2004; Street, 2002). The reason suggested for this is that women by nature have more affective qualities. The affective qualities allow female physicians to display warmth, caring, and compassion (Street, 2002). This reason has not been directly tested. Male physicians tend to be more paternalistic, which can adversely affect the use of partnership-building behaviors (Street, 2002). Even though there was a reported difference between the use of partnership-building

behaviors by male and female physicians (Roter & Hall, 2004; Street, 2002) there was no research that indicated that female physicians' use of partnership-building behaviors varied with the race of the patient. The gender of the patient is not a factor in the current research because prostate cancer affects only men.

In summary, the physician-patient communication process is a reciprocal interaction. Patients' distrust can lead to withholding information and concerns which can lead to poorly informed and less than optimal physician decisions and recommendations. Physician assumptions about patients can lead to withholding of important information which can lead to less ideal patient understanding, poorly informed treatment decision, decisional regret, and subsequently poor adherence. This variation could result in a lack of trust by the patient related to the lack of information-giving by the physician and a feeling by the patient that he or she is not able to openly discuss concerns with the physician. These factors can lead to health disparities in minority groups. However, limitations in the quality and quantity of published studies that directly address this issue in the prostate cancer decision making consultation support the need for further research in this area.



## **CHAPTER THREE**

### **METHODOLOGY**

This study was a secondary analysis of data from a larger completed study, Decision Making under Uncertainty in Men with Prostate Cancer Patients (R01 NR008144-01, Merle H. Mishel, PI and Barbara B. Germino, Co-PI).

#### *Specific Aims*

The research questions for this study were the following:

1. What types of information-giving behaviors do physicians demonstrate in treatment discussions with Caucasian and African American men seeking treatment for localized prostate cancer?
2. What types of partnership-building behaviors do physicians demonstrate in treatment discussions with Caucasian and African American men seeking treatment for localized prostate cancer?
3. What is the frequency of information-giving behaviors by physicians in these treatment discussions?
4. What is the frequency of partnership-building behaviors by physicians in these treatment discussions?
5. Do physician information-giving behaviors vary by the age, education level and race of the patient?
6. Do physician partnership-building behaviors vary by the age, education level and race of the patient?

7. What is the frequency of facilitative vs. accommodative partnership-building behaviors by physicians in these treatment discussions?
8. Does physicians' use of facilitative vs. accommodative partnership-building behaviors vary by the age, education level and race of the patient?

### *Definition of Variables*

Communication: giving and receiving information by verbal expression.

Physicians' information-giving behaviors: statements about prostate cancer, the patient's specific prostate cancer diagnosis and its staging; description of any aspect of illness or treatment; rationales for treatment decisions or for recommendations; risks of side effects; options for treatment; outlook or prognosis for the patient; recommendation for treatment and management; clear "how to" instructions; statements by a doctor that attempts to direct discussion with a patient, and other procedural related information (Street & Millay, 2001).

Physician partnership-building behaviors: utterances that encourage patients to discuss their opinions, express feelings, ask questions, and/or participate in decision-making; utterances that explicitly agree with or affirm the patient's opinion, belief, or request (Street & Millay, 2001).

Facilitative partnership-building: partnership-building is not preceded by active patient participation behaviors (see Appendix A for verbal behavior coding guide).

Accommodative partnership-building: partnership-building is preceded by active patient participation behaviors (see Appendix A for verbal behavior coding guide).

Race: self-identified as African American or Caucasian.

Age: chronological age in years.

Education level: years of education reported by patient.

Utterance: a simple clause with a subject and verb that can stand on its own as a complete thought (Street & Millay, 2001).

*Decision Making under Uncertainty in Men with Prostate Cancer: Parent Study*

The participants, setting, recruitment, design, and methods and data collection for the parent Decision-Making study will be discussed next.

*Design*

Decision making under Uncertainty in Men with Prostate Cancer was a randomized clinical trial using a 3x2 randomized block, repeated-measures design. Caucasian and African American men were blocked on ethnicity and randomly assigned to either a control group or one of two treatment groups: treatment supplement group (both the patient and the primary support person received the intervention) and treatment direct (only the patient received the intervention) (R01 NR008144-01, Merle H. Mishel, PI and Barbara B. Germino, Co-PI).

For all participants, measurement occurred at three time points: at entry into the study immediately following diagnosis (baseline, T1), 4 weeks post baseline (T2) (when the patient and physician treatment decision-making consult visit had occurred), and 3 months post baseline (T3) (after the patient had started their treatment for prostate cancer). Physicians having treatment decision-making consultations with newly diagnosed men were also subjects in the study, gave written consent, completed one measure, the Physicians' Reaction to Uncertainty Scale (Gerrity, White, DeVellis, & Dittus, 1995) and agreed to have their decision-making consultations audio-recorded and transcribed.

### *Sample/Setting*

The final sample for the parent study included 256 men with localized prostate cancer, 183 Caucasians and 73 African Americans. The mean age of the sample was 62.5 and the mean number of years of education was 15. Patients were recruited from six health care facilities in North Carolina.

### *Recruitment*

Initially, subjects were recruited from five sites: two university medical center teaching hospitals (NCI-designated comprehensive cancer centers) and three community hospitals. A sixth site, the Veterans' Administration Medical Center (VAMC) was added later in the study to enhance the numbers of African American subjects, because the numbers of African American men who met all eligibility criteria at most sites was smaller than originally projected by tumor registry data from those sites. Another barrier to recruitment of larger numbers of African American men was that many of them presented initially with advanced disease beyond stage T2b, making them ineligible for the study. The majority of the subjects (78%) were recruited from two comprehensive cancer centers; the majority of African American subjects were recruited from one of the comprehensive cancer centers and from the VAMC.

Criteria for study eligibility included: staging T1 (a, b, c) or T2 (a or b); a Gleason score less than 10; PSA level less than 20; at least 10 days before the treatment consultation appointment; no major cognitive impairment; ability to read; access to a telephone and no prior cancer history. Also, the patient had to designate a primary support person (PSP) who was willing to participate in the study.

Selected clinical staff members in each site were oriented to the eligibility criteria for the study. The staff in the six recruitment sites determined initial eligibility and provided potential subjects with a brief scripted explanation of the study. These staff then provided the study team with contact information for those men interested in hearing more about the study. A recruiter from the study's team contacted interested men by telephone, determined their eligibility, answered questions about the study, and obtained their verbal consent to enroll in the study. Men who consented were asked to identify a primary support person (PSP) who was also contacted by the recruiter to give details about the study and obtain consent. Subjects with their PSPs were then randomized and written consent was then obtained from both patients and PSPs.

When subjects returned their signed written consents, baseline data collection was done by telephone and intervention materials were mailed to all subjects randomized into either of the two treatment arms of the study. Subjects in the control group were sent general information about staying healthy during cancer treatment.

A total of 410 men were contacted, of which sixty seven (16%) did not meet all the eligibility criteria. For the 343 eligible men, 256 agreed to participate in the study for an acceptance rate of 75%. The study also enrolled 229 PSPs. In addition, the study enrolled 17 physicians, all of whom were male and Caucasian.

In order for the decision making intervention to be delivered before the patient's treatment consult visit with their physician, subjects had to be recruited immediately after receiving the news that their prostate biopsies had been positive for cancer and 10 days to 2 weeks before their appointment. The physicians involved in the study were willing to direct the scheduling staff to allow a window of 10 days to 2 weeks from the time the patient was

notified about their positive biopsy and the treatment decision consult visit in order for the nurse intervener to deliver the intervention.

### *Measures*

The subjects in the parent study completed demographic and background measures. Measures of uncertainty, mood disturbance, quality of life, cognitive reframing and problem solving, prostate cancer knowledge and patient-provider communication also were completed by all subjects. In addition, measures of the types of information resources used and the helpfulness of these, of decisional conflict (decisional uncertainty and perceived effective decision making), medical communication competence, and decisional regret were completed. The proposed study will not be using data on any of the outcome measures.

### *Procedures for Data Coding Preparation*

A total of 236 physician/patient treatment consultations were audiotaped, transcribed verbatim by a professional transcription service and checked for accuracy. A total of 215 transcripts were codeable. Because one health care facility did not allow audiotaping of consult visits and there were problems with transcripts, such as the number of inaudible and incomplete thought units, the total number of transcripts included in the original study was 215: 177 from Caucasian patients and 38 from African American patients. The transcripts were divided into thought units before coding. A thought unit was defined as an independent clause or simple sentence but it contained one thought topic. Several sentences contiguous to one another can be a thought unit. A thought unit begins when a speaker expresses the first word on a topic and ends when the speaker begins conversation on another topic. If a speaker expressed more than one thought during his or her turn, then those thoughts were divided into more than one thought unit.

### *Pilot Study for Secondary Analysis*

Despite the fact that physicians' use of partnership-building behaviors has been implicated in disparities in cancer mortality, research concerning this issue is sparse. In order to test Street and colleagues' (Street, 1991, 1992; Street & Millay, 2001) coding scheme to determine the feasibility of using it in a secondary analysis study to describe physicians' use of information-giving and partnership-building behaviors, an exploratory, descriptive pilot study, using transcript data from the Decision-Making study was conducted. A second purpose of the pilot study was to describe the degree to which physician partnership-building behaviors during treatment consultations varied with the race, age and educational level of the patient.

#### *Research Questions*

The following research questions were addressed:

1. Can Street and colleagues' (Street, 1991, 1992; Street & Millay, 2001) coding scheme be applied to existing transcripts with adequate inter-rater reliability?
2. What types of information-giving behaviors do physicians demonstrate in treatment discussions with Caucasian and African American men seeking treatment for localized prostate cancer?
3. What types of partnership-building behaviors do physicians demonstrate in treatment discussions with Caucasian and African American men seeking treatment for localized prostate cancer?
4. What is the frequency of information-giving behaviors by physicians in these treatment discussions?

5. What is the frequency of partnership-building behaviors by physicians in these treatment discussions?
6. Do physician information-giving behaviors vary by the age, education level and patient of the patient?
7. Do physician partnership-building behaviors vary by the age, education level and race of the patient?
8. What is the frequency of facilitative vs. accommodative partnership-building behaviors by physicians in these treatment discussions?
9. Does physicians' use of facilitative vs. accommodative partnership-building behaviors vary by the age, education level and race of the patient?
10. Does the quantity of physician partnership-building behaviors and information-giving by physicians about treatment options vary with the race of the patient, controlling for age and educational level?

### *Methods*

The pilot study used data from the study, Decision Making under Uncertainty in Men with Prostate Cancer Patients described earlier.

### *Data*

At the time of the pilot study, 141 transcripts had been transcribed verbatim by a professional transcription service and checked for accuracy, and were found to be codable. There were problems with 10 transcripts, such as the number of inaudible and incomplete thought units. Transcripts from 20 subjects across control and treatment groups were purposively selected for this pilot study. The rationale for choosing 20 participant transcripts and combining treatment groups for this study was because of the limited number of



transcripts from African American subjects (38) and to explore whether communication patterns could be coded reliably.

### *Sample*

For the pilot study, 10 African American and 10 Caucasian men were included: 5 were from the control group, 9 from the treatment supplemented group, and 6 from the treatment direct group. Seven physicians were represented in this sample of transcripts. All the physicians were male and Caucasian as were all physicians in the parent study. Four of the six recruitment sites were represented in the pilot sample. The average age of the pilot sample was 63, with a range from 50 to 79. The average number of years of education was 13, with a range from 7 to 21 years of education.

### *Human Subjects Protection*

The parent study had been approved by the appropriate IRB of the University of North Carolina at Chapel Hill. Participants were told about the purpose of the study and signed an IRB approved consent form. All data were kept confidential through the use of subject identification numbers. No identifying information was kept with the data. For the pilot study, a data use agreement was signed by the parent study investigators and the pilot investigator for the use of the transcripts. Separate IRB approval was obtained for the pilot study. To maintain confidentiality of the data, only the pilot PI and faculty advisor had access to the data.

### *Data Analysis*

For this pilot study, only the physician behaviors were coded from the transcripts. Line-by-line coding was done using Atlas.Ti. The coding scheme used for this study was developed by Street and colleagues (Street, 1991, 1992; Street & Millay, 2001). This coding

scheme categorizes patients' use of active communication behaviors and categorizes physician behaviors as partnership-building, information-giving, and supportive talk. Partnership-building behaviors encourage patients to discuss their opinions, express feelings, ask questions, and/or participate in decision-making and explicitly agree with or affirm the patient's opinion, belief, or request (Street & Millay, 2001). The different types of information given were in the categories of diagnosis, description, rationales, risks, options, outlook, recommendation, control, and others. This coding scheme was used because the coding rules were explicit, instructions were easy to follow, definitions were clear, categories were exhaustive and mutually exclusive, and 90% or higher agreement between coders had been obtained in prior studies (Gordon et al., 2006b; Gordon et al., 2005; Street & Gordon, 2008). Gordon et al. (2005) reliabilities for the categories using Cohen's Kappa were as follows: physician information-giving (0.82) and physician partnership-building (0.64) and in another study done by Gordon et al. (2006b), physician information-giving was 0.83. Physician responses coded for this pilot study were information-giving, partnership-building and supportive talk. Table 3.1 illustrates the verbal coding codes (see Appendix A for verbal behavior coding guide).

Table 3.1  
Verbal Coding Codes

Code #	Topical Codes	Definitions of Codes
<b>I. Partnership-Building Behaviors</b>		
1	Agreement	Agreement by doctor to fulfill a patient's request.
2	Questions	Open ended questions that encourage patients to express their feelings.
3	Decision Making	Statements encouraging patient decision-making.
4	Requests	Requests for the patient's preferences, expectations, or goals.
A	Accommodative	Partnership-building is preceded by active patient participation behaviors.
F	Facilitative	Partnership-building is not preceded by active patient participation behaviors.
<b>III. Information-Giving</b>		
1	Diagnosis	Any information that pertains to the nature of the disease or health of the body.
2	Description	All information that describes what the doctor will or could do.
3	Rationales	Doctor justification for any medical procedures, test, or recommendation.
4	Risks	Description that explains possible negative side effects
5	Options	Description of more than one option for treatment
6	Outlook	Description of what happens to patient AFTER doctor recommended treatment.
7	Recommendation	Suggestion by a doctor for a patient to take treatment, medication, or perform a task.
8	Instructions	Provide clear "how to " instructions.
9	Control	Utterance by a doctor that attempts to direct discussion with a patient.
10	Other	All procedural related information given by the doctor.
<b>IV. Speaker</b>		
1	Doctor	
2	Patient	

### *Results of the Pilot Study*

Research question one was:

Can Street and colleagues' (Street, 1991, 1992; Street & Millay, 2001) coding scheme be applied to existing transcripts with adequate inter-rater reliability?

Ten of the 20 transcripts were coded independently by a second coder and the principal investigator for the pilot study. The second coder was a doctoral student in nursing. A copy of the verbal coding rules and verbal behavior coding guide was given to the second coder and she was trained by the principal investigator of the pilot study. The transcript used for training was not one of the transcripts that were used to establish inter-rater reliability.

Reliability was established by coding a subset of 5 physician-patient consultations independent of one another. Reliability was determined by computing the number of categories agreed upon divided by number of agreements plus number of disagreements (Goodwin & Prescott, 1981). Goodwin and Prescott further stated that when using categorical or nominal data, percentage agreement is both an appropriate and sufficient approach to inter-rater reliability. Physicians' communication behaviors were coded using this coding scheme and 80% agreement was achieved. Reliabilities, calculated using percentage agreement were as follows: information-giving (0.75), partnership-building (0.71), facilitative partnership-building (0.78), and accommodative partnership-building (0.68). Discrepancies between the coder and the investigator were discussed and resolved. Any transcript with reliability below .80 was recoded after discussion.

Research question two was:

What types of information-giving behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?

To answer this question, frequency counts of each type of physician information-giving behavior were computed and exported to an Excel file. For types of information given by physicians to patients, 110 utterances by physicians were coded into the category of diagnosis, which pertains to the nature of the disease and the health of the body. One hundred utterances by physicians were coded into the category of risks that explains possible negative side effects related to treatment. The category of descriptions of what the physician will or could do was coded for 81 utterances (see Appendix A for verbal behavior coding guide; Appendix B for pilot study).

Research question three was:

What types of partnership-building behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?

To answer this question, frequency counts of codes for each transcript were computed and exported to an Excel file. Four utterances were coded as agreement. Ten utterances were coded as questions. Fourteen utterances were coded as requests; 77 utterances were coded as decision-making.

Research question four asked the following:

What is the frequency of information-giving behaviors by physicians in these treatment discussions?

To answer this question, frequency counts of codes for each transcript were computed and exported to an Excel file. There were 522 out of a total of 897 utterances for the 20 transcripts coded as information-giving behaviors by physicians.

Research question five asked the following:

What is the frequency of partnership-building behaviors by physicians in these

treatment discussions?

To answer this question, frequency counts of codes for each transcript were computed and exported to an Excel file. There were 105 utterances out of a total of 897 utterances coded as partnership-building behaviors by physicians.

Research question six asked the following:

Do physician information-giving behaviors vary by the age, education level and race of the patient?

To answer this question, frequency counts of codes for each transcript were computed and exported to an Excel file. To get the percentage of utterances by age, the number of utterances for patients less than 65 years old (283) and patients 65 years old or older (239) was divided by the total number of utterances (522) for both groups. Physicians in this sample used information-giving behaviors with patients less than 65 years old 54.2% of the time, compared to 45.8% of the time with patients 65 years old or older.

To get the percentage of utterances by education level, the number of utterances for patients with 12 years of education or less (234) and patients with 13 or more years of education (265) was divided by the total number of utterances (499) for both groups. For patients with 12 years of education or less, physicians in this pilot study used fewer information-giving behaviors (46.9%) than for patients with 13 or more years of education (53.1%). Data on years of education were missing for one patient.

To get the percentage of utterances by race, the number of utterances for each racial group, African Americans (243) and Caucasians (279), was divided by the total number of utterances (522) for both groups. Physicians in this sample used utterances of information-giving behaviors with Caucasians 53.4% of the time compared to 46.6% of the time with

African Americans. Differences between mean utterances of information-giving by age, education level and race of the patient were not done to examine whether differences were significant.

Research question seven asked the following:

Do physician partnership-building behaviors vary by the age, education level and race of the patient?

To answer this question, frequency counts of codes for each transcript were computed and exported to an Excel file. To get the percentage of utterances by age, the number of utterances for patients less than 65 years old (75) and patients 65 years old or older (30) was divided by the total number of utterances (105) for both groups. Physicians in this sample used partnership-building behaviors with patients less than 65 years old 71.4% of the time, compared to 28.6% of the time with patients 65 years old or older. However, only 8 patients were over 65, which could have inflated the percentage of patients less than 65 years old receiving more partnership-building behaviors.

To get the percentage of utterances by education level, the number of utterances for patients with 12 years of education or less (36) and patients with 13 or more years of education (69) was divided by the total number of utterances (105) for both groups. For patients with 12 years of education or less, physicians in this pilot study used fewer partnership-building behaviors (34.3%) than for patients with 13 or more years of education (65.7%). Data on years of education were missing for one patient. The total number of utterances (105) of partnership-building behaviors for African Americans (27) and Caucasians (78) was summed.

To get the percentage of utterances by race, the number of utterances for each racial group was divided by the total number of utterances for both groups. Physicians' use of partnership-building behaviors varied with the race of the patient. Physicians in this sample used utterances of partnership-building behaviors with Caucasians 74.3% of the time compared to 25.7% of the time with African Americans. There was one transcript of the discussion between a Caucasian physician and an African American patient in which the physician used no partnership-building behaviors. Differences between mean utterances of partnership-building by age, education level and race of the patient were not done to examine whether differences were significant.

Research question eight asked the following:

What is the frequency of facilitative vs. accommodative partnership-building behaviors by physicians in these treatment discussions?

To answer this question, frequency counts of codes of facilitative and accommodative partnership-building for each transcript were computed and exported to an Excel file. There were 105 out of 897 utterances for the 20 transcripts coded as partnership-building behaviors by physicians. Thirty-four utterances were coded as facilitative and 71 utterances were coded as accommodative.

Research question nine asked the following:

Does physicians' use of facilitative vs. accommodative partnership-building behaviors vary by the age, education level and race of the patient?

To answer this question, frequency counts of codes for each transcript were computed and exported to an Excel file. To get the percentage of utterances by age, the number of utterances of facilitative partnership-building behaviors for patients less than 65 years old



(26) and patients 65 years old or older (8) was divided by the total number of utterances (34) for both groups. Physicians in this sample used facilitative partnership-building behaviors with patients less than 65 years old 76.5% of the time, compared to 23.5% of the time with patients 65 years old or older. The number of utterances of accommodative partnership-building behaviors for patients less than 65 years old (49) and patients 65 years old or older (22) was divided by the total number of utterances (71) for both groups. Physicians in this sample used accommodative partnership-building behaviors with patients less than 65 years old 69% of the time, compared to 31% of the time with patients 65 years old or older. However, only 8 patients were over 65, which could have inflated the percentage of patients less than 65 years old receiving more facilitative and accommodative partnership-building behaviors.

To get the percentage of utterances by education level, the number of utterances of facilitative partnership-building behaviors for patients with 12 years of education or less (17) and patients 13 or more years of education (17) was divided by the total number of utterances (34) for both groups. Physicians in this sample used facilitative partnership-building behaviors equally with Caucasian and African American patients. The number of utterances of accommodative partnership-building behaviors for patients with 12 years of education or less (19) and patients with 13 or more years of education (52) was divided by the total number of utterances (71) for both patients. For patients with 12 years of education or less, physicians in this pilot study used fewer accommodative partnership-building behaviors (26.8%) than for patients with 13 or more years of education (73.2%). Data on years of education were missing for one patient.

To get the percentage of utterances by race, the number of utterances for each racial group was divided by the total number of utterances for both groups. The total number of utterances of facilitative (34) partnership-building behaviors for African Americans (16) and Caucasians (18) was summed. Physicians in this sample used utterances of facilitative partnership-building behaviors with Caucasians 52.9% of the time compared to 47.1% of the time with African Americans. The total number of utterances of accommodative (71) partnership-building behaviors for African Americans (11) and Caucasians (60) was summed. Physicians in this sample used utterances of accommodative partnership-building behaviors with Caucasians 84.5% of the time to 15.5% of the time with African Americans. There was one transcript of the discussion between a Caucasian physician and an African American patient in which the physician used no partnership-building behaviors. Differences between mean utterances of facilitative and accommodative partnership-building by age, education level and race of the patient were not done to examine whether differences were significant.

Research question ten asked the following:

Does the quantity of physician partnership-building behaviors and information-giving by physicians about treatment options vary with the race of the patient controlling for age and education level?

Two regression analyses were done using SPSS, one with amount of information-giving as the dependent variable and the second with the amount of partnership-building behavior as the dependent variable. The first regression analysis had information-giving as the dependent variable and age, race, and education level as the independent variables. Race was significantly and negatively correlated with educational level ( $r = -.578$ ,  $p = .005$ ). African

Americans were given less information than Caucasians. When the variables were entered into the model, the model was not significant ( $F [3, .625], p = .610$ ).

With partnership-building behaviors as the dependent variable, race ( $r = -.655, p = .001$ ) and education level ( $r = .395, p = .047$ ) were significantly correlated with partnership-building behaviors. With partnership-building behaviors as the dependent variable, race and education level were significantly and inversely correlated with each other ( $r = -.578, p = .005$ ). African Americans experienced less physician partnership-building behaviors than Caucasians. Patients with 13 or more years of education experienced more partnership-building behaviors than patients with 12 or less years of education. When the variables were entered into the model, the model was significant ( $F [3, 4.221], p = .024$ ). The quantity of partnership-building behaviors did vary with race, when controlling for age and education level.

### *Discussion*

Results from this pilot study showed that physicians' information-giving and partnership-building behaviors varied with the age, education level, and race of the patient. The pilot study supports the findings of Gordon et al. (2006a), Siminoff et al. (2006), Gordon et al. (2006b), and Street et al. (2005) that the use of information-giving and partnership-building behaviors by physicians continues to vary with the age, race, and education level of the patients. Results also showed that the coding scheme developed by Street and Millay (2001) could be used to code the transcripts for this pilot study in a way that would address study aims. There were 1855 thought units that were not coded because the speaker was a resident, nurse, or primary support person or the utterance was missing words. The results of this pilot

study provided support for the methodology of the dissertation research with a larger sample of men from the control condition of the parent study.

### *Current Study*

The purpose of the current study was to describe physician communication patterns, specifically information-giving and partnership-building behaviors, with African American and Caucasian men with early stage prostate cancer during the treatment decision making consultation. A second purpose was to examine whether there was a variation in physician communication patterns with the age, education level and race of the patient.

### *Specific Aims*

The research questions for this study were the following:

1. What types of information-giving behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?
2. What types of partnership-building behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?
3. What is the frequency of information-giving behaviors by physicians in these treatment discussions?
4. What is the frequency of partnership-building behaviors by physicians in these treatment discussions?
5. Do physician information-giving behaviors vary by the age, education level and race of the patient?
6. Do physician partnership-building behaviors vary by the age, education level and race of the patient?

7. What is the frequency of facilitative vs. accommodative partnership-building behaviors by physicians in these treatment discussions?
8. Does physicians' use of facilitative vs. accommodative partnership-building behavior vary by the age, education level and race of the patient?

### *Methods*

#### *Sample*

Thirteen African American men and 32 Caucasian men, all from the control group of the parent study, comprised the sample for this study. Control subjects comprised the sample for this study because subjects in the treatment group who received the intervention consisting of skills to learn and practice communication skills for interacting with their physician. Eight physicians, all male and Caucasian, comprised the physician sample in the current study.

#### *Data*

The data set for this study consisted of 45 verbatim transcripts of physician-patient treatment consultations with control subjects. The 45 transcripts included 13 from African American subjects and 32 from Caucasian subjects.

#### *Coding*

The transcripts were saved as a rich text file and imported into Atlas.ti, a qualitative data analysis software program. Atlas.ti was chosen because of its qualitative and quantitative features. Qualitative data can be coded and the frequency of the codes or quotations can be generated in a table. One strategy for quantifying qualitative data is by counting the number of times a qualitative code occurs. Quantifying is the term that has been used to describe the process of transforming coded qualitative data into quantitative data and

qualitizing is the term to describe the process of converting quantitative data to qualitative data (Tashakkori and Teddlie, 1998). Using Atlas.ti allowed the thought units to be coded line-by-line for the frequency of categories of utterances using the coding scheme developed by Street and colleagues (Street, 1991, 1992; Street & Millay, 2001). All transcripts were coded by two individuals not involved in the study, who the investigator trained using eight transcripts from the pilot study. Transcripts were divided equally and coding was completed after giving 20 transcripts to each coder. Reliability was established by coding a subset of 5 physician-patient consultations independently of one another. Reliabilities, calculated using Cohen's Kappa, were as follows: information-giving (0.77), partnership-building (0.90), facilitative partnership-building (0.88), and accommodative partnership-building (1.00) behaviors. For the transcripts used for reliability, accommodative partnership-building behaviors were coded 3 times, which accounts for the high Cohen's Kappa. Discrepancies between the coder and the investigator were discussed and resolved.

### *Analysis*

1. What types of information-giving behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?

To address research question 1, each transcript was coded for the types of information and exported to an Excel file. Types of information physicians gave to patients are illustrated in text with examples from transcripts.

2. What types of partnership-building behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?

To address research question 2, each transcript was coded for partnership-building behaviors and exported to an Excel file. Types of partnership-building behaviors used by physicians are illustrated in text with examples from transcripts.

3. What is the frequency of information-giving behaviors by physicians in these treatment discussions?

To answer research question 3, each transcript was coded for types of information-giving behaviors and were exported to an Excel file and then exported to SPSS. Means, standard deviations, and ranges for types of information-giving behaviors were examined.

4. What is the frequency of partnership-building behaviors by physicians in these treatment discussions?

To answer research question 4, each transcript was coded for partnership-building behaviors and exported to an Excel file and then exported to SPSS. Means, standard deviations, and ranges for the types of partnership-building behaviors were examined.

5. Do physician information-giving behaviors vary by age, education level and race of the patient?

To answer research question 5, transcripts were assigned to a family, which is a way of organizing documents in Atlas.ti. Families for this question are age ( $\leq 65$  and  $>65$ ), education level ( $\leq 12$  years and  $>12$  years) and race (African American and Caucasian). Sixty-five was used for categorizing age because 65 is still seen as the marker of old age, signifying eligibility for Medicare. Twelve years of education was used for categorizing education because physicians use partnership-building more with patients who have some college education than patients with a high school education or less (Siminoff et al., 2006; Street, 2005). Once transcripts were assigned to a family, then this family was used to get

quotations for information-giving behaviors and to generate a frequency table. Frequency counts of information-giving behaviors for each transcript were exported to Excel from Atlas.ti in the form of tables by age, education level and race. The frequency counts of information-giving behaviors by age, education level and race are discussed in the text of Chapter 4 and provided in a table. Descriptive statistics for the demographic characteristics of participants also are discussed in the text of Chapter 4 and provided in a table. Differences between information-giving utterances by age, education level and race were computed using independent *t*-tests to examine whether differences are significant.

6. Do physician partnership-building behaviors vary by the age, education level and race of the patient?

To answer research question 6, transcripts were assigned to a family as explained above. Families for this question are age ( $\leq 65$  and  $>65$ ) education level ( $\leq 12$  years and  $>12$  years) and race (African American and Caucasian). Sixty-five was again used for categorizing age because 65 is still seen as the marker of old age, signifying eligibility for Medicare. Twelve years of education was again used for categorizing education because physicians use partnership-building more with patients who have some college education than patients with a high school education or less (Siminoff et al., 2006; Street, 2005). Once transcripts were assigned to a family, then this family was used to get quotations for partnership-building behaviors and to generate a frequency table. Frequency counts of partnership-building behaviors for each transcript were exported to Excel from Atlas.ti in the form of tables by age, education level and race. The frequency counts of partnership-building behaviors by age, education level and race are discussed in the text of Chapter 4 and provided in a table. Descriptive statistics for the demographic characteristics of participants



also are discussed in the text of Chapter 4 and provided in a table. Differences between the partnership-building utterances by age, education level and race will be computed using independent *t*-tests to examine whether differences are significant.

7. What is the frequency of facilitative vs. accommodative partnership-building behaviors by physicians in these treatment discussions?

To answer research question 7, the frequency of facilitative and accommodative partnership-building behaviors were computed and the data were exported to an Excel file and then exported to SPSS. Means, standard deviations, and ranges for facilitative and accommodative partnership-building behaviors were examined.

8. Does physicians' use of facilitative vs. accommodative partnership-building behaviors vary by the age, education level and race of the patient?

To answer research question 8, transcripts were assigned to a family. Families for this question are age ( $\leq 65$  and  $>65$ ), education level ( $\leq 12$  years and  $>12$  years) and race (African American and Caucasian). Sixty-five was again used for categorizing age because 65 is still seen as the marker of old age, signifying eligibility for Medicare. Twelve years of education was again used for categorizing education because physicians use partnership-building more with patients who have some college education than patients with a high school education or less (Siminoff et al., 2006; Street, 2005). Once transcripts were assigned to a family, then this family was used to get quotations for facilitative and accommodative partnership-building behaviors and to generate a frequency table. Frequency counts of facilitative and accommodative behaviors for each transcript were exported to Excel from Atlas.ti in the form of tables by age, education level and race. The frequency counts of facilitative and accommodative behaviors by age, education level and race are discussed in

the text of Chapter 4 and provided in a table. Descriptive statistics for the demographic characteristics of participants are also discussed in Results (Chapter 4) and provided in a table. Differences between the facilitative and accommodative utterances by age, education level and race were computed using independent *t*-tests to examine whether differences are significant.

#### *Protection of Human Subjects*

Permission was obtained for the use of the Decision Making under Uncertainty in Men with Prostate Cancer Patients (P3) transcripts and codebook from the principal investigator (PI) of the parent study. A data use agreement was signed. Review and approval from the Public Health Nursing IRB at the University of North Carolina at Chapel Hill also will be obtained. These subjects in the original study had already consented to the audiotaping and transcribing of their doctor visit for treatment discussion. The consent for the original study was clear that all data were being collected for research purposes.

#### *Data Management*

To maintain confidentiality of the data, in addition to the PI of the current study, the PI and co-PI of the parent study, respectively a member and chair of the dissertation committee, had access to the data. All data were kept confidential through the use of subject identification numbers. No identifying information was kept with the data. Transcripts were stored in a locked file. Copies of all the transcripts were on a flash drive, which is locked in a file when not in use.

In summary, this chapter discussed the methodology for the current study. Because this study is a secondary analysis, the parent study was discussed first followed by a description of the pilot study and methods for the current study.

## CHAPTER IV

### RESULTS

This chapter describes the results of the data analysis. A description of sample characteristics is followed by consultation characteristics, descriptive analyses of variables, and an analysis of the results for each research question.

#### *Physician Sample Characteristics*

Eight physicians were subjects in this study. All of the physicians were male and Caucasian. Physicians were practicing at four sites: two university medical center teaching hospitals (NCI-designated comprehensive cancer centers) and two community hospitals. No other data on physician characteristics were available.

#### *Patient Sample Characteristics*

Forty-five men comprised the patient sample. Thirteen of the men were African American and 32 were Caucasian. Patients ranged in age from 45 to 81 with a mean age of 60.91. The number of years of education ranged from 8 to 21 with a mean of 15.20, with the largest number of subjects (14) reporting 16 years of education. The patient sample was divided categorically by age ( $\leq 65$  and  $> 65$ ), education level ( $\leq 12$  years and  $> 12$  years) and race (African American and Caucasian). Caucasian men were older ( $M = 62.81$ ), than African American men ( $M = 56.23$ ). Caucasian men had a mean number of years of education of 16.23 ( $SD = 2.47$ ) while African American men had a mean of 12.77 years ( $SD = 3.54$ ). One Caucasian man did not report years of education. Table 4.1 gives the patient sample characteristics.

Table 4.1

*Patient Sample Characteristics (N = 45)*

	Caucasian (n = 32)	African American (n = 13)	Total (N = 45)
Age:			
≤65	21	12	33
> 65	11	1	12
Mean (SD)	62.81 (7.66)	56.23 (8.03)	60.91 (8.25)
Range	48-81	45-73	45-81
Education Level:			
≤12	3	8	11
> 12	28	5	33
Mean (SD)	16.23 (2.47)	12.77 (3.54)	15.20 (3.21)
Range	12-21	8-18	8-21

*Consultation Characteristics*

The data set for this study consisted of 45 verbatim transcripts of physician-patient treatment consultations. The thought units per treatment consultation ranged from 69 to 998 with a mean number of consultations of 280.62 ( $SD = 213.23$ ). No information was available about the actual time each consultation took. One physician consistently had treatment consultations that were longer than the other physicians, as evidenced by the number of pages of the transcript. The number of consultations per physician ranged from 15 to 1. The number of consultations at each site was 42 from the two university medical center teaching hospitals (NCI-designated comprehensive cancer centers) and three from the two community hospitals. Thirty-one patients had a primary support person in the consultation with them.

*Descriptive Analyses of Variables*

Descriptive statistics for the measured variables were examined across the 45 transcripts. Most of the physicians' communication was in the form of information-giving. There was a mean of 34.11 ( $SD = 20.01$ ) information-giving statements per consultation. Partnership-building behaviors were much less common ( $M = 5.80$ ,  $SD = 3.36$ ). Partnership-

building behaviors were used more when patients actively participated in the consultation (accommodative partnership-building) ( $M = 3.27$ ,  $SD = 2.85$ ) than when initiated by the physician (facilitative partnership-building) ( $M = 2.53$ ,  $SD = 2.53$ ). Summary statistics for measured variables are shown in Table 4.2.

Table 4.2

*Means, Standard Deviations and Ranges for Variables (N = 45)*

Variable	<i>M</i>	<i>SD</i>	Range
Information-Giving Behaviors	34.11	20.01	11-107
Partnership-Building Behaviors	5.80	3.36	1-16
Accommodative Partnership-Building	3.27	2.85	0-12
Facilitative Partnership-Building	2.53	1.65	0-6

*Types of Information-Giving Behaviors*

Research question one was: What types of information-giving behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?

To answer this question, each transcript was coded for the types of information-giving behaviors according to the verbal coding scheme (See Appendix A for verbal behavior coding guide). The types of information-giving behaviors physicians demonstrated were control, description, diagnosis, instructions, options, other, outlook, rationale, recommendation, and risks, which are all the types of information-giving in the verbal coding scheme (see Appendix C for coded dissertation data). Control utterances were those used by physicians to direct discussions with patients. Description utterances described what the physician could do for the patient. Physicians gave information to patients about their diagnoses that included the nature and extent of the disease and how it affects the health of

the body. “How to” instructions were given to patients on Kegel exercises, diet, and bowel prep with Fleets enema. Physicians also gave patients information about different treatment options for prostate cancer. All procedure related information physicians gave to patients was coded as “other”. Information on what was likely to happen to the patient after the physician’s recommended treatment was categorized as information on the outlook. Information categorized as rationales included justifications for any medical procedures, tests, or recommendations. Recommendations, a type of information-giving, consisted of recommendations by physicians for patients to take treatment, medication, or to perform a task. Finally, the information-giving category of risks included information that explained possible negative side effects related to treatment.

Descriptions, diagnosis, and risks were the most common types of information giving statements. Control and instructions were the least common types of information given.

#### *Types of Partnership-Building Behaviors*

Research question two was: What types of partnership-building behaviors do physicians demonstrate in treatment discussions with men seeking treatment for localized prostate cancer?

To answer this question, partnership-building behaviors for each transcript were coded using the verbal coding scheme (see Appendix A for verbal behavior coding guide). All types of partnership-building behaviors--agreement, decision-making, questions, and requests--in the verbal coding scheme were represented in the transcripts. The agreement category was defined as a statement by physicians agreeing to fulfill patients’ requests. Any statement encouraging decision-making was another type of partnership-building behavior used by physicians. Another type of partnership-building behavior was open ended questions

that encouraged patients to express their feelings. Requests, the last category of partnership-building behaviors, were utterances that asked for the patient's preference, expectations, or goals. The most common type of partnership-building behavior used by this sample of physicians was decision-making. The least common type of partnership-building behavior was questions.

#### *Frequency of Information-Giving Behaviors*

Research question three was: What is the frequency of information-giving behaviors by physicians in these treatment discussions?

To answer research question 3, the frequency of each type of information-giving behaviors across all transcripts was summed in an Excel file. The mean of each type of information-giving behaviors was calculated by the sum of utterances for that specific category divided by 45, which is the total number of transcripts. There were 1535 information-giving utterances out of total 1796 of all utterances across all transcripts coded. Information-giving utterances were used 85.5% of the time by physicians. The most frequent type of information given by physicians was description with a mean of 10.60 ( $SD = 8.52$ ) description utterances per transcript. Next most frequent was diagnosis ( $M = 7.78$ ,  $SD = 6.07$ ). The least common types of information-giving utterances coded were control ( $M = .58$ ,  $SD = 1.23$ ) and instructions ( $M = .20$ ,  $SD = .55$ ). Table 4.3 illustrates the frequencies, means, standard deviations, and ranges for the types of information-giving behaviors.

Table 4.3

*Frequencies, Means, Standard Deviations and Ranges for Types of Information-Giving Behaviors (N = 10)*

Type	<i>f</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Control	26	0.58	1.23	0-5
Description	477	10.60	8.52	1-38
Diagnosis	350	7.78	6.07	0-29
Instructions	9	0.20	0.55	0-3
Options	55	1.22	1.15	0-5
Other	69	1.53	3.17	0-17
Outlook	148	3.29	4.73	0-22
Rationale	140	3.11	2.72	0-14
Recommendation	93	2.07	1.63	0-6
Risks	168	3.73	2.69	0-12

#### *Frequency of Partnership-Building Behaviors*

Research question 4 was: What is the frequency of partnership-building behaviors by physicians in these treatment discussions?

To answer research question 4, the frequency of each type of partnership-building behaviors across transcripts was summed in an Excel file. To get the mean, the sum of utterances for that specific category was divided by 45, which is the total number of transcripts. Physicians used 261 partnership-building utterances out of a total of 1796 utterances across all transcripts. Partnership-building utterances were used 14.5% of the time by physicians. The most frequent type of partnership-building was decision-making and the least common type was questions. Of these, 183 utterances were coded as decision-making ( $M = 4.07$ ,  $SD = 2.77$ ); 49 utterances were coded as requests ( $M = 1.09$ ,  $SD = 1.22$ ); twenty-five utterances were coded as agreement ( $M = .56$ ,  $SD = .87$ ); and four utterances were coded as questions ( $M = .09$ ,  $SD = .29$ ). Table 4.4 illustrates the frequencies, means, standard



deviations and ranges for types of partnership-building behaviors demonstrated by physicians.

Table 4.4

*Frequencies, Means, Standard Deviations and Ranges for Types of Partnership-Building Behaviors (N = 4)*

Type	<i>f</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Agreement	25	0.56	0.87	0-4
Decision-Making	183	4.07	2.77	0-10
Questions	4	0.09	0.29	0-1
Requests	49	1.09	1.22	0-5

#### *Information-Giving Behaviors by Patient Characteristics*

Research question five was: Do physician information-giving behaviors vary by the age, education level and race of the patient?

To answer this question, frequency counts of information-giving behaviors for each transcript were summed across transcripts and exported to Excel from Atlas.ti in the form of tables by age, education level, and race. Independent samples *t*-tests were used to examine differences between information-giving utterances by dichotomous categories of age ( $\leq 65$  and  $> 65$ ), education level ( $\leq 12$  and  $> 12$ ) and by race (African American and Caucasian) of patients because *t*-tests can be used to with groups of unequal sizes and different variances.

#### *Age*

To get the percentage of information-giving utterances by age, the number of information-giving utterances (1221 for patients less than or equal to 65 years old and 314 for patients greater than 65 years old) was divided for each of the two categories of age, by the total number of information-giving utterances across all transcripts (1535). Physicians in

this sample used information-giving behaviors with patients less than or equal to 65 years old 79.5% of the time, compared to 20.5% of the time with patients older than 65.

Differences in information-giving utterances between patients less than or equal to 65 years old and patients greater than 65 years old were examined using the independent samples *t*-test. The mean number of information-giving utterances was 37.00 (*SD* = 22.14) for patients less than or equal to 65 years old and 26.17 (*SD* = 9.02) for patients older than 65. Levene's Test for Equality of Variances (*F* [5.548]), *p* = 0.023) was significant indicating that there was a significant difference in the variances of these two groups; therefore, the "equal variances not assumed row" was used for the *t*-test. Differences in information giving by age were statistically significant (*p* = .025) indicating that physicians used significantly more information-giving behaviors with men who were 65 or younger. Table 4.5 presents the means and standard deviations for information-giving by age. Table 4.6 presents the independent *t*-test for information-giving by age.

Table 4.5

*Means and Standard Deviations for Information-Giving by Age*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Age			
<=65	33	37.00	22.14
>65	12	26.17	9.02

Table 4.6

*t-test: Information-Giving by Age*

	t	df	Sig. (2-tailed)
Equal variances not assumed	2.329	42.26	.025

*Education Level*

To get the percentage of information-giving utterances by education level, the number of information-giving utterances (334 for patients with 12 years of education or less and 1132 for patients with 13 or more years of education) for each category of education was divided by the total number of information-giving utterances (1466) for both groups. For patients with 12 years of education or less, physicians used information-giving behaviors less often (22.8% of the time) than for patients with 13 or more years of education (77.2% of the time). Data on years of education were missing for one patient.

Differences in information-giving utterances between patients with 12 years of education or less and patients with 13 or more years of education were examined using the independent samples *t*-test. The mean number of information-giving utterances was 30.36 (*SD* = 12.67) for patients who had 12 years of education or less and 34.30 (*SD* = 21.39) for patients who had 13 or more years of education. The educational difference was not statistically significant ( $p = 0.568$ ). Information-giving by physicians did not significantly differ by patient years of education. Table 4.7 illustrates the means and standard deviations for information-giving by education level. Table 4.8 illustrates the independent *t*-test for information-giving by education level.

Table 4.7

*Means and Standard Deviations for Information-Giving by Education Level*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Education			
≤12	11	30.36	12.67
>12	33	34.30	21.39

Table 4.8

*t-test: Information-Giving by Education Level*

	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Equal variances assumed	-.575	42	.568

*Race*

To get the percentage of information-giving utterances by race, the number of information-giving utterances for each racial group (395 for African Americans and 1140 for Caucasians) was divided by the total number of information-giving utterances (1535) for both groups. Physicians in this sample used utterances of information-giving behaviors with Caucasians 74.3% of the time compared to only 25.7 % of the time with African Americans.

An independent samples *t*-test was used to examine differences in information-giving utterances between Caucasian ( $M = 35.63$ ,  $SD = 22.87$ ) and African American ( $M = 30.30$ ,  $SD = 9.77$ ) patients. Since a Levene's Test for Equality of Variances was significant ( $F [4.756]$ ,  $p = 0.035$ ) indicating that there was a significant difference in the variances of these two groups, an independent samples *t*-test was performed that does not assume equal variances. The difference in physician information-giving was not statistically significant

( $p = 0.288$ ) indicating that physicians' information-giving did not significantly differ with the race of the patient. Table 4.9 illustrates the means and standard deviations for information-giving by race. Table 4.10 illustrates the independent  $t$ -test for information-giving by race.

Table 4.9

*Means and Standard Deviations for Information-Giving by Race*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Race			
Caucasian	32	35.63	22.87
African American	13	30.30	9.77

Table 4.10

*t-test: Information-Giving by Race*

	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Equal variances not assumed	1.077	42.798	.288

*Partnership-Building Behaviors by Patient Characteristics*

Research question six was: Do physician partnership-building behaviors vary by the age, education level and race of the patient?

To answer this question, frequency counts of partnership-building behaviors for each transcript were summed across transcripts and exported to an Excel file. For this measure, we used an independent samples  $t$ -test to examine differences between partnership-building utterances by dichotomous categories of age ( $\leq 65$  and  $> 65$ ), education level ( $\leq 12$  and  $> 12$ ) and race (African American and Caucasian) of patients because  $t$ -tests can be used to with unequal groups and the variances are different.

## Age

To get the percentage of partnership-building utterances by age, the number of partnership-building utterances (200 for patients less than or equal to 65 years old and 61 for patients older than 65 years) was divided for each of the two categories by the total number of partnership-building utterances (261) for both groups. Physicians in this sample used partnership-building behaviors with patients less than or equal to 65 years old 76.6% of the time, compared to 23.4% of the time with patients older than 65.

An independent samples *t*-test was used to examine differences in partnership-building utterances between patients less than or equal to 65 years old and patients greater than 65 years old. The mean number of partnership-building utterances was 6.06 (*SD* = 3.49) for patients less than or equal to 65 years old and 5.08 (*SD* = 2.99) for patients greater than 65 years old. The difference in partnership building by patient age was not statistically significant (*p* = .395). Table 4.11 illustrates the means and standard deviations for partnership-building by age. Table 4.12 illustrates the independent samples *t*-test for partnership-building by age.

Table 4.11

### *Means and Standard Deviations for Partnership-Building by Age*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Age			
<=65	33	6.06	3.49
>65	12	5.08	2.99

Table 4.12

*t-test: Partnership-Building by Age*

	t	df	Sig. (2-tailed)
Equal variances assumed	.86	43	.395

*Education Level*

To get the percentage of partnership-building utterances by education level, the number of partnership-building utterances (57 for patients with 12 years of education or less and 195 for patients with 13 or more years of education) was divided for each of the two categories by the total number of utterances (252) for both groups. For patients with 12 years of education or less, physicians used partnership-building behaviors 22.6% of the time and for patients with 13 or more years of education, 77.4% of the time. Data on years of education were missing for one patient.

Differences in physician partnership-building utterances with patients with 12 years of education or less and patients with 13 or more years of education were examined using the independent samples *t*-test. The mean number of partnership-building utterances were 5.18 ( $SD = 2.99$ ) for patients with 12 years of education or less and 5.91 ( $SD = 3.50$ ) for patients with 13 or more years of education. The difference in physician partnership building behaviors by patients' education level was not statistically significant ( $p = 0.541$ ). Table 4.13 illustrates the means and standard deviations for partnership-building by education level. Table 4.14 illustrates the independent samples *t*-test for partnership-building by education level.

Table 4.13

*Means and Standard Deviations for Partnership-Building by Education Level*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Education			
<=12	11	5.18	2.99
>12	33	5.91	3.50

Table 4.14

*t-test: Partnership-Building by Education Level*

	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Equal variances assumed	-616	42	.541

*Race*

To get the percentage of partnership-building utterances by race, the number of partnership-building utterances for each racial group (73 for African Americans and 188 for Caucasians) was divided by the total number of partnership-building utterances. Physicians in this sample used utterances of partnership-building behaviors with Caucasians 72% of the time compared to 28% of the time with African Americans.

An independent samples *t*-test was used to examine differences in partnership-building behaviors utterances between Caucasian and African American patients. The mean number of partnership-building utterances was 5.88 (*SD* = 3.58) for Caucasian patients and 5.61 (*SD* = 2.87) for African American patients. The difference in physician partnership building behavior by patient race was not statistically significant ( $p = 0.817$ ). Table 4.15



illustrates the means and standard deviations for partnership-building by race. Table 4.16 illustrates the independent samples *t*-test for partnership-building by race.

Table 4.15

*Means and Standard Deviations for Partnership-Building by Race*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Race			
Caucasian	32	5.88	3.58
African American	13	5.61	2.87

Table 4.16

*t*-test: Partnership-Building by Race

	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Equal variances assumed	.232	42	.817

*Frequency of Facilitative and Accommodative Partnership-Building Behaviors*

Research question seven was: What is the frequency of facilitative vs. accommodative partnership-building behaviors by physicians in these treatment discussions?

To answer this question, frequency counts of facilitative and accommodative partnership-building utterances across all transcripts were summed and exported to an Excel file. There were 261 total utterances coded as partnership-building behaviors by physicians. Partnership-building behaviors were examined to see when the physician used partnership-building behavior without any prompting from the patient (facilitative) or when partnership-building behavior occurred in response to what the patient said or did (accommodative). One

hundred fourteen partnership-building utterances were coded as facilitative partnership-building and 147 utterances were coded as accommodative partnership-building. Physicians in this sample used accommodative partnership-building utterances 56.3% of the time, compared to 43.7% of the time for facilitative partnership-building utterances. Table 4.17 illustrates the frequencies, means, standard deviations, and ranges for facilitative and accommodative partnership-building behaviors. Accommodative partnership building behaviors were more commonly used by physicians.

Table 4.17

*Frequencies, Means, Standard Deviations and Ranges for Facilitative and Accommodative Partnership-Building Behaviors (N = 261)*

Type	<i>f</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Facilitative	114	2.53	1.65	0-6
Accommodative	147	3.27	2.85	0-12

#### *Facilitative and Accommodative Partnership-Building Behaviors by Patient Characteristics*

Research question eight was: Does physicians' use of facilitative vs. accommodative partnership-building behaviors vary by the age, education level and race of the patient?

To answer this question, frequency counts of facilitative and accommodative partnership-building behaviors coded for each transcript were summed across transcripts and exported to an Excel file. Independent samples *t*-tests were used to examine differences between mean number of facilitative and accommodative partnership-building utterances by dichotomous categories of age ( $\leq 65$  and  $> 65$ ), education level ( $\leq 12$  and  $> 12$ ) and race (African American and Caucasian) of patients because *t*-tests can be used to with unequal groups and the variances are different.

### *Facilitative Partnership-Building Behaviors*

*Age.* To get the percentage of facilitative partnership-building utterances by age, 81 facilitative partnership-building utterances to patients less than or equal to 65 years old and 33 facilitative partnership-building utterances to patients older than 65 were each divided by the total number of facilitative partnership-building utterances (114) for both groups.

Physicians in this sample used facilitative partnership-building behaviors with patients less than or equal to 65 years old 71.1% of the time, compared to 28.9% of the time with patients older than 65.

Differences in facilitative partnership-building utterances to patients less than or equal to 65 years old and patients greater than 65 were examined using the independent samples *t*-test. The mean number of facilitative partnership-building utterances was 2.45 (*SD* = 1.64) for patients less than or equal to 65 years old and 2.75 (*SD* = 1.71) for patients older than 65. The age difference was not statistically significant ( $p = 0.60$ ) indicating there was no difference by patient age in the use of facilitative partnership-building behaviors by physicians. Table 4.18 illustrates the means and standard deviations for facilitative partnership-building by age. Table 4.19 illustrates the independent samples *t*-test for facilitative partnership-building by age.

Table 4.18

#### *Means and Standard Deviations for Facilitative Partnership-Building by Age*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Age			
</=65	33	2.45	1.64
>65	12	2.75	1.71

Table 4.19

*t-test: Facilitative Partnership-Building by Age*

	t	df	Sig. (2-tailed)
Equal variances assumed	-.528	43	.600

*Education Level.* There were 28 facilitative partnership-building utterances by physicians to patients with 12 years of education or less and 83 facilitative partnership-building utterances to patients with 13 or more years of education. Each of these was divided by the total number of facilitative partnership-building utterances (111) for both groups. For patients with 12 years of education or less, physicians used facilitative partnership-building behaviors 25.2% of the time compared to 74.8% of the time with patients with 13 or more years of education.

An independent samples *t*-test was used to examine differences in facilitative partnership-building utterances by physicians for patients in the two education categories. The mean number of facilitative partnership-building utterances was 2.54 (SD = 1.63) for patients with 12 years of education or less and 2.51 (1.70) for patients with 13 or more years of education. The difference in facilitative partnership building behaviors by education was not statistically significant ( $p = 0.959$ ). Table 4.20 illustrates the means and standard deviations for facilitative partnership-building by education level. Table 4.21 illustrates the independent samples *t*-test for facilitative partnership-building by education level.

Table 4.20

*Means and Standard Deviations for Facilitative Partnership-Building by Education Level*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Education			
<=12	11	2.54	1.63
>12	33	2.51	1.70

Table 4.21

*t-test: Facilitative Partnership-Building by Education Level*

	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Equal variances assumed	.052	42	.959

*Race.* To get the percentage of time physicians used facilitative partnership-building utterances by race, the number of facilitative partnership-building utterances for each racial group (29 for African Americans and 85 for Caucasians) was divided by the total number of facilitative utterances (114) for both groups. Physicians in this sample used utterances of facilitative partnership-building behaviors with Caucasians 74.6% of the time compared to 25.4% of the time with African Americans.

Differences in facilitative partnership-building utterances between Caucasian and African American patients were examined using the independent samples *t*-test. The mean number of facilitative partnership-building utterances was 2.66 (*SD* = 1.68) for Caucasian patients and 2.23 (*SD* = 1.59) for African American patients. The difference in physicians' facilitative partnership building behaviors by patient race was not statistically significant (*p* = 0.438). Table 4.22 illustrates the means and standard deviations for facilitative partnership-

building by race. Table 4.23 illustrates the independent samples *t*-test for facilitative partnership-building by race.

Table 4.22

*Means and Standard Deviations for Facilitative Partnership-Building by Race*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Race			
Caucasian	32	2.66	1.68
African American	13	2.23	1.59

Table 4.23

*t*-test: Facilitative Partnership-Building by Race

	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Equal variances assumed	.783	43	.438

*Accommodative Partnership-Building Behaviors*

*Age.* To get the percentage of time physicians used accommodative partnership-building utterances by age, the number of accommodative partnership-building utterances for each of the two age groups (119 for patients less than or equal to 65 years old and 28 for patients older than 65) was divided by the total number of accommodative partnership-building utterances (147) for both groups. Physicians in this sample used accommodative partnership-building behaviors with patients 65 years old or younger 81% of the time, compared to 19% of the time with patients older than 65.

Differences in accommodative partnership-building utterances by age of the patient were examined using the independent samples *t*-test. The mean number of accommodative partnership-building utterances was 3.61 (*SD* = 2.88) for patients less than or equal to 65 years old and 2.33 (*SD* = 2.64) for patients older than 65. The age difference was not statistically significant (*p* = 0.188), so the use of accommodative partnership-building behaviors by physicians did not differ significantly by the patient's age. Table 4.24 illustrates the means and standard deviations for accommodative partnership-building by patient age. Table 4.25 illustrates the independent samples *t*-test for accommodative partnership-building by age.

Table 4.24

*Means and Standard Deviations for Accommodative Partnership-Building by Age*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Age			
<=65	33	3.61	2.88
>65	12	2.33	2.64

Table 4.25

*t*-test: Accommodative Partnership-Building by Age

	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Equal variances assumed	1.338	43	.188

*Education Level.* Twenty-nine accommodative partnership-building utterances were used by physicians with patients who had 12 years of education or less and 112 with patients

who had 13 or more years of education. Each of these was divided by the total number of accommodative partnership-building utterances (141) for both categories of patients to get the percentage of time physicians used this kind of communication. For patients with 12 years of education or less, physicians used accommodative partnership-building behaviors 20.6% of the time as compared to 79.4% of the time for patients with 13 or more years of education. Data on years of education were missing for one patient.

An independent samples *t*-test was used to examine differences in accommodative partnership-building utterances by physicians with patients in each of the two categories of education. The mean number of accommodative partnership-building utterances was 2.63 (SD = 2.20) for patients with 12 years of education or less and 3.39 (SD = 3.04) for patients with 13 or more years of education. The difference in physicians' use of accommodative partnership-building behaviors by patient education was not statistically significant ( $p = 0.452$ ). Table 4.26 illustrates the means and standard deviations for accommodative partnership-building by education level. Table 4.27 illustrates the independent samples *t*-test for accommodative partnership-building by education level.

Table 4.26

*Means and Standard Deviations for Accommodative Partnership-Building by Education Level*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Education			
<=12	11	2.63	2.20
>12	33	3.39	3.04



Table 4.27

*t-test: Accommodative Partnership-Building by Education Level*

	t	df	Sig. (2-tailed)
Equal variances assumed	-.760	42	.452

*Race.* To get the percentage of time physicians used accommodative partnership-building utterances with patients by race, the number of accommodative partnership-building utterances for each racial group (44 for African Americans and 103 for Caucasians) was divided by the total number of accommodative partnership-building utterances (147) for both groups. Physicians in this sample used accommodative partnership-building behaviors with Caucasians 70.1% of the time as compared to 29.9% of the time with African Americans.

Differences in accommodative partnership-building utterances between Caucasian and African American patients were examined using the independent samples *t*-test. The mean number of accommodative partnership-building utterances was 3.22 (*SD* = 2.96) for Caucasian patients and 3.38 (*SD* = 2.66) for African American patients. The use of accommodative partnership-building utterances by physicians did not differ significantly by patient race ( $p = 0.862$ ). Table 4.28 illustrates the means and standard deviations for accommodative partnership-building by race. Table 4.29 illustrates the independent samples *t*-test for accommodative partnership-building by race.

Table 4.28

*Means and Standard Deviations for Accommodative Partnership-Building by Race*

Category	<i>N</i>	<i>M</i>	<i>SD</i>
Race			
Caucasian	32	3.22	2.96
African American	13	3.38	2.66

Table 4.29

*t-test: Accommodative Partnership-Building by Race*

	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Equal variances assumed	-.175	43	.862

*Summary*

In summary, 45 verbatim transcripts of physician-patient treatment consultations were examined to describe physicians' communication with 13 African American and 32 Caucasian men during treatment decision making consultations for localized cancer. In addition, we examined whether there was a variation in physician communication patterns, specifically information-giving and partnership-building behaviors, by the age, education level and race of the patient. The frequency with which physicians used information-giving behaviors varied with the age, education level and race of the patient. Physicians used information-giving behaviors with patients less than 65 years old 79.5% of the time, compared to 20.5% of the time with patients 65 years old or older. For patients with 12 years of education or less, physicians used fewer information-giving behaviors (22.8%) than for patients with 13 or more years of education (77.2%). Physicians used information-giving behaviors with Caucasians 74.3% of the time compared to 25.7 % of the time with African

Americans. Differences between mean information-giving utterances by age, education level and race using independent *t*-tests were significant by patient age, but not by patient education level or race.

The frequency with which physicians used partnership-building behaviors varied with the age, education level and race of the patient. Physicians in this sample used partnership-building behaviors with patients less than 65 years old 76.6% of the time, compared to 23.4% of the time with patients 65 years old or older. For patients with 12 years of education or less, physicians used partnership-building behaviors 22.6% of the time and for patients with 13 or more years of education 77.4%. Physicians in this sample used partnership-building behaviors with Caucasians 72% of the time compared to 28% of the time with African Americans. Using independent *t*-tests, the differences between the mean numbers of partnership-building utterances by age, education level and race were not significant.

Partnership-building behaviors were coded as facilitative or accommodative. Physicians in this sample used facilitative partnership-building with patients less than 65 years old 71.1% of the time, compared to 28.9% of the time with patients 65 years old or older. For patients with 12 years of education or less, physicians used facilitative partnership-building behaviors 25.2% of the time compared to 74.8% of the time with patients with 13 or more years of education. They used facilitative partnership-building with Caucasians 74.6% of the time compared to 25.4% of the time with African Americans. Examination of differences between mean facilitative partnership-building utterances by age, education level and race of the patient using independent *t*-tests indicated that they were not significant.

Physicians in this sample used accommodative partnership-building behaviors with patients less than 65 years old 81% of the time, compared to 19% of the time with patients 65

years old or older. For patients with 12 years of education or less, physicians used accommodative partnership-building behaviors 20.6% of the time as compared to 79.4% of the time for patients with 13 or more years of education. They used accommodative partnership-building behaviors with Caucasians 70.1% of the time as compared to 29.9% of the time with African Americans. Independent *t*-tests indicated that the differences between the mean numbers of accommodative partnership-building utterances by age, education level and race of the patient were not significant.

## **CHAPTER V**

### **DISCUSSION**

The purpose of this study was to describe physician communication patterns, specifically information-giving and partnership-building behaviors, with African American and Caucasian men with early stage prostate cancer during the treatment decision making consultation. A second purpose was to examine whether there was a variation in physician communication patterns with the age, education level and race of the patient. This chapter provides a summary of the study's main findings; a discussion of how these findings may be interpreted; including how they relate to existing literature and to the study's conceptual model. This is followed by a discussion of the study's limitations. Recommendations for future research and implications for practice are suggested.

#### *Summary of Main Findings*

Physicians in this sample used information-giving behaviors more often with patients who were less than or equal to 65 years old, who had 13 or more years of education, and with Caucasians (as compared to African Americans). Differences between the mean numbers of information-giving utterances by age, education level and race using independent t-tests were significant by patient age, but not by patient education level or race. Similar to information-giving, physicians used partnership-building more often with Caucasian men (as compared to African American men), those younger than 65, and those who had more than a high school education. Using independent t-tests, the differences between mean numbers of

partnership-building utterances by age, education level and race were not significant. Physicians used both facilitative and accommodative partnership-building more often with patients who were younger, more educated, and Caucasian. Physicians in this sample used both facilitative and accommodative partnership-building more often with men younger than 65, having 13 or more years of education, and with Caucasians (as compared to African Americans). Examination of differences between mean facilitative and accommodative partnership-building utterances by age, education level and race of the patient using independent t-tests indicated that they were not significant. Overall, physicians were less engaged in partnership-building than information-giving in these consultations.

### *Discussion*

In general, the literature indicates that giving information to patients and using partnership-building behaviors during treatment decision making consultations is important; patients need information to understand their diagnosis, reduce uncertainty, participate effectively in decision making, choose a treatment best for them, adhere to treatment, increase patient satisfaction and avoid decisional regret (Gwede et al., 2005; Maliski et al., 2006; Wallace & Storms; Woods et al., 2004). Little research however, has been done with men having treatment consultations after being diagnosed with early stage prostate cancer, a situation in which several treatment options are equally efficacious. This study supplements this literature by examining patterns of physician communication with newly diagnosed prostate cancer patients during the treatment consultation visit.

Similar to results of other studies, physicians in this sample spent the majority of time during consultations giving information rather than using partnership building behaviors (Gordon et al., 2005; Roter, Hall, & Katz, 1988; Solomon, 2008). Prostate cancer patients

often do have specific concerns about the side effects of possible treatments; their physicians may anticipate these uncertainties based on their experience with other men who have had prostate cancer and the uncertainty about these issues may be part of what these physicians routinely address in treatment consultations. Men in this sample were concerned about erectile dysfunction and incontinence since these were significant side effects that would affect the quality of their lives. Physicians in this sample discussed what they had done with other patients and what treatments worked. Medications that could be used to treat erectile dysfunction and Kegel exercises for urinary incontinence were also discussed.

Another possible explanation for the majority of time spent giving information is that urologists and radiation oncologists doing these treatment consultations anticipate certain concerns on the part of their patients and plan to give a particular kind of information to all of their patients, rather than tailoring that information to the specific concerns and uncertainties of the patients. This is the treatment consultation visit and physicians need to give everyone information so a decision can be made in a timely fashion and the scripting of information could be for efficiency. Consistent with the literature, physicians in this study often gave the same information about treatment options to all of their patients (Smiroff et al., 2006). One physician in this study even said to the patient after conveying the information: “that’s the general prostate cancer spiel.” A resident physician told a patient, “I’ll have Dr. --- come in and do his whole spiel on prostate cancer options.”

The predominance of information giving may also be explained by the context of the consultation. This visit was often the first time these particular physicians had met and talked to these patients. There was no prior relationship and the physicians did not have the advantage of knowing patients. Consistent with previous studies, the time allotted for

consultations in these settings is limited and does not allow for relationships that promote engagement. The consultation time is limited by organizational demands, such as participating in multidisciplinary team meetings and increasing patient workloads (Gerrity, 1991; Parle, Maguire, & Heaven, 1997; Street & Gordon, 2006). Physicians in this sample mentioned several times how they had a later meeting where they would discuss the patient's case with other physicians. Another physician mentioned that he would be working alone today because his resident was with another physician because that physician's clinic was busy today. Information giving, especially giving a particular set of information to everyone, may be seen as a more efficient way to handle treatment consultations than assessing each individual patient's needs and concerns and tailoring responses to those.

While physicians spent the majority of time during the consultation giving information, the proportion of time they used information-giving behaviors did vary with the age, education and race of the patient. Younger, more well educated and Caucasian patients were more often given information. The results of this study are consistent with previous studies that have investigated information-giving behaviors by physicians (Gordon et al., 2006a; Gordon et al., 2006b; Maliski et al., 2006; Siminoff et al., 2006; Street et al., 2005).

Mean differences by patient age in the number of physician information-giving utterances were significant. Physicians used significantly more information-giving behaviors with men who were 65 or younger. This result is consistent with a previous study that investigated patient characteristics and physician communication patterns (Siminoff et al., 2006). One possible explanation for this result is that younger patients may have asked more questions about diagnosis, and treatment related side effects, especially impotence and incontinence; therefore, they received more information. Another possible explanation is that



some of the physicians could have had the perception that older patients could not understand complex information and therefore they did not present all the information to them (Kruger et al., 2007).

The finding that the mean number of information-giving utterances by physicians did not significantly differ by the patient's years of education or race is inconsistent with studies examining information-giving behaviors by physicians (Gordon et al., 2006b; Siminoff et al., 2006). These studies found that patients with more education and Caucasian patients received significantly more information than patients with less education and African Americans. Physicians might vary information given by education because of perceptions that patients with less education are not as able to understand the information and are less active participants (Kane et al., 2003; Knight et al., 2007). They might vary information given by race because of the perceptions that African Americans are at increased risk for poor outcomes (Hoffman et al., 2003) and less intelligent and less rational (van Ryn & Burke, 2000; Wee et al., 2005). Also, men in this sample had more education compared with the men in Gordon et al. (2006b) and Siminoff et al. (2006). In this study, *t*-tests might not have been significant because of the small subsample sizes, so there was a lack of power to detect a difference. However, mean differences in information giving and partnership building were largely in the direction that would be predicted by existing literature (e.g., the mean of information-giving behaviors with African Americans was less than with Caucasians) and larger sample sizes may have resulted in differences that were significant.

As with several previous studies of physician communications, partnership-building behaviors by physicians in this study were not only less common than information giving behaviors but the amount of time physicians used partnership building varied by

demographic characteristics of patients including age, education level and race (Greene & Adelman, 2003; Gordon et al., 2006a; Gordon et al., 2006b; Hall et al., 1988; Siminoff et al., 2006; Willems, De Maesschalch, Deveugele, Derese, & De Maeseneer, 2005). Physicians used partnership-building behaviors less of the time with older men, men with a high school education or less, and men who were African American. The type of partnership-building behavior made a difference. Physicians in this study used facilitative partnership-building more often their patients who were older than 65 and had less than high school education. Facilitative partnership-building behaviors could have been used to engage these patients in participating in the consultation (Street et al., 2005; Street & Gordon, 2008).

Mean differences by in physician partnership-building behaviors were not significant by patient age, education level and race. These results are consistent with previous studies examining partnership-building behaviors (Gordon et al., 2005; Street et al., 2005); however they were not consistent with a previous study in which partnership-building behaviors did vary with age, years of education or race of patients (Sminoff et al., 2006). In the study by Sminoff et al. (2006), the sample was 405 transcripts, which could have been large enough to detect a difference. In this study, t-tests, which were the appropriate test, might not have reached significance in some cases because the study was under powered with small subsamples by age, education level and race to detect a difference and the partnership-building behaviors were used infrequently. However, the mean differences were in the right direction as indicated by the literature and a significant difference might have been seen with a larger sample.

There are several possible explanations for differences in physicians' information-giving and partnership-building behaviors in this study related to patient characteristics of

age, education level, and race. The sample in this study was younger than a representative group of prostate cancer patients. In this study, 33 patient subjects were 65 years old or younger. Only 12 men were older than 65. The unequal group size would have inflated the percentage of time that physicians used information giving and partnership-building behaviors with younger men. Also, the published literature describes physician biases toward older patients (Chapple et al., 2002; Gunderson et al., 2005; Kruger et al., 2007; Santoso et al., 2005). These biases include the view that that older patients have cognitive and/or functional limitations that would adversely influence their ability to participate in decision making and their adherence and response to treatment; and that they have decreased life expectancy. These biases might have influenced treatment recommendations in this study. For example, in the transcripts analyzed for this study, one physician informed a patient that he never met an 80 year old man with prostate cancer for whom he would recommend aggressive therapy. Basically, he stated that he would have to find someone else to do surgery because of the higher risk of surgical complications. Physicians, as the general public, could have varying perceptions of longevity. Some physicians in this study told older men that they would die of something else before prostate cancer got them, based on the fact that many prostate cancers are slow to develop and slow to progress. These same physicians explained the need for more aggressive therapy to younger men (who tend to have more aggressive types of prostate cancer), saying that they were young enough that they didn't want the cancer to "get away". Younger men were sometimes provided with more treatment options and more information about treatment related complications. Younger men were told that they were "making decisions for a lifetime".

The literature has described the variability in patient decision making participation and patient preferences for participation (Arora, 2003; Cox & Amling, 2008). Patients in this study varied in extent to which they participated in the treatment decision. Similar to the published literature, some patients researched the literature themselves and asked questions (Chin et al., 1998; Gwede et al., 2005; Nivens et al., 2001). Some patients were passive and wanted the physicians to make the decisions (Arora, 2003; Chen, Fryer, Phillips, Wilson, & Pathman, 2005; Cox & Amling, 2008; Gordon et al., 2006; Johnson et al., 2004). Some patients actively participated in decision-making (Street et al., 2005); older patients sometimes wanted the physicians to make the decision. An example of this was an older patient who said, “I want you to inform me. I mean you guys are the experts.”

Patients in this study with higher levels of education more often received information and partnership-building behaviors. The large differences found could also be a result of the distribution of education. This sample was skewed toward higher levels of education with 33 men having 13 or more years of education. Dichotomous categories were used for education because t-tests were used to compare groups on information-giving and partnership-building behaviors. Using dichotomous categories could have inflated the results for education. However, there was no information that physicians knew the actual education level of patients or were biased toward patients with higher years of education before their visit. Inferences/assumptions about education could have come from the questions patients asked, patients’ occupations, and patients’ answers to physicians’ question. Physicians could have picked up on these cues and developed an impression of patients based on inferences. Physicians did sometimes comment on things related to patients’ education levels. These comments indicated that they had worked with patients who either did not have much

education or perhaps a higher degree of health literacy. One physician said to his patient, “You’re a geneticist at \_\_\_\_\_. You’re a smart guy with sources and resources; 99 out of 100{of my patients} don’t have education and resources.” However, even using cues as inferences may not be appropriate as the sole basis for information given to this patient in this situation. Even a highly educated patient may have limited knowledge about the body, about prostate cancer, and treatment options.

Another issue in information giving is the fit of the information with the patient’s ability to process it. The literature indicates that many patients have difficulty interpreting numeric data and understanding statistics (Solomon, 2008; Winter, 2000). However with 4 of these patients, physicians took out their palm pilot and discussed Partin tables. They gave them research articles to read. Another illustration was when a physician told a patient that “Not too many patients that we have that we are actually able to give scientific information and they actually understand and decipher it.” These physicians could have provided patients with numeric and statistical data based on the cues from the patient’s questions and occupation but there was no attempt to assess the patient’s ability or interest in dealing with this type of specific information.

One explanation for the difference in information-giving and partnership-building by race could be related to the unequal sizes of the groups. In this study, 13 of the men were African American and 32 of the men were Caucasian. The small size of the African American group would have inflated the percentage of time that physicians used information giving and partnership-building behaviors with Caucasian men. Another explanation could be related to provider perceptions. The literature has shown that some physicians assume African Americans to be less intelligent, less well educated, or less literate about health

information (Institute of Medicine, 2002; van Ryn & Burke, 2000; Wee et al., 2005). The extent of African American men's participation in these meetings may also have influenced physician's communications. The literature notes that African American men, especially older men, are more likely to be passive in their communication with health care providers and less trusting of Caucasian providers (Chen et al., 2005; Gordon et al., 2006; Johnson et al., 2004). This passivity could lead to less information-giving and partnership-building behaviors. African Americans have also been reported to perceive that physicians treat them differently. This perception of differences in treatment is reflected in the published literature (Sohler et al., 2007; Woods et al., 2004; Woods et al., 2006) and may influence the depth of patient disclosure and ability to engage as a partner with their provider in the health care system.

#### *Relation to Model*

The conceptual model proposed as context for the treatment consultation was supported by this study. Localized prostate cancer creates a situation in which patients need more information to make treatment decisions, especially when an optimum treatment choice is characterized by uncertainty and ambiguity. Physicians in this sample often acknowledged the uncertainty of prostate cancer (Snow et al., 2007; Wilt et al., 2008). The consultation took place in an environment of uncertainty. Patients often came to the consultation with an absence of cognitive schema for treatment decision making due to multiple factors, such as lack of symptoms, multiple tests/procedures, and uncertainty about diagnosis and treatment. Consistent with the Uncertainty in Illness theory, some patients in this study were unsure about their diagnoses due to lack of symptoms (Mishel, 1988). They may have wondered about how long they had cancer and how it could have been missed on previous tests or how

long it takes for prostate cancer to show up. Also, these patients saw several physicians, members of multidisciplinary teams, during the consultation, which may have added to their uncertainty. Residents or others on the health care team may have added to patients' uncertainty by giving information that conflicted with that given by the consultant. For example, one patient was confused because the nurse said he had a trace of cancer and the cancer was nothing to be concerned about. Then, the resident said the nurse was wrong and the issue with prostate cancer is we don't know based on biopsy and current scientific knowledge whether it was going to grow and become bad. Some physicians acknowledged that the course of prostate cancer is unpredictable and prognosis can vary with the patient. One physician directly acknowledged this when he said, "We're pretty ignorant on prostate cancer right now."

Any of these issues can affect patients' ability to form a cognitive schema and can hinder decision making, making physician communication patterns, information-giving and partnership-building behaviors an important issue. Physicians gave patients information about their diagnosis, treatment, and prognosis; they encouraged patients to participate in decision making during consultations either by patients' active participation (accommodative) or on their own accord (facilitative). Proportionally, these physician communication patterns in this study varied with patients' age, education level or race.

### *Summary and Conclusions*

Physicians and patients both influence the communication process during treatment decision making consultations for early stage prostate cancer. This study's findings showed that there may be a relationship between physician communication patterns and some patient characteristics; however, the specific nature of this relationship needs further exploration. It

is possible that the physician characteristics, such as age and years of practice, affected their communication patterns. Physicians may have been responding to patient cues, such as questions, feedback, expressions of concerns, or their behavior may be based on inferences and assumptions rather than direct assessments.

### *Limitations*

The model used for this study was conceptualized by this investigator and has not been tested, although it is derived from a well established and well tested middle range theory. Because this study used secondary data analysis, there was lack of control in how data were collected and further data collection was not possible. This study was limited to the data available. Also, the data available to the investigator for this study was only the physician data and this study so patient communications were not taken into account. Patients' preferences for participation in decision-making and perceptions of the communication interaction by interviewing physicians and patients were not possible. Patient behavior can have a powerful effect on physicians in terms of giving information as well as in terms of partnering. Small and unequal subsamples imposed limitations for finding and interpreting differences by patient characteristics. The length of the consultation could have been a factor in the study findings and not all transcripts reported the length of the consultation. The sample size was small and generalization beyond this sample can not be made.

In addition, there was lack of variability in physician characteristics. The physicians were all male so physician-patient communication by gender could not be assessed. Physicians were also all Caucasian so racial concordance/discordance of physician-patient relationships could not be assessed. No other data on physicians' characteristics were



available. Residents, primary support persons, and nurses sometimes participated in these visits and complicated the dynamics; however, their communications were not coded as a part of this study.

### *Recommendations for Future Research*

Future testing of this model is needed. Replication of this study with a larger and more diverse sample of physicians in different settings is warranted. Also, patients need to be included in the study because communication is a two-way interaction. Information-giving and partnership-building behaviors should be studied in relation to outcomes for the patient, such as decisional regret, treatment adherence, compliance and satisfaction. Sequential methods of analysis, such as lag sequential analysis or pattern recognition analysis, should be used to explore the information-giving and partnership-building sequences in consultations to more thoroughly describe patterns and find cues that may help explain those patterns. For example, if the patient asks questions, what happens next, and if the physician gives information what happens next? Primary support person-physician interaction as well as primary support person-patient interaction during the treatment decision making consultation should be further explored because of the influence primary support persons have on decisions made. Resident physicians' and other health care providers communication patterns should also be examined because they spend time with patients gathering data, often before the patient meets with an attending physician and this interaction could influence how the patient communicates with the physician. Analytical approaches, such as ANOVA, could be used to examine differences in whether the patient was accompanied or unaccompanied by a primary support person.

### *Implications for Practice*

This study validates some of the physician-patient communication issues that have been widely described in the literature. Communication with health care providers is a common problem from the public's viewpoint (Solomon, 2008; Winter, 2000). Physician biases, assumptions, and behaviors in response to patients who are older, are minorities, or who have less educations must be addressed during physician socialization and education. With the traditional medical model becoming obsolete and new mid-level health care providers emerging, all health care providers would benefit from education in communication issues. Learning effective patterns of communication that would not only inform but fully engage patients and their support persons in a way that fits their needs seems to be an important goal of health provider education.

## Appendix A:

### Verbal Behavior Coding Guide

#### UTTERANCES

An “**utterance**” is defined as a simple clause with a subject and verb that can stand on its own as a complete thought.

- A sentence always contains at least one utterance; however they can also have more than one utterance.
  - *Example: D:* “One would be a knee scope (1), but in your case you have a grade 4 (2).”
- Conjunctions like “and,” and “but” often signify the beginning of a second utterance within a sentence.
- Words used for “backtalk” and one word sentences (e.g. “ok”, “I see”, “uh-huh”, “yeah”) are usually NOT considered as separate utterances unless they are in answer to a question.
  - *Example: P:* “Ok. I got to go back and finish the silly survey.” (one utterance)
  - *Example: D:* “Do you want to take this medication?” P: “Uh-huh. Yeah, I think I’m ready.” (three utterances)
- If/then sentences are usually considered one utterance because both parts are needed to form a complete thought.
  - *Example: D:* “If we find that the arthritis is bad, which we most likely will, then we will need to operate on your knee.”

#### DOCTOR INFORMATION GIVING

**Diagnosis:** Any information that pertains to the nature of the disease or health of the body.

- All descriptions of disease and how it spreads.
  - *Example: D:* “The cartilages sit between the joint...”
- Anything that relates to the patient’s current condition (including age, overall health)
  - *Example: D:* “You know you are still very active and in good health for your age.”
- All test results (e.g. X-ray).
  - *Example: D:* “Your test here shows that you have some pretty severe arthritis in the right knee.”
- **Note:** Diagnosis utterances can sometimes be confused with outlook utterances. This usually occurs when the doctor describes a patient’s future state of health following treatment (e.g. surgery). While the utterances in question are still technically diagnostic they fall more clearly into the outlook category.
  - *Example: D:* “After the operation you will feel very weak.” (diagnostic but also more of an outlook utterance)

**Description:** All information that describes what the doctor will or could do.

- Any description of exams, surgery, or other related procedures

- *Example: D:* “Medial unloader brace, what it does, it prevents the impact, you know, of weight between these two bones.”
- Description of medications and how they work.
  - *Example: D:* “I’m going to give you some Tylenol 3 which should help reduce some of the pain you are experiencing.”
- Descriptions of treatment that has been given in the past to the current patient or other patients the doctor has worked with.
  - *Example: D:* “So it looks like we did a knee surgery on you...”
- **Note:** The “description” category is a very general category that can often be confused with the rational, risk, and option categories. If an utterance ever falls into both “description” and one of these categories then the utterance should be classified into the category that is the most specific.
  - *Example: D:* “There are several ways that we can treat your knee arthritis. First we could...., We can also...” (Utterances are both “description” and “options,” however they should be classified as options)

**Rationales:** Doctor justification for any medical procedures, test, or recommendation.

- All descriptions that explain why a test or recommendation is necessary.
  - *Example: D:* “You need to get his test done so that we can be sure if surgery is even necessary.”
- **Note:** Rationales are often preceded by a “because.” They can often be found in the second half of a sentence that begins with description or recommendation.
  - *Example: D:* “I think you should probably get the surgery, because that do the most to alleviate your problem.”

**Risks:** Description that explains possible negative side effects.

- Any mention by the doctor of a negative side effect due to exams, surgical procedures, or use of medicines is considered a risk.
  - *Example: D:* “You just need to be careful because this medicine could cause stomach ulcers if taken improperly.”
- **Note:** The words “risks” and “side effects” are keywords that doctors often use to describe possible risks.

**Options:** Description of more than one option for treatment.

- Occurs when a doctor describes more than one treatment option for a medical problem.
  - *Example: D:* “You have several options in how you could treat this. First we could...Another option would be to...”
- If a doctor extensively describes both options then usually only the first identifying utterance is coded as an option.
  - *Example: D:* “The first option consists of medication and exercise. This would involve....The other option is, of course, surgery. You would need to...”
- **Note:** When the word “options” is used by a doctor it usually signifies an option in that utterance or one that is about to come up. However the doctor should always describe at least two procedures to treat the same problem before the treatment can be

described as an option (the word “options” doesn’t always mean that the utterance involved is one).

**Outlook:** Description of what happens to patient AFTER doctor recommended treatment.

- Provides a timeline of recovery for the patient. This includes description of pain and health problems that are expected to occur.
  - *Example: D:* “You will not be able to walk for a couple of days after the surgery. Your knee will be very tender for a couple of weeks.”
- Describes short or long-term effectiveness of treatment. Outlook utterances can also often be used in the context of a justification (for or against treatment).
  - *Example: D:* “You can get your knee replaced today but it is going to wear out in about 15 years.”
- **Note:** Whenever a doctor describes a potentially negative outlook as a result of a procedure (e.g. surgery) the utterance will fall into either the “risk” or “outlook” category. A general rule is that if the doctor is describing a negative outcome for a treatment before a decision has been made then the utterance will be a risk. Similarly the description of a negative outcome for a treatment after a medical decision has been made usually signifies an outlook utterance.
  - *Example: D:* “You need to understand that you may experience some of the following side effects with this surgery...” (Risk)
  - *Example: D:* “After the surgery you may experience some of the following problems...” (Outlook)

**Recommendation:** Suggestion by a doctor for a patient to take treatment, medication, or perform a task.

- The doctor’s words and/or tone usually imply a strong suggestion. Doctors often use key words like “recommend,” “suggest,” “I think,” and “I want.”
  - *Example: D:* “I think you should probably do this...”
- **Note:** “Recommendations” can easily be confused with “instructions.” However the difference can usually be determined by checking to see if the utterance in question is explaining “what” (recommendation) or if it is explaining “how to” (instruction).
  - *Example: D:* “I think you should start running more.” (Recommendation).
  - *Example: D:* “Whenever you run you need maintain a constant speed for at least ten minutes.” (Instruction)

**Instructions:** Doctor utterances that provide clear “how to” directions.

- Usually relates to how medications should be taken. However it can also involve instructions on patient exercise and diet.
  - *Example: D:* “I want you to take your pain medication twice a day.”
- **Note:** “Instructions” often use some of the same “recommendation” keywords (e.g. “I want you to” or “you need to”). However “instructions” usually tend to be more specific, while “recommendations” are more general in nature.

**Control:** Utterance by a doctor that attempts to direct discussion with a patient.

- Used most often when an assertive patient keeps interrupting or getting “sidetracked” on unrelated health issues.
  - *Example:* **P:** “This reminds me of the time I got...” **D:** “Let’s get back to our discussion of your knee.”
- **Note:** “Control” utterances are usually directly related to the assertiveness of the patient. Thus the more assertive a patient is, the more likely the doctor will be forced to use control utterances.

**Other:** All procedural related information given by the doctor.

- Information on what floor to go to after appointment, where paperwork should be filed, or what tests should be scheduled.
  - *Example:* **D:** “Once we’re finished you need to go to the second floor and schedule a date for your x-ray.”
- Discussion about future appointment dates and when patient will receive follow-up calls.
  - *Example:* **D:** “So let’s see you in six months. I’ll have someone call you to make sure everything is going fine.”
- **Note:** Any information provided by a doctor that seems relevant to the patient’s case but does not seem to fit in any of the above categories can be coded as “other.”

## **CODED PATIENT RESPONSES**

**Assertive Responses:** An “assertive” response is defined as a patient trying to impose his or her viewpoint on the doctor. This can happen in several different ways.

- Disagreeing: Anytime that the patient verbally disagrees with the doctor.
  - *Example:* **D:** “So let’s go ahead and get this surgery done.” **P:** “But I don’t want to do it.”
- Interrupting: Anytime a patient stops a doctor in mid-sentence in order to make a point. This is usually identified in the transcript by a dash or set of dots indicating the doctor was unable to finish.
  - *Example:* **D:** “So another thing we could...” **P:** “I think that treatment is not the best option.”
  - **Note:** Sometimes a doctor and patient will “talk over each other” or a patient will complete a doctor’s sentence resulting in the same dash normally identifying an interruption, however these situations are typically not assertive.
    - *Example:* **D:** “So remember to take your medicine...” **P:** “Twice a day, right.”
- Talking about beliefs: Any statement by a patient that refers to personal convictions or religion.
  - *Example:* **P:** “I’ve prayed about this and I know it will be healed.”

- Patient Diagnosis: Anytime that a patient takes the role of the doctor by making diagnostic remarks or descriptions of how a treatment will work.
  - *Example: P:* “I know I have an infection because the lymph nodes in my throat are swollen.”
  - *Note:* Sometimes a patient will repeat diagnostic information provided by another doctor or quoting another source. This is not assertive.
    - *Example: P:* “My last doctor said that I was developing gangrene due to a lack of blood circulation.”
- Introducing a new topic: Whenever a patient brings up a new topic that is not related to the current discussion (can be in the form of a question), or brings up a new topic that the doctor had already left behind.
  - *Example: P:* “I have a friend that went through a lot of the problems I have right now. It all started when...”
  - *Note:* When this occurs the patient will often talk for a while, however the only utterance that is considered assertive is the opening statement.

**Expressions of Concern:** Occur when a patient demonstrates some type of verbal negative affect.

- Most often identified when “signal words” (e.g. fear, worry) are used in an utterance.
  - *Example: P:* “I’m afraid that I might not make it out of surgery.”
- An expression of concern can sometimes be disguised in the form of a question.
  - *Example: P:* “Is there any way that I can alleviate my pain?” (Depending on tone of voice this could either be question of expression of concern.)
- A patient’s tone of voice can also be used to identify expressions of concern.
  - *Example: P:* “I don’t really understand.” (Depending on tone of voice this could either be a request for clarification or an angry statement)
  - *Note:* Patient vocal intonation will often vary (due to regional accent, ethnic origin, speech problem, etc.) making it difficult to interpret what is meant. On other occasions patients will always speak with a loud/emotional tone or they may always have a quiet reserved tone.

**Questions:** A request by a patient for information from a doctor.

- Usually identified by a question mark at the end of an utterance. However some transcripts will often miss implied questions or forget to place a question mark at the end of the appropriate utterance.
  - *Example: P:* “So I guess that I should recover in the next couple of days.” **D:** “Right, exactly.”
- “Assertions” and “expressions of concern” can often be disguised as a question.
  - *Example: P:* “So you’re saying that I can’t go to another doctor for a second opinion?” (Depending on tone this could either be a question or assertive remark)
- *Note:* Questions that are not relevant to the patient’s health care should not be counted as questions. Non- relevant issues include...
  - *Greetings:* “How are you doing?”
  - *Discussions about travel plans or hobbies:* P: “Have you ever been to Disney World?”

- *Procedural questions:* P: “Is it ok to sit here?”

**General Rule:** Assertive remarks and expressions of concern usually do not occur in the following situations...

- Initial greeting and “small talk” that occur as doctors and patients get to know each other.
  - *Example:* D: “How are you feeling?” P: “I’m not doing too good.”
- Small talk that occurs while a doctor is examining a patient.
  - *Example:* D: “Does this hurt?” P: “Yeah that hurts.”
- Routine questioning by the doctor (usually toward the beginning of the interaction) and the subsequent response by the patient.
  - *Example:* D: “So I have you been experiencing any problems?” P: “Well not that I know of...oh yeah. I’ve been experiencing this...”
  - *Note:* These interactions will often end up with the patient telling stories that are not considered assertive or expressions of concern.
- Conversations between a patient and someone else that might be with them (e.g. spouse or child).
  - *Example:* S: “I think you should take the medicine Dad.” P: “No you are wrong son.”
  - *Note:* All conversation that occurs whenever a doctor leaves the room should not be counted as utterances.

## **CODED DOCTOR RESPONSES**

**Partnership Building:** Attempt by a doctor to involve the patient in the discussion and in decision making.

- Agreement by doctor to fulfill a patient’s request.
  - *Example:* P: “Can I get a refill?” D: “You sure can.”
- Open ended questions that encourage patients to express their feelings.
  - *Example:* D: “How do you feel about this?”
- Statements encouraging patient decision making.
  - *Example:* D: “You will have to make the final decision because this is your body.”
- Requests for the patient’s preferences, expectations, or goals
  - *Example:* D: “So what would you like to accomplish today?”
  - *Example:* D: “What do you think would best fit your needs?”

**Supportive Talk:** Attempt by doctor to reassure or empathize with the patient.

- Statements trying to discourage patient from feeling nervous.
  - *Example:* D: “Don’t worry about the surgery. Everything is going to be all right.”
- Sympathetic responses to a patient’s expression of concern.
  - *Example:* P: “I’m so scared.” D: “I understand.”
- Sincere displays of interpersonal sensitivity.
  - *Example:* D: “You’re doing great!”



### III. Prompted vs. Self-initiated Patient Participation

A. *Prompted patient participation*—active participation in response to physician partnership-building and supportive talk. Examples:

Dr: We can schedule this procedure at your convenience. Do you have a preference? (partnership-building)

Patient: I'd like to do it next Thursday (prompted assertiveness)

Dr: That must've really upset you? (supportive talk)

Patient: Yes, I was so worried I couldn't sleep (prompted expression of concern)

Dr: Do you have any questions? (partnership-building)

Patient: Yes, does this medication have any side effects? (prompted question)

B. *Self-initiated patient participation*—active participation that was not preceded by physician partnership-building or supportive talk in the previous conversational turn.

### IV. Prompted vs. Self-initiated Physician's Partnership-Building

The same process in III can be used to code self-initiated vs. prompted facilitative behavior when partnership-building is preceded by active patient participation behaviors in the previous turn (accommodative partnering) vs. when partnership-building is not preceded by active participation behaviors (facilitative partnering).

## Appendix B:

### Pilot Study

Transcripts	Accommodative	Agreement	Control	Decision making	Description	Diagnosis	Discourage	Facilitative
P 1: P3_transcript_0151-1.rtf	1	0	6	2	2	8	0	1
P 2: P3_transcript_0157-13.rtf	0	0	1	3	5	8	0	5
P 3: P3_transcript_0162-5.rtf	3	0	4	4	0	4	0	3
P 4: P3_transcript_0165-2.rtf	1	0	0	2	1	7	0	2
P 5: P3_transcript_0170-2.rtf	2	0	2	3	2	0	0	1
P 6: P3_transcript_0171-2.rtf	2	0	5	3	3	5	0	1
P 7: P3_transcript_0172-2.rtf	0	0	0	1	2	2	0	1
P 8: P3_transcript_0174-14.rtf	0	0	0	0	8	4	0	0
P 9: P3_transcript_0182-2.rtf	0	0	1	1	2	5	0	1
P10: P3_transcript_0200-14.rtf	2	0	0	0	6	11	0	1
P11: P3_transcript_0001-10.rtf	2	0	1	3	2	11	1	2
P12: P3_transcript_0003-1.rtf	10	1	1	8	17	7	0	0
P13: P3_transcript_0004-4.rtf	9	2	11	7	5	2	0	2
P14: P3_transcript_0030-5.rtf	4	0	0	2	4	3	2	0
P15: P3_transcript_0038-1.rtf	5	0	0	4	2	6	0	2
P16: P3_transcript_0043-2.rtf	11	0	5	13	7	6	1	3
P17: P3_transcript_0047-3.rtf	10	0	0	5	3	8	1	0
P18: P3_transcript_0051-2.rtf	5	1	4	5	8	5	0	2
P19: P3_transcript_0056-1.rtf	0	0	2	2	1	5	0	2
P20: P3_transcript_0076-2.rtf	4	0	0	9	1	3	0	5
TOTALS:	71	4	43	77	81	110	5	34

Transcripts	Options	Other	Outlook	Partnership-building	Questions	Rationales	Recom	Requests
P 1: P3_transcript_0151-1.rtf	2	2	0	2	0	8	3	0
P 2: P3_transcript_0157-13.rtf	2	4	3	5	1	2	0	1
P 3: P3_transcript_0162-5.rtf	2	1	0	6	2	3	6	0
P 4: P3_transcript_0165-2.rtf	3	0	0	3	1	3	2	0
P 5: P3_transcript_0170-2.rtf	1	3	0	3	0	1	5	0
P 6: P3_transcript_0171-2.rtf	3	0	0	3	0	4	2	0
P 7: P3_transcript_0172-2.rtf	0	2	0	1	0	0	0	0
P 8: P3_transcript_0174-14.rtf	2	0	0	0	0	3	3	0
P 9: P3_transcript_0182-2.rtf	1	1	0	1	0	3	1	0
P10: P3_transcript_0200-14.rtf	2	2	3	3	2	3	3	1
P11: P3_transcript_0001-10.rtf	1	3	1	4	1	3	4	0
P12: P3_transcript_0003-1.rtf	2	2	8	10	0	8	4	1
P13: P3_transcript_0004-4.rtf	4	2	6	11	2	9	6	0
P14: P3_transcript_0030-5.rtf	1	1	0	4	0	3	0	2
P15: P3_transcript_0038-1.rtf	2	1	0	7	1	0	0	2
P16: P3_transcript_0043-2.rtf	2	3	0	14	0	1	3	1
P17: P3_transcript_0047-3.rtf	4	2	0	10	0	0	1	5
P18: P3_transcript_0051-2.rtf	1	0	0	7	0	0	0	1
P19: P3_transcript_0056-1.rtf	2	0	0	2	0	0	0	0
P20: P3_transcript_0076-2.rtf	1	0	0	9	0	1	2	0
TOTALS:	38	29	21	105	10	55	45	14

Transcripts	Risks	Sincere	Supportive talk	Sympathetic responses
P 1: P3_transcript_0151-1.rtf	4	0	0	0
P 2: P3_transcript_0157-13.rtf	5	0	0	0
P 3: P3_transcript_0162-5.rtf	8	0	1	1
P 4: P3_transcript_0165-2.rtf	9	4	4	0
P 5: P3_transcript_0170-2.rtf	7	0	0	0
P 6: P3_transcript_0171-2.rtf	1	0	1	1
P 7: P3_transcript_0172-2.rtf	1	0	1	1
P 8: P3_transcript_0174-14.rtf	3	0	0	0
P 9: P3_transcript_0182-2.rtf	1	0	0	0
P10: P3_transcript_0200-14.rtf	6	1	2	1
P11: P3_transcript_0001-10.rtf	5	0	1	0
P12: P3_transcript_0003-1.rtf	10	2	5	3
P13: P3_transcript_0004-4.rtf	9	2	2	0
P14: P3_transcript_0030-5.rtf	13	1	6	3
P15: P3_transcript_0038-1.rtf	1	0	1	1
P16: P3_transcript_0043-2.rtf	7	1	3	1
P17: P3_transcript_0047-3.rtf	5	0	3	2
P18: P3_transcript_0051-2.rtf	5	0	0	0
P19: P3_transcript_0056-1.rtf	0	0	0	0
P20: P3_transcript_0076-2.rtf	0	0	0	0
TOTALS:	100	11	30	14

## REGRESSION

### Descriptive Statistics

	Mean	Std. Deviation	N
Information-giving	26.26	13.892	19
Age	.37	.496	19
Educational Level	.53	.513	19
Race	.47	.513	19

### Correlations

		Information-giving	Age	Educational Level	Race
Pearson Correlation	Information-giving	1.000	.259	.018	-.128
	Age	.259	1.000	.069	.150
	Educational Level	.018	.069	1.000	-.578
	Race	-.128	.150	-.578	1.000
Sig. (1-tailed)	Information-giving	.	.142	.470	.301
	Age	.142	.	.389	.271
	Educational Level	.470	.389	.	.005
	Race	.301	.271	.005	.
N	Information-giving	19	19	19	19
	Age	19	19	19	19
	Educational Level	19	19	19	19
	Race	19	19	19	19

## Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Race, Age, Educational Level(a)	.	Enter

a All requested variables entered.

b Dependent Variable: Information-giving

## Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change	R Square Change	F Change	df1	df2
1	.333(a)	.111	-.067	14.347	.111	.625	3	15	.610

a Predictors: (Constant), Race, Age, Educational Level

## ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	385.952	3	128.651	.625	.610(a)
	Residual	3087.732	15	205.849		
	Total	3473.684	18			

a Predictors: (Constant), Race, Age, Educational Level

b Dependent Variable: Information-giving

## Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta	Zero-order	Partial	Part	B	Std. Error
1	(Constant)	28.658	7.940		3.609	.003			
	Age	8.679	7.033	.310	1.234	.236	.259	.304	.300
	Educational Level	-4.202	8.231	-.155	-.511	.617	.018	-.131	-.124
	Race	-7.137	8.304	-.264	-.859	.404	-.128	-.217	-.209

a. Dependent Variable: Information-giving

### Descriptive Statistics

	Mean	Std. Deviation	N
Partnership- Building behavior	5.53	3.762	19
Age	.37	.496	19
Educational Level	.53	.513	19
Race	.47	.513	19

### Correlations

		Partnership- Building behavior	Age	Educational Level	Race
Pearson Correlation	Partnership- Building behavior	1.000	-.259	.395	-.655
	Age	-.259	1.000	.069	.150
	Educational Level	.395	.069	1.000	-.578
	Race	-.655	.150	-.578	1.000
Sig. (1-tailed)	Partnership- Building behavior	.	.142	.047	.001
	Age	.142	.	.389	.271
	Educational Level	.047	.389	.	.005
	Race	.001	.271	.005	.
N	Partnership- Building behavior	19	19	19	19
	Age	19	19	19	19
	Educational Level	19	19	19	19
	Race	19	19	19	19

### Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Race, Age, Education al Level(a)	.	Enter

a All requested variables entered.

b Dependent Variable: Partnership-Building behavior



### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change	R Square Change	F Change	df1	df2
1	.677(a)	.458	.349	3.035	.458	4.221	3	15	.024

a Predictors: (Constant), Race, Age, Educational Level

### ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	116.612	3	38.871	4.221	.024(a)
	Residual	138.124	15	9.208		
	Total	254.737	18			

a Predictors: (Constant), Race, Age, Educational Level

b Dependent Variable: Partnership-Building behavior

### Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta	Zero-order	Partial	Part	B	Std. Error
1	(Constant)	7.807	1.679		4.649	.000			
	Age	-1.330	1.487	-.175	-.894	.385	-.259	-.225	-.170
	Educational Level	.490	1.741	.067	.281	.782	.395	.072	.053
	Race	-4.325	1.756	-.590	-2.462	.026	-.655	-.537	-.468

a Dependent Variable: Partnership-Building behavior

## Appendix C:

### Dissertation Study

	Accommodative	Agreement	Control	Decision Making	Description	Diagnosis	Facilitative
P21: dissP3_transcript_0157-13.rtf	2	0	1	4	3	13	6
P22: dissP3_transcript_0165-2.rtf	3	0	0	5	4	8	2
P23: dissP3_transcript_168-1.rtf	6	1	0	7	17	10	3
P24: dissP3_transcript_0170-2.rtf	5	0	0	7	4	2	3
P25: dissP3_transcript_0194-4.rtf	2	0	2	3	11	11	1
P26: dissP3_transcript_0201-14.rtf	0	0	0	1	4	10	2
P27: dissP3_transcript_0225-1.rtf	9	0	1	9	8	7	1
P28: dissP3_transcript_0242-13.rtf	5	0	0	5	17	7	3
P29: dissP3_transcript_0244-2.rtf	6	1	0	3	16	1	0
P30: dissP3_transcript_0247-14.rtf	1	1	0	0	7	8	0
P31: dissP3_transcript_0254-2.rtf	2	0	0	4	7	11	2
P32: dissP3_transcript_0257-1.rtf	3	0	0	6	1	1	3
P33: dissP3_transcript_0262-1.rtf	0	0	1	2	1	6	3
P34: dissP3_transcript_0004-4.rtf	7	0	5	7	6	3	2
P35: dissP3_transcript_0014-7.rtf	0	1	0	1	14	19	4
P36: dissP3_transcript_0024-1.rtf	0	0	0	4	7	3	4
P37: dissP3_transcript_0025-1.rtf	2	1	1	2	31	20	2
P38: dissP3_transcript_0033-2.rtf	6	0	0	10	30	9	6
P39: dissP3_transcript_0034-2.rtf	0	1	0	2	26	14	3
P40: dissP3_transcript_0038-1.rtf	5	1	0	6	6	14	4
P41: dissP3_transcript_0042-2.rtf	5	1	0	8	22	5	5
P42: dissP3_transcript_0044-1.rtf	2	1	5	6	7	2	5
P43: dissP3_transcript_0048-2.rtf	3	1	0	4	7	7	6
P44: dissP3_transcript_0053-4.rtf	2	0	0	6	8	10	4
P45: dissP3_transcript_0057-15.rtf	0	0	0	2	3	15	2
P46: dissP3_transcript_0062-2.rtf	6	0	1	8	38	14	3
P47: dissP3_transcript_0064-1.rtf	5	3	0	4	10	3	3

	Accommodative	Agreement	Control	Decision Making	Description	Diagnosis	Facilitative
P48: dissP3_transcript_0080-16.rtf	0	1	0	3	12	3	5
P49: dissP3_transcript_0084-13.rtf	0	0	0	2	8	9	2
P50: dissP3_transcript_0087-16.rtf	6	1	0	6	15	2	2
P51: dissP3_transcript_0088-1.rtf	4	2	0	1	7	1	1
P52: dissP3_transcript_0094-4.rtf	6	1	0	5	18	3	3
P53: dissP3_transcript_0100-2.rtf	12	2	0	9	13	1	4
P54: dissP3_transcript_0104-4.rtf	1	0	1	1	10	0	0
P55: dissP3_transcript_0111-4.rtf	7	4	0	3	9	14	1
P56: dissP3_transcript_0114-4.rtf	1	0	2	2	4	7	3
P57: dissP3_transcript_0116-2.rtf	7	0	0	7	4	1	1
P58: dissP3_transcript_0118-4.rtf	2	0	1	2	5	10	0
P59: dissP3_transcript_305-16.rtf	0	0	0	0	6	12	1
P60: dissP3_transcript_0310-1.rtf	2	0	1	2	6	4	2
P61: dissP3_transcript_0320-1.rtf	1	0	0	1	2	1	1
P62: dissP3_transcript_0323-5.rtf	0	0	0	0	6	3	1
P63: dissP3_transcript_0339-2.rtf	5	0	4	8	25	29	3
P64: dissP3_transcript_0364-1.rtf	4	0	0	5	5	9	1
P65: dissP3_transcript_0371-2.rtf	2	1	0	0	7	8	1
TOTALS:	147	25	26	183	477	350	114

	Instructions	Options	Other	Outlook	Partnership-building	Questions	Rationales
P21: dissP3_transcript_0157-13.rtf	0	1	2	0	8	0	2
P22: dissP3_transcript_0165-2.rtf	0	1	0	2	5	0	7
P23: dissP3_transcript_168-1.rtf	1	0	0	0	9	0	14
P24: dissP3_transcript_0170-2.rtf	0	1	2	0	8	0	2
P25: dissP3_transcript_0194-4.rtf	0	1	1	3	3	0	2
P26: dissP3_transcript_0201-14.rtf	0	2	2	1	2	0	2
P27: dissP3_transcript_0225-1.rtf	0	1	2	0	10	0	6
P28: dissP3_transcript_0242-13.rtf	0	2	1	3	8	0	3
P29: dissP3_transcript_0244-2.rtf	0	0	0	6	6	0	2
P30: dissP3_transcript_0247-14.rtf	0	1	3	4	1	0	3
P31: dissP3_transcript_0254-2.rtf	0	2	0	6	4	0	2
P32: dissP3_transcript_0257-1.rtf	0	3	0	0	6	0	4
P33: dissP3_transcript_0262-1.rtf	0	0	0	7	3	0	0
P34: dissP3_transcript_0004-4.rtf	3	3	1	5	9	0	8
P35: dissP3_transcript_0014-7.rtf	0	1	0	4	4	0	3
P36: dissP3_transcript_0024-1.rtf	0	0	0	0	4	0	3
P37: dissP3_transcript_0025-1.rtf	0	2	17	16	4	0	3
P38: dissP3_transcript_0033-2.rtf	0	1	1	16	12	0	4
P39: dissP3_transcript_0034-2.rtf	1	3	11	11	3	0	1
P40: dissP3_transcript_0038-1.rtf	0	1	1	0	9	0	4
P41: dissP3_transcript_0042-2.rtf	1	1	0	6	10	0	3
P42: dissP3_transcript_0044-1.rtf	0	0	2	0	7	0	3
P43: dissP3_transcript_0048-2.rtf	0	1	3	2	9	0	3
P44: dissP3_transcript_0053-4.rtf	0	3	0	1	6	0	0
P45: dissP3_transcript_0057-15.rtf	0	1	0	5	2	0	4
P46: dissP3_transcript_0062-2.rtf	0	2	4	0	9	0	2
P47: dissP3_transcript_0064-1.rtf	0	2	0	0	8	0	1

	Instructions	Options	Other	Outlook	Partnership-building	Questions	Rationales
P48: dissP3_transcript_0080-16.rtf	0	1	0	1	5	0	4
P49: dissP3_transcript_0084-13.rtf	0	0	0	2	2	0	1
P50: dissP3_transcript_0087-16.rtf	0	0	0	2	8	1	3
P51: dissP3_transcript_0088-1.rtf	0	1	1	1	5	1	1
P52: dissP3_transcript_0094-4.rtf	0	0	5	4	9	0	4
P53: dissP3_transcript_0100-2.rtf	0	0	7	2	16	0	1
P54: dissP3_transcript_0104-4.rtf	0	0	0	2	1	0	3
P55: dissP3_transcript_0111-4.rtf	1	0	0	1	8	0	2
P56: dissP3_transcript_0114-4.rtf	0	3	1	0	4	0	3
P57: dissP3_transcript_0116-2.rtf	1	0	1	3	8	0	0
P58: dissP3_transcript_0118-4.rtf	0	2	0	0	2	0	0
P59: dissP3_transcript_305-16.rtf	0	0	0	0	1	1	2
P60: dissP3_transcript_0310-1.rtf	0	2	1	0	4	1	8
P61: dissP3_transcript_0320-1.rtf	0	2	0	0	2	0	3
P62: dissP3_transcript_0323-5.rtf	0	0	0	2	1	0	2
P63: dissP3_transcript_0339-2.rtf	0	5	0	22	8	0	10
P64: dissP3_transcript_0364-1.rtf	0	2	0	2	5	0	1
P65: dissP3_transcript_0371-2.rtf	1	1	0	6	3	0	1
TOTALS:	9	55	69	148	261	4	140

	Recommendation	Requests	Risks
P21: dissP3_transcript_0157-13.rtf	0	4	5
P22: dissP3_transcript_0165-2.rtf	2	0	7
P23: dissP3_transcript_168-1.rtf	1	1	3
P24: dissP3_transcript_0170-2.rtf	1	1	6
P25: dissP3_transcript_0194-4.rtf	4	0	4
P26: dissP3_transcript_0201-14.rtf	2	1	3
P27: dissP3_transcript_0225-1.rtf	4	1	12
P28: dissP3_transcript_0242-13.rtf	2	3	7
P29: dissP3_transcript_0244-2.rtf	2	2	4
P30: dissP3_transcript_0247-14.rtf	1	0	2
P31: dissP3_transcript_0254-2.rtf	1	0	3
P32: dissP3_transcript_0257-1.rtf	2	0	4
P33: dissP3_transcript_0262-1.rtf	2	1	1
P34: dissP3_transcript_0004-4.rtf	4	2	9
P35: dissP3_transcript_0014-7.rtf	0	2	5
P36: dissP3_transcript_0024-1.rtf	2	0	1
P37: dissP3_transcript_0025-1.rtf	0	1	1
P38: dissP3_transcript_0033-2.rtf	2	2	8
P39: dissP3_transcript_0034-2.rtf	0	0	4
P40: dissP3_transcript_0038-1.rtf	2	2	6
P41: dissP3_transcript_0042-2.rtf	0	1	6
P42: dissP3_transcript_0044-1.rtf	4	0	3
P43: dissP3_transcript_0048-2.rtf	2	4	3
P44: dissP3_transcript_0053-4.rtf	0	0	5
P45: dissP3_transcript_0057-15.rtf	4	0	4
P46: dissP3_transcript_0062-2.rtf	4	1	4
P47: dissP3_transcript_0064-1.rtf	1	1	3

	Recommendation	Requests	Risks
P48: dissP3_transcript_0080-16.rtf	3	1	1
P49: dissP3_transcript_0084-13.rtf	0	0	3
P50: dissP3_transcript_0087-16.rtf	2	0	7
P51: dissP3_transcript_0088-1.rtf	0	1	1
P52: dissP3_transcript_0094-4.rtf	6	3	6
P53: dissP3_transcript_0100-2.rtf	0	5	3
P54: dissP3_transcript_0104-4.rtf	4	0	0
P55: dissP3_transcript_0111-4.rtf	2	1	0
P56: dissP3_transcript_0114-4.rtf	2	2	0
P57: dissP3_transcript_0116-2.rtf	4	1	6
P58: dissP3_transcript_0118-4.rtf	3	0	2
P59: dissP3_transcript_305-16.rtf	1	0	0
P60: dissP3_transcript_0310-1.rtf	4	1	0
P61: dissP3_transcript_0320-1.rtf	1	1	2
P62: dissP3_transcript_0323-5.rtf	1	1	4
P63: dissP3_transcript_0339-2.rtf	5	0	7
P64: dissP3_transcript_0364-1.rtf	5	0	1
P65: dissP3_transcript_0371-2.rtf	1	2	2
TOTALS:	93	49	168

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