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OLDER ADULTS' SATISFACTION
WITH PHYSICAL THERAPISTS' COMMUNICATION
AND
PHYSICAL THERAPY TREATMENT

by

NEELA M. LAKATOO

Under the Direction of Leslie Taylor

ABSTRACT

Little research documents the impact of communication on the relationship between the physical therapist and the older patient. As key health professionals, physical therapists need to know the degree to which a therapeutic relationship is occurring with the older adults they treat, and what aspects of the communication process can be improved to effectively meet the needs of this unique patient population.

This exploratory study examines the relationships between older adults' perceptions of physical therapists' patient-centered communication (PCC), and their satisfaction with communication and physical therapy treatment (SPT). The sample consisted of 40 participants from 4 different physical therapy sites, including a hospital-based outpatient department, an outpatient aquatics practice, a sports-based outpatient clinic, and a home health company. The findings indicate that physical therapists' use of PCC behaviors, especially clarity, empathy, listening, humor, and immediacy was positively associated with older adults' satisfaction with communication and with physical therapy care.

INDEX WORDS: Older adults, Physical Therapy, Communication, Satisfaction

OLDER ADULTS' SATISFACTION WITH PHYSICAL THERAPISTS' COMMUNICATION AND PHYSICAL THERAPY TREATMENT

by

NEELA M. LAKATOO

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2006

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Neela Malini Lakatoo
2006

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ABBREVIATIONS

BMI	Body Mass Index
CEM	Communication Enhancement Model
CPM	Communication Predicament Model
PCC	Patient-Centered Communication
OP	Outpatient
PT	Physical Therapy
PTs	Physical Therapists
SPT	Satisfaction with Physical Therapy

CHAPTER 1

INTRODUCTION

Communication can be defined as the process "through which persons co-create, maintain, and alter social order, personal relationships, and individual identities" (Cronen, Pearce, & Harris, 1982, p. 64). Communication is central to the lives of all individuals, and regardless of age and /or social context, communication plays a vital role in one's construction of reality. In any setting, communication forms the foundation of social interaction, and perception of others' communication can largely influence one's sense of self and ultimate quality of life.

Fey and colleagues (1988) declared that "effective communication is vital for obtaining and sharing information, establishing and maintaining personal relationships, and directing the behaviors of others" (p. 260). According to Heine and Browning (2002), although communication is considered a natural process, it is a complex activity requiring extreme effort on the part of both speaker and listener to successfully send, negotiate, interpret, and select an appropriate response to a message. Thus, it is not surprising that all conversationalists often experience minor communication failures or misunderstandings, which "arise from production errors, distractions, interferences, and the lack of shared background knowledge between speakers" (p. 767).

In the last decade, the approach to treating patients has placed more emphasis on the role of communication in maintaining health and achieving optimal aging than in

previous years. Stewart (1995) attributed this "shift" in approach to health professionals' increased awareness of the impact of communication on important patient outcomes, including adherence to therapeutic regimens, satisfaction, health status, reduction in anxiety, and appointment keeping, as well as a growing concern for the likelihood of malpractice suits and litigation. However, Humert, Shaner, Garstka and Henry (1998) argued that despite this heightened awareness surrounding the influence of communication on health and aging, ageist stereotypes and negative attitudes toward the aging process and older adults still exist and serve as barriers to intergenerational communication. Beisecker and Beisecker (1990) further explained that such barriers directly affect the abilities of health professionals to provide effective treatment to their older patients and their patients' abilities to openly discuss their concerns and questions, resulting in limited responses to, and gains from, treatment.

Research also has supported the premise that communication is key in influencing older adults' coping strategies related to loss of physical function (Hummert & Nussbaum, 2001). In coping with such losses, Lawton and Nahemow (1973) explained that "older adults must find the right fit between their physical and mental capabilities and their living environment" (as cited in Hummert & Nussbaum, 2001, p. 13). Apart from the involvement of family members and social networks, the interaction between older adults and their health professionals constitute an integral aspect of their "living environment." Thus, the role of communication during the health professional–older patient interaction deserves special attention.

Statement of the problem

To date, the literature has focused mainly on the physician-older patient interaction. According to Ambady, Koo, Rosenthal, and Winograd (2002), much of the research on doctor-patient communication indicated that physicians tend to use simplistic, patronizing, and dismissive speech when communicating with their older adult patients. Furthermore, an earlier study by Adelman, Greene, Charon, and Friedman (1992) found that during interactions with older adult patients, physicians were more likely to initiate the majority of conversation topics and were less inclined to engage in discussion during conversations initiated by their older patients. Similarly, a study by Kite and Johnson (1988) revealed that health care providers modified their speech patterns during conversations with older patients, reflecting ageist stereotypes of the elderly as a more dependent and less competent patient population.

Carporael, Lukaszewski, and Culbertson (1983) stated that "an extreme form of this patronizing speech pattern is secondary baby talk associated with infantilization of the elderly (as cited in Ambady, Koo, Rosenthal, & Winograd, 2002, p. 444), characterized by the high pitch and exaggerated intonation usually reserved for speech to infants" (Ambady, Koo, Rosenthal, & Winograd, 2002, p. 444). This use of "baby talk" during conversations with older adult patients was reported by Carporael (1981) as occurring as often as 20% of the time, and a later study by Hummert and Mazloff (1993) found that older adults reported feeling patronized most often during a visit to the doctor's office.

Ryan and Butler (1996) observed that although these age biases are not as prominent today as in earlier decades, ageist stereotypes still persist, especially in the areas of health, independence, memory changes, and communication skills. As a consequence of these ageist

attitudes, effective communication between health professionals and their older patients is hindered by "stereotyped expectations" as opposed to acknowledgement of the individuality of each older patient. This may result in failure of the health professional to truly identify and understand the needs/concerns of the older patient, thereby reducing the potential for optimal provider-patient interaction. The Communication Predicament Model (CPM) of aging by Ryan, Giles, Bartolucci, and Henwood (1986) offers a framework for understanding some of the communication challenges for older adults during provider-patient interactions. More specifically, the CPM illustrates how older adults often are deterred from demonstrating their knowledge and competencies during interactions with health care providers. This negative feedback predicament loop model, displayed in Figure.1, illustrates a typical occurrence during the initial encounter between the older adult and health provider. It also typifies some repeated interactions in which the health provider never truly identifies with the older adult patient (Ryan & Norris, 2001).

According to Ryan and Norris (2001), during the initial encounter, the health provider formulates impressions about the older adult patient based on old age clues that are considered "stereotyped expectations" and include:

1) chronological age information
2) physical cues (facial appearance, stature, and voice)
3) behavioral cues (forgetfulness, requests for repetition, and complaints)
4) sociocultural cues (retiree status, senior center participant, nursing home resident)

Ryan and Norris (2001) also explain that "the crux of the feedback loop is that stereotyped expectations lead to modified communication styles that elicit age-

stereotyped behaviors from the older person and reduce opportunities for satisfying communication" (p. 280).

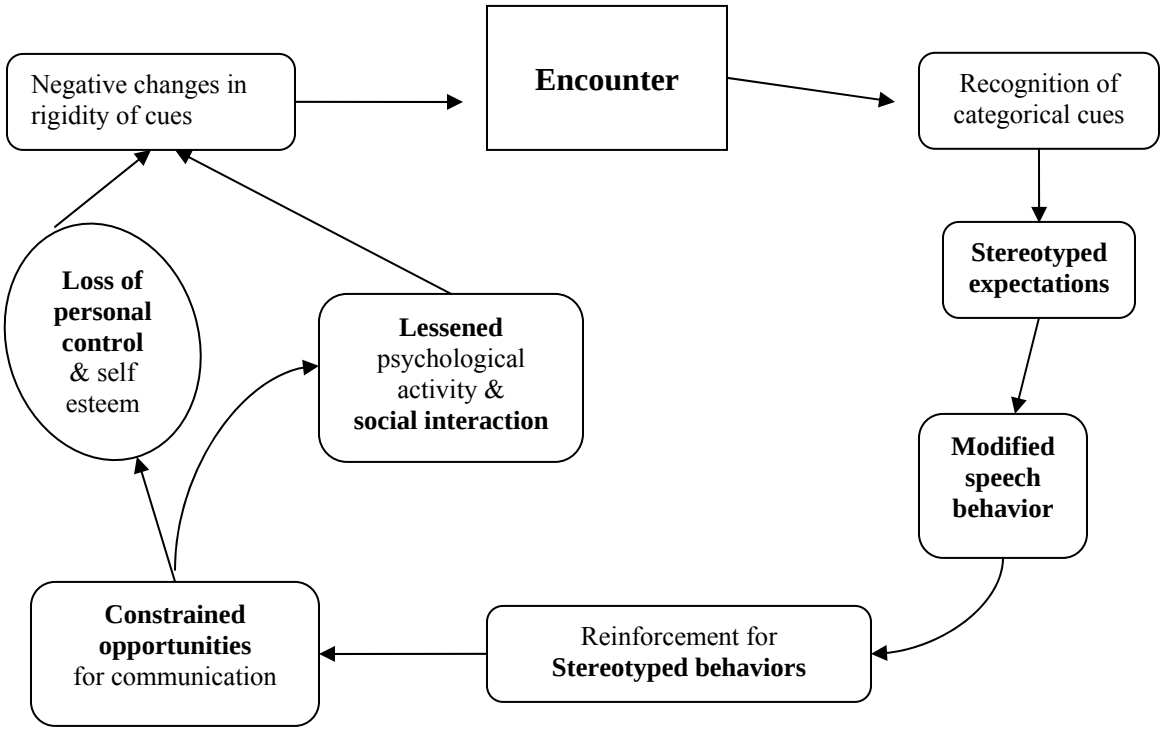

Figure 1. The Communication Predicament Model of Aging by Ryan, Giles, Bartolucci, and Henwood (1986).

Demonstrations of these modified communication styles vary depending on the circumstance but can include the following: slow speech, loud speech, high pitch, exaggerated intonation, childish forms of address, short simple sentences, simplified vocabulary, repetition, omission of politeness form, avoidance of communication, restriction in topic selection, and abrupt gestures (Hummert & Ryan, 1996; Hummert, Shaner, Garstka, & Henry, 1998). According to Ryan and Norris (2001), "Repeated exposure to such communication can lead to reduced self-esteem, loss of a sense of personal control, reduced activity, entry into more age-

accomodated settings linked with stereotypes, and eventually to increased cues to old age and infirmity" (p. 280).

As demographic projections for the next decades indicate rapid growth in the older adult population, an increasing number of health care providers will be expected to provide care for people over the ages of 70, 80, and 90. Thus, according to Giles, Coupland, and Wiemann (1990), health professionals need to equip themselves with specialized communication skills and knowledge to meet effectively the needs of a diverse older adult population, especially in the areas of health, long-term care, health promotion, and disease prevention.

Coupled with the increasing population of older adults are their special needs, based in part on the physiological changes, which make this segment of the population so unique. As part of the normal aging process, older adults must constantly adapt to life changes that often are beyond their control, including physical declines in capabilities ranging from impaired vision and hearing and slowed reaction times to reduced problem-solving abilities. Consequently, their ability to cope and adapt to these life changes becomes heavily dependent on their communication skills and their communication experiences with others.

To date, extensive research exists on the doctor-older patient relationship and the role of communication as it relates to patient satisfaction. However, very little research documents the impact of communication on the relationship between physical therapists and their older adult patients. The purpose of this exploratory study is to examine specifically the physical therapist-older patient relationship. The goal is to gain insight about the correlation between older adults' satisfaction with their physical therapists' communication and satisfaction with the physical therapy care received.

Summary

This chapter briefly outlined some of the communication challenges based on the Communication Predicament Model of Aging, experienced by older adults during interactions with health care providers. This chapter also highlighted the gerontological significance of the study and the importance of examining communication, aging, and health from a holistic approach. Chapter 2 will provide a review of the literature relevant to the study and will present the specific research questions that will be addressed. Chapter 3 will explain the methods employed in this study and provide details about the data collection process and data analysis. Chapter 4 will present the findings of the study, and discussion of those findings, including the study's limitations and implications for future research, will be addressed in Chapter 5.

CHAPTER 2

REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK

Patient satisfaction

According to Smith (2000), the role of the client in the social services and health care system is evolving, and previously well-established beliefs in "professional omnipotence have given way to discussions of patient autonomy and consumerism" (p. 261). Further, greater emphasis on the patient as a "customer" has created a demand for information on consumers' experiences and satisfaction with health and social services (Smith, 2000).

Crosby, Evans, and Crowles (1990) define customer satisfaction as "an affective and evaluative response to a consumption experience" (p. 17). Based on the social cognition theory, satisfaction with the service encounter is heavily dependent on the quality of the interaction between the customer and service provider (Hausman, 2004). As supported by Janz and Becker (1984), social cognition theory suggests that patients' interpretation of the health care interaction influences patient satisfaction. Further, when the interaction involves expected social elements including trust, concern, communication, courtesy, and attentiveness, patients develop positive emotional responses resulting in positive evaluations of the encounter (Coulehan et al., 2001; Ennew & Binks, 1999).

In the medical arena, Pascoe (1983) defines patient satisfaction as "a health care recipient's reaction to salient aspects of the context, process, and result of their service experience" (p.87). In other words, patients evaluate a direct service by comparing their personal experience to a subjective standard relative to their own health care expectations

(Smith, 2000). But of what importance is patient satisfaction? Accurate assessment of patient satisfaction is highly valued by patients, clinicians, policy-makers, and researchers. For clinicians and patients, acknowledging and fulfilling patients' perceived needs are considered direct goals of health care (Cleary & McNeil, 1988). In addition to understanding patients' expectations and identifying the value patients place on outcomes, the very process of eliciting patient input also increases patient participation and probably satisfaction in health care decisions, which may provide intrinsic benefit and promote better outcomes (Greenfield, Kaplan, & Ware, 1985). For policy-makers, information on patient satisfaction can be useful in developing new, or modifying current, policy initiatives and programs to increase or decrease the utilization of health care services, improve quality of care, and contain costs. Researchers also are interested in identifying factors that influence patient satisfaction and subsequent clinical outcomes which may lead to a better understanding of the quality improvement process (Smith, 2000).

According to Aharony and Strasser (1993), many factors can influence patient satisfaction, some of which include sociodemographic characteristics, prior health status, and the process of care. Among the sociodemographic characteristics, research has found that patient age and gender are most consistently associated with satisfaction, with both females and older adults being more satisfied (Smith, 2000). In contrast to younger populations, older adults typically suffer more chronic, disabling conditions and poorer health, resulting in a higher utilization of health care services and greater need for continuing care. Smith (2000) contends that such differences have the potential to influence both the measurement of satisfaction and the interpretation of results and offers three possible

mechanisms by which older age and poorer health may influence judgments regarding satisfaction:

1) Increased exposure to health care services may provide older adults with more experience in judging access or quality, and satisfaction measures may reflect this increased experience.
2) The overwhelming importance of health professionals to older adults with chronic illness may reflect a more favorable view of those provider-patient relationships.
3) Older adults who view their transitions to poor health as normal tend to have lower expectations of the effects of treatment and are relatively satisfied with overall medical care.

Prior health status also may be related to satisfaction separate from the outcomes of care. Rubin (1990) suggests that in examining the relationships between outcomes and satisfaction, controlling for preexisting differences in health is important to ensure greater accuracy of results. Process of care refers to both the technical and interpersonal aspects of care. Research has found that although patient perceptions of the technical quality of care (e.g., physician's knowledge and skill) have been related to satisfaction, interpersonal and communication skills usually explain more variation in satisfaction ratings (Cleary & McNeil, 1988). Further, satisfaction with communication tends to be one of the most important elements of overall satisfaction, and Daly and Hulka (1977) state that effective communication between patient and practitioner is a prerequisite to patient satisfaction with the health care experience and is associated with increased psychological well-being (Devine & Cook, 1985) and improved biomedical outcomes for the patient (Kaplan, Greenfield, & Ware, 1989).

In support of this idea, Rice (1996) found that patients typically measure and evaluate their health care experiences, and more specifically, quality of care, based on the quantity and quality of the communication with their health care professionals. Also, an earlier study by Cousins (1985) reported that over a five-year period, 85% of patients either changed or were preparing to change their physicians due to the doctors' poor communication skills. Apart from "doctor shopping," poor communication between physician and patient resulted in "negative consequences such as patient dissatisfaction, poor adherence to medical directions, and malpractice litigation" (Ambady, Koo, Rosenthal, & Winograd, 2002, p. 443).

Older adult health care needs

Specific to the field of aging and health, older patients may encounter an array of communication challenges. Ryan and Butler (1996) argue that in addition to stereotyped attitudes about aging and ageism, generational differences in communication patterns, as well as age-related communication challenges, can have negative effects on the health care interaction of older adults. For example, during the physician-patient exchange, older patients tend to be more passive and less assertive (Beisecker & Beisecker, 1990) and often are unwilling to discuss topics that may be relevant to their health status (German et al., 1987). As part of the normal aging process, older adults may experience visual impairment, difficulty hearing, short-term memory loss, and slower processing of information, all of which act as barriers to effective communication. As older adults become more aware of their impairments, they may experience a sense of declining capability, loss of control, and helplessness, thus perpetuating a vicious cycle in which their self-esteem, confidence, and communication capabilities further decline (Caporael, 1981).

In order to achieve an optimal environment for interaction with older adults, knowledge about variation in communication performance by older adults and about facilitating good communication is extremely beneficial to health care providers. But what exactly is considered "good communication"? In order to address this question I will focus on the literature surrounding the Communication Enhancement Model (CEM) of Aging, and the model of Patient-Centered Care and Patient-Centered Communication.

Communication enhancement model of aging

The Communication Enhancement Model (CEM) of Aging by Orange, Ryan, Meredith, and MacLean (1995), was developed as a framework to enhance optimal health provider-older patient interactions. This Model is presented below as Figure 2.

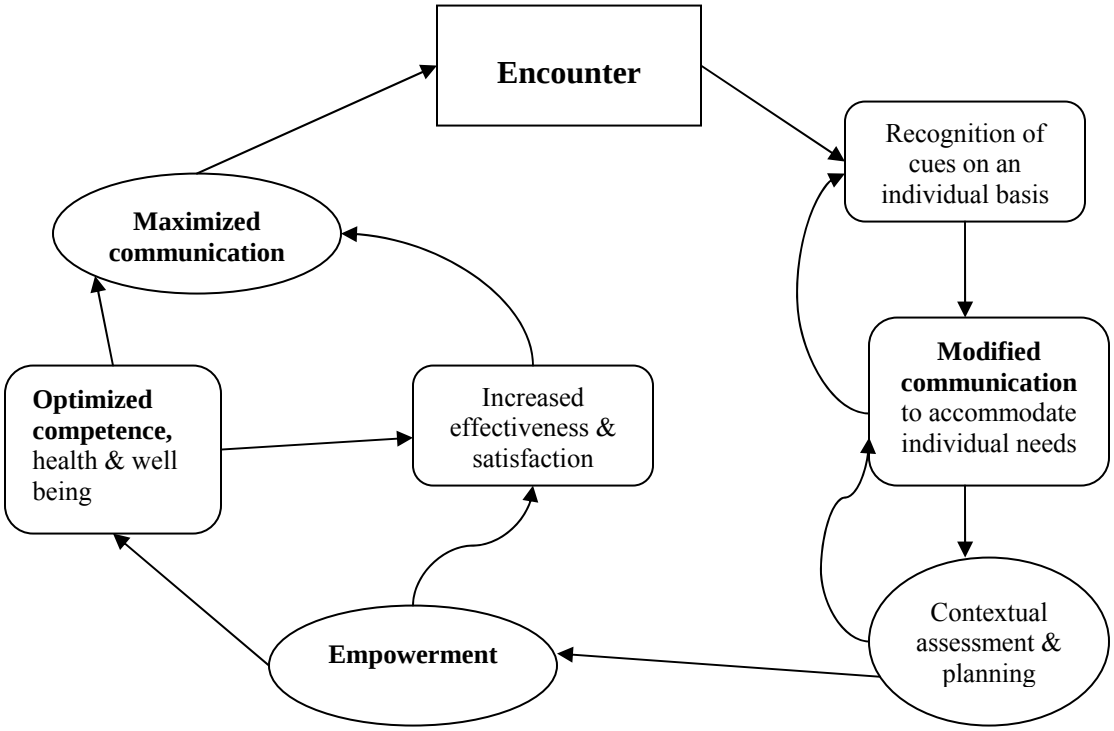

Figure 2. The Communication Enhancement Model of Aging by Ryan, Meredith, MacLean, and Orange (1995).

The Communication Enhancement Model of Aging also was intended to reverse the operation of the negative feedback Communication Predicament Model (CPM) presented in Chapter 1. Developers of the CEM propose that the key to an effective initial encounter is the health provider's ability to assess cues about the older patient on an individualized basis and within the context of the meeting. Also, the provider must constantly monitor the mode and content of the communication while remaining mindful of the tendency to over-generalize impairments and exaggerate communication modifications in response to communication challenges (Orange, Ryan, Meredith, & MacLean 1995). In their examination of the CEM, Ryan and Norris (2001) present a detailed outline of the steps needed to ensure a dynamic provider-patient interaction:

> The assessment and development of a treatment plan for the client are as individualized as possible and as collaborative with the client as feasible. The care provider attempts to empower the client, to help them identify the issues, and participate in their resolution. The strengths of the client are an important part of the assessment and treatment planned; the client's sense of control is thereby supported. The client experiences enhanced competence, health, and control (p. 284).

The principles of the CEM of aging which focus on the interactions of health providers and older patients, specifically, were used as a framework in formulating the research questions for this study which are presented at the end of Chapter 2.

Model of patient-centered care

Similar to the emphasis placed on the "individuality" of the older patient in the CEM of Aging, Stewart and colleagues (2000) noted that the principles of patient-centered medicine originated in the ancient Greek school of Cos and focused on the interests of each "individual" patient. In the last decade, researchers also noted a growing interest in physician-patient relationships, together with a concomitant increase in support of a "patient-

centered" approach to medical care which placed greater emphasis on communication during the health care provider and patient meeting (Little et al., 2001). Furthermore, Clark and Becker (1998) observed that particularly in the areas of preventive medicine, chronic care, and rehabilitation, health care providers were directing more attention to the benefits of patient-centered medicine, especially in light of increasing concerns about malpractice litigation.

A definition of the patient-centered approach by Stewart (2001) explained that "patient-centered medicine includes providing medical care which explores patients' reasons for visiting the physician, understanding medical issues and emotional needs, increasing prevention and health initiatives, and enhancing the relationship between patients and providers" (p. 364). Stewart (2001) also emphasized that health professionals who practiced the patient-centered approach needed to consider the patient's desire for information and must be willing to share the decision-making process and respond appropriately during the interaction. Regarding the practice of patient-centered medicine, Stewart and colleagues (2000) provided a conceptual model of the patient-centered approach by outlining six interrelated components as follows:

- Exploring the experience of illness and disease by the physician
- Physician's understanding of the whole person
- Patient and physician finding common ground as regarding management
- Physician's incorporation of health promotion and prevention
- Enhancing the doctor-patient relationship
- "Being realistic" regarding personal limitations and issues of time and resource management.

Stemming from the patient-centered model by Stewart et al. (2000) is the measure of "patient-centered communication" (PCC) based on (1) the physician's exploration of the patient's symptoms, prompts, feelings, ideas, function, and expectations; (2) the physician's exploration of issues relating to life cycle, personality, or life context; and (3) the physician's clear description of the problem and management plan including discussion and agreement between patient and physician. Working from this PCC model, Wanzer, Booth-Butterfield, and Gruber (2004) defined patient-centered communication as an arrangement of "communicative behaviors that can enhance the quality of the relationship between the health care provider and patient, or the patient's family" (p. 364). In their study, these authors identified behaviors such as clarity, empathy, immediacy, listening, and humor, which were incorporated in the development of a PCC scale to measure patient perceptions of communication by doctors, nurses, and hospital staff. In this same study, these researchers also examined the relationship between patient perceptions of communication and patient satisfaction with communication and care (Wanzer, Booth-Butterfield, & Gruber, 2004).

Related to this finding, Little and colleagues' (2001) work revealed that in a hospital setting, physicians' use of patient-centered communication behaviors had a positive effect in reducing patients' feelings of stress, fear and anxiety. These authors also concluded that patients earnestly wanted to be treated with a patient-centered approach, as opposed to a "biomedical" approach that emphasized more clinical aspects of the consultation, e.g., an examination or a prescription (Little et al., 2001). Furthermore, patients' perceptions that their visit was "patient-centered" were based on achieving "common ground" with their physician. This "common ground" was described as physicians' "exploration, discussion and medical agreement about patients' ideas, the problem, and the treatment" (Little et al., 2001,

p. 470). Another major finding related to physician-patient behaviors, patient-centeredness, and patient satisfaction revealed that, in addition to the positive association between patient-centered communication and patient satisfaction, physicians', nurses', and other hospital staff use of PCC was positively associated with treatment satisfaction (Wanzer, Booth-Butterfield, & Gruber, 2004). Based on these findings, the model of patient-centered care and patient-centered communication provided the framework for this study.

The physical therapist–older patient relationship

Extensive research has been conducted on the relationship between communication and patient satisfaction with care, but the findings have been specific to the physician-patient interaction. To date, few studies have examined these variables within the field of physical therapy. For the purposes of this study, the concepts of patient-centered care and patient-centered communication were applied to the context of physical therapy and the physical therapist-older patient relationship. This application relied on the idea that physical therapists are health professionals whose interactions influence patients' overall health, emotional well-being, and satisfaction with care.

In the medical healthcare arena, the physician and physical therapist fall under the same umbrella of being a "health care provider." In this regard, both are licensed professionals who have been trained with the knowledge and skills to effectively meet the needs of their patients. However, much of the information about the physician–older patient relationship cannot necessarily correlate with outcomes of physical therapists because the nature of the treatment provided is so different on many levels. The physician–older patient interaction is particularly time-limited, and communication generally is focused on the physician performing a diagnostic or general physical examination, asking questions,

prescribing or changing medications, requesting tests, and making referrals to other specialists. In addition, follow-up appointments usually are scheduled every 4-6 weeks depending on the nature and/or severity of the medical condition.

The therapist-older patient relationship, however, is more time-intensive as patients usually are seen several times a week, and treatment sessions typically last about one hour at a time. More importantly, the goals and actual plan of care for physical therapy intervention are strongly related to the patients' functional ability and mobility. Thus, the very nature of the therapist–patient relationship becomes more personal as treatment plans are focused specifically toward helping patients regain their sense of independence and control. In this respect, communication plays a key role as more information is shared about the older patient's home life, hobbies and social activities, goals, and loss of function. Because of this difference, physical therapists need to know the degree to which a therapeutic relationship is occurring with their older patients and what aspects of the communication process can be improved to effectively meet the needs of this patient population.

Satisfaction and physical therapy

Similar to other health care services, Goldstein, Elliott, and Guccione (2000) state that with the provision of physical therapy, patient satisfaction is often difficult to define, since it constitutes a dimension of care beyond the immediate control of the physical therapist. In their research on the development of an instrument to measure satisfaction with physical therapy, the authors offered a definition of satisfaction as "a health care recipient's reaction to aspects of the service delivered and satisfaction over time which result in overall perceptions of quality of service (Goldstein, Elliott, & Guccione, 2000, p. 854). In other words, apart from the knowledge, skills, and expertise of the clinician reflected in the

treatment provided, how that patient values and measures outcomes of care is a necessary construct of patient satisfaction.

In addition, satisfaction can be considered a fluid concept as it changes when the patient's expectations or standards of comparison change, even though the actual health care received may remain constant (Goldstein et al., 2000). Thus, what exactly are the benefits of using patient satisfaction surveys, and why would this information be beneficial to physical therapists? Goldstein and colleagues (2000) contend that patient satisfaction surveys provide several benefits for physical therapists. First, data from such surveys can help to enhance the therapist–patient relationship, as therapists use the information to improve or modify aspects of the interaction experience that are meaningful to their patients. Also, this feedback can help physical therapists develop strategies for provision of care to facilitate the retention and recruitment of patients. Second, patient satisfaction data may be used to predict patient behavior based on the assumption that differences in levels of patient satisfaction can influence clinical outcomes to a certain degree. Third, satisfaction surveys can be used as evaluative tools to assess provider services and facilities of the structure, process, and care outcomes.

Although the benefits of patient satisfaction surveys are well supported in the literature, determining which variables should comprise a patient satisfaction survey has been a greater challenge. For the purposes of this study, I chose to use the patient satisfaction questionnaire developed by Goldstein, Elliott, and Guccione (2000). The authors included 11 domains to generate questions representing aspects of delivery of care that would affect overall patient satisfaction with physical therapy. These domains included treatment, privacy, convenience of appointment time, cost, billing, ease of scheduling an appointment,

scheduling, wait time, courtesy of staff, courtesy of physical therapist, and overall satisfaction.

Research aims and questions

This study aims to investigate the relationship between adults' satisfaction with their physical therapists' communication and physical therapy treatment. The CEM guided the development of the six research questions:

1) What are older patients' perceptions of communication with their physical therapists?

2) Are older patients satisfied with the communication that they have with their physical therapists?

3) How satisfied are older patients with their physical therapy treatment?

4) What is the relationship between older patients' perceptions of communication with their physical therapists and their satisfaction with this communication?

5) What is the relationship between older patients' satisfaction with communication with their physical therapists, and their satisfaction with the physical therapy treatment/care?

6) Is there a difference between older patients' reports of satisfaction based on their gender or site of physical therapy care?

CHAPTER 3

RESEARCH METHODS

Study design

This non-experimental, quantitative study was designed to examine the correlation between older adults' satisfaction with communication and satisfaction with care specific to the field of physical therapy. Past research on physician–patient relationships employed the use of survey methods in collecting data on patient satisfaction which were found to be effective in investigating consumer reactions to the provision of healthcare (Davies, Ware, & Kosinski, 1995; Nelson, 1990). As noted above, patient satisfaction surveys can be used to improve patient care.

Consistent with past research, this study used a survey approach which was most appropriate in obtaining older adult patients' self-reports about their beliefs, attitudes, and perceptions of communication with their physical therapists and satisfaction with physical therapy. More specifically, in using self-administered survey questionnaires, the researcher was able to direct the participants' focus toward specific questions about communication and satisfaction relative to the study's purpose.

Assessment tools

For this study, a self-administered questionnaire survey was employed to gather information from the patient sample. Two questionnaire scales--a patient-centered communication scale, (PCC) developed by Wanzer, Booth-Butterfield, and Gruber (2004), and a patient satisfaction with physical therapy scale, (SPT) developed by Goldstein, Elliott,

& Guccione (2000)--were administered to the participants. Both scales were determined to be valid and reliable by the developers.

The PCC scale consisted of 13 items representing six domains of communication behaviors determined to be "patient-centered," based on evidence that use of these behaviors affected patient satisfaction and addressed patients' psychosocial needs (Wanzer, Booth-Butterfield, & Gruber, 2004). These domains included *clarity*, *humor*, *immediacy*, *introductions*, *listening,* and *empathy*. The PCC scale included 1 clarity item, 1 humor item, 4 nonverbal immediacy items, 2 introduction items, 1 listening item, and 4 empathy items. In order to assess older adults' perceptions of the extent to which physical therapists used specific PCC behaviors, participants were asked to rate their responses on a 5-point Likert scale ranging from 5 (very often) to 1 (never). The PCC scale was scored by transforming the Likert responses to numerical values 1 through 5 for each of the six domains: *clarity*, *humor*, *immediacy*, *introductions*, *listening,* and *empathy*. Mean scores were calculated, tested, and reported for all 6 domains.

Because of the need to include measures of satisfaction with communication, two items were included along with the Patient-Centered Communication questionnaire. In order to enhance reliability, one question was positively phrased and the other was phrased negatively ("Overall, I was satisfied with the communication with my physical therapist" and "Overall, I was not satisfied with the communication with my physical therapist"). In order to ensure accuracy of responses, all items in the PCC questionnaire, including the two satisfaction items, were randomized according to a table of random numbers. Copies of the PCC scale in its original and randomized version are listed as Appendix A and B respectively.

Goldstein and colleagues developed the SPT scale in 2000 after identifying a need for a quantitative measure to assess client/patient satisfaction with global aspects of care. The SPT scale consisted of 20 items corresponding to 11 domains of patient satisfaction listed as follows: *treatment*, *privacy*, *convenience of appointment time*, *cost*, *billing*, *ease of scheduling an appointment*, *scheduling*, *wait time*, *courteous staff*, *PT courteous*, and *overall satisfaction*. These domains were documented in previous research as comprising aspects of the delivery of physical therapy care which affected patient satisfaction (Nelson, 1990; Donabedian, 1988), and are well represented in several patient satisfaction survey instruments currently in use by physical therapists in diverse practice settings (Goldstein, Elliott, & Guccione, 2000). Responses were measured using 5-point Likert-type scales ranging from "strongly disagree" to "strongly agree." The Likert-type scale was selected based on its use in previous studies that examined patient satisfaction and also were found to facilitate the task of survey completion for the respondents. (Goldstein et al., 2000; Ware, Davies-Avery, & Stewart, 1978). The SPT scale was scored by transforming the Likert responses to numerical values 1 through 5, then summing the responses for a cumulative score ranging from 20 to 100. A copy of this instrument can be viewed as Appendix C.

In addition, an investigator-developed questionnaire was used to gather the following patient demographic information: age, sex, race / ethnicity, height and weight, past medical history, self-reports of health status, condition requiring physical therapy intervention, duration and frequency of treatment, and type of insurance coverage. These descriptive variables were included to allow for the possibility of further analyses to determine their correlation with ratings of patient satisfaction. A copy of this questionnaire is attached as Appendix D.

Data collection

During the initial stages of the data collection process, beginning in March, 2006, three physical therapy sites, including a hospital-based outpatient department, an aquatics outpatient practice with two locations, and a sports and rehabilitation outpatient center, were chosen as a convenience sample. The sites were selected based on the principal investigator's (PI) and the committee advisor's affiliations and prior work experience at the sites. One hundred and ten packets were prepared by the PI in the Division of Physical Therapy at Georgia State University and included the following:

1) A four-page survey questionnaire including the investigator-developed demographic questionnaire, the patient-centered communication scale, and the satisfaction with physical therapy scale.
2) A letter of informed consent (listed as Appendix E) outlining the study's title, purpose, benefits, and assurance of subject anonymity and confidentiality.
3) A stamped envelope, addressed to the faculty advisor's office address in the Division of Physical Therapy at Georgia State University.

During the week of March 15, the PI contacted the directors of each of the 3 PT sites via telephone to schedule convenient appointment times in which to deliver packets and meet with physical therapy staff. That following week, 50 packets were delivered by the PI to the Rehab Director at the hospital-based outpatient department. Thirty packets were delivered to the director of the outpatient aquatics practice, as well as the director of the sports-based outpatient clinic. During the respective site visits, The PI met with the physical therapists to explain the purpose and goals of the study and to provide clear and concise instructions regarding specific inclusion criteria required for completion of the questionnaire instruments.

Key personnel staff were asked to identify potential participants based on the following inclusion criteria: participants were at least 60 years of age, were discharged from physical therapy services, and had no history of cognitive impairment as determined by the treating physical therapist at each particular site. Exclusion criteria required that participants not be involved in any physical therapy home care intervention.

On the day of discharge from physical therapy services, participants were provided with a questionnaire packet including an informed consent form and details related to confidentiality and anonymity of their involvement in this research study. Questionnaires were color-coded to represent each particular physical therapy site. Questionnaires prepared for the hospital-based outpatient department were white, and questionnaires prepared for the aquatics and sports-based outpatient sites were green and purple, respectively. Participants were instructed to complete the questionnaires within one week, place them in the pre-addressed, stamped envelopes also included in their packet, and mail the envelopes to the faculty advisor's office address at Georgia State University. The questionnaires were collected by the principal investigator for quantitative data analysis.

This particular method of survey distribution was chosen in an effort to mitigate some of the factors known to compromise measures of reliability and validity in assessing patient satisfaction in past studies. Specifically, participants were asked to respond to questionnaires based on the last interaction with the physical therapist to allow for a more accurate assessment of the delivery of care. Also, participants were presented with questionnaires on their last day of physical therapy treatment and asked to complete the surveys in the privacy of their homes. This allowed for participants to be more forthcoming in their evaluation of the relationship with their physical therapist and minimized the possibility of inflated patient

ratings of care beyond its merits.

Follow-up phone calls to respective site coordinators began about 2 weeks after the introductory meeting and continued about every 3 weeks. Site coordinators were encouraged to contact the PI if they had any questions or concerns or needed additional packets. At the end of the 12th week of data collection, it was decided to add an additional site, since the response rate had been lower than expected. Reasons for this low response rate will be discussed in Chapter 4. A fourth site, a physical therapy home health company, was added in June, 2006. This selection was based on the PI's prior work experience with the home health company. Participants from Site 4 had to be discharged from all physical therapy home health services in order to be included in the study. During that final week in June, the PI delivered 20 packets to the home health coordinator and conducted the introductory meeting to explain the study's inclusion criteria as before. Surveys delivered to the home health facility were color-coded yellow.

Data analysis

Surveys arrived via the U.S. Postal Service at the faculty advisor's office. The PI picked up the packets on a weekly basis and entered the data using the statistical package SPSS, version 12.0. Data entry, analyses, and cleaning were conducted on an ongoing basis by the PI. Descriptive measures including frequencies, percentages, and means were used to report demographic data. The Spearman rho correlation coefficient was used to test for correlations between perceptions of Patient-Centered Communication (PCC), satisfaction with communication, and satisfaction with care. Independent samples t-tests were used to test for differences between male and female participants and their satisfaction with care, and an analysis of variance (ANOVA) with post-hoc Bonferroni adjustment was used to assess

for differences in satisfaction based on the site where physical therapy treatment was received. The findings of the data analyses are presented in Chapter 4.

Reliability measures of satisfaction with communication

As noted above, two questions were included on the patient-centered communication instrument as measures of satisfaction with communication to enhance reliability. Responses to the negatively-phrased question were reverse-coded, and the average of the 2 scores was used as a summary measure of satisfaction with communication. Tables 1 and 2 illustrate the respective frequencies and percentages of responses for the positively and recoded negatively phrased questions.

Table 1. Frequency and Percentage of Scores for the Positively Phrased Question*

Scores	Frequency	Percentage
Never (1)	0	0
Rarely (2)	0	0
Occasionally (3)	1	3
Often (4)	13	32
Very Often (5)	26	65
Total	40	100

* Overall, I was satisfied with the communication with my physical therapist.

Assessment of the reliability of this measure revealed somewhat inconsistent responses to the questions. Seventeen percent of the sample (6 participants) did not answer the negatively phrased question, and 12% (4 participants) appeared to answer it in error. Thus, because of

the apparent confusion created by this question, it was dropped from the data analysis in favor of the single, positively-phrased communication satisfaction item.

Table 2. Frequency and Percentage of Scores for the Recoded Negatively Phrased Question*

Scores	Frequency	Percentage
Never (1)	4	12
Rarely (2)	0	0
Occasionally (3)	1	3
Often (4)	6	17
Very Often (5)	23	68
Total	34	100

* Overall, I was not satisfied with the communication with my physical therapist.

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CHAPTER 4

FINDINGS

Overview

This chapter will examine the results of the data analysis. First, the study's response rate and descriptive characteristics of the sample including demographic data, past medical history and co-morbidities, reasons for physical therapy treatment, and self-reports of health status will be presented. Next, each of the six research questions will be addressed, including older patients' perceptions of physical therapists' communication and their satisfaction with that communication, older patients' satisfaction with physical therapy treatment, and the relationships between older patients' perceptions of physical therapists' communication, satisfaction with that communication, and satisfaction with physical therapy care. Last, differences in the levels of satisfaction with physical therapy by site and gender, which emerged from the data analysis, will be presented.

Response rate

A total of 130 survey instruments were distributed to 4 physical therapy facilities. Forty packets were returned over a five-month period, and of those, 34 were completed fully, while the six remaining packets had one or more missing items. For the purposes of this study, all 40 survey instruments were used in data analysis. Any missing values or questions answered "N/A" were not included in data analysis. Data representing the number of packets delivered to each site, and the numbers of packets distributed to, and returned by, patients are presented in Table 3. The percent response rate by site, as well as the percent breakdown of the sample by site were calculated and also are included in Table 3.

Table 3. Response Rate for Study

Site	Packets delivered to site	Packets distributed to patients	Packets returned by patients	Return rate	Percentage of sample n = 40
Hospital	50	16	14	88%	35%
Aquatics	30	23	13	57%	32%
Sports	30	10	3	30%	8%
Home Health	20	15	10	67%	25%
Total	130	64	40	63%	100%

Based on the results shown in Table 3, the hospital-based outpatient facility had the highest response rate (88%), indicating that the large majority of patients at this site who received packets returned them by mail as instructed. Despite this high response rate, participants from the hospital-based outpatient site comprised only 35% of the sample. In obtaining sites for potential subjects, the hospital outpatient facility was considered the primary site for older adult participants in this study; hence, fifty packets were delivered to this site. Of those fifty packets, only 16 were distributed to patients. In discussions with the hospital PT director regarding the low distribution rate, it was reported that the majority of older patients appeared to have some degree of cognitive impairment as determined by the physical therapists, which excluded their participation based on the study's inclusion criteria. The implications of this finding will be addressed in Chapter 5.

The home health facility had the second highest return rate (67%) which is considered average for survey responses by mail. However, given that this facility was

added as a potential site 12 weeks into the data collection period, the response rate was better than anticipated. Of the 20 packets delivered to the home health facility, 15 packets were distributed to patients. Home health physical therapists also reported that potential participants were excluded from the study based on some degree of cognitive impairment. The response rate for the outpatient aquatics practice (57%) was lower than expected, since older adults comprise the majority of patients who access this type of physical therapy practice. However, the PT coordinator reported that packets were distributed only in 1 of the 2 aquatics locations due to staff shortage at the second location. This resulted in limited access to a larger participant pool. The sports outpatient facility had the lowest number of packets distributed to patients (10 out of 30) and the lowest response rate (30%). This was not surprising given that the majority of patients who access PT services at this site were typically younger and, therefore, did not meet the study's inclusion criteria.

Characteristics of the sample

The demographic characteristics of the sample including age, gender, race, height, weight, body mass index (BMI), and insurance coverage are displayed in Table 4. The sample consisted of 63% females and 37% males. Of the 25 females in the sample, 20 were white (80%), 3 were Black (12%), one was Hispanic (4%), and one indicated "other" (4%). Of the 15 males in the sample, eight were white (53%), 3 indicated "other" (15%), 2 were Black (13%), one was Asian (7%), and one was Hispanic (7%).

Respondents ranged in age from 61 to 84 with an average age of 75. The height of respondents ranged from 53 -73 inches with an average height of 66 inches. Subjects' weight ranged from 109-280 pounds with an average weight of 170.

Table 4. Demographic Characteristics of Sample

		Frequency	Percent
Gender	Female	25	63
	Male	15	46
Age	60-74 years	18	54
	75 years or older	21	53
Race	White	28	70.0
	Hispanic	2	5.0
	Black	5	13.0
	Asian	1	2.0
	Other	4	10.0
Height	51-60 inches	1	3
	61-70 inches	31	79
	71 inches and above	7	18
Weight	109-159 pounds	17	44
	160-210 pounds	18	46
	211-266 pounds	3	8
	266 pounds and above	1	2
BMI	Underweight = (below 18.5)	2	5
	Normal weight = (18.5-24.9)	10	26
	Overweight = (25-29.9)	19	49
	Obese = (30 and above)	8	20
Insurance	Medicare	21	53
	Medicare + Private Insurance	16	40
	Private Insurance	3	7
	Medicaid	0	0
	Private Pay	0	0

Body mass index (BMI) is a universally accepted measure used to screen and monitor for the risk of obesity. It expresses the relationship of weight-to-height and is calculated according to the formula (weight in pounds x 703) / (height in inches x height in inches). An adult whose BMI is greater than or equal to 25 and less than 30 is considered overweight.

An obese adult is one whose BMI is greater than or equal to 30. The BMI values ranged from 17.6-49.6 with an average BMI of 27.6, indicating that the average participant was overweight. Regarding insurance coverage, 53% of the sample indicated that Medicare was their only form of insurance. Forty percent of the sample indicated that they had both Medicare coverage and private insurance, and the remaining 7% of the sample indicated that they only had private insurance.

Past medical history (PMH) and co-morbidities

As part of the demographic data collection, subjects were asked to identify their past medical conditions and co-morbidities, by checking any of the following that applied: 1) high blood pressure, 2) history of stroke, 3) diabetes, 4) history of heart disease, 5) arthritis/joint pain, 6) history of cancer, 7) cataracts, 8) osteoporosis, and 9) any other medical condition not listed above. Summarized below in Table 5 is a breakdown of the number and percentage of respondents presenting with 1, 2, or 3 or more medical conditions/co-morbidities. The data indicate that 35% of the sample presented with 2 co-morbidities, and 40% presented with 3 or more.

Table 5. Self-report of Co-morbidities

Number of medical conditions	Frequency	Percentage of Sample
1	10	25
2	14	35
3 or more	16	40
Total	40	100

Reason for physical therapy treatment

Based on the varying types of physical problems that require some form of physical therapy intervention, subjects were grouped into 1 of 4 categories in determining the need for PT treatment:

1) Orthopedic condition (e.g., joint replacement/joint pain)
2) Inflammatory condition (e.g., tendonitis, rheumatoid arthritis)
3) Neurological impairment (e.g., stroke, brain injury)
4) General medical (e.g., cancer, cardiac rehab)

Table 6 represents the breakdown of subjects' medical diagnoses requiring PT treatment. The majority of the sample (69%) indicated a need for PT intervention as a result of an orthopedic problem which included either a surgical joint replacement or joint pain.

Table 6. Self-report of Reasons for PT Treatment

PT Reason	Frequency	Percent
Orthopedic	27	69
Inflammatory	4	10
Neuro/stroke	3	8
General medical	5	13
Total	39	100

Self-reports of health status

Participants were asked to provide self-reports of their health status including general health, emotional health / sense of well-being, and overall quality of life on a 5-point Likert scale ranging from 1 (poor) to 5 (excellent). The scores were collapsed into 3 categories indicating below average health (1-2), average health (3), and above average health status (4-5). For general health, 40% reported above-average health, 32% reported average health, and 28% reported below-average health. For emotional health and overall quality of life, more than half the sample (60% and 53%, respectively) reported above-average scores. Of particular interest were self-reports of health status according to site displayed in Table 7. The results indicate that, while the majority of participants from the hospital, aquatics, and sports setting (70% and over) reported above-average to average health assessments for general, emotional, and quality of life, the majority of subjects from home health (70% to 80%), reported below-average or average scores.

Table 7. Self-report of Health Status by Site

General Health	**Below Average**		**Average**		**Above Average**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Hospital	2	14	6	43	6	43	14	100
Aquatics	4	31	3	23	6	46	13	100
Sports	0	0	1	33	2	67	3	100
Home Health	5	50	3	30	2	20	10	100
Emotional								
Hospital	1	7	4	29	9	64	14	100
Aquatics	3	23	1	8	9	69	13	100
Sports	0	0	0	0	3	100	3	100
Home Health	3	30	4	40	3	30	10	100
Quality of life								
Hospital	1	7	5	36	8	57	14	100
Aquatics	3	23	2	15	8	62	13	100
Sports	0	0	0	0	3	100	3	100
Home Health	4	40	4	40	2	20	10	100

N = frequency

Results for research questions

1) *Older patients' perceptions of communication with their physical therapists*

The PCC scale measured older adults' perceptions of communication with their physical therapists. The PCC represented 6 domains of PCC behaviors, clarity, humor, immediacy, introduction, listening, and empathy. These 6 domains were individually scored on a 5-point Likert scale and the results are presented in Table 8.

Table 8. Frequency, Percentage, and Mean Scores across Patient-Centered Communication (PCC) Domains

PCC Domains	**(1)Never**		**(2)Rarely**		**(3)Occasionally**		**(4)Often**		**(5)Very Often**		**Mean**
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	
Clarity	0	0	0	0	0	0	11	28	28	72	4.72
Humor	0	0	1	3	5	14	15	40	16	43	4.18
Immediacy	0	0	1	3	1	3	15	39	21	55	4.47
Introduction	0	0	4	11	3	8	18	49	12	37	4.03
Listening	0	0	0	0	3	7	12	31	24	62	4.54
Empathy	1	3	0	0	4	11	13	34	20	52	4.34

N = frequency

Overall, the majority of older patients reported that these PCC behaviors were frequently demonstrated as often/very often (over 80% of the time) across all 4 sites, indicating that their physical therapists were practicing patient-centered communication. Specifically, the domain, clarity, referring to the physical therapist communicating in a clear and direct manner, was reported as occurring often/very often 100% of the time.

2) *Older patients' satisfaction with the communication with their physical therapists*

As discussed in Chapter 3, the negatively-phrased question of satisfaction with communication was dropped from the analysis because of apparent confusion created by this question. Patient satisfaction with communication was assessed from responses to the single communication satisfaction item, "Overall, I was satisfied with the communication with my physical therapist." The frequency and percentage of scores for this question are presented in Table 9.

Table 9. Frequency and Percentage of Scores for Satisfaction with Communication*

Scores		Frequency	Percentage
Never	1.00	0	0
Rarely	2.00	0	0
Occasionally	3.00	1	3
Often	4.00	13	32
Very Often	5.00	26	65
Total		40	100

* Overall, I was satisfied with the communication with my physical therapist.

Overall, the majority of older patients (97%) indicated that they were satisfied either often/very often with the communication with their physical therapists. Scores ranged from 3 (satisfied occasionally) to 5 (satisfied very often) with an overall mean score of 4.62 for satisfaction with communication.

3) *Older patients' satisfaction with their physical therapy treatment*

The SPT scale measured the level of older adults' satisfaction with PT treatment/care. The 20 SPT items were individually scored on a 5-point Likert scale and summed to provide an overall score with a mean score of 87. Actual scores on the SPT scale ranged from 69-100. These scores were divided into 3 categories, corresponding to moderate (69-79), high (80-89), and very high (90-100) satisfaction. The results presented graphically in Figure 3 suggest that more than three-fourths of the sample (77%), reported high or very high levels of satisfaction with PT treatment/care (a score of 80 or over out of a possible total score of 100).

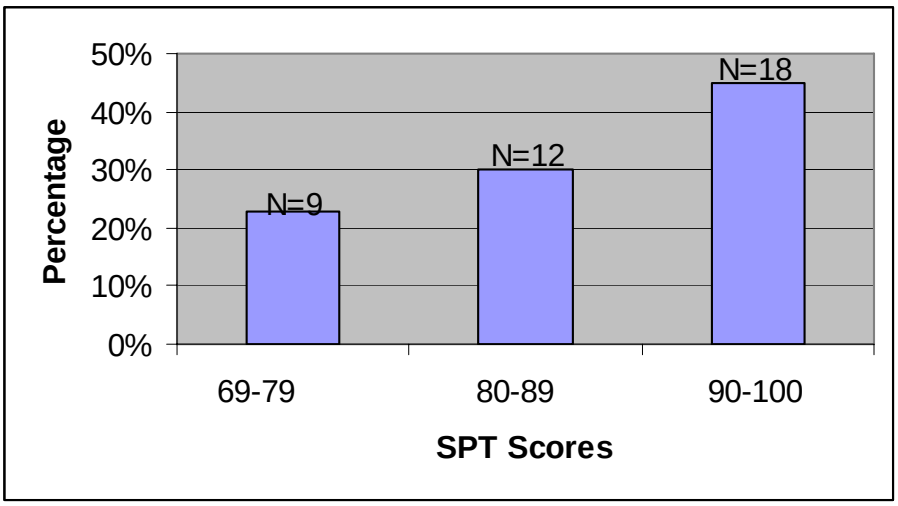

Figure.3 Distribution of Satisfaction with Physical Therapy Scores

4) *Older patients' perceptions of communication with their physical therapists and their satisfaction with this communication*

This research question addressed the relationship between older adults' perceptions of physical therapists' Patient-Centered Communication (PCC) and satisfaction with

communication. The results in Table 10 indicate positive correlations between physical therapists' use of patient-centered communication and older adults' satisfaction with this communication across all domains of the PCC scale.

Table 10. Correlations between Patient-Centered Communication (PCC) Domains and Satisfaction with Communication

PCC Domains	Satisfaction with Communication r
Clarity	.716**
Humor	.625**
Immediacy	.577**
Introduction	.470*
Listening	.612**
Empathy	.641**

*p< .05
**p < .005

This finding suggests that older adults were more satisfied with communication with their physical therapists when they perceived that the communication was patient-centered. Clarity (r = .716), empathy (r = .641), listening (r = .612), humor (r = .625), and immediacy (r = .577) appeared to have equally strong correlations with satisfaction with communication, indicating that older adults experienced greater communication satisfaction when their PTs demonstrated these particular communicative behaviors. The domain, introduction (r = .470), while significant, did not appear as strong a correlate as the other domains. In responding to the PCC questionnaire, participants were instructed to answer the questions based on their last PT visit. It is likely that the physical therapists did not formally introduce

themselves during every patient encounter especially if a therapist-patient relationship was already established.

5) *Older patients' satisfaction with communication with their physical therapists, and their satisfaction with physical therapy treatment/care*

This research question addressed the relationship between older patients' satisfaction with communication with their PTs and their satisfaction with the PT treatment/care itself. The results in Table 11 show a positive correlation (r = .733) between these two variables, suggesting that when older adults were satisfied with communication with their PTs, they also tended to be satisfied with the PT care provided. Also, the same PCC behaviors, empathy (r = .698), listening (r = .683), clarity (r = .673), humor (r = .672), and immediacy (r = .614) appeared to have equally strong correlations with satisfaction with PT care, which emphasizes the importance of PTs' use of these PCC behaviors in positively influencing patient satisfaction with physical therapy treatment.

Table 11. Correlations between Satisfaction with Communication, Patient-Centered Communication (PCC) domains and Satisfaction with Physical Therapy

	Communication satisfaction	Clarity	Humor	Immediacy	Introduction	Listening	Empathy
Satisfaction with PT	.733**	.673**	.672**	.614**	.372*	.682**	.698**

*p < .05
*p <.01

6) *Differences in levels of satisfaction*

Because of the inclusion of multiple sites in this study, differences in the levels of older adults' satisfaction with physical therapy from different sites were examined and are presented in Table 12. For visual representation, the scores were collapsed into 3 groups

representing moderate, high, and very high levels of satisfaction. Mean scores of satisfaction for each site were 92.62, 88.15, 95.00, and 76.70 for hospital outpatient, aquatics, sports outpatient, and home health, respectively. In order to assess the significance of the differences of the SPT mean scores, the original scores and sites were assessed using an ANOVA with post-hoc Bonferroni adjustment. A significant difference was found between the scores of older patients receiving home health physical therapy and each of the three other sites (hospital-based outpatient, $p < .001$; aquatics, $p < .002$; and sports outpatient, $p < .001$). No significant difference was found between the means of the other three sites.

Table 12. Frequency and Percent Distribution of Satisfaction with Physical Therapy (SPT) Scores by Site

Site	Moderate 69-79		High 80-89		Very High 90-100		Total		Mean Score
	N	%	N	%	N	%	N	%	
Hospital (OP)	0	0	3	23	10	77	13	100	92.62
Aquatics	2	15	6	46	5	38	3	100	88.15
Sports (OP)	0	0	0	0	3	100	3	100	95.00
Home Health	7	70	3	30	0	0	10	100	76.70

N = frequency

Another interesting finding was the significant difference in satisfaction with care for men and women. Results of an independent samples t-test show that men expressed lower levels of satisfaction with PT care than women ($p < .015$). Male participants reported an average SPT score of 82.73, while women reported a mean score of 90.04. The data are displayed in

Table 13 in a categorical format, again representing moderate, high, and very high levels of satisfaction with their physical therapy.

Table 13. Frequency and Percent Distribution of Satisfaction with Physical Therapy (SPT) Scores by Gender

Gender	Moderate 69-79		High 80-89		Very High 90-100		Total		Mean Score
	N	%	N	%	N	%	N	%	
Female	3	13	7	29	14	58	24	100	90.04
Male	6	40	5	33	4	27	15	100	82.73

N = frequency

CHAPTER 5

DISCUSSION AND CONCLUSION

Overview

The main objectives of this study were to assess: 1) older patients' perceptions of communication with their PTs; 2) older patients' satisfaction with communication with their PTs; 3) older patients' satisfaction with their physical therapy treatment; 4) the correlation between older patients' perceptions of communication with their PTs, and satisfaction with this communication, 5) the correlation between older patients' satisfaction with communication and with PT treatment, and 6) the differences in satisfaction based on site of care and gender. Chapter 1 provided a brief description about the interconnectedness of communication, aging, and health, and statement of the problem which included the Communication Predicament Model. Chapter 2 presented a review of the literature, focusing on patient satisfaction, the model of patient-centered care and communication, older adult health care needs and the Communication Enhancement Model, the physical therapist-older patient relationship, and satisfaction with physical therapy. Chapter 3 described the research methods to be used in this study and the results of the data analyses were reported in Chapter 4. The purpose of this final chapter is to discuss the study's findings and present the study's limitations and suggestions for future research.

General sample characteristics

A sample of convenience was accessed from multiple PT sites including a hospital-based outpatient department, an outpatient aquatics practice, a sports-based outpatient clinic,

and a home health facility, resulting in a sample with a wide variety of diagnoses and physical therapy interventions. The majority of the sample were white females with an average age of 75. Most participants were covered under Medicare. In terms of age, gender, ethnicity, and insurance coverage, the sample represented the basic demographic characteristics of older adults who typically use various physical therapy services. Regarding subjects' past medical history/co-morbidities, the majority of the sample (75%) indicated that they had 2 or more co-morbidities which included heart disease, some form of cancer, high blood pressure, diabetes, and a history of stroke. According to the Center on Aging Society (2003), these conditions are recognized as five of the ten leading causes of death among older adults in the United States. Furthermore, of the 27 participants who had 2 or more co-morbidities, 67% were found to be either overweight or obese. The Center on Aging Society (2003) found that among overweight or obese adults, the rates of chronic conditions tend to be higher. The results from this study support that finding.

With specific reference to the body mass index (BMI) values used to monitor and screen for the risk of obesity, 68% of the sample had BMI values of 25 and over, indicating that two-thirds of these PT patients were either overweight or obese. The Center on Aging Society (2003) data profile of obesity among older Americans reported that one in four is obese (a BMI value of 30 or above) and that 40% of older Americans were overweight (a BMI value greater than or equal to 25 and less than 30). In this study, the findings were similar in that one in five of the subjects was obese, and 48% were overweight. Thus, although the sample used in this study was small, it appeared to be quite an accurate representation of the BMI status of the society at large, within a standard margin of error.

Satisfaction with communication and physical therapy care

Positive correlations were found between older adults' perceptions of physical therapists' patient-centered communication and satisfaction with communication and between older adults' satisfaction with communication and their satisfaction with physical therapy care. Older adults were satisfied when they perceived that physical therapists' communication and physical therapy care were patient-centered. These findings directly support the concept of a patient-centered approach to care, in which patients' feelings, problems, symptoms, and expectations are explored and patient participation in discussion and treatment is encouraged. The findings also support the general principles of the Communication Enhancement Model which emphasizes patient empowerment, individuality, and participation in resolution of issues, encourages the development of patients' strengths, and enhances patients' sense of control during assessment and treatment (Orange, Ryan, Meredith, & MacLean, 1995).

Furthermore, similar relationships between Patient-Centered Communication and satisfaction both with communication and care were reported in a study examining parents' perceptions of physicians' and nurses' communication in a children's hospital setting. More specifically, Wanzer and colleagues (2004) found that the patient-centered communication behaviors, empathy, immediacy, and perceived listening, were most strongly associated with satisfaction with care and with communication. Similarly, in this study with older patients, correlations between satisfaction with communication and satisfaction with PT care were positive across all domains of Patient-Centered Communication, and equally strong relationships occurred with the domains, clarity, empathy, listening, humor, and immediacy.

In terms of clarity, older adults appeared to appreciate when their physical therapist communicated in a direct, coherent manner, and offered clear expectations and directions about what steps to take next and what to expect during treatment. In support of this finding, Kreps and Thornton (1992) observed that health care provider efforts to lower patient anxiety and reduce uncertainty about health-related processes were enhanced by using clear communication to avoid misunderstandings. Regarding empathy, older adults were more satisfied when they felt that their feelings and experiences were understood by their PTs. This finding also was supported in the study by Wanzer, Booth-Butterfield, and Gruber (2004), and researchers Bellet and Maloney (1991) explained that an empathic interaction enhanced patient trust and encouraged greater patient involvement in discussion and care.

With respect to listening, older adults were satisfied both with communication and care when they believed that their physical therapist was listening "intently" to them. In support of this finding, Bell and Daly (1984) described listening as a "social affinity-seeking strategy," which is associated with patient satisfaction. In addition, a similar association between perceived listening and satisfaction with communication and care was reported in the study by Wanzer, Booth-Butterfield, and Gruber (2004), and these researchers remarked that "if health care personnel do not listen to patients they make mistakes leading to medical difficulties" (p. 366).

Positive effects of humor use in health care are well-documented in the literature (Wrench & Booth-Butterfield, 2001; Ziegler, 1998). The findings of this study further support this positive correlation between humor and satisfaction with communication and care. It was possible that physical therapists use of humor helped to reduce uncertainty, and create a more relaxed atmosphere during the patient-provider interactions.

According to Wanzer and colleagues (2004), nonverbal immediacy refers to behaviors that reduce physical and psychological distance between social interactants. Examples of such behaviors include eye contact, smiling, and body position. During physican-patient interactions, physicians' use of such behaviors was associated with greater patient satisfaction and understanding (Wanzer, Booth-Butterfield, & Gruber, 2004). Similar findings were evident in this study as physical therapists' use of immediacy behaviors appeared to reduce older patients' uncertainties and create a more positive interaction.

Differences in levels of satisfaction

When differences in the levels of older patients' satisfaction with physical therapy based on site were considered, the majority of home health subjects reported significantly lower levels of satisfaction with physical therapy. By definition, patients who qualify for home health physical therapy are considered "homebound" due to physical or cognitive impairments which limit their functional mobility and safety. Typically, these patients present with greater severity of illness, deconditioning, and debility. Previous studies on satisfaction with medical care found that patients who presented with greater degrees of physical and/or functional impairment and chronic illness tended to be less satisfied with medical treatment (Hall et al., 1990; Kaldenberg, 2001). Consequently, home health patients' reports of lower levels of satisfaction with physical therapy treatment support the findings in previous research. Interestingly enough, the home health patients also indicated lower self-reports of general health, emotional health, and overall quality of life than patients from the other three sites. Although these findings were not tested for statistical significance, they appear to support the findings of previous studies examining patient health status and satisfaction with medical care (Hall et al., 1990; Kaldenberg, 2001).

Another interesting finding was the significant difference in the levels of satisfaction with care when considering the participants' gender. Male participants appeared to experience significantly lower levels of satisfaction with PT care than their female counterparts. Given that there was no difference in self-reports of health status or the number of co-morbidities reported for men and women, it is possible that the male participants in this study had different expectations for health care delivery. The SPT scale while addressing some aspects of actual physical therapy care, also addressed questions pertaining to the overall experience of receiving PT treatment including the availability of parking, the convenience of location, ease of scheduling appointments, and accuracy of billing. It appeared that male participants reported less satisfaction with these aspects of physical therapy that did not involve the actual therapeutic intervention. It is important to remain cognizant of the fact that satisfaction with PT care, or any other health care intervention involves more than just the interaction with the health care provider. Thus, this interesting finding warrants further research.

Limitations

A major limitation of this study was the small sample size mainly due to the lower-than-anticipated response rate. In discussions with the physical therapists at the different sites, a common finding emerged regarding this low response rate. At two of the four sites (hospital-based outpatient and home health), physical therapists reported that the majority of their older adult patients had some degree of cognitive impairment, thus excluding them from the study. Because the inclusion of participants was based on the physical therapist's assessment of cognitive status, it is possible that potential participants were excluded from the sample. In addition, the sample was one of convenience used to obtain information

regarding the relationship between patient satisfaction with communication and care relative to the field of physical therapy. Convenience samples are characterized typically by the inclusion of individuals who are available to participate in a study but whose views do not necessarily represent those of the larger population. Thus, the external validity of the study's findings was compromised. However, the sample appeared to be representative in some respects, regarding the percentage of older adults who were overweight, obese, and had multiple chronic conditions. In addition, the demographic characteristics of the sample appeared to represent in some respects, the population of older adults who access PT services.

Strengths

One of the major strengths of this study was the data collection procedure that allowed participants to complete their surveys in the privacy of their home environment. This process allowed for greater internal validity of the findings as participants were able to be more forthcoming in their evaluation of the relationship with their physical therapist, and it minimized the possibility of inflated patient ratings of care beyond its merits. Another strength of the study was the inclusion of multiple physical therapy sites which allowed for a more varied case mix with respect to presenting diagnoses and physical therapy interventions. The differences in responses based on site provide pilot data for further research.

Implications for physical therapy practice

The results of this study, while preliminary, are encouraging as it appears that the physical therapists who treated the participants remained vigilant in their care of older adults, and those older patients were satisfied with that care and communication. As health care

providers, PTs should incorporate a holistic approach to treating older adult patients while remaining mindful of the impact of effective communication on the older adult's ability to derive the most benefit from physical therapy intervention. Based on the principles that underscore the Communication Enhancement Model and the model of patient-centered care, physical therapists should strive to adopt individualized approaches to treatment planning, provision of services and outcome evaluations which are more likely to result in enhanced provider-patient interactions and greater levels of patient satisfaction among the older adult population. These principles also should serve as guidelines for physical therapist educators preparing future practitioners for careers in geriatric rehabilitation, improving geriatric courses in school-based curricula, and enhancing geriatric-based continuing education programs.

The importance of the role of physical therapists as health educators in promoting improved self-care among older patients is underscored by the increasing number of older adults who are either overweight or obese as reflected in this sample and society at large. The implications of a growing population of obese older adults who also have multiple chronic conditions warrant special attention. As health care providers, physical therapists have the knowledge and skills not only to rehabilitate the functionally impaired but to emphasize and promote health education and awareness among older adults who want to be involved in their care.

Implications for future research

Prior to this study, very limited information existed on the nature of the physical therapist-older patient relationship, and none had focused on the experiences of older adults and their satisfaction with communication. The majority of the literature review for this

study was based on past research examining physician-older patient communication and interaction derived from studies in which patients, their families, and their physicians were interviewed or surveyed about what occurred during the medical visit. Likewise, participants in this study were surveyed after having been discharged from physical therapy services. These investigations, including this study, provide valuable information about perceptions of the health care provider-older patient communication/interaction and estimates about predicted behavior in actual visits, but they do not provide direct evidence of what actually occurs during the medical encounter. Thus, overall insight of health practitioner-older patient communication in natural settings is limited to the extent that perceptions and attitudes are described by patients after the fact as opposed to being directly observed.

In order to achieve a more accurate measure of the nature of the physical therapist-older patient interaction, research efforts should be geared towards promoting direct observation in this area. Furthermore, in-depth studies examining the physical therapist-older patient relationship should create more opportunities for older patients to share their views/concerns both collectively through focus groups and individually through in-depth interviews. This information will not only be useful to health professionals providing direct care to older adult patients but can also serve as guidelines for improving geriatric courses in school-based curricula and enhancing geriatric-based continuing education programs.

In addition, this exploratory study provided an opportunity to asses whether or not older patients are satisfied with their interactions with their physical therapists. However, perceptions of communication were based solely on the opinions of older adult patients. In order to achieve a more comprehensive assessment of the physical therapist-older patient relationship, future studies in this area of research should seek to examine physical

therapists' perceptions of their own communication and interactions with the older adult population. Furthermore, the development of age-specific tools to measure older adults' perceptions of their health providers' communication and satisfaction with treatment would allow for a more accurate assessment in determining whether or not therapeutic relationships are occurring between older adults and their health care providers.

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APPENDIX A

THE PATIENT-CENTERED COMMUNICATION (PCC) SCALE
ORIGINAL VERSION

Recall the MOST RECENT conversation you had with an ATTENDING physician (this can not be a resident) on your unit. When you complete the items in PART I focus on this attending physician's communication behaviors during your conversation. Please keep this SPECIFIC physician in mind as you answer the questions in both PART I AND II.

How long was your conversation with this physician? (Approximate minutes) _____

Use the following scale to respond to the statements listed below.

5= Very Often
4= Often
3=Occasionally
2= Rarely
1= Never
N/A= Not Applicable

_____ 1. The physician introduced her/himself to me.

_____ 2. When the physician approached me he/she provided her/his title/position to me.

_____ 3. The physician used appropriate gestures while speaking with me.

_____ 4. The physician used appropriate humor when communicating with me.

_____ 5. The physician looked at me while talking to me.

_____ 6. The physician had a tense body position while talking to me.

_____ 7. The physician smiled at me as he/she approached me.

_____ 8. The physician listened intently during our conversation.

_____ 9. The physician communicated in a clear and direct manner when talking to me.

_____10. I felt comfortable expressing any worries or concerns to this physician.

_____11. When I stated any worries or concerns that I had, the physician directed the conversation away from my statement.

_____12. If I expressed emotions such as anxiety or fear, the physician invited discussion about my concerns.

_____13. The physician asked me to express any concerns that I might have

APPENDIX B

PATIENT-CENTERED COMMUNICATION SCALE
RANDOMIZED VERSION

INSTRUCTIONS: Recall the MOST RECENT conversation you had with your physical therapist. When you complete the items focus on this physical therapist's communication behaviors during your conversation.

How long was your conversation with this physical therapist? _____(minutes).

Please check (×) the best response for each of the following statements

1. The physical therapist listened intently during our conversation
   □Very Often □Often □Occasionally □Rarely □Never □Not Applicable

2. The physical therapist used appropriate humor when communicating with me
   □Very Often □Often □Occasionally □Rarely □Never □Not Applicable

3. The physical therapist asked me to express any concerns that I might have
   □Very Often □Often □Occasionally □Rarely □Never □Not Applicable

4. When the physical therapist approached me he/she provided her/his title/position to me.
   □Very Often □Often □Occasionally □Rarely □Never □Not Applicable

5. The physical therapist looked at me while talking to me.
   □Very Often □Often □Occasionally □Rarely □Never □Not Applicable

6. The physical therapist used appropriate gestures while speaking with me.
   □Very Often □Often □Occasionally □Rarely □Never □Not Applicable

7. The physical therapist communicated in a clear and direct manner when talking to me.
   □Very Often □Often □Occasionally □Rarely □Never □Not Applicable

8. The physical therapist introduced her/himself to me.
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

9. The physical therapist smiled at me as he/she approached me.
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

10. I felt comfortable expressing any worries or concerns to this physical therapist.
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

11. Overall, I was satisfied with the communication I had with my physical therapist.
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

12. If I expressed emotions such as anxiety or fear, the physical therapist invited discussion about my concerns.
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

13. The physical therapist had a tense body position while talking to me
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

14. When I stated any worries or concerns that I had, the physical therapist directed the conversation away from the statement
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

15. Overall, I was not satisfied with the communication I had with my physical therapist
□Very Often □Often □Occasionally □Rarely □Never □Not Applicable

APPENDIX C

SATISFACTION WITH PHYSICAL THERAPY (SPT) SCALE

INSTRUCTIONS: **Please respond to each statement by checking (×) the best response**

1. My privacy was respected.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

2. The physical therapist was courteous.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

3. Staff was courteous
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

4. Appointments were scheduled at convenient times.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

5. I was satisfied with treatment by physical therapist.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

6. The first visit was scheduled quickly.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

7. Subsequent visits were scheduled easily.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

8. I was seen promptly.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

9. The location was convenient.
   □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

10. Bills were accurate.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

11. I was satisfied with services by PTAs.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

12. Parking was available.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

13. Physical therapist understood my problem.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

14. Instructions by the physical therapist were helpful.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

15. I was satisfied with the overall quality of physical therapy care.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

16. I would recommend to family and friends.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

17. I would return to this facility for physical therapy in the future.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

18. The cost was reasonable.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

19. If I had to, I would pay for these physical therapy services myself.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

20. Overall I was satisfied with the physical therapy experience.
    □Strongly Agree □Agree □Neutral □Disagree □Strongly Disagree

APPENDIX D

INVESTIGATOR DEVELOPED QUESTIONNAIRE

INSTRUCTIONS: **For the following questions, please fill in the blank or check (×) the box according to the best answer for each question.**

1) Age_____ 2) Height_____ 3) Weight_____

4) What is your sex? _____Female _____Male

5) What do you consider your race? (check one)

_____White _____Native American _____Hispanic / Latino

_____ Black/African American _____Asian _____Other

6) Past Medical History (check all that apply)

_____High blood pressure	_____History of stroke	Other
_____Diabetes	_____History of heart disease	_____
_____Arthritis/Joint pain	_____History of cancer	_____
_____Cataracts	_____Osteoporosis	_____

7) Reason for physical therapy treatment? (Diagnosis)

_____

8) How often did you see your physical therapist? (Such as, 3 times / week for 4 weeks)

_____

9) How do you rate your general health on most days? (check one)
□ Poor □ Fair □ Good □Very good □ Excellent

10) How do you rate your emotional health or sense of well-being on most days?
□ Poor □ Fair □ Good □Very good □ Excellent

11) How do you rate your quality of life on most days?
□ Poor □ Fair □ Good □Very good □ Excellent

12) What type of insurance do you have? (check all that apply)
□ Medicare □ Medicaid □ Private Insurance □ Private Pay

APPENDIX E

INFORMED CONSENT FORM

Georgia State University
College of Arts and Sciences
Gerontology Institute

Informed Consent Form

Title: Older Adults' Satisfaction with Physical Therapists' Communication and with Physical Therapy Treatment: An Exploratory Study

Principal Investigator: Neela Lakatoo

Purpose and Procedures: This study is intended to examine older adults' satisfaction and communication with their physical therapists and how this relates to older adults' satisfaction with physical therapy treatment. If you agree to participate in this research you will be asked to complete a questionnaire packet which will take about 15 minutes and return it to the address provided on the stamped envelope.

Risks and Benefits: There is no foreseeable risk and no direct benefit to participating in this research study. However, your participation in this study will help health professionals, specifically physical therapists, to better communicate with their older adult patients. This may help to enhance the physical therapist-patient relationship.

Voluntary Participation and Withdrawal: Participation in this research study is voluntary. You have the right to refuse to be in this study, or if you decide to participate and change your mind, you do not have to complete and return the questionnaire packet. You may skip questions or discontinue participation at any time without any penalty or loss of the benefits to which you are otherwise entitled.

Confidentiality: There is absolutely no way for you to be identified in this study. Your responses and health information will be viewed only by the principal investigator, Dr. Leslie Taylor and the student principal investigator, Neela Lakatoo. Your signature is not required on this consent form because your completion of the questionnaire packet will indicate that you have read and understood the consent form and that you are willing to participate in the study.

Contact Persons: Any questions that you may have about this study should be directed to the Faculty PI, Dr. Leslie Taylor, at 404-651-3075 in the Division of Physical Therapy at

Georgia State University, or the Student PI, Neela Lakatoo, at 404-483-0938. Questions about your rights as a research participant should be directed to Susan Vogtner in the GSU Institutional Review Board Office at 404-463-0674.

Please keep this consent form for your personal records.