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Gulnora Hundley  
*University of Central Florida*



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**THE EFFECTIVENESS OF “DELIVERING UNFAVORABLE NEWS TO  
PATIENTS DIAGNOSED WITH CANCER” TRAINING PROGRAM FOR  
ONCOLOGISTS IN UZBEKISTAN**

by

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in the College of Education  
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## ABSTRACT

Effective physician-patient communication is primary to successful medical consultation and encourages a collaborative interactional process between patient and doctor. Collaborative communication, rather than one-way authoritarian, physician-led medical interview, is significant in navigating difficult circumstances such as delivering “bad news” to patients diagnosed with cancer. Additionally, the potential psychological effects of breaking bad news in an abrupt and insensitive manner can be devastating and long-lasting for both the patient and his or her family. The topic of delivering unfavorable news to patients is an issue that many medical professionals find to be challenging and is now getting the attention of medical professionals in many countries, including the former Soviet Union (FSU) republics. The limited literature on communication skills in oncology in the FSU republics supports that the physician-patient communication style is perceived as significantly physician-oriented rather than patient-oriented. More specifically, the Soviet medical education system, as well as post-graduate medical education, has placed little to no emphasis on physician-patient communication training. Physician-oriented communication leads to patients being less forthcoming and open regarding their own feelings about being diagnosed with cancer, which may exacerbate the overall communication problem.

The purpose of this study was to investigate the effectiveness of the training program “Delivering Unfavorable News to Patients Diagnosed with Cancer” (Baile et al., 2000) conducted in Uzbekistan, one of the FSU republics. A total of 50 oncologists from the National Oncology Center of Uzbekistan ( $N = 50$ ,  $n = 25$  [treatment],  $n = 25$

[control]) completed Self-Efficacy, Interpersonal skills (FIRO-B), Empathy (JSPE), and Physician Belief (PBS), and demographic instruments before, immediately after, and then two weeks after the training intervention. Results of MANOVA and bivariate statistical analyses revealed significant differences in self-efficacy, empathy, and PBS scores within the experimental group, but not within the control group, from pre-test to post-test. The follow-up data analysis suggested that participants maintained the level of change that occurred immediately after the training intervention.

I dedicate this dissertation to my father, a great teacher and scientist who was never fully recognized by the communist academicians due to his family's religious past. It is also dedicated to my mother who was not able to realize her dream of an education in medicine simply because her family could not afford to buy her a pair of shoes so that she could walk to medical school. Despite their own disappointments, my parents, through encouragement and hard work, provided their five children with wonderful educations. I know they would be very proud of my achievements.

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## CHAPTER ONE: INTRODUCTION

Individuals faced with a diagnosis of cancer experience a wide range of emotions, including sadness, feelings of insecurity, and loss of control over one's life (Arora, 2003; Maguire, 1999). Many patients and their families perceive cancer as a life-threatening illness, and hence their reactions to this diagnosis may be the most intense ever experienced. Patients' responses to receiving such frightening news are described as the following sequence of psychological responses: (a) shock or disbelief upon learning about the diagnosis; (b) anxiety; (c) anger; (d) depression and/or despair, and (e) gradual adaptation to and acceptance of illness (Buckman, 1992). High levels of distress with a variety of psychological reactions may affect the treatment process and recovery of cancer patients (Baile et al., 1999). Therefore, the process of delivering the diagnosis to cancer patients and their families must be handled carefully, cautiously, and skillfully.

The literature indicates the process of communicating unpleasant news is stressful for health care providers as well (Maguire, 1999; Thorne, Bultz & Baile, 2005). Clinicians are subject to various sources of pressure that make delivering unpleasant news uncomfortable for them. For example, most educational courses in medicine teach health care professionals to relieve a patient's pain (Beckman & Frankel, 2003). For clinicians, inflicting pain during the process of informing the patient about the diagnosis of cancer may feel like they are breaking a basic concept of the physician-patient relationship (Buckman, 1992). Furthermore, health care providers may experience fear of being blamed; fear of eliciting patients' reactions such as anger and distress; and finally, fear of expressing their own emotions (Baile et al., 2000). Therefore, many physicians

encounter difficulties managing these challenging situations, which may negatively impact the process of treatment and recovery of patients.

As part of the physician-patient interaction in oncology, effective interviews about delivering unpleasant news are considered an important tool that medical professionals use to support patients and families during “their cancer journey” (Radziewicz & Baile, 2001, p. 951). Research indicates that deficiencies in this communication can be overcome and new communication skills developed through training and educational sessions, which results in improvement of patient care, both physically and emotionally (Baile et al., 2000; Buken, 2003; Radziewicz & Baile, 2001; Razavi, Delvaux, Farvaques & Robaye, 1993; Thorne et al., 2005).

## **Background and Significance**

This research study will be conducted in Uzbekistan, one of the former Soviet Union republics. Uzbekistan is one of five countries located in Central Asia, in an area once referred to as Turkestan (Andican, 2007). The country, with a population of around 26 million and an area about the size of Washington and Oregon combined, is the heart of what once was known as the Great Silk Road between the ancient cities of Samarkand and Buhara. Tashkent, the capital of Uzbekistan, has a population of about 3 million people and is one of the largest cities in Central Asia. The population is approximately 90% Uzbek, with Russians constituting the majority of remaining 10%. Virtually the entire Uzbek population is Muslim. After the collapse of the Soviet Union, independence was declared by the Uzbek government in 1991 (Carlisle, 2007).

Since the collapse of the Soviet Union, rapid change in institutions, values, families, child-rearing practices, and other aspects of daily life have increasingly reflected Western values, such as fondness for material goods, independence, autonomy, and competition (Carlisle, 2007). These changes impacted the population's attitudes toward the health care system as well. The limited literature on this topic of delivering bad news to patients diagnosed with cancer indicates that Uzbek people are more educated about health issues now and express their desire to learn more from the health care providers (Murathodjaev & Madjidov, 2005). The structure of Uzbekistan's health care system itself remains almost the same after gaining its independence. Government-controlled health care is free and accessible to anybody in need. However, economic difficulties in Uzbekistan have impacted the health care system and research funding, and make it challenging for professionals to study medical issues, including cancer (Demin, 2001).

According to Murathodjaev and Madjidov (2005), the most common cancers in Uzbekistan are those of the esophagus, stomach, breast, and skin. Barmina (2004) indicated an increase of 9.6% in registered cases of cancer in Uzbekistan from 1995-2002, reaching 500,000 cases. In 2004 cancer in Uzbekistan was the leading cause of death in both urban and rural areas (Murathodjaev & Madjidov, 2005). Improved methods of treatment and increased early detection in some types of cancer (breast and stomach) have brought about an increase in the five-year survival rate to 60% (Demin, 1997). Greater success, according to Demin, would depend on improvement of communication between health care providers and the population in terms of cancer education and treatment options. Demin also suggested that "... we need to communicate

as well with other professionals, the mass media, close relatives of patients, and medical support personnel. All of these objects of communication function together, in their separate ways, to influence patients' quality of life" (p. 486).

Communication between an oncology physician and patient is often influenced by the history and culture of the society in which the two participants exist. In the countries of the former Soviet Union (FSU), for example, cancer patients are rarely, if ever, provided any information regarding their condition (Demin, 1997). Unlike in the United States medical system, the true diagnosis is not revealed to the patient (Blinov & Hanson, 1997). Physicians in most Western cultures, and certainly in the United States, are bound by the rights of patients to know the truth about their health (Holland & Marchini, 1998). FSU oncologists communicate more openly with the patient's family members than with the patient. It is the family that makes decisions regarding the patient and not the patient him or herself. The main reasoning behind this approach is that the patient will not be able to handle the bad news and may express strong emotions such as anger and hostility directed toward the health care provider (Demin, 1997; 2001). There is also a fear that the patient may even resort to taking his or her own life. This situation may be further complicated by the feelings of inadequacy on the part of the physician regarding the ability to communicate openly with the patient about a negative circumstance (Magaznik, 1991). These feelings of inadequacy can exacerbate an already emotional situation when the fate and future of the patient are in the hands of the physician (Sparks & Mittapalli, 2004).

There is little doubt that conveying and receiving bad news about a cancer diagnosis is stressful to all involved parties: the physician, patient, and the patient's

family. However, research suggests that open and sensitive communication between all parties can have a positive result on the long-term care of the patient (Maguire, 1999; Ozdogan & Samur, 2004). Furthermore, a survey of 140 patients conducted in one of the hospitals in the Russian Federation regarding patients' attitudes about honest disclosure of their diagnosis showed that 59% expressed a desire for clear information about their diagnosis and prognosis (Blinov & Hanson, 1997). However, only 12.5% were fully informed about their diagnosis, and 31.1% had only partial knowledge of it. Blinov and Hanson concluded that the opinions of cancer patients are an important indication of necessary change that needs to take place in the physician-patient relationship in cancer care.

There is a current comprehensive effort to formally provide training in communication skills in the United States as a part of the core curriculum in medical schools to emphasize the importance of effective communication in overall clinical competence (Duffy et al., 2004). This training is also being provided to more experienced clinicians through continuing education and other post-graduate education programs (Kurtz, Silverman & Draper, 2005). Substantial research also showed that improved communication between the oncologist and the patient may result in a more accurate clinical diagnosis of not only the disease, but also the emotional status of the patient (Maguire, 1999; Ungar et al., 2002).

Conversely, there is little if, any emphasis on communication skills in medical schools in the FSU. There has been no substantive effort to insert such a program into the medical school curriculum, despite the existing evidence of the importance of such skills (Blinov & Hanson, 1997; Demin, 1997; Magaznik, 2006; Yarovinski, 2006). The existing

literature on communication skills in oncology in the former Soviet republics indicated that a doctor's communication style in providing care to his or her patients is perceived as significantly physician-oriented rather than patient-oriented (Blinov & Hanson, 1997; Demin, 1997; Yarovinski, 2006). A physician-oriented relationship generally leads to patients being much less forthcoming and open regarding their own feelings about being diagnosed with cancer, which may exacerbate the communication problem between the physician and patient (Demin, 2001; Yarovinski, 2006). These results may be directly attributed to the fact that the Soviet medical education system, as well as post-graduate medical education, places little, to no emphasis on communication training.

## **Theoretical Background**

As suggested by Baile and colleagues (2000) and Maguire (1999), altering physician behavior and attitude is not easy. While crafting an educational intrusion program for oncologists, the creators of the SPIKES procedure, communication training for oncologists (Baile et al., 1999; Baile et al., 2000) extrapolated from both medical and educational theory. The authors specifically referenced the theoretical constructs of Adult Learning Theory and Social Learning Theory (Bandura, 1977; Knowles, 1990; ONCOTALK, 2007).

### **Adult Learning Theory**

The nature of Adult Learning Theory (Knowles, 1990) is the underlying principle that learning is based upon the importance of such learning to the individual. If one

agrees with this position, then learning takes place because it is relevant and critical to the learner's day-to-day living requirements and therefore becomes important. Malcolm Knowles (1990) introduced the concept of *Andragogy* to the education field and defined it as "an emerging technology for adult learning" (p. 13). Andragogy is based on four assumptions that characterize the adult learner: (a) adult learners move from having a dependent self-concept to being self-directed individuals; (b) an individual's experience becomes a source of learning; (c) mature learners demonstrate readiness to learn as they assume new roles in their lives; and (d) adults are motivated to learn and apply new knowledge without delay. The creators of the SPIKES protocol utilized this primary assumption of Adult Learning Theory. They believed that a successful teaching experience establishes a need, is targeted to the adult learner's goals, and has some real-world relevance.

### **Social Learning Theory**

Social (or Observational) Learning Theory was introduced by Bandura (1977). According to Bandura, modifying behavior and attitude in many instances requires a basic change in character. He asserted that cognition, behavior, and the environment all play an important role in the learning process. Additionally, practical, hands-on training has been found to be more beneficial in altering conduct than simply talking or reading about the benefits of behavior modification. Training and education in the form of realistic role modeling and role assumption is an integral component of SPIKES. The creators of SPIKES believe that role-playing, while not always initially attractive to the participant, can be beneficial.



## **Rationale for Choosing Instruments in this Study**

The process of breaking unpleasant news to patients in cancer care is described as emotionally charged for the patient, family, and the physician (Thorne et al., 2005). Commonly used in oncology, a strictly medical model rarely emphasizes importance of emotional and psychosocial aspects of physician-patient interaction during medical trainings, therefore physicians feel inadequately prepared for such an encounter (Baile et al., 2000). Additionally, despite recent efforts to examine factors such as physician-patient communication, or “bed-side manner,” and friendlier patient-oriented approaches in the medical field, a theoretical framework for physician-patient relationship has not been clearly articulated. As a result, there is no agreement among researchers and educators in the medical field in terms of teaching and evaluating strategies for physician-patient interactions (Fuertes et al., 2007). However, physician-patient communication has received increased attention from medical educators and becoming one of the important parts of clinical competencies of physicians. For example, the American Academy on Physician and Patient (AAPP) conducted a conference on April 7-9, 2002, in Fetzer Institute in Kalamazoo, Michigan, the primary focus of which was the physician-patient communication aspect of the clinical encounter (Duffy et al., 2004). The summary of findings of the Kalamazoo II conference is presented in Table 1.

The Kalamazoo II proceedings emphasized the importance of physicians’ interpersonal, empathy, and attending skills during the clinical interview. The AAPP conference suggestions also included the therapeutic essence of addressing psychosocial issues of patients. Finally, Kalamazoo II reported results that reinforce the notion that relational factors, such as human connection and trust, are very important to overall

patient care. Therefore, based on these conference findings, and in addition to the SPIKES training evaluation tool (Self-Efficacy scale, Baile et al., 2000), this researcher will be using the following data collections of instruments: (a) The Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B, Schutz, 1994); (b) The Jefferson Scale of Physician Empathy (JSPE, Hojat et al., 2002); (c) Physician Belief Scale (PBS, Ashworth, Williamson & Montano, 1984).

**Table 1:****ACGME Competencies Associated with the Communication and Interpersonal Skills Competencies from the Kalamazoo II Consensus Statement\***

Skills Type	ACGME Competencies in Communication and Interpersonal Skills	Communication Tasks on Skills from the Kalamazoo II Statement
Interpersonal Skills	Build and maintain a therapeutic relationship Demonstrate caring and respectful behaviors	Make a personal connection with the patient Elicit the patient's perspective on the illness Express empathy Express a desire to work with the patient
Communication skills	Listen effectively Elicit information with effective questioning skills  Provide information using effective explanatory skills  Counsel and educate patients  Make informed decisions based on patient information and preference	Allow patient to finish an opening statement Negotiate a consensual agenda for the encounter Use open- and then closed-ended questions Use summaries and transition statements Assess patient's understanding of problem and desire for more information  Use everyday words Check accuracy of patient's understanding Review interim plans and contact information Explain choices in light of (patient's) goals, values Promote healthy behavior change Explore patient's psychosocial issues Include patients to the extent they desire Identify (one's own) personal biases when giving advice

\*ACGME is Accreditation Council for Graduate Medical Education.

## **Purpose**

It is the purpose of this study to investigate the effectiveness of the training program for oncologists in Uzbekistan, one of the FSU republics, in how to communicate bad news to cancer-diagnosed patients. It is hoped that such training will assist physicians by improving their confidence in communicating with patients and ultimately improve the results of treatment. An additional objective will be that the results of this study will encourage health care administrators to appreciate the importance of this education and make an effort to expand such training with the goal of improving patient care.

## **Preliminary Exploratory Study**

A preliminary investigation was conducted by this researcher (Hundley, 2007) via survey questionnaires sent to 64 physicians, all employed at the Oncology Center in Tashkent, Uzbekistan in March 2007 (IRB # 07-4240). The purpose of this study was to examine the attitudes of selected Uzbekistan physicians regarding their communication skills related to revealing a diagnosis of cancer to their patients. Participation in the survey was on a volunteer basis and the questionnaire was administered anonymously. The 12-item survey questionnaire was developed by this researcher and translated into Russian. The results of the study showed that 34 (52%) of participants were female and 30 (48%) male. Fifty-six (87%) of physicians believed that a diagnosis of cancer should be revealed to the patient. Additionally, 60 (94%) physicians indicated that they were not comfortable with the way they reveal the diagnosis. Fifty-nine (92%) of participants

expressed their interest in participating in communication skills training. All physicians ( $N = 64$ ) indicated that they never participated in communication skills training program. The results of this preliminary study suggested that most participant-physicians were not satisfied with the way they revealed the diagnosis of cancer to their patients and indicated their deficiencies in communication knowledge and skills. The preliminary exploratory study supports this researcher's intentions to provide oncologists, who reported to be in need of such skills, with communication skills training.

### **IRB Considerations**

Approval to conduct the study will be obtained from the IRB Committee of University of Central Florida (UCF). The privacy of all participants will be respected. All collected data will be kept confidential throughout the study. All of the information physicians provide will be identified by code number. Only the researcher will know the code number that each clinician will be assigned. This information will be destroyed once all the data has been collected. The only document that will contain physicians' name will be the signed informed consent, which will be separated from the rest of materials. Questionnaires will be identified only by code number. The Written Investigation Instructions and Aims of Study forms will be given to all study participants. Participants will be free to withdraw their consent and may discontinue participation at any time, without consequences. There will be no known risks or discomfort associated with this training. Counseling will be available should the participants wish to speak to a counselor about emotions that may arise because of their participation in training.

The new electronic system “iRIS” for the IRB submission was introduced in May 2007 at UCF. The new system is designed to speed up the IRB submission and approval process. However, one of the new requirements of this new program is a mandatory completion of CITI course (the IRB course) for research assistants. For this particular study, this requirement would make this task impossible for two reasons: (a) the research assistant for this study does not speak English; and (b) the research assistant does not have access to the Internet.

This researcher expressed these concerns during a meeting (Wednesday, June 13, 2007) with the IRB Committee members, Dr. O’Neal, and Mrs. Barbara Ward. The conclusion of this meeting was that this researcher will provide the research assistant with a 2-hour IRB educational session that will help the research assistant to collect and store the gathered information by utilizing ethical and humanistic approaches in this study (in accordance with an IRB requirements).

### **Definition of Terms**

- “Bad news”: defined as any information that adversely alters one’s expectations for the future.
- Non-verbal behavior: eye contact, posture, body position, facial expression, use of voice.
- Empathy: communication of understanding and appreciation of the patient’s feelings and predicament measured in this study by the Jefferson Scale of Physician Empathy (JSPE).

- Medical jargon: medical talk or language, usually only partially understood by laypeople.
- SPIKES: the bad news delivery training protocol for oncologists that will be utilized in this study, which consists of six communication steps: (1) setup; (2) perception; (3) invitation; (4) knowledge; (5) empathize; and (6) summarize and strategize.
- Oncologist: a physician who is involved in treatment of patients diagnosed with cancer.
- Oncologist-participant: an oncologist (physician) who will be participating in the training.
- Oncologist-instructor: an oncologist who will be conducting trainings by using a standardized manual.
- Research assistant: a physician who will be collecting a data in this study.

### **Researcher's Assumptions and Perspectives**

At the heart of the researcher's approach to breaking bad news skills training are five important underlying assumptions and perspectives adapted from Kurtz, Silverman and Draper (2005):

- Delivering bad news is a communication skill.
- Communication in medicine is a series of learned skills rather than a personality trait; anyone can learn to communicate effectively.

- Effective communication ensures an interaction rather than a direct transmission of information process.
- Experience can be a poor teacher of communication skills.
- Certain elements of learning are essential to obtain change:
  - systemic delineation and definition of skills
  - active small groups or one-to-one learning
  - observation of learners
  - well-intentioned, detailed, and descriptive feedback
  - repeated practice and rehearsal of skills (p. 20)

## **Research Questions and Hypotheses**

This research study will use the existing SPIKES protocol (Baile et al., 1999) to deliver communication training on breaking unpleasant news to patients with cancer. The developers of the SPIKES protocol investigated the impact of delivering bad news skills training on the self-efficacy of physicians who are involved in cancer care in the United States. This researcher will utilize the SPIKES protocol with physicians in Uzbekistan and explore the effectiveness of the protocol on physicians' self-efficacy scores. Although there is a difference in the medical education structure in the United States and Uzbekistan, there appears to be no reason to believe that the SPIKES protocol program cannot be successful in Uzbekistan.

Research also indicates that communication skills training may improve physicians' interpersonal and empathy skills as well as their beliefs about patients'



psychosocial problems (Ashworth, Williamson & Montano, 1984; Banja, 2006; Bylund & Makoul, 2002; Coutts-Dijk, Bray, Moore & Rogers, 1997; Halpern 2001; Jenkins & Fallowfield, 2002; Larson & Yao, 2005). Therefore, this study will also investigate the possible impact of the training on physicians' interpersonal skills, empathy skills, and their beliefs about patient's psychosocial issues. This project proposes to: (a) conduct the delivering unpleasant news skills training by using the SPIKES protocol and to measure its effectiveness by using a Self-Efficacy scale; and (b) determine the impact of the training on physicians' interpersonal skills, empathy, and beliefs about the importance of psychosocial issues in patients.

Research Question 1: Do oncologists in Uzbekistan who participate in a delivering bad news skills training based on SPIKES protocol demonstrate statistically significant higher self-efficacy scores as measured by a Self-Efficacy scale (SPIKES protocol) compared to physicians who did not participate in the workshop?

Null Hypothesis 1: There is no statistically significant difference in self-efficacy scores between oncologists who participated in the training and those who did not.

Null Hypothesis 2: There is no statistically significant difference in self-efficacy scores in oncologists before and after the training.

Research Question 2: Do oncologists in Uzbekistan who participate in a delivering bad news skills training based on SPIKES protocol demonstrate statistically significant higher interpersonal skills scores as measured by The Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B) instrument compared to physicians who did not participate in the workshop?

Null Hypothesis 1: There is no statistically significant difference in interpersonal skills scores between oncologists who participated in training and those who did not.

Null Hypothesis 2: There is no statistically significant difference in interpersonal skills scores before and after the training.

Research Question 3: Do oncologists in Uzbekistan who participate in a delivering bad news skills training based on SPIKES protocol demonstrate statistically significant higher empathy scores as measured by the Jefferson Scale of Physician Empathy (JSPE) instrument compared to physicians who did not participate in the workshop?

Null Hypothesis 1: There is no statistically significant difference in empathy scores between oncologists who participated in training and those who did not.

Null Hypothesis 2: There is no statistically significant difference in empathy scores before and after the training.

Research Question 4: Do oncologists in Uzbekistan who participate in a delivering bad news skills training based on SPIKES protocol demonstrate statistically significant higher psychosocial belief scores as measured by the Physician Belief Scale (PBS) compared to physicians who did not participate in the workshop?

Null Hypothesis 1: There is no statistically significant difference in psychosocial belief scores between oncologists who participated in training and those who did not.

Null Hypothesis 2: There is no statistically significant difference in psychosocial belief scores before and after the training.

Research Question 5: Is there a statistically significant relationship between oncologists' self-efficacy, interpersonal skills, empathy, and psychosocial belief scores and their age, gender, years of experience, and specialization?

Null Hypothesis 1: There is no statistically significant relationship between oncologists' self-efficacy scores and their age, gender, years of experience, and specialization.

Null Hypothesis 2: There is no statistically significant relationship between oncologists' interpersonal skills scores and their age, gender, years of experience, and specialization.

Null Hypothesis 3: There is no statistically significant relationship between oncologists' empathy scores and their age, gender, years of experience, and specialization.

Null Hypothesis 4: There is no statistically significant relationship between oncologists' psychosocial belief scores and their age, gender, years of experience, and specialization.

## **Methodology and Design**

This study will be conducted at the Oncology Center in Tashkent, Uzbekistan. The Oncology Center has been chosen because it is a large, specialized oncology hospital and can provide the largest number of physicians involved with patients diagnosed with

cancer in Uzbekistan. Additionally, due to the fact that this researcher was born, raised, and educated in Uzbekistan, she has maintained strong connections with the local medical community. Finally, to this researcher's knowledge, this will be the first study focusing on evaluation of communication skills training programs for physicians in cancer care in Uzbekistan.

The Oncology Center comprises 14 departments and employs about 90 physicians. The total number of all employees is approximately 615. The Center provides consultations to 50,000 individuals on an annual basis. The number of patients who receive treatment annually is 5,000-6,000 (Oncology Center Information Brochure, 2007).

The target population for this study will consist of a purposeful sample of 50-60 physicians who provide treatment for patients with cancer. The physicians will attend a one-day, 8-hour workshop on delivering bad news to patients diagnosed with cancer. The workshop will be conducted by four physician-instructors, who will have received three days of training by this researcher on the content of the SPIKES protocol. This researcher will develop a detailed, standardized manual for the training that will allow the physician-instructors to follow clear directions during the workshop and also use the manual for future trainings. Additionally, instructors will be assisted in learning the specific skills necessary for conducting the training, including (a) how to facilitate large and small group discussions; (b) how to give feedback to participants; and (c) how to deal with common teaching challenges. Study data will be collected and coded by the research assistant who will not be a part of physician-instructor group or physician-participant group.

Physician-participants will be recruited through the staff meetings and distributions of flyers that will briefly describe the purpose of the study and include researcher contact phone number, email address, and mailing address. All interested physicians will be asked to stay after one of the staff meetings in order to provide them with more detailed information about the upcoming training. Oncologists who agree to participate in the training will be asked to sign a consent form (see Appendix B), which will elaborate on the information outlined in recruitment flyer. A pre-training package containing copies of demographic questionnaire, Self-Efficacy scale (Baile et al., 2000), and FIRO-B (Schutz, 1994), JSPE (Hojat et al., 2002) and PBS (Ashworth et al., 1984) instruments will be given to each oncologist-participant to complete, which will take approximately 30 minutes. Physicians will be randomly assigned to the Experimental and Control groups by putting names of participants on slips of paper and selecting them using a random drawing. After the completion of the training with the Experimental group, post-training data for the Experimental group will be collected immediately. Members of the Control group will then be contacted in order to collect “post-training” data for that group. The Control group will be treated as a “postponed-intervention control group” (Campbell & Stanley, 1966, p. 16) and will be provided with identical training after the study is completed. The purpose of using a postponed-therapy control group approach is twofold. First, it will create an interest in the upcoming training in control group participants and second, it is ethically appropriate to provide the control group with training that is important for and needed by their profession. Two weeks after the training, the participants of the Experimental and Control groups will be contacted in order to collect follow-up information.

## **Setting**

The training workshop will be held outside of the participating physicians' workplace (Oncology Center). This researcher is planning to use a facility in Tashkent that specializes in conducting conferences for a variety of professions. This facility has comfortable rooms that are suitable for both large and small group activities and also provides food and accommodations. This setting will allow participants to avoid being contacted about and dealing with daily clinical problems so that they can devote their attention to the workshop.

## **Physician Inclusion Criteria**

Participants in this study will be eligible to be a part of the training if they are physicians specializing in oncology and have two or more years of experience treating patients with cancer.

## **Design**

Following a quantitative research approach, a quasi-experimental group design will be utilized. The physicians, who have expressed interest in participating in this study, will be randomly assigned to Experimental and Control groups. According to Campbell and Stanley (1966) this approach will minimize factors that would jeopardize the internal validity of the study, and which are characterized by maturation, selection, mortality, and intrasession history. Data collection for the study will occur at three separate times: (a)

prior to training/intervention; (b) immediately following training/intervention; and (c) a two-week follow-up. The study will be carried out in the following phases:

Physicians will complete questionnaires (e.g., Self-Efficacy scale, Interpersonal and Empathy scale, and Physician Belief scale) at the time of recruitment.

Physicians will be randomly assigned to one of two groups: (a) delivering bad news communication skills training program group and (b) a postponed-intervention control group. Participants assigned to the control group will be trained after the first group's session is completed.

Following training, each physician will be provided with a self-report questionnaire to assess any changes in confidence, interpersonal and empathy skills, and physician belief about patients' psychosocial issues.

Two weeks following the conclusion of the training program, physicians will complete self-report questionnaires again.

### **Instrumentation**

The permission to use and translate questionnaires into Russian has been received by this researcher for the Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B; Schutz, 1994), Self-Efficacy scale (Baile et al., 2000), and the Jefferson Scale of Physician Empathy (JSPE; Hojat et al., 2002). The author of the Physician Belief Scale (PBS; Ashworth et al., 1984) has been contacted and the researcher is waiting for response.

Demographics: This information will include participant's age, gender, specialization, and years of experience in medical field.

Self-Efficacy scale: The 21-item 5-point Likert scale self-efficacy instrument ranging from "strongly disagree" (1) to "strongly agree" (5), addresses the confidence of the training participants in their ability to successfully manage skills that relate to delivering unfavorable news to cancer patients. This instrument was developed by Baile et al. (2000) as an assessment of SPIKES training with oncologists. A total score is obtained by adding the scores of all items; higher scores will indicate higher self-efficacy in communicating unpleasant news skills. Statistical properties of the Self-Efficacy scale are not provided by the developers of this instrument; however, the authors of the SPIKES protocol (Baile et al., 2000) indicated that, based on their research over the last eight years, a self-efficacy scale consistently showed improvement in physicians' scores after communication skills training.

The Physician Belief Scale (PBS) was developed by Ashworth, Williamson, and Montano (1984) and designed to assess physicians' beliefs about the psychosocial characteristics of patient care. The PBS is a 32-item, self-report scale that determines a physician's position in terms of acceptance versus rejection of the psychosocial aspects of patient care. This instrument uses a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Overall scores could range from 32, which represents maximum psychosocial orientation, to 160, which indicates minimum psychological orientation.

The Jefferson Scale of Physician Empathy (JSPE) was developed by Hojat et al. (2002) and measures physicians' empathy in the context of patient care. The JSPE



includes 20 items answered on a 7-point Likert scale. The internal consistency of the JSPE's reliability was obtained by calculating Cronbach's coefficient alpha and reported 0.89 for the sample of medical students and 0.87 for the sample of residents (Hojat, 2007).

The Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B) instrument was created in the late 1950s and later modified by William Schutz (1994). The FIRO-B is a self-report tool designed to "measure behavior that derives from interpersonal needs" (Hammer & Schnell, 2000, p. 3). This instrument can be used to explore and attend to a variety of interpersonal issues including one-to-one relationships, organizational teamwork, and career difficulties. The FIRO-B was designed to measure interpersonal needs, such as Inclusion, Control, and Affection. Additionally, this instrument measures the degree to which these three needs are Wanted and Expressed. Therefore, the combination of these behaviors results in a 2x3 matrix of needs. The FIRO-B consists of 54 items and utilizes a 6-point rating scale.

A Satisfaction Questionnaire has been developed by this researcher to assess oncologists' overall satisfaction with the training. Additionally, this questionnaire includes four open-ended questions that will allow participants to share their experiences about the training in depth.

### **Translation and Reliability Test of the Instruments**

The questionnaires that will be used in this study have been translated to Russian and are in the process of back translation into English by a bilingual specialist. The revised and modified versions of the translated instruments will be analyzed for content

validity in order to determine the adequate representation of the content of instruments. The instruments will be pilot-tested with 20 physicians for analysis of internal reliability utilizing Cronbach's alpha.

## **Statistical Analyses**

A quasi-experimental study will be conducted to investigate the difference in physicians' level of confidence regarding delivering bad news communication skills, interpersonal and empathy skills scores, and physician belief scores within the control and experimental groups and between groups. The data collected from this quantitative research will be analyzed by using Statistical Package for Social Science (SPSS) software package for Windows version 14.0 (2005). The study will include following variables: independent variable (IV): participation in a training program for oncologists; and multiple dependent variables (DV): (a) observed measures on the questionnaire of confidence; (b) interpersonal; (c) empathy skills, and (d) physician belief scale. The data for these variables will be collected before and immediately after the training, and at the two-week follow-up. Reliability for the overall questionnaire will be calculated by the internal consistency statistic Cronbach's alpha.

Two paired samples t-tests will be utilized to assess whether any significant changes occurred within the experimental and control groups from pre- to post-test for all dependent variables. Paired samples t-tests are used when there are two experimental conditions (pre-intervention and post-intervention assessments) and the same participants

take part in both conditions (Field, 2005). The purpose of the t-test will be to analyze whether differences between group means are statistically meaningful.

A MANOVA statistical approach will be utilized to assess whether there will be any significant mean differences on every measurement between the experimental and control groups. Two groups (experimental and control) on more than two dependent variables are to be compared, and therefore MANOVA analysis will be considered as an appropriate statistical technique for this study (Field, 2005). MANOVA integrates the information about several dependent variables and will inform the researcher whether groups of participants can be differentiated by a combination of scores on multiple dependent measures (Green & Salkind, 2004).

Pearson correlations will be utilized to assess whether there is a statistically significant relationship between participants' age and years of experience and their self-efficacy, interpersonal skills, empathy, and psychosocial belief test scores at both pre-test and post-test. The Pearson correlation will be assessing the degree that variables (participants' age, gender, years of experience, and test measures) are linearly related in the study sample (Field, 2005).

### **Recommended Procedure**

This research study will utilize the existing SPIKES protocol, which is a part of communication skills training program in oncology, titled ONCOTALK (<http://depts.washington.edu/oncotalk>). The ONCOTALK program was developed in 2000 by a multidisciplinary team of oncologists, psychiatrists, and psychologists and was

funded by the National Cancer Institute. The overall goal of the project was to help clinicians who were involved in treatment and care of patients with cancer to improve their communication skills. The delivering bad news strategy encompasses a series of six distinct communication steps, which can be summarized using the mnemonic SPIKES (Baile et al., 1999, 2000) method:

S = SETUP. Create an appropriate setting that provides for: privacy, patient comfort, uninterrupted time, sitting at eye level, and inviting a significant other if desired (all of which assist in establishing patient rapport).

P = PERCEPTION. Elicit the patient's perception of his or her problem; e.g., "Tell me what you understand about the reason we did the tests."

I = INVITATION. Obtain the patient's preference for disclosure the details of the medical condition; e.g., "When the test results are completed, are you the type of person who likes to know everything or..."

K = KNOWLEDGE. Provide knowledge and information to the patient: give information in small chunks, check for understanding frequently, and avoid medical jargon.

E = EMPATHIZE. Empathize and explore emotions expressed by the patient; e.g., to the crying patient, "I can see that you weren't expecting this kind of news..."

S = SUMMARIZE AND STRATEGIZE. Provide a summary of what you said and negotiate a strategy for treatment or follow-up (p. 890).

Study participants will meet in groups of 20-25 physicians for didactic presentations and then break into 5-member groups in which they will use role-play and discussion to problem-solve difficult cases from their practices.

## **Potential Limitations**

An important limitation of this study will be the small sample size (25-30 physicians per group). The small sample size will make assumptions of this study tentative for the reader. Another potential limitation of this study will be the fact that any evaluation of training outcome relies completely on subjective responses. A methodological weakness of the physician self-ratings is the sensitivity for response bias. Self-ratings are generally reactive measures; the measurement itself may influence the outcome, since the physicians are not blind to their training condition (Shadish et al., 2002). Post-training improvements on self-ratings may not only be the result of a training effect, but may also reflect the unwillingness of the respondents to show that the training efforts have been useless. Another potential limitation is the use of role-play during training. Participants are not actors and they may find it difficult to role-play without self-consciousness, especially if they already have a relationship with other participants. Additionally, many physicians may perceive role-play to be an artificial approach to learning specific skills (Kurtz et al., 2005).

## **Future Research**

The purpose of this training/intervention is to provide physicians in cancer care with skills that help them to feel more confident about the learned skills and hopefully transfer these skills to practice. According to Maguire (1999), one of the ways to ensure that newly acquired skills are maintained and applied in the workplace is to provide continued feedback by supervisors and peers. Therefore, future research could be focused

on the effectiveness of a combination of communication skills training and follow-up supervision sessions and peer-consultations. Additionally, post-training videotaped consultations of physician-patient interaction assessments would help researchers to have a more objective data on application of learned skills.

## **Summary**

This chapter contains the introduction, purpose of the study, the rationale for conducting the research, research questions, and the assumptions and limitations surrounding the study. Research has indicated that effective physician-patient interaction plays a significant role in the patient's satisfaction with treatment and the physician's confidence in his or her clinical skills. It is also recognized that communication skills, including delivering bad news, should be taught to and can be learned by medical professionals (Kurtz et al., 2005). However, some Eastern European countries, including countries in the former Soviet Union (FSU), are still in a phase of transition from a physician-dominated medical culture to one that recognizes the importance of a collaborative physician-patient relationship. Therefore, the need for establishing and providing standardized training of communication skills for physicians, especially for oncologists, is evident.

This study will utilize the SPIKES training protocol (Baile et al., 1999) for delivering bad news to cancer patients. This study will investigate the effectiveness of this six-step protocol model training on the communication confidence of physicians/oncologists employed at the Oncology Center in Uzbekistan. The participants in this study will be limited to physicians who work in this facility.

## CHAPTER TWO: LITERATURE REVIEW

### Introduction

Effective communication between a health care provider and patient is an important contributor to patient satisfaction, treatment, and health outcomes. Patients, who are aware of their medical condition, understand the purpose of offered treatment, and are assured that the provider is concerned about their well-being report greater satisfaction with the services received and act in accordance with the prescribed treatment regimen (Maguire, 1999). A health care provider's communication skills have been found to be associated with patient satisfaction, medication compliance, and appointment keeping (Fallowfield et al., 1998; Roter, 2000). Effective interaction between the health care professional and the patient supports the patient and gives comfort in terms of other possible conditions he or she has, or might develop. At the same time, clear communication provides the clinician with better information needed for accurate diagnosis and appropriate treatment planning. Thus, the knowledge of what message and in what way and how much of that message to communicate to the patient are important skills for all professionals in health care (Stewart et al., 2003). Research indicates that interactions between health care professionals and patients can be improved with appropriate education and supervision (Kurtz, Silverman & Draper, 2005).

## **Physician-Patient Communication**

Interaction between physicians and patients has undergone dramatic changes over the last several decades (Holland & Marchini, 1998; Kurtz et al., 2005). These changes have led to increased awareness by scholars who conduct research related to importance of physician-patient dynamic in communication (Buker, 2003; Cegala & Broz, 2002; Moore & Spiegel, 2004).

Increasingly, research indicates that physicians who are skilled in communicating with their patients can have a significant positive impact on their patients' well being (Brown et al., 1999; Duffy et al., 2004). Therefore, there is a demonstrable need for open and direct dialog between the physician and the patient. Physicians, however, particularly those who have been practicing medicine for many years, may necessitate additional training in this area (Kurtz et al., 2005). Research in physician-patient communication suggests that frequently doctors may not be aware of the totality of issues impacting their patients, from both a psychological and physical standpoint, during hospital or office visits (Moore & Spiegel, 2004). There is little doubt about the age-old complaint that patients often comment about the lack of "bedside manner" on the part of their physicians (Kurtz et al. 2005; Cegala & Broz, 2002).

Communication difficulties between the physician and the patient may be attributed to the different perceptions of medical, as well as general, expectations. Physicians have been trained to take a scientific approach to health care, while the patient sees his or her medical problem as personal (Stewart, Brown, Weston, McWhinney, McWilliam & Freeman, 2003). Therefore, the often appears to be a mismatch between physicians' and patients' expectations during medical interaction.



## **Communication and its Components**

In the field of medicine, communication is defined as “the process by which information, meanings, and feelings are shared by persons through the exchange of verbal and nonverbal messages” (Dickson, Hargie & Morrow, 1999, p. 21). This process involves: (a) a source of information, or sender; (b) a receiver; (c) information or message; (d) channel; (e) noise; (f) feedback; and (g) context (Fiske, 1992). In order for communication to occur there must be at least two individuals who participate in the exchange of a message. The message can be either verbal or non-verbal to convey some meaning, which flows through a channel between the participants. Noise is described as any obstacle to successful interaction and it may create a source of miscommunication. Feedback is a process whereby the sender determines if the information has been successfully delivered to the receiver. Context refers to the overall environment in which the communication occurs. According to Dickson and colleagues, all types of communications take place within a specific environment (context) and are influenced by that context.

In clinical practice, the primary goal of the physician-patient interaction is the exchange of information. For physicians, providing the information to patients is the most frequently assessed and most important communication skill (Buckman, 1992; Kurtz et al., 2005). In their daily practice, physicians communicate with patients verbally and nonverbally, through speech, visual and physical examination, and other behaviors. All of these interactions contain a message value and are perceived by patients as being either warm, friendly, or detached (Dickson et al., 1999). As research indicates, patients’

perceptions of medical personnel interaction patterns impact their level of satisfaction with medical services (Ford & Fallowfield, 1999; Young & Flower, 2001).

### Verbal and Nonverbal Communication

Biomedical communication represents over one-third of all verbal interactions between physicians and their patients (Hall et al., 1988). Physicians use verbal communication to collect vital information about the patient, such as the patient's history and concerns, in order to formulate an appropriate diagnosis. Research suggests that a patient's satisfaction with medical services and medication compliance are related to the number and type of questions asked by the physician (Roter and Hall, 1987; Tulskey, Fisher & Rose, 1998; Young & Flower, 2001). The use of open-ended questions is considered by clinicians as an effective tool for prompting patients to share more relevant information to their health providers (Ford & Hall, 2004). Weiner and Nathanson (1986) reported that physicians are often not able to determine how and when to use open-ended questions. Roter and Hall indicated, however, that when physicians use the open-ended questions, it provides a better opportunity for patients to reveal important information related to their conditions.

Bilodeau and Degner (1996) suggested that physicians' attending skills and ability to provide the patient an opportunity to ask questions improved patient satisfaction with the medical office visit. Kurtz and colleagues (2005) concluded that *verbal communication* is distinct and has obvious endpoints—there is a beginning and end to the verbal message. In contrast, *nonverbal interaction* continues as long as both parties are in each other's presence. Even when there is a silence, the environment is filled with messages. Nonverbal communication includes body language, gestures, eye contact, tone

of voice, and appearance (Coulehan & Block, 2001). Verbal messages are found to be more effective in conveying concrete information, whereas nonverbal interaction seems to reveal an individual's emotions and attitudes (Cegala & Broz, 2002). Communication researchers emphasize the importance and impact of nonverbal communication during the medical interview. For instance, Weinberger and colleagues (1991) reported a significant positive correlation between physicians' nonverbal interaction and patients' satisfaction with a medical interview in hospital settings. Similar correlations were found between surgeons' tone of voice and their patients' malpractice claims (Ambady et al., 2002). Furthermore, researchers assert that physicians' nonverbal communication—more specifically, relaxed and attentive listening and vocal cues—becomes a modeling behavior for patients and enables patients to relax and become more attentive (Kurtz et al., 2005). However, there is a word of caution for clinicians from communication researchers about the importance of consistency of verbal and nonverbal messages (Cegala & Broz, 2002). For example, if the doctor says, “There is nothing to worry about” but then hesitates while he or she speaks, then the patient may perceive this mixed message as sign of concern on physician's part. These discrepancies during physician-patient interaction may impact patient's psychological well being (Kurtz et al., 2005).

## Empathy

One of the primary communication skills in effective physician-patient interaction is the use of empathy (Halpern, 2001). There are numerous definitions of empathy found in the medical literature. Eagle and Wolotsky (1997) describe empathy as “putting oneself in another person's shoes and getting a sense of that person's perspective and what he or she is experiencing, feeling, and thinking” (p. 217). Empathy is a construct

that includes three components: cognitive, behavioral, and affective (Kurtz et al., 2005; Larson & Yao, 2005). The cognitive part of empathy reflects the ability of an individual to imagine “what this experience would be like for me.” The behavioral dimension of empathy represents an individual’s ability to not only think empathetically, but also demonstrate it in the presence of another’s emotions (Halpern, 2001). The affective component is described as an empathic concern or feeling of compassion for others. When empathetic communication occurs, patients feel acknowledged, affirmed, and validated by the professional (Hojat, 2007). Furthermore, the empathetic approach includes a nonjudgmental element, which deters the practitioner from prejudging the client’s behaviors, beliefs, or attitudes (Banja, 2006).

The research suggests that current medical education develops an “uninvolved” attitude in medical students (Banja, 2006; Halpern, 2001). Traditional medical education is based on scientific reasoning, which appears to value objectivity and technological support, not an emotional aspect of physician-patient interaction (Buckman, 1992; Eagle & Wolotsky, 1997; Kurtz et al., 2005). According to Kurtz and colleagues (2005), empathetic skills include: (a) attentive listening, (b) clearly conveying the message, (c) facilitating the expression of patients’ emotions, (d) acceptance, (e) nonjudgmental response, and (f) use of silence. Research indicates that empathetic skills can be learned (Halpern, 2001; Maguire, 2000).

The results of the 12 hours of interpersonal skill training that focused on abovementioned empathetic skills and given over one semester showed that a group of self-selected 43 preclinical medical students demonstrated significant changes on the Accurate Empathy Scale (AES) (Fine & Therrien, 1997). Additionally, the participants

used less medical terminology, expanded their interview skills in psychosocial areas of the patient's life, and offered less advice. However, the authors of the study utilized an instrument that has not been validated. This is a significant limitation, in addition to its small sample size and weak design and methodology.

A qualitative study (Lancaster, Hart & Gardner, 2002) that involved 5 self-selected students in the first clinical year, who participated in overall of 16 hours of literature and medicine course, showed increased empathy in their written responses to course questions. These reports and other studies (e.g., Shapiro, Morrison & Boker, 2004; DiLalla, Hull & Dorsey, 2004) had multiple limitations, including lack of comparison groups and utilization of self-assessments. However, the limited number of studies reviewed here demonstrates that targeted and brief interventions can be effective and assist students in learning and maintaining empathy skills in interactions with patients.

### Physician-Patient Relationship

Communication research has shown that all components of the physician-patient interaction contribute to building a strong relationship with the patient (Banja, 2006; Coulehan & Block, 2001; Cox, Holbrook, & Rutter, 1991). Relationship building facilitates the process of opening up by patients, promotes compliance, and prevents miscommunication (Maguire, 1999). A review of the literature related to the physician-patient relationship reveals two primary models of this interaction: paternalistic and patient-centered (or relationship-centered) models. Paternalism is described as a physician-dominant interaction, wherein the patient's condition is defined in scientific terms and the patient's voice is largely absent (Roter, 2000). Relationship-centered visits, in contrast, are medically functional, informative, facilitate the patient's involvement, and

address the patient's psychological and social problems. Although relationships that employ mutual decision-making characteristics appear to be more satisfactory for physicians and patients, paternalistic physician-patient relationships still prevail in many settings (Duffy et al., 2004).

Research in physician-patient interaction indicates that many clinicians are engaged in physician-dominant relationships (Kurtz, 2005). Substantial criticism of the health care system, specifically medical doctors, relates primarily to the inability of physicians to develop a trusting environment, as well as appearing detached or uninvolved with their patients (Maguire, 1999; Simpson, 1980). In one study, more than 67% of patient complaints in an outpatient environment referenced not being understood and valued by the physician (Ford & Fallowfield, 1999). Additional research demonstrates that most interaction between the physician and the patient is physician-centered and confirms these findings. For example, Mishler (1984) affirmed that physician-patient relationships are predominantly physician-centered, wherein physicians utilize the traditional medical treatment model. Thus, the doctor's objective is to diagnose the problem rather than focus on the patient's overall condition. Mishler suggested that the patient as well as the physician would be better served if the patient's emotional verbalizations received more scrutiny.

The physician-controlled environment was described by Platt (1979) as one in which the physician exerted dominance, while the patient is given no opportunity to express his or her feelings in any great detail. Waitzkin (1984) also suggested that the physician-patient exchange was really a series of questions and comments posed by the physician, with little chance of the patient being able to describe his or her own

circumstances. One difficulty outlined by Simpson (1980) included that the physician's terminology may not be familiar to the patient and information "gets lost in the translation" from the beginning, thereby significantly reducing the chance for open communication.

Numerous studies confirm the findings that the emotional concerns of patients have not been emphasized by physicians. Beckman and Frankel (1984) suggested that it is the physician who controls the amount and quality of the medical information provided to the patient at the onset of any medical discussion, and this is often controlled even further by the use of questions designed to solicit only specific information. In their observation of 74 office visits, there were only 17 during which the patient was given the chance to even make or at least finish his or her expression of specific symptoms or emotional unease. The results of this rigid control by physicians, Frankel and Beckman (1984) believed, was the abrupt termination of patients expressing their concerns, thereby reducing the opportunity to gather critical clinical data. In another study, Frankel (1994) determined that in more than 90% of the instances during which the physician interrupted the patient, the physician took complete control of the exchange from that point forward. Burack and Carpenter (1993) strongly believed that circumstances such as these prevented the physician from discovering the key problem in an overwhelming number of patient-physician interactions.

The result of this failure to communicate is often the loss of an opportunity to educate the patient on his or her own condition. Fletcher (1990) found that 108 (60%) of 180 patients, whose experience with their physician was researched, were unhappy with the amount of medical data provided by their doctor. This is an indication, according to

Fletcher, that doctors may not be perceptive enough and may even undervalue the patient's need for more detailed information.

There has also been a significant and direct correlation established between a patient's satisfaction and the willingness of the physician to utilize relationship-centered communication. Hall, Roter, and Katz (1988) determined that a patient's contentment in the physician-patient relationship was intricately connected to the attitude of the physician. Even more telling was that this satisfaction increased significantly when more information was provided and a genuine attempt on the part of the physician was made to be more positive and elicit further conversation.

An actual medical diagnosis can be more accurate if interaction between the physician and patient is more effective. Interestingly, Cox and colleagues (1991) concluded that if the patient is encouraged to openly express his or her feelings and concerns, then the results may lead to a higher level of accuracy in the medical diagnosis. This was substantiated by Goldberg (1990, 1992), when he determined that active solicitation of information from patients and addressing their emotional issues led to more frequent correct diagnoses. Further, Roter and Hall (1997) found that questions posed by the physician that allowed greater latitude in response by the patient actually led to collecting more medical information that could be used in determining a diagnosis. Kaplan, Lipkin, and Gordon (1998) supported these same findings through their own research. Stoeckle and Billings (1997) and Goldberg (1990) arrived at some of the same conclusions.

Greenfield, Kaplan and Ware (1995) suggested that a closer relationship between a patient and the physicians had a positive impact on the patient's ability to function and



also increased the patient's desire to become more active in his or her own care and treatment. According to Brown, Weston, McWhinney, McWilliam, and Freeman (2003), more patient involvement and control of the circumstances involved in the physician-patient communication resulted in a more healthy patient profile, both physically and emotionally. Specific blood pressure measurements confirmed this finding in a study done by Kaplan and associates (1998) in that blood pressure reduction was negatively influenced in patients who did not have open communications with their physician. A consensual approach involving both the physician and patient to diagnose a medical problem has been found to lead to more accurate diagnostic decision (Ford & Fallowfield, 1999).

It is not just the patient who benefits from an open, responsive, and mutual decision-making relationship. Physicians, who practice relationship-centered medicine with patients, have been found to enjoy their medical profession more thoroughly (Ramirez, Graham & Richards, 1995). Legal action is also less prevalent under these circumstances (Levinson, Roter & Mullooly, 1997).

Professional associations have also begun to encourage the idea that additional education that includes not only communication skills, but also psychological profiling can be an important addition to medical education. Increased interpersonal and communication skills is an essential component of physician residency programs, according to the Accreditation Council for Graduate Medical Education (Batalden et al., 2002). Currently, there are efforts being made on behalf of international medical associations to include these skills in medical training on a worldwide basis. Such

training would include specifically defined goals and objectives to improve the physician-patient communication relationship (Duffy et al., 2004).

## **Physician-Patient Communication in Oncology**

In the case of physician oncologists, communication is often defined as “breaking bad news or providing any information to the patient that negatively impacts the patient’s outlook” (Buckman, 1992, p. 9). The skill necessary to convey such negative medical information is critical for the physician. It is generally agreed that a patient who receives negative information related to his or her cancer diagnosis is emotionally stressed (Baile et al., 2000; Maguire, 2000; Razavi et al., 2000). Additional research indicates that patients as well as family members provided with honest and complete data in a prompt manner tend to become more closely involved in the decision-making process regarding treatment planning (Bilodeau & Degner, 1996). They also view the medical and health care team as having more integrity, and over a long period of time, open communication on this matter leads to family and patient acceptance, a willingness to cooperate, and the ability to cope (Last & Veldhuizen, 1996; Radziewicz & Baile, 2001). Even after an individual’s death, these communication skills and the positive results of same can have a lasting impact on the family, the health care facility, and the medical team regarding their participation in making the life of the patient more comfortable (Buckman, 1992). It is for these reasons that negative or “bad news” should be provided to the patient in a caring and sensitive manner.

A meta-analysis that reviewed 302 studies from 1973 to 1993 about delivering unpleasant news indicated that there are many important factors that need to be

considered when a patient is informed about his or her unfavorable condition (Creagan, 1994). The review of these studies found that, in general, physicians were encouraged to provide a private environment for the patient, explore the patient's feelings, and converse in simple language. The literature review also emphasized the importance of providing the opportunities for the patient and the family to ask questions, make clarifications, and offer different treatment options.

Despite understanding the importance of improved interpersonal and communication between the doctor and the patient, as well as the family, little appears to have been changed in implementing a communication skills training program for physician oncologists. Back and colleagues (2003) indicated that only 5% of oncologists who are actively practicing medicine have been presented with the opportunity of participating in an educational program that emphasizes "giving bad news" (Back, Arnold, Tulskey, Baile & Fryer-Edwards, 2003).

Research demonstrates that doctors are not skilled in giving unpleasant news to their patients and are weak in dealing with the aftermath of having related bad news (Elwyn, Joshi, Dare, Deighan & Kameen, 2001; Ptacek, Fries, Eberhardt & Ptacek, 1999). In a study done by Ford and Fallowfield (1999) oncologists, in general, conveyed only the most objective description of the bad news diagnosis, while avoiding its emotional impact. Cantwell and Ramirez (1997) discovered that less experienced physicians in several hospitals in London, UK complained of a lack of ability related to the personal and emotional side of giving a bad news diagnosis and, therefore, had little interaction with their patients from a psychological perspective. They made every attempt to avoid difficult moments simply because they did not have a comfort level in dealing

with the emotional component. A study in Denmark by Nielsen and Schmidt (1997) focused on 85 doctors and their ability to deliver bad news. All requested additional training to help improve their competency in this regard. In still another research project involving internal medical physicians who were often required to convey a cancer diagnosis, there was observed a lack of ability in communication techniques that would aid in such an undertaking (Barry, Bradley, Britten, Stevenson & Barber, 2000).

Physician oncologists often fail to recognize the patient's emotional trauma that can be related to receiving a "bad news" diagnosis. This was true even when patients reported their satisfaction with their physician during the communication process (Baile et al., 2000). When 148 patients diagnosed with cancer were surveyed, more than 50% stated that they were content with the way the physician gave them the bad news. However, further investigation revealed that the physician did not really discuss the ramifications of the patient's condition (Butow, Kazemi & Beeney, 1996). A majority of these patients wished to discuss related psychological issues such as how long they could expect to live or how their diagnosis of cancer would impact their life. Less than 30% of patients indicated that these kinds of discussions actually took place.

It is not uncommon for an oncologist to fail to recognize the emotional difficulties a cancer patient might be experiencing while visiting the physician in the office or clinic. Ford and associates (1994) revealed that only 20% of oncologists were able to quantify the level of patient discomfort during a medical visit. Interestingly, these results were directly opposite of the physician oncologist's self-assessment. These physicians tended to rank their performance much more positively than did their patients. These results seem to indicate an inability on the part of the physician to correctly assess his or her own

communication skills. It also demonstrates the need to rely more on the patient and the patient's family not only for accurate and helpful feedback, but also to treat the patient better clinically and emotionally (Rogers & Todd, 2000). These findings were confirmed by Takayama, Yamazaki, and Katsumata (2001). The inability on the part of physicians to communicate effectively increases the risk for malpractice law suits (Levinson, Roter & Mullooly, 1997). In addition, increased training and education in communication skills lessens the chance of physicians tiring of their occupation (Ramirez, Graham & Richards, 1995).

On the other side of the physician-patient communication issue, patients seem to recognize the importance of more personal communication between themselves and their physician. Ironically, however, they have little say in these encounters (Maguire, 1999). When 100 cancer patients were studied six months after their cancer surgery, for those who showed positive improvement in their condition, their improvement was directly related to their interpersonal relationship with their physician throughout the process (Roberts, Cox, & Reintgen, 1994). This research demonstrated the importance of the physician's compassion toward the patient's emotional needs, as opposed to only giving a straightforward medical diagnosis. In a similar study it was determined that cancer patients who believed that their physician was not a good communicator during their original cancer diagnosis phase were much more likely to suffer from anxiety or depression than those who had a closer communicative relationship with their oncologist (Ford & Fallowfield, 1999).

Patient behavior in the form of making relevant decisions is also impacted by physician-patient communication. Those patients who understand their illness tend to

make more objective decisions based on their condition. In one study, cancer patients frequently overrated their survival chances based on communication with their physicians when that communication was less than adequate. It was determined that these patients expired more quickly during life-saving resuscitation (Weeks, Cook & Day, 1998). Ultimately, quality communication between the physician and the patient can provide the patient with a more optimistic attitude. This positive attitude may improve treatment outcomes (Wenrich, Curtis & Ambrozy, 2003). Therefore, education that can promote oncologists' improved communication ability is a positive contributor to all involved parties (Hak & Koeter, 2000).

### **Training Programs to Improve Physician-Patient Communication**

In the recent decade, there has been an increase in the attempts to provide educational opportunities for improving communication within the medical community, particularly medical schools (Amiel et al., 2006; Barry et al., 2000; Buckman, 1992; Cegala & Broz, 2002; Ford & Hall, 2004; Lerman et al., 1993). There has been significant content variety delivered in various instructional and educational environments. Typically, the results of these educational programs have demonstrated improvement in overall physician communication ability in medical office setting (Maguire, 1999; Moore & Spiegel, 2004; Roter & Hall, 1997). In 1999, Aspegren conducted a literature review of more than 80 research projects to determine an overall evaluation of various educational efforts. Over one-fourth of these studies showed that communication abilities can be improved through education. The review also showed that the didactic approach was less positive in the transfer of communication ability than were

the more practical approaches such as role playing and instructor reinforcement. Even so, it was evident that these programs vary in their teaching approaches. This variation is exacerbated by the lack of objective measurement tools, as well as weak research design (Maguire, 1999).

According to Cegala and Broz (2002), the most effective training programs utilized methodology that included instructor feedback and role play. Oftentimes in these programs, actual cancer patients were used along with visual aids demonstrating the appropriate communication techniques to be used in dealing with cancer-diagnosed patients.

A number of other studies have also shown positive results. Cox, Holbrook, and Rutter (1991) determined that training and communication skills enabled physicians to more adequately deal with a patient's emotional difficulties. Ford and Fallowfield (1999) suggested that good communication resulted in a better frame of mind for both the patient and physician. Positive patient responses to communication, according to Maguire (1999), correlated with the education program provided to their physician. Residents who had communications training were found to more receptive to patient concerns and their communication skills were determined to be more effective than those physicians who underwent no training (Jenkins & Fallowfield, 2002).

The effectiveness of educational training in communication was measured by Amiel (2006) in an attempt to determine the impact of delivering bad and emotionally disturbing news to patients. One group of physicians participated in a 14-unit bad news delivery course while a second group participated in a like number of Balint group discussion sessions (during which physicians are encouraged to share their feelings when

they encountered emotionally challenging patients and difficult situations). All participating physicians' interactions with patients were observed in actual clinical settings. It was determined that physicians who had participated in a delivering-bad-news program performed significantly better than did those physicians who participated in discussion groups.

## **Communication Skills Training for Physicians in Oncology**

### **The Need for Communication Skills Training in Oncology**

Cancer patients experience a significant amount of physical, psychological, social, occupational, and emotional problems throughout various stages of their cancer (Fallowfield & Jenkins, 2004; Ford & Hall, 2004). Cancer communication research indicates that the way clinicians address these issues plays important role in long-term adjustment of patients with cancer (Ford & Fallowfield, 1999; Kurtz, Silverman & Draper, 2005; Stewart, Walker & Maguire, 1998). Therefore, many health care organizations provide communication skills training for clinicians in order to improve patients' satisfaction with their care (Brown et al., 1999; Maguire, 1999).

Sometimes patients' difficulties with cancer are not resolvable; having an opportunity to express personal concerns is beneficial for the coping process (Maguire, 1999). However, it appears that health professionals in cancer care often demonstrate a lack of the skills that would facilitate patients' disclosure of the psychosocial aspects of their illness (Kurtz et al., 2005; Takayama, Yamazaki & Katsumata, 2001; Weeks, Cook & Day, 1998). Furthermore, some patients with cancer demonstrate symptoms of anxiety disorders and depression within the first year of diagnosis (Maguire, Booth & Jones, 1996). Research indicates, however, that symptoms of mood disorders in patients with



cancer are detected and treated in less than 50% of patients affected. Maguire (1999) asserted that lack of training in communication skills and physicians' fears about patients' emotional reactions to their diagnosis and treatment contribute to the inability of physicians to address these problems. Therefore, efforts need to be made to provide opportunities for physicians to acquire the relevant skills.

### **Critical Components of Communication Skills Training in Oncology**

It is increasingly recognized by researchers in physicians' communication that interpersonal and communication skills should and can be taught with the same rigor as other technical skills (biomedical aspects of medical education) (Kurtz, Silverman & Draper, 2005; Nielsen & Schmidt, 1997; Surbone, 2004). However, most physicians in cancer care have not received formal training in interviewing skills, psychological assessment, and counseling skills (Razavi & Delvaux, 1997). The basic psychological training for physicians is usually limited to attending skills, which is valuable for some clinical settings but can be ineffective with cancer patients (Maguire, 1999; Wenrich, Curtis & Ambrozy, 2003). Therefore, communication and psychological training in oncology should focus on both basic communication skills and oncology-specific communication skills. Communication researchers concluded that effective elements of communication skills training in cancer care should focus on physicians' knowledge, attitudes, and skills (Kurtz et al., 2005; Baile, Buckman, Lenzi, Guber, Beale, Kudelka, 2000). Knowledge of basic interpersonal and communication principles provides learners with a framework and terms for developing necessary cancer care communication skills. Incorporating attitudes and beliefs into the training provides the opportunity to explore participants' anxieties, their awareness of feelings, and thoughts about their patients.

Attitudes and belief aspects of training address the need to treat patients as people rather than as medical cases. Skills training emphasizes the improvement of performance in communication skills (Baile et al., 1999; 2000). This training attempts to support participants in learning how to incorporate new behaviors into their clinical practice.

### Communication Skills Specific for Oncology

It is not always easy to assess the impact of cancer on a patient from the perspective of the clinician's knowledge of that particular illness (Buckman, 1992; Maguire, 1999). The impact of illness on an individual patient can only be examined in the context of that patient's life; therefore, as part of the technique of communication in cancer care, especially for breaking bad news, professionals should include active facilitation of psychological and social problems that patients may experience. Patient-centered interviewing is recommended during the physician-patient interaction (Baile et al., 2000; Bilodeau & Degner, 1996). This process may include exploration of patients' (a) knowledge about and perception of the disease, (b) the impact of the condition on daily life activities, (c) the impact of illness on family interactions, and (d) financial matters. The exploration of patients' concerns may be achieved by using open-ended questions, facilitation of discussion about their emotional status, clarifying psychological problems, as well as empathizing with patients' concerns and difficulties and summarizing medical information during the physician-patient interaction (Back, Arnold, Tulskey, Baile & Fryer-Edwards, 2003). In contrast, using close-ended questions, too much talking, asking leading questions, using medical terminology, giving advice, and judgmental responses may inhibit patients' openness (Buckman, 1992).

Additionally, when informing patients or the patients' family about their disease, physicians may focus on scientific aspects of the illness (type of the disease, stage, treatment options), while patients are often preoccupied with its personal influence (e.g., Is this illness curable? How long do I have to be treated? Will I be able to work while being treated? What are the side effects of medications?) (Back et al., 2003; Maguire, 1999). Therefore, many patients may have a desire for information that is more relevant and meaningful to their personal lives. The physician's role, then, is to be cognizant of the patient's wishes, explore the patient's psychosocial aspect of the illness, and actively involve the patient in the decision-making process (Baile et al., 2000).

### **Methods of Communication Skills Training**

The choice of teaching and learning methods in communication skills training depends on the program goals and objectives (Kurtz et al., 2005). Determining the rationale for the particular method in training is important and reflects the abovementioned goals and objectives. Practical considerations, such as cost, time constraints, and available resources for teaching will impact the choice of training method. The commonly used methods of training include didactic, video demonstrations with discussion, role-play, and feedback.

#### **Didactic Methods**

The didactic methods of teaching communication skills in the medical field include lectures, group presentations, and reading assignments. Research indicates that although these methods are important in helping participants to gain knowledge, they tend not to inspire behavioral changes among participants (Razavi & Delvaux, 1997;

Ungar, Alperin, Amiel, Beharier & Reis, 2002). Kurtz and colleagues (2005) described this method as facilitator-centered rather than learner-centered. When this method is employed, the learners are considered to be passive. However, assigned readings and professional discussions can promote thinking, stimulate learners' interest, and assist in developing a conceptual framework (Fallowfield & Jenkins, 2004). This indicates that the didactic method is a basic, but important and cost-effective approach for participants to gain knowledge and understanding of communication issues.

### Video Demonstrations

Video demonstrations are considered to be a direct and cost-effective training method (Liu, 2005; Maguire, 1999). This approach was found to be a helpful tool for training instructors to use to demonstrate appropriate communication skills and, in some cases, inappropriate behaviors during the clinical encounter (Baile et al., 2000; Back et al., 2007). Followed by the discussion of video reviews, this approach can help learners to become aware of areas of communication that need further improvement. Video demonstrations can also provide participants with examples of the type of language that is appropriate for facilitating the discussion of the patient's psychological and emotional problems (McFarland & Rhoades, 2006). Kurtz and colleagues (2005) suggested that video demonstrations can be used in large groups, thus making this approach cost-effective. However, the small group format appears to provide more opportunities for participants to generate fruitful group discussions about their experiences during the training (Baile et al., 2000; Fallowfield & Jenkins, 2004; Ford & Hall, 2004). A video demonstration can be a valuable source of information about physician-patient communication for training students and more seasoned clinicians. It also can be a simple

and time-effective form of delivering information to professionals in need of strengthening their communication abilities (McFarland & Rhoades, 2006).

### Role-Play

Role-play is considered one of the most important parts of effective communication skills training and is widely used by many scholars and clinicians (Baile et al., 2000; Liu, 2005; Maguire, 1999; Maguire, Booth & Jones, 1996). This method includes role-playing with colleagues and interviews with standardized (simulated) or actual patients. Role-play approach with peers or colleagues is found to be an effective tool for young clinicians. For example, medical students who participated in a communication skills training (Rees, Sheard & McPherson, 2004) had positive views about the use of role-play as a method of practicing their skills. The students' feedback also included the importance of practicing their skills in a safe environment. Furthermore, videotaping the role-play sessions in this study followed by viewing the tapes enabled the students to identify the areas in which they needed improvement. However, there are disadvantages to peer role-play, which can be considered as a limitation during training (Kurtz et al., 2005). Participants are not actors and they may find it difficult to role-play without being self-conscious, especially if they already have a relationship with other participants. Additionally, many physicians may perceive role-play to be an artificial approach to learning specific skills.

The use of real patients in practicing physician-patient interactions is a common tool in communication skills training (Brown, Boles, Mullooly & Levinson, 1999; Langewitz, Eich, Kiss & Wossmer, 1998). Researchers suggest that role-play with real patients exposes the learners to real-life clinical situations. However, there is a downside

to this approach. Patients are sometimes so supportive of learners that they find it difficult to give accurate feedback. Additionally, ethical issues in involving patients in video-taping training sessions should be taken into consideration, in accordance with professional and organization guidelines.

The use of simulated patients (actors) is mentioned in many communication skills training studies (Baile et al., 2000; Roter et al., 1990; Roter & Hall, 1987; Kurtz et al., 2005). Simulated patients are realistic patient substitutes and shown to be an effective learning approach. Usually simulated patients are well trained in recognizing specific skills and giving an accurate feedback. However, this method is found to be costly and time-consuming due to lengthy training needed by the actors (Kurtz et al., 2005).

### The Dose-Response Effect for Communication Skills Training

The most effective length of time for training workshops has not been determined by researchers (Baile et al., 2000; Razavi & Delvaux, 1997). Baile and colleagues reported the positive effects of two half-day workshops for oncology faculty members. Physicians participating in these educational communication improvement courses seemed to improve their own self-image and confidence in their ability to communicate a cancer diagnosis to the patient (Baile et al., 1999). In residential workshops lasting less than a week, Maguire and Faulkner (1988) invited a multidisciplinary team to attend a three-day communication skills training session. The authors hoped that the multidisciplinary nature of the workshops would better facilitate participants' learning. Maguire and Faulkner determined through an objective analysis that workshop participation improved communication skills, while at the same time eliminated many ineffective interaction patterns. Physicians who participated were more likely able to

effectively determine patients' anxieties than they were before they participated in the educational program. On the other hand, other researchers pursued the approach that education in this field might have more impact in a single-discipline approach. For example, Cushing and Jones (1995) reported a study wherein residents were placed in one- to three-day educational forums that had an emphasis on the emotional considerations of delivering unfavorable news to patients. Cushing and Jones anticipated that this single-discipline approach would have a more positive impact on the learning process. Indeed, the physicians in this study exhibited a high level of self-assurance in their approach to patient interaction.

Finset and colleagues (2003) developed a three-day training program for experienced doctors of oncology in five Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden). This training program utilized an adult-learning theory framework with self-goal-directed and experiential learning methods in small groups of six participants. The authors reported that, during six-month telephone follow-up interviews, the general satisfaction with the program was high: 94% of 155 participants were satisfied with the training, and significantly improved their communication skills with patients. According to Finset and colleagues (2003), one of the interesting outcomes was that a majority of the physicians (87%) indicated that the course had been useful on a personal level, in particular for the younger doctors, and that there was a great need for further training.

Different questions related to the optimal number of sessions and the duration of training still remains unclear. Workshops comprising several sessions and followed by ongoing supervision may be more effective than a single training event (Razavi &

Delvaux, 1997). Many authors agree that further research is recommended in order to determine specific guidelines for the length and duration of communication skills trainings (Maguire, 1999; Razavi & Delvaux, 1997).

### **Cancer, Truth-telling Information, and Culture**

Physicians' approach to cancer-diagnosed patients has undergone significant and fast-paced modification (Ungar et al., 2002). This change has led to more frank and honest interchanges with patients, even including discussion about life expectancy, treatment options, and other more personal psychological topics (Bozcuk & Erdo, 2001; Ozdogan & Samur, 2004; Surbone, 2004; Younge & Ezzat, 1997). Typically, physicians who practice medicine in the United States are honest with their patients. At the same time patients in the U.S. tend to be better informed about their specific disease. These circumstances have begun to lead to a collaborative relationship between the doctor and patient as they approach the patient's care and treatment. These findings seem to coincide with similar studies in Europe where honesty between physician and patient, as well as family, is expected (Moore & Spiegel, 2004). Conversely, studies have shown that physicians in the former Eastern Bloc countries (Bulgaria, Czech Republic, Poland, Yugoslavia), then under Soviet rule, have approached patients diagnosed with cancer very obtusely, i.e., they hide the truth from the patient (Surbone, 2004; Moore & Spiegel, 2004). At one time, being truthful about a cancer diagnosis was not acceptable in most societies of the former Soviet Union (Bozcuk & Erdo, 2001; Ungar et al., 2002), and this remains true in many cases. Until recently, this nondisclosure approach was also in practice in Greece, although recent research has demonstrated that physicians in that



country are now being more forthcoming with their patients (Mustakidou & Parpa, 2005). Similar changes are taking place in Italy. Gordon and Paci (1997) asserted that “non-disclosure of diagnosis of cancer has been challenged” (p. 1433) and an increasing number of patients are informed and less passive about their options and the decision-making process. In contrast, in Turkey, oncologists demonstrated a lack of skills in delivering bad news and involving patients in decision making; however, patients do not have expectations of such behavior (Buker, 2003).

Although much research in the field of oncology has delved into the relationship between the physician and patient and the physician’s ability to communicate, most of this research centers on medical competency (Amiel et al., 2006; Moore & Spiegel, 2004; Mustakidou & Parpa, 2005; Surbone, 2004). Such research has been a significant aid in determining those important points of communication that may be more complex and what approaches that are used are determined to be successful. Unfortunately, this same research has not been as successful in investigating medical communication subject matter within a particular culture. In addition, most of this research has been conducted in “Western world” societies and focused primarily on physicians and patients who speak English. This approach, by its very nature, limits the impact of culture on the entire communication process (Surbone, 2004). Within the historically closed societies, such as Turkey, for instance, a physician is generally unable to find training to improve his or her ability in communicating with a patient (Buker, 2003). Buker also identified some interesting attitudinal approaches of physicians in Turkey and cites several characteristically negative approaches of physicians who treat patients diagnosed with cancer. The first of these negative approaches was the doctor who makes every attempt to

prevent the demise of the patient. In a sense, this physician was ruling out the possibility of death. The second negative approach was characterized by the physician who separates his actions from the emotionally charged situation primarily because he or she does not wish to deal with some of the more intimate and emotional aspects of the care-giving process. Buken simply stated that some physicians may lack the energy required for this effort. Both of these approaches seemed justified by the physician who, believed that if the patient is informed completely about his or her condition, then he or she may not be emotionally equipped to deal with the situation; therefore this emotional response may result in a less positive outcome. The conclusions of this study support findings in other countries, such as Italy, Greece, and Japan, about dilemmas that physicians may experience while treating patients with cancer. Cultural differences and legal regulations may impose additional difficulties in the process of interaction with patients in the field of oncology (Gordon & Paci, 1997; Mustakidou & Parpa, 2005; Takayama, Yamazaki & Katsumata, 2001).

### **Physician-Patient Relationships and Communication in the Republics of the Former Soviet Union**

Medicine in the former Soviet Union was based on a specific model that was founded on the concept that “the State” is in the position of protecting the citizen, and in this case, protecting the patient from outside harm (Sparks & Mittapalli, 2004). More specifically, this model was premised on the belief that negative thoughts brought about by honesty and openly disclosing the diagnosis might encumber the patient’s recovery from the disease. Consequently, presenting bad news (in the form of a cancer diagnosis)

in an honest and open fashion to the patient never occurred. However, the patient's family was often told (Shpilko, 2006). Soviet citizens have continued to follow this approach because of tradition and, as a result, the custom of informing the family and not the patient continues to be accepted.

This finding is bolstered by a study involving 200 cancer-diagnosed patients of whom less than 13% knew what their diagnosis was to its fullest extent (Blinov & Hanson, 1997). In a related research project involving physicians, almost 50% of the physicians felt that not informing the patients of their diagnosis was the correct approach (Yudin & Yasnaya, 1994). Conversely, the results of studies done in Greece and Canada determined that in over 90% of the cases studied, physicians disclosed a diagnosis of cancer to their patients (Holland & Marchini, 1998).

In a study conducted in Russia by Sparks and Mittapalli (2004), results disclosed that patients did not receive their cancer diagnosis directly from their physician. The physician initially disclosed the condition to members of the patient's family. It then became a decision of the family as to whether they wanted to disclose the details to a patient.

The results of studies conducted in the former Soviet Union (including Russia) suggested that the historical cultural approach of not informing the patient is normally followed in a clinical situation. In this cultural climate, cancer patients feel reluctant to solicit information from a physician, but conversely, were required to respond completely to the physician and forced to undergo treatments suggested by the physician—treatments they may not understand (Yarovinski, 1996). According to Yarovinski, interaction between the physician and the patient were limited in all matters including diagnosis and

treatment. This comes from a sense of superiority the physician has over the patient, who is often considered on the lower rung of the intellectual and cultural ladder (Demin, 1997).

This led physicians to place themselves more in the position of a tolerant and benevolent parent (Magaznik, 2006). These doctors may evaluate a patient's profile and if they consider the patient to be mature enough to handle the diagnosis, then they may choose to reveal it to him or her. These doctors make a subjective decision as to whether the patient can accept such information. It appears that these decisions are based primarily on the whim and personal opinion of the physician, as opposed to a general right to know on the part of the patient (Salimbene, 2000; Yarovinski, 1996). It is clear then that no specific regimen of education or training as related to the delivery of bad news has been created. Primarily, this may be contributed to the lack of consensus among the Russian medical community as to what approach should be taken (Sparks & Mittapalli, 2004).

Currently, formal education in communication skills is not part of any medical education program in the Republics of the old Soviet Union (Chjan, 2003). Physicians acknowledge this and admit there is a need to better communicate bad news to cancer patients. These same physicians also acknowledge that they need additional interpersonal skills in this area (Sparks & Mittapalli, 2004).

## **Literature Review Summary**

There is a definitive recognition by physicians worldwide that the emotional influences on a patient diagnosed with cancer are of critical importance, as is the importance of an open and honest relationship between the physician and his or her patient. It has been determined that such a relationship has positive benefits for both the patient and the physician. There is also a heightened awareness that training and education in communication skills in the delivery of “bad news” should be increased and can be helpful for physicians (Kurtz et al., 2005). Research studies tend to agree that most of the Eastern Bloc countries are significantly lacking in such educational programs, and that the medical climate is still physician-controlled and needs to transition to a cooperative relationship involving the patient. Consequently, developing and implementing training programs in communication for oncologists in the former Soviet Union countries is essential.

## **CHAPTER THREE: METHODOLOGY**

This chapter describes the methods, participants, settings, instruments, and procedures that will be used in this study, with a special emphasis on the analysis of data. The proposal of this study will be reviewed by the University of Central Florida Internal Review Board to ensure this research study's ethical and legal practices and standards.

### **Overview**

This research study will investigate the effectiveness of communication skills training, specifically skills for “delivering bad news,” for physicians in Uzbekistan who are involved in the treatment and care of cancer patients. The study will also examine the impact of the intervention (delivering unfavorable news skills training workshop for physicians) on the participants' interpersonal skills, empathy skills, and their beliefs about the importance of patients' psychosocial issues. Participant physicians involved in cancer care will be attending an eight-hour training program that will address the issues of communicating bad news by physicians to cancer patients by using the US SPIKES protocol. SPIKES (Baile et al., 1999): a delivering bad news training protocol for oncologists that will be utilized in this study that consists of six communication steps: (1) Setup; (2) Perception; (3) Invitation; (4) Knowledge; (5) Empathize; and (6) Summarize and Strategize. The training will include didactic materials, video demonstrations, large group discussions, small group discussions, and role-plays. A self-rating Likert scale of Self-Efficacy, Interpersonal skills, Empathy, and Physician Belief instruments will be administered immediately before, immediately after, and then two weeks after the

workshop. Training will be conducted with physicians who are employed at the Oncology Center in Tashkent, Uzbekistan.

## **Research Design**

Following the quantitative research approach, a quasi-experimental group design will be utilized. According to Campbell and Stanley (1966), this approach is the most widely used in education and closest in value to an experimental method in a natural setting. However, Campbell and Stanley encouraged researchers to increase their awareness of specific variables (interaction effect of testing and reactive effects of experimental arrangements), which this type of design does not control. The review of the literature on communication skills in a medical setting suggests that many studies use pre-test/post-test research design (Brown et al., 1999; Hulsman et al., 1999; Gysels, Richardson & Higginson, 2004). This approach, according to Hulsman and colleagues, does not allow the researcher to ascribe the differences between pre- and post-intervention solely to the utilized treatment or intervention. The literature also indicates that there have been few studies that used an adequate research design (e.g., a pre-test/post-test randomized control group design). For example, a randomized, control research study of the effects of an 8-hour interactive communication skills training workshop for a multidisciplinary team of health care professionals showed an improvement in the clinicians' self-reported ratings in learned skills (Brown et al., 1999). The review of research on communication skills training in the medical field suggests that these interventions help medical professionals to learn and utilize learned skills in

practice. However, the use of an adequate research design, such as randomized and controlled method, can be time-consuming and costly for researchers (Maguire, 1999).

### **Study Sample**

The research subjects comprised 50 physicians at the Oncology Center in Tashkent, Uzbekistan. The Oncology Center has been chosen because it is a large, specialized oncology hospital and can provide the largest number of physicians involved with patients diagnosed with cancer in Uzbekistan. Additionally, due the fact that this researcher was born, raised, and educated in Uzbekistan, she maintained strong connections with the local medical community. Finally, to this researcher's knowledge, this a pioneer study focusing on evaluation of communication skills training programs for physicians in cancer care in Uzbekistan.

Prior to the actual trainings, this researcher provided individualized three-day training for four physician-instructors, who conducted the training workshops for physician-participants. This training introduced these four physicians to the detailed content of the workshop and helped them to learn specific skills necessary for conducting the training, including how to facilitate large and small group discussions, how to provide feedback to participants, and how to manage common teaching challenges.

Physician-participants were recruited through the staff meetings and distributions of flyers that briefly described the purpose of the study and included researcher contact information (e.g., telephone numbers, e-mail address, and mailing address). All interested physicians were asked to stay after the one of the staff meetings in order to provide them with more detailed information about the upcoming training. Physicians were randomly



assigned to the Experimental and Control groups by putting the names of participants on slips of paper and selecting them using a random drawing. According to Patten (2002) and Campbell and Stanley (1966) random samples can be subject to error. The authors assert that through chance, a random sample group might contain a disproportionately large number of males or participants who are all of the same age. Statisticians refer to this as a sampling error. In order to minimize sampling errors, Patten (2002) suggested using samples of adequate size, which is calculated by using appropriate statistical analysis. The control group was treated as a “postponed-therapy control group” (Campbell & Stanley, p. 16) and was provided with identical training after the study is completed. The purpose of using a postponed-therapy control group approach was twofold. First, it created an interest in upcoming training in control group participants and second, it was ethically appropriate to provide the control group with training that is important for and needed by their profession.

The data from the training was collected by the research assistant, a physician who was not a part of physician-instructors team. This researcher provided a two-hour educational session for the research assistant, which helped the assistant to collect and store the gathered information by utilizing ethical and humanistic approaches in this study. More specifically, participants’ names or other identifying information was not attached to any of the information gather in this project. All the information participants provided was identified by code number. All information was stored in locked cabinets in the research assistant’s office. The only document that contained the participant’s name was a consent form that was separated from the rest of the materials. The data collected was used for statistical analyses and no individuals were identifiable from the pooled

data. The information obtained from this research may be used in future research and published. However, participants' right to privacy will be retained. All data will be presented in group format and no individuals will be identifiable from the data.

Demographical data was collected, including the participants' age, gender, specialty, and years of experience. This data was used to investigate whether there is a statistically significant relationship between participants' demographical data and their mean scores on self-efficacy, interpersonal relationship, empathy, and psychosocial belief instruments. Additionally, demographics collected in this study assisted the researcher in comparison process with other similar studies.

## **Instruments**

In this study five data-collection instruments were utilized: (a) Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B), (b) Self-Efficacy Scale, (c) Jefferson Scale of Physician Empathy (JSPE or Empathy Scale), (c) Self-Efficacy Scale, (d) Physician Psychosocial Belief Scale (PBS), and (e) Satisfaction Questionnaire.

### **Fundamental Interpersonal Relations Orientation-Behavior**

The Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B) instrument was created in the late 1950s and later modified by William Schutz (1994). The FIRO-B is a self-report tool designed to “measure behavior that derives from interpersonal needs” (Hammer & Schnell, 2000, p. 3). This instrument can be used to explore and attend to variety interpersonal issues including one-to-one relationships, organizational teamwork, and career difficulties. The FIRO-B consists of 54 items and utilizes a 6-point rating scale. It can be administered in individual or group formats and

can be completed in 15 minutes. Schutz (1994) developed a theory based on the context of understanding how high-performance military teams work together (Hammer & Schnell). Schutz's theoretical framework was based on the premise that interpersonal needs are the components of motivation of human behavior and "people need people" (Schutz, p. 32). The FIRO-B measures three interpersonal needs: (a) *Inclusion*, (b) *Control*, and (c) *Affection*. According to Schutz, *Inclusion* is necessary for interactions with people. *Control* addresses a person's behavior in terms of responsibility, influence, power, and decision making. *Affection* portrays an individual's behavior in developing personal relationships with others.

The FIRO-B has been found to be a reliable and valid instrument to assess an individual's interpersonal skills (Gluck, 1990). Reliability of scores from the FIRO-B was presented by the author in the form of reproducibility indices (internal consistency). Reproducibility with 90% accuracy was used as the criterion (Hammer & Schnell, 2000). Data to measure reproducibility (refers to each item within the instrument contributing equally to a participant's final score) was found to be in range from 0.93 to 0.94 on a sample of college students and Air Force personnel in testing interpersonal skills ( $N = 1,543$ ), which suggests that the FIRO-B is an internally consistent instrument. Test-retest reliability (1-3 week interval) was studied on a sample of high school students, university students, and adult population to measure stability of individual's FIRO-B scores in two different occasions. The results of these studies showed score ranges from 0.71 to 0.85, which suggests that the FIRO-B scores are relatively stable over short periods of time. The instrument has solid face validity, in other words the FIRO-B appears to measure what it is supposed to measure (Gluck, 1990). Correlations among Expressed and Wanted

scores for Inclusion and Affection were relatively high (.42-.59) (Schutz, 1994)). Intercorrelations among the scales by comparing scores among various professions showed that higher scores are found among people-oriented professions, For instance, medical students' mean FIRO-B score was 30.3, nurses scored 28.0; and psychology majors scored 26.3, compare to physics majors: 20.4; and architects: 19.9 (Gluck, 1990). Finally, the technical guide describes the relationship between the FIRO-B scale scores and scores on other personality psychological tests, such as Myers-Briggs Type Indicator, the California Psychological Inventory, and Interpersonal Behavior Inventory. The authors suggested that "relationships with other instruments demonstrate the convergent and divergent validity" (Hammer & Schnell, 2000, p. 61).

The FIRO-B instrument has been used in some studies as method to assess participants' interpersonal skills. For example, the effect of interpersonal compatibility between physicians and patients as measured by FIRO-B was studied in a psychiatric hospital (Sapolsky, 1965). The author concluded that the degree of interpersonal needs of physicians was a significant variable that impacted the outcome of patients' treatment. Additionally, the author suggested the importance of underlying physicians' personality traits, which may contribute to establishing therapeutic relationships with patients. Fox, Kanitz, and Folger (1991) utilized the FIRO-B as a pre- and post-test for juvenile court workers who participated in a basic counseling skills training program. The results of that study showed that the 5-day counseling skills workshop positively improved participants' interpersonal needs scores. Additionally it was concluded that counseling skills and interpersonal relationship skills are interconnected and a significantly important

combination in developing effective relationships with clientele. A summary of psychometric properties of the FIRO-B is presented in Table 2.

**Table 2****Summary of Psychometric Properties of the FIRO-B**

Psychometric Properties	Scores & Population	Studies
<b>I. Reliability</b>		
1. Test-retest	0.71-0.82 College students ( <i>N</i> = 126), High school students ( <i>N</i> =93)	Schutz (1978) Hutcherson (1965)
2. Internal consistency (coefficient of reproducibility)	0.94 College students ( <i>N</i> = 1615), Air Force members ( <i>N</i> =1543)	Schutz (1978)
Split-Half Test (Spearman Correlation)	0.74-0.90 Law School Students ( <i>N</i> =380)	Schutz (1978)
<b>II. Validity</b>		
1. Content Validity	Adequate (Based on Schutz's theory of Interpersonal Needs)	Schutz (1978)
2. Predictive Validity (criterion related validity)	R (0.45-0.54) Psychiatric patients ( <i>N</i> =436) R=0.45 Physicians ( <i>N</i> =98) Outpatient group counseling clients ( <i>N</i> =64)	Gard & Bending (1964) Sapolsky (1965) Yalom (1967)
3. Concurrent validity (criterion related validity)	California Psychological Inventory 0.66-0.75 College students ( <i>N</i> =40) Survey of Interpersonal Values (Japan) Found significant relationship Altruism scale Mental Health Counseling Program students ( <i>N</i> =87) 0.73-0.76 (for WI & WA)	Ullman (1964) Kikuchi & Gordon (1966) Schmuldt (2006)
4. Construct Validity (Convergent validity)	Substantial correlations (inter-correlations) (~ 0.5) are found between EI&WI, EA&WA, EI&EA Law School Students ( <i>N</i> = 377) Correlation between predicted ranks of psychology students ( <i>N</i> =25) and actual FIRO-B scores (0.5) Dependency-interdependency traits are correlated with EC & WC	Schutz (1978) Kramer (1967) Exline & Messick (1967)
5. Construct Validity (Discriminant Validity)	Birth Order (correlation between first born and EA & EA) Residential Setting (EC correlates with democratic opinions and a residential setting)	Connors (1963) Smallegan (1971)

## Jefferson Scale of Physician Empathy

The Jefferson Scale of Physician Empathy (JSPE) was developed by Hojat et al. (2002) and measures physicians' empathy in the context of patient care. More specifically, Hojat and colleagues studied how medical students develop empathy and how empathy affected patient's psychological health. Hojat (2007) offered the following definition of empathy: "Empathy is a predominantly cognitive (rather than an emotional) attitude that involves an understanding (rather than feeling) of experiences, concerns, and perspectives of the patient, combined with a capacity to communicate this understanding" (p. 80). Additionally, Hojat emphasized the importance of "connectedness" and social support for development of physician-patient relationship.

The JSPE includes 20 items answered on a 7-point Likert scale. The internal consistency of the JSPE's reliability was obtained by calculating Cronbach's coefficient alpha and reported 0.89 for the sample of medical students and 0.87 for the sample of residents (Hojat et al., 2002). Convergent validity was validated by higher correlations between empathy scores and relevant measures such as compassion ( $r = 0.48$  for medical students,  $r = 0.56$  for internal medicine residents). In addition, statistically significant correlations were found between the JSPE and subscale scores on the Davis' Interpersonal reactivity Index (IRI), such as empathetic concern ( $r = 0.41$  for medical students,  $r = 0.40$  for internal medicine residents), perspective taking ( $r = 0.29$  for medical students,  $r = 0.27$  for internal medicine residents), and fantasy ( $r = 0.24$  for medical students,  $r = 0.32$  for internal medicine residents). These correlations are not large enough to suggest a significant intersect between empathy and the criterion measures. In validity studies it is important to show that the instrument and criterion

measures are two different entities with a significant large intersect (Field, 2005). Correlations of scores on the JSPE and self-ratings of empathy were 0.37 for medical students and 0.45 for internal medicine residents (Hojat et al., 2002). In a study of physicians that was subject of his doctoral dissertation, Reisetter (2003) reported significant correlation between JSPE factor scores and subscale scores of the Physician Belief Scale (PBS) (Ashworth et al., 1984). A summary of psychometric properties of the JSPE is presented in Table 3.



**Table 3****Summary of Psychometric Properties of the JSPE**

Psychometric Properties	Scores & Population	Studies
<b>I. Reliability</b>		
1. Test-retest	0.65 Medical students ( $N= 685$ )	Hojat et al. (2002)
2. Internal consistency (Cronbach's alpha)	0.87-0.89 Medical students and Residents ( $N=225$ )  0.90 School of Dentistry students ( $N=154$ )	Hojat et al. (2002)  Sherman & Cramer (2005)
<b>II. Validity</b>		
1. Content Validity	Adequate (Based on "Human Connection in clinical setting" framework)	Hojat et al. (2002)
2. Concurrent validity (criterion-related validity)	Jefferson Scale of Physician Empathy (JSPE) and PBS $R=0.50$ Interpersonal Reactivity Index (IRI) and JSPE $R=0.24-0.41$ JSPE and NEO Personality Inventory $R=0.33$	Reisetter (2003)  Hojat et al. (2005)  Magee & Hojat (1998)
3. Construct Validity (Factor Analysis)	Four factors accounted for 56% of the total variance (factor coefficient $> 0.40$ )	Hojat et al. (2002; 2005)
4. Construct Validity (Discriminant Validity)	No relationship between Empathy and Self-protection ( $R=.11$ )	Hojat et al. (2002; 2004)
5. Convergent Validity	Empathy scores and compassion $R=0.48$ for medical students, $R=0.56$ for internal medicine residents; perspective taking ( $R= 0.29$ for students, $R= 0.27$ for residents), and fantasy ( $R= 0.24$ for students, $R= 0.32$ for residents).	Hojat et al. (2002; 2004)

## **Self-Efficacy Scale**

The self-efficacy rating scale (Baile et al., 2000) has been used in communication skills training in oncology as an instrument to measure physicians' self-efficacy beliefs related to their cancer-specific care skills (Baile et al., 2000; Liu, 2005; Parle, Maguire & Heaven, 1997). The self-efficacy construct was introduced by Bandura (1977) as a part of his social learning theory was defined as "a judgment of personal capability" (p. 11). According to Bandura, individuals who perform specific tasks successfully have stronger beliefs about their abilities to overcome any difficulties perceived while performing these behaviors. In relation to communication in oncology, there is evidence that self-efficacy is a significant factor in physician-patient interaction patterns and should be taken into account in training programs for health care providers (Maguire, 1999; Parle et al.). The use of a self-efficacy scale for the proposed study was chosen due to the fact that the SPIKES protocol, which will be utilized in this study, applies a self-efficacy instrument to assess physicians' confidence in delivering unpleasant news before and after the skills training session. The authors of the SPIKES protocol (Baile et al., 2000) suggested that, based on their research over the last eight years, a self-efficacy scale consistently showed improvement in physicians' scores after skills training. The 21-item, 5-point Likert scale self-efficacy instrument addresses the confidence of the training participants in their ability to successfully manage skills that relate to delivering unfavorable news to cancer patients. A total score is obtained by adding the scores of all items; higher scores demonstrate higher self-efficacy in communicating unpleasant news skills. This author recognizes that a possible increase in physicians' self-confidence scores will not necessarily represent acquisition of skills in delivering bad news or improved

interpersonal communication in clinical practice. However, the literature on delivering unpleasant news and communicating in cancer care suggests that a higher self-efficacy assessment scores can be associated with health care providers' behavior change (Cegala & Broz, 2002; Hulsman, Ros, Winnubst & Bensing, 1999).

### **Physician Belief Scale**

The Physician Belief Scale (PBS) was developed by Ashworth, Williamson, and Montano (1984) and designed to assess physicians' beliefs about psychosocial characteristics of patient care. The PBS is a 32-item, self-report scale that determines a physician's position in terms of acceptance versus rejection of the psychosocial aspects of patient care. The theoretical framework that led to development of the PBS addresses the physician's role in physician-patient interaction, and includes the patient's expectations from the interaction and physician's approach to patient care from the holistic point of view. This instrument uses a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Overall scores could range from 32 (which represents maximum psychosocial orientation) to 160 (which indicates minimum psychological orientation). In other words, low scores will be an indication of positive attitudes toward the psychosocial aspects of patient care; conversely, high scores will reflect the position that psychosocial issues in clinical practice are not part of the physician's role. Ashworth and colleagues (1984) reported a reliability coefficient of  $r = .88$ , which is an indication of high internal consistency of individual items on the PBS. The average item variance was reported at .86 and average inter-item correlation was .19. The PBS showed acceptable levels of reliability (Cronbach alpha = 0.78) in a study that explored physician-patient

communication skills among European oncologists (Travado, Grassi, Gil, Ventura & Martins, 2005). Comparison studies of the PBS and the Physician Questionnaire (Levinson, Kaufman & Dunn, 1990) demonstrated a high correlation ( $r = .69$ ) between the two measures. Construct validity was determined by comparing the PBS scores of medical students in different specialties in medicine (Coutts-Dijk, Bray, Moore & Rogers, 1997). The results of this study suggested that students in primary care specialties had significantly higher scores on PBS scale than did the students from surgery or support specialties. The research supported that a physician's beliefs about psychosocial aspects of the patient's condition play a significant role in his or her communication behaviors. For example, Jenkins and Fallowfield (2002) assert that it is important to explore a physician's beliefs for teaching new behaviors to clinicians in order to uncover the discrepancy between his or her beliefs and new, more effective behaviors. The results also showed that communication skills training can alter physicians' attitudes toward psychosocial issues in clinical practice as evidenced by improved scores on the PBS scale after the training. A summary of psychometric properties of the PBS is presented in Table 4.

**Table 4****Summary of Psychometric Properties of the PBS**

Psychometric Properties	Scores & Population	Studies
<b>I. Reliability</b>		
1. Internal consistency (Kuder-Richardson Formula)	$R=0.88$ Physicians ( $N=180$ )	Ashworth et al. (1984)
Cronbach alpha	0.78 Oncologists ( $N=125$ )	Travado, Grassi, Gil, Ventura & Martins (2005)
2. Inter-item correlation	$R=0.19$ Physicians ( $N=180$ )	Ashworth et al. (1984)
3. Test-retest Reliability	$R= 0.80$	Ashworth et al. (1984)
<b>II. Validity</b>		
1. Content Validity	Adequate (Based on Bio-psychosocial framework of patient care)	Ashworth et al. (1984)
2. Concurrent Validity	Physician Questionnaire & PBS Physicians ( $N=78$ ) $R=0.69$  Jefferson Scale of Physician Empathy (JSPE) and PBS $R=0.50$	Levinson, Kaufman & Dunn (1990)  Reisetter (2003)
3. Construct Validity	Psychiatrists – 59 (mean scale score) Family Physicians – 64 Pediatricians – 72 Internists – 76	Ashworth et al. (1984)

## **Satisfaction Questionnaire**

A Satisfaction Questionnaire was developed by this researcher to assess participants' level of satisfaction with the training workshop and to gain more insight about physicians' experiences. This questionnaire was administered immediately after the training workshop. The Satisfaction Questionnaire consists of eight items. The first four items are arranged in a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). The first item addresses the usefulness of the training in general. The second item explores participants' opinions about the content of the training. The third and fourth items investigate participants' satisfaction level with the organization of the training and satisfaction with the amount of knowledge gained after the training. The last four items of the Satisfaction Questionnaire comprise of open-ended questions and explore physicians' training experiences in depth, including solicitation of suggestions for future workshops.

## **Translation and Reliability Test of the Instruments**

The English version of the instruments used in this study was translated into Russian by this researcher. With the assistance of two bilingual individuals (both with experience as Russian and English language teachers at universities in the former Soviet Union), the instruments were evaluated for their clarity (face validity) and grammatical and meaning equivalence. These experts' feedback was incorporated in the process of revising and modifying the translated version of the instruments. The revised and modified versions were analyzed for content validity in order to determine the adequate representation of the content of instruments.

Five specialists in communications in the medical setting were invited to assess the content of translated instruments and provide their suggestions for each item of the instrument. The feedback from the specialists was incorporated to the revision process of the questionnaires. The instruments were pilot-tested with 20 physicians for analysis of internal reliability by utilizing Cronbach's alpha.

### **Description of the Training Program**

The present investigation utilized the existing SPIKES protocol, which is a part of a communication skills program entitled ONCOTALK, developed by a multidisciplinary panel of experts, including physicians, psychologists, and specialists in communication in medical settings (Back, Arnold, Tulsky, Baile & Edwards, 2003). The ONCOTALK program was created for medical oncology clinicians and funded by the National Cancer Institute. The authors of this program tailored the content of communication skills training for cancer care setting. However, the program can be adapted to other settings as well. ONCOTALK communication skills training is available on the program's website (<http://depts.washington.edu/oncotalk>). The overall goal of the project was to help clinicians who are involved in treatment and care of patients with cancer to improve their communication skills. The program utilized the following educational principles: (a) didactic methods of teaching alone are not effective; (b) adult learning approaches should be implemented; (c) trainings should include skills practice; (d) learners' attitudes and emotions should be addressed; (e) the most effective learning environment is established when knowledge, skills, and attitudes are included; and (f) reinforcement is critical for the learning process (Back et al., 2007).

The trainings included large-group overview presentation, communications skills practice sessions, practice sessions with patient-actors, role-plays, and reflective group discussions. The goal of the SPIKES protocol is assist the physician in fulfilling four objectives while delivering unpleasant news to the patient: (a) eliciting information from the patient, (b) communicating the information related to the patient's condition, (c) supporting the patient, and (d) involving the patient and his or her family in the decision-making process. According to Baile and colleagues these goals can be achieved by following six steps, each of which requires utilization of specific interaction skills and can be summarized using the SPIKES mnemonic (Baile et al., 2000):

S = SETUP. Set up the situation so it has a good chance of going smoothly. Before you go into the room, have a plan in your mind. Sit down, make eye contact, and get reasonably close to the patient. Anticipate that the patient will be upset and have some tissues ready.

P = PERCEPTION. Find out the patient's perception of the medical situation. What has he been told about the disease? What does he know about the purpose of the unfavorable test results you are about to discuss?

I = INVITATION. Find out how much information the patient wants.

K = KNOWLEDGE. Use language that matches the patient's level of education. Be direct. Avoid using medical jargon as it might confuse the patient.

E = EMPATHIZE. Use empathic statements to respond to the patient's emotions.

This will assist in patient recovery and dampen the psychological isolation that a patient can experience when she hears bad news.



S = SUMMARIZE AND STRATEGIZE. Summarize the clinical information and make a plan for the next step (Baile et al., 2000, p. 302).

The workshops were evaluated by using participant satisfaction questionnaire and an assessment of physicians' confidence about learned skills. According to Baile and colleagues (2000), 80% of the participants ( $N=17$ ) in their workshops agreed or strongly agreed about the usefulness of the program. Clinicians especially emphasized the importance of supportive peer-group environment during the training, which helped the physicians with the realization that they are not alone in their struggles in conveying unpleasant news to patients with cancer.

### **Statistical Analysis**

A quasi-experimental study was conducted to investigate the difference in physicians' level of confidence regarding delivering bad news communication skills, interpersonal and empathy skills scores, and physician belief scores within the control and experimental groups and between groups. The data collected from this quantitative research was analyzed by using Statistical Package for Social Science (SPSS) software package for Windows version 14.0 (2005). The study included following variables: independent variable (IV): participation in a training program for oncologists; and multiple dependent variables (DV): observed measures on the questionnaire of confidence, interpersonal and empathy skills, and physician belief scale. The data for these variables was collected before and immediately after the training, and at the follow-up. Reliability for the overall questionnaire was calculated by the internal consistency statistic Cronbach's alpha.

Two paired samples t-tests was utilized to assess whether any significant changes occurred within the experimental and control groups from pre- to post-test for all dependent variables. Paired samples t-tests are used when there are two experimental conditions (pre-intervention and post-intervention assessments) and the same participants take part in both conditions (Field, 2005). The purpose of the t-test will be to analyze whether differences between group means are statistically meaningful.

A MANOVA statistical approach was utilized to assess whether there will be any significant mean differences on every measurement between the experimental and control groups. Two groups (experimental and control) on more than two dependent variables were compared; therefore, MANOVA analysis was considered as an appropriate statistical technique for this study (Field, 2005). MANOVA integrates the information about several dependent variables and will inform the researcher whether groups of participants can be differentiated by a combination of scores on multiple dependent measures (Green & Salkind, 2004).

Pearson correlations was utilized to assess whether there was significant relationship between participants' age and years of experience and their self-efficacy, interpersonal skills, empathy, and psychosocial belief test scores at both pre-test and post-test. The Pearson correlation assessed the degree that variables (participants' age, gender, years of experience, and test measures) are linearly related in the study sample (Field, 2005).

## **CHAPTER FOUR: FINDINGS**

This chapter presents and describes findings obtained via statistical analyses. In the first section, an overview of methodological aspects of the study, general sample characteristics, and measures of central tendency are presented. In the second section, statistical findings specific to the research questions of interest are presented. Finally, the third section provides an overall summary of the current study's findings.

### **Overview of the Methodology**

The purpose of the current study was to investigate the effect of a one-day, eight-hour training workshop, "Delivering Unfavorable News to Patients Diagnosed with Cancer," on attitudes and beliefs of oncologists in Uzbekistan. Specifically, a quasi-experimental study was designed to determine the degree of change in physicians' attitudes and beliefs regarding the process of delivering unfavorable news to patients diagnosed with cancer. Training was conducted with physicians who were employed at the Oncology Center in Tashkent, Uzbekistan. Participants in this study were eligible to be a part of the training if they were physicians specializing in oncology and had three or more years of experience treating patients with cancer. The training workshop was held outside of the participating physicians' working place (Oncology Center). This researcher used a facility in Tashkent that specializes in conducting conferences for a variety of professions. This facility has comfortable rooms that are suitable for both large and small group activities and also provided food and accommodations. This setting allowed participants to avoid being contacted about and dealing with daily clinical problems so

that they could devote their attention to the workshop. The training included didactic materials, video demonstrations, large group discussions, small group discussions, and role-plays. A self-rating Likert scale of Self-Efficacy, Interpersonal Skills, Empathy, and Physician Belief instruments were administered immediately before, immediately after, and then two weeks after the workshop.

The English versions of the Self-Efficacy, Interpersonal Skills (FIRO-B), Empathy (JSPE), Psychosocial Belief (PBS), and Satisfaction Questionnaire instruments were translated into Russian by this researcher. To ensure linguistic accuracy of a translation the researcher followed specific steps (Geisinger, 1994): (a) translated and adapted the measure; (b) reviewed of the translated version of the instruments by two bilingual professionals; (c) adapted the draft of the instruments on the basis of the comments of the reviewers; (d) pilot-tested the instruments; and (e) performed internal consistency reliability analyses (Cronbach's alpha). More specifically, with the assistance of two professionals who were fluent in both Russian and English languages and knowledgeable about both American and Uzbek cultures, the instruments were evaluated for their clarity (face validity) and grammatical and meaning equivalence. These experts' comments were included in the process of revising and modifying the translated version of the instruments. The revised and modified versions were analyzed for content validity in order to determine the adequate representation of the content of instruments.

Five specialists in communications in the medical setting in Uzbekistan were invited to assess the content of translated instruments and provided their suggestions for each item of the instrument. The feedback from the specialists was incorporated in the revision process of the questionnaires. The instruments were pilot-tested with 20

physicians for analysis of internal reliability by utilizing Cronbach's alpha. The results of the pilot study showed that Cronbach's alpha for the FIRO-B instrument was 0.89; PBS, 0.86; JSPE, 0.83; Self-Efficacy, 0.79; and Satisfaction Questionnaire, 0.71. Field (2005) suggested that a value of 0.7-0.8 is an acceptable value for Cronbach's alpha. He also cautioned researchers that alpha values may depend on the number of items on the scale; i.e., when number of items on the scale increases, alpha will increase (Field, 2005). The results of the reliability analyses of the translated instruments in this study seem to correspond with Field's advice. The FIRO-B instrument with the highest number of items (54) showed the highest alpha value (0.89) and the Satisfaction Questionnaire with the lowest item numbers (4) resulted in the lowest value (0.71).

The five research questions were investigated:

Question 1: Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher self-efficacy scores, as compared to physicians who do not participate in the workshop?

Question 2: Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher interpersonal skills scores, as compared to physicians who do not participate in the workshop?

Question 3: Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher empathy scores, as compared to physicians who do not participate in the workshop?

Question 4: Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher psychosocial belief

(PBS) scores, as compared to physicians who do not participate in the workshop?

Question 5: Is there a statistically significant relationship between oncologists' age, gender, years of experience, and specialization and oncologists' self-efficacy, interpersonal skills, empathy, and psychosocial belief scores?

There were ten null hypotheses for this study. The results of statistical analyses exploring each hypothesis will be described further in this chapter.

### **Sample Demographics**

A total of 50 oncologists from the Oncology Center of Uzbekistan participated in the current study, with 25 participants in the experimental group and 25 participants in the control group. Of these 50 participants, 26 were male (52%) and 24 were female (48%). Table 5 presents additional relevant sample characteristics.

**Table 5: Sample Characteristics**

<b>Variables</b>	<i>N</i>	<i>%</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Specialization					
General oncology	23	46.0			
Surgery	6	12.0			
Radiology	6	12.0			
Obstetrics/gynecology	5	10.0			
Other	10	20.0			
Age			38.4	9.1	26 – 61
Years of Experience			11.8	8.6	3 – 37

### **Measures of Central Tendency**

Measures of central tendency and range for interpersonal skills (i.e., Total Inclusion [TI], Total Control [TC], and Total Affection [TA]), empathy, and PBS and normed scores are presented in Table 6. Self-efficacy normed scores were not available for comparisons. The present study’s interpersonal skills (TI, TC, and TA) means appeared to be higher when compared to the test norms. As Hammer and Schnell (2000) suggested, these scores are still in a medium range (6-12) (e.g., appropriately balanced and are an indication of absence of dysfunctional manifestations). In contrast, the empathy scale means demonstrated lower numbers compare to norms. Additionally, the standard deviations appeared to have more deviation from the mean than those published in the Jefferson Physician Empathy Scale manual, which is an indication of a flatter and spread-out distribution of scores in the present study (Field, 2005). More detailed

statistical analysis, however, indicated that post-empathy score means for the experiential group significantly higher ( $M = 111.44$ ,  $SD = 16.04$ ) and close to the normed studies findings, suggesting that participation in the training workshop improved physicians' empathy scores. The PBS mean scores appeared to be higher compared to norms, which is an indication of physicians' lower psychosocial orientation.

**Table 6: Mean and Standard Deviations of Variables of the Current and Normed Studies**

<b>Variables</b>	<b>Time</b>	<b><i>M</i></b>	<b><i>SD</i></b>	<b>Normed <i>M</i></b>	<b>Normed <i>SD</i></b>
Self-efficacy	Pre	57.12	(7.49)	N/A	N/A
	Post	69.68	(12.11)		
TI	Pre	8.28	(4.15)	5.49	(4.71)
	Post	8.24	(4.18)		
TC	Pre	8.44	(3.25)	4.79	(3.05)
	Post	8.18	(3.20)		
TA	Pre	12.80	(3.80)	8.15	(4.04)
	Post	12.54	(4.24)		
Empathy	Pre	95.08	(15.41)	115.00	(10.00)
	Post	104.66	(15.36)		
PBS	Pre	87.50	(14.20)	72.1	(13.00)
	Post	79.78	(13.09)		



## **Data Analysis for Research Questions**

In order to determine the appropriate statistical analyses for the research questions of interest, analysis of the data was first conducted by using Statistical Package for Social Science (SPSS) software package for Windows version 14.0 (2005). Results indicated that, for the most part, the data was normally distributed. There were only three variables (i.e., pre-self-efficacy, post-PBS, and follow-up TA) that evidenced a slight deviation from normality. Given this slight deviation from normality, t-tests and multiple analysis of variance (MANOVA) analyses were determined to be appropriate for analyzing the research questions of interest. Indeed, both t-tests and MANOVAs are deemed to be quite robust to any deviation from the assumptions of normality of data (Drew & Hardman, 1985). Additionally, the data was screened for cases with extreme scores, or outliers. Field (2005) advised that outliers bias the mean scores and inflate the standard deviation. A boxplot was used to evaluate the data for “unusual” values. The outliers were detected in cases number 24, 25, and 37 for pre-self-efficacy and post-empathy scores. Investigation of a raw data for these cases revealed mistyping and incorrect values were replaced with correct data.

### **Research Question One**

Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher self-efficacy scores, as compared to physicians who do not participate in the workshop? It was hypothesized that (1) there would be no statistically

significant mean difference in self-efficacy scores within oncologists, in their respective experimental and control groups, pre- and post-training; and (2) there would be no statistically significant mean difference in self-efficacy scores between oncologists in the experimental and control groups at post-test.

To evaluate the first hypothesis, two paired samples t-tests (see Table 7) were conducted to assess whether any significant changes occurred within the experimental and control groups from pre- to post-test self-efficacy scores. The two paired samples t-tests were chosen for statistical analysis because each participant was assessed on two occasions on each measure (Field, 2005). Results indicated significant mean differences between pre- and post-test self-efficacy scores for the experimental group ( $t [24] = -13.10, p < .001$ ), suggesting that the null hypothesis be rejected for the experimental group. In contrast, results indicated no significant mean differences between pre- and post-test efficacy scores for the control group ( $p > 0.05$ ), suggesting that the null hypothesis was not rejected. Overall, results suggested that the experimental group's self-efficacy scores improved significantly from pre- to post-test, while the control group's scores did not.

**Table 7: Mean and Standard Deviations of Paired Samples T-Tests on Self-Efficacy Scores**

Group	Time	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>r</i>
Experimental	Pre	34.56	(10.92)	13.10	.677	
Control	Pre	37.05	(9.68)			
Experimental	Post	46.33	(15.34)	-.42	.000***	.90
Control	Post	49.11	(12.41)			

Note: \*\*\* $p < .001$ .

To evaluate the second hypothesis, a MANOVA statistic (see Table 8) was conducted to assess whether there were any significant mean differences in self-efficacy scores between the experimental and control groups at post-test. Two groups (experimental and control) on more than two dependent variables were compared; therefore, MANOVA analysis was considered as an appropriate statistical technique for this study (Field, 2005). Results indicated that the two groups differed significantly at post-test on self-efficacy scores ( $F [1, 48] = 142.28, p < .001$ ), suggesting that the null hypothesis was rejected.

**Table 8: Mean and Standard Deviations of MANOVA on Post-Test Self-Efficacy Scores**

Group	M	SD	F	p	$\eta^2$
Experimental	80.04	(6.37)	142.28	.000***	.07
Control	59.32	(5.90)			

Note: \*\*\* $p < .001$ .

## Research Question Two

Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher interpersonal skills scores, as compared to physicians who do not participate in the workshop? It was hypothesized that (1) there would be no statistically significant mean difference in interpersonal skills scores within oncologists, in their respective experimental and control groups, pre- and post-training; and (2) there

would be no statistically significant mean difference in TI, TC, and TA interpersonal skills scores between oncologists in the experimental and control groups at post-test.

To evaluate the first hypothesis, two paired samples t-tests (see Table 9) were conducted to assess whether any significant changes occurred within the experimental and control groups from pre- to post-test interpersonal skills (i.e., TI, TC, TA) scores. Results indicated no significant mean differences between pre- and post-test interpersonal skills scores for both the experimental and control groups (all  $p$ 's > 0.05), suggesting that the null hypothesis failed to be rejected. Overall, results suggested that the experimental and control group's interpersonal skills scores did not change significantly from pre- to post-test.

**Table 9: Mean and Standard Deviations of Paired Samples T-Tests on Interpersonal Skills Scores**

Group	Variables	Time	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Experimental	TI	Pre	8.52	(4.19)	0.71	.94
	TI	Post	8.48	(4.09)		
Experimental	TC	Pre	8.44	(2.33)	1.17	.25
	TC	Post	7.96	(2.49)		
Experimental	TA	Pre	12.28	(3.20)	0.42	.68
	TA	Post	12.00	(4.27)		
Control	TI	Pre	8.04	(4.17)	0.17	.88
	TI	Post	8.00	(4.35)		
Control	TC	Pre	8.44	(4.01)	0.33	.75
	TC	Post	8.40	(3.83)		
Control	TA	Pre	13.32	(4.34)	1.45	.16
	TA	Post	13.08	(4.23)		

To evaluate the second hypothesis, a MANOVA statistic (see Table 10) was conducted to assess whether there were any significant mean differences in interpersonal skills (i.e., TI, TC, TA) scores between the experimental and control groups at post-test. Results indicated that the two groups did not differ significantly at post-test on TI ( $F [1, 48] = 0.16, p > 0.05$ ), TC ( $F [1, 48] = 0.23, p > .05$ ), and TA ( $F [1, 48] = 0.81, p > .05$ ) interpersonal skills scores, suggesting that the null hypothesis failed to be rejected.

**Table 10: Mean and Standard Deviations of MANOVA on Post-Test Interpersonal Skills Scores**

Group	Variable	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Experimental Control	TI	8.48 8.00	(4.10) (4.35)	.16	.69
Experimental Control	TC	7.96 8.40	(2.49) (3.83)	.23	.63
Experimental Control	TA	12.00 13.08	(4.27) (4.23)	.81	.37

### Research Question Three

Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher empathy scores, as compared to physicians who do not participate in the workshop? It was hypothesized that (1) there would be no statistically significant mean difference in empathy scores within oncologists, in their respective experimental and control groups, pre- and post-training; and (2) there would be no

statistically significant mean difference in empathy scores between oncologists in the experimental and control groups at post-test.

To evaluate the first hypothesis, two paired samples t-tests (see Table 11) were conducted to assess whether any significant changes occurred within the experimental and control groups from pre- to post-test empathy scores. Results indicated significant mean differences between pre- and post-test empathy scores for the experimental group ( $t[24] = -7.35, p < .001$ ), suggesting that the null hypothesis is rejected for the experimental group. In contrast, results indicated no significant mean differences between pre- and post-test empathy scores for the control group ( $p > 0.05$ ), suggesting that the null hypothesis fails to be rejected. Overall, results suggest that the experimental group's empathy scores improved significantly from pre- to post-test, while the control group's empathy scores did not.

**Table 11: Mean and Standard Deviations of Paired Samples T-Tests on Empathy Scores**

Group	Time	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>r</i>
Experimental	Pre	91.44	(18.04)	-7.35	.000***	.78
	Post	111.44	(16.04)			
Control	Pre	98.72	(11.46)	2.23	.16	
	Post	97.88	(11.33)			

Note: \*\*\* $p < .001$ .

To assess the second hypothesis, a MANOVA statistic (see Table 12) was conducted to assess whether there were any significant mean differences in empathy scores between the experimental and control groups at post-test. Results indicated that the

two groups differed significantly at post-test on empathy scores ( $F[1, 48] = 11.91, p < .001$ ), suggesting that the null hypothesis was rejected.

**Table 12: Mean and Standard Deviations of MANOVA on Post-Test Empathy Scores**

Group	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	$\eta^2$
Experimental	111.44	(16.04)	11.91	.000***	.19
Control	97.88	(11.33)			

Note: \*\*\* $p < .001$ .

### Research Question Four

Do oncologists in Uzbekistan who participate in a training workshop demonstrate statistically significant higher psychosocial belief (PBS) scores, as compared to physicians who do not participate in the workshop? It was hypothesized that (1) there would be no statistically significant mean difference in psychosocial belief (PBS) scores within oncologists, in their respective experimental and control groups, pre- and post-training; and (2) there would be no statistically significant mean difference in PBS scores between oncologists in the experimental and control groups at post-test.

To evaluate the first hypothesis, two paired samples t-tests (see Table 13) were conducted to assess whether any significant changes occurred within the experimental and control groups from pre- to post-test PBS scores. Results indicated significant mean differences between pre- and post-test PBS for the experimental group ( $t [24] = 9.14, p < .001$ ), suggesting that the null hypothesis was rejected for the experimental group. In contrast, results indicated no significant mean differences between pre- and post-test PBS

scores for the control group ( $p > 0.05$ ), suggesting that the null hypothesis failed to be rejected. Overall, results suggested that the experimental group's PBS scores improved significantly from pre- to post-test, while the control group's PBS scores did not.

**Table 13: Mean and Standard Deviations of Paired Samples T-Tests on PBS Scores**

Group	Time	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>r</i>
Experimental	Pre	91.52	(14.69)	9.14	.000***	.80
	Post	76.00	(12.89)			
Control	Pre	83.48	(12.73)	-0.27	.80	
	Post	83.56	(12.43)			

Note: \*\*\* $p < .001$ .

To evaluate the second hypothesis, a MANOVA statistic (see Table 14) was conducted to assess whether there were any significant mean differences in PBS scores between the experimental and control groups at post-test. Results indicated that the two groups differed significantly at post-test on PBS scores ( $F [1, 48] = 4.46, p < 0.05$ ), suggesting that the null hypothesis is rejected.

**Table 14: Mean and Standard Deviations of MANOVA on Post-Test PBS Scores**

Group	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	$\eta^2$
Experimental	76.00	(12.89)	4.46	.04*	.08
Control	83.56	(12.43)			

Note: \* $p < .05$ .



Two paired sample t-tests were conducted to determine whether any significant changes occurred within the experimental group from post- to follow-up test self-efficacy, interpersonal skills, empathy, and psychosocial belief scores. Results indicated that there were no statistically significant mean differences ( $p > 0.05$ ) between participants' post-tests scores and follow-up, which suggests that two weeks after the training workshop participants maintained the level of change that occurred immediately after the training.

### **Research Question Five**

Is there a statistically significant relationship between oncologists' age, gender, years of experience, and specialization and oncologists' self-efficacy, interpersonal skills, empathy, and psychosocial belief scores? It was hypothesized that (1) there would be no statistically significant relationship between participants' age and years of experience and their self-efficacy, interpersonal skills, empathy, and psychosocial belief scores at both pre-test and post-test; and (2) there would be no statistically significant relationship between participants' gender and specialization and their self-efficacy, interpersonal skills, empathy, and psychosocial belief scores at both pre-test and post-test.

To evaluate the first hypothesis, Pearson correlations (see Tables 15 and 16) were conducted to assess whether there was significant relationship between participants' age and years of experience and their self-efficacy, interpersonal skills, empathy, and psychosocial belief test scores at both pre-test and post-test. The Pearson correlation assesses the degree that variables (participants' age, years of experience, and test measures) are linearly related in the study sample (Field, 2005). Results indicated no statistically significant relationship between participants' age and years of experience and

their scores on the variables of interest in both pre-test and post-test conditions (all  $p$ 's > .05).

**Table 15: Pearson Correlations for Age, Years of Experience, and Variables of Interest at Pre-Test**

	SE	TI	TC	TA	Emp	PBS
Age	.067	-.173	-.034	-.110	-.001	.036
Yrs of Experience	.049	-.073	.066	-.103	-.008	.012

*Note:* SE = Self-efficacy scores; TI = Total Inclusion scores; TC = Total Control scores; TA = Total Affection scores; Emp = Empathy scores; PBS = Psychosocial beliefs scores.

**Table 16: Pearson Correlations for Age, Years of Experience, and Variables of Interest at Post-Test**

	SE	TI	TC	TA	Emp	PBS
Age	.126	-.227	-.014	-.134	.113	-.041
Yrs of Experience	.063	-.122	.051	-.135	.040	-.057

*Note:* SE = Self-efficacy scores; TI = Total Inclusion scores; TC = Total Control scores; TA = Total Affection scores; Emp = Empathy scores; PBS = Psychosocial beliefs scores.

To evaluate the second hypothesis, a MANOVA (see Table 17) statistic was conducted to assess whether there was any significant relationship between participants' gender and specialization and their self-efficacy, interpersonal skills, empathy, and psychosocial belief test scores at both pre-test and post-test. Gender and specialization was a categorical data, therefore MANOVA was an appropriate statistical approach to investigate the correlations between independent and dependent variables (Field, 2005). Results indicated a statistically significant difference between gender and the variables of interest ( $F [6, 36] = 2.98, p < .05$ ) at pre-test. However, no other significant differences emerged between participants' gender and their scores on the variables of interest at post-test ( $p > .05$ ). Similarly, no significant differences emerged between participants'

specialization and their scores on the variables of interest at both pre- and post-test conditions (all  $p$ 's > .05).

**Table 17: Multivariate Analysis of Variance (MANOVA) for Pre- and Post-Test Variables of Interest**

Source	Time	$F$	$p$
Gender	Pre	2.98	.018*
Specialization	Pre	0.63	.910
Gender	Post	1.09	.385
Specialization	Post	.67	.879

Note: \* $p < .05$ .

A MANOVA statistical analysis regarding the relationship between gender, specialization, and variables of interest were based on the entire sample ( $N=50$ ) of participants. Additional t-tests were conducted to gain more insight into the nature of the relationship between participant's gender and test scores. These results indicated that for the experimental group only there was a statistically significant mean differences between male and female pre-PBS ( $t [23] = 4.46, p < 0.05$ ) and post-PBS scores ( $t [23] = 2.54, p < 0.05$ ). Male participants showed significantly higher pre-PBS scores ( $M = 98.88, SD = 7.71$ ) and post-PBS scores ( $M = 80.44, SD = 8.82$ ) than female participants (pre-PBS:  $M = 78.44, SD = 15.33$ ; post-PBS:  $M = 68.11, SD = 15.58$ ). Higher PBS scores is an indication of the physicians' lower psychosocial orientation. There were no significant differences found between genders and pre-PBS and post-PBS test scores for the control group.

## **CHAPTER FIVE: DISCUSSION**

This chapter discusses and summarizes the effects of a one-day, eight-hour training workshop, “Delivering Unfavorable News to Patients Diagnosed with Cancer,” on interpersonal skills, attitudes, and beliefs of oncologists in Uzbekistan. The discussion consists of the following sections: (a) a brief summary of the study, (b) review of the results, (c) discussion of the results, (d) limitations and suggestions for additional research, (e) implication for the medical and counseling field, and (f) the conclusion.

### **Brief Summary of the Study**

Effective physician-patient communication is primary to the success of the medical consultation (Silverman et al., 2005). Successful physician-patient interaction encourages a collaborative understanding between patient and doctor. Clear and collaborative understanding and interaction, rather than one-way, physician-led communication, has been found to have a significant impact in difficult circumstances such as breaking bad news to patients diagnosed with cancer and their families (Thorne et al., 2005). The topic of delivering bad news to patients diagnosed with cancer is an issue that many medical professionals find to be challenging (Back et al., 2007; Baile et al., 1999; Buckman, 1992). The psychological outcome of breaking bad news in a rushed and insensitive manner can have negative and long-lasting consequences for patients and their family. Medical literature on this topic supports physicians’ deficiencies in this area, such as faults of common courtesy, failures in listening or in acknowledging the patient’s

needs, and inability to present the information in a simple non-medical language (Arora, 2003; Back et al., 2003; Baile et al., 2000; DiLalla et al., 2004; Finset et al., 2003). The current attention of the medical community to the topic breaking bad news in oncology is reflected in a number of articles in mainstream medical education (Shapiro et al., 2004; Spencer, 2004; Stepien & Baernstein, 2006; Thorne et al., 2005; Ungar et al., 2002), which is an indication of the importance of this issue for clinicians in cancer care. For example, the study of sixty breast cancer survivors' long-term psychological adjustment experiences revealed significant correlation between women's symptoms of distress and physician's interpersonal skills (Mager & Andrykowski, 2002). More specifically, women who perceived their physician as emotionally supportive had fewer depressive and cancer-related Posttraumatic Stress Disorder (PTSD) symptoms. Mager and Andrykowski concluded that the level of patients' psychological distress during delivering bad news interview and subsequent consultations might be decreased by improving physicians' communication skills.

The topic of how to break bad news to patients with cancer is getting the attention of medical professionals in many countries, including the former Soviet Union (FSU) republics (Blinov & Hanson, 1997; Barmina, 2004; Chjan, 2003; Demin, 2001; Magaznik, 2006). The limited literature on communication skills in oncology in the FSU republics indicates that a doctor's communication style in providing care to his or her patients is perceived as significantly physician-oriented rather than patient-oriented (Blinov & Hanson; Demin, 2001; Yarovinski, 2006). This type of relationship generally leads to patients being much less forthcoming and open regarding their own feelings about being diagnosed with cancer, which may exacerbate the communication problem

between the physician and patient (Demin, 2001; Yarovinski, 2006). These results may be directly attributed to the fact that the Soviet medical education system, as well as post-graduate medical education, places little to no emphasis on physician-patient communication training. Therefore, it was the purpose of this study to conduct and investigate the effectiveness of the training program “Delivering Unfavorable News to Patients Diagnosed with Cancer” by utilizing SPIKES protocol and delivered to oncologists in Uzbekistan, one of the FSU republics, dealing with how to communicate bad news to cancer-diagnosed patients.

A quasi-experimental study was designed to determine the degree of difference between the physicians’ interpersonal skills, self-efficacy, psychosocial belief, and empathy scores before and after attending the training workshop, and as compared to the scores of a group of physicians who did not attend the training (control group). The independent variable in this study was an intervention/training workshop and dependent variables were participants’ test scores on Self-Efficacy, Interpersonal Skills (Total Inclusion [TI], Total Control [TC], and Total Affection [TA]), Jefferson Scale of Physician Empathy (JSPE), and Psychosocial Belief (PBS) instruments. A total of 25 oncologists (experimental group) from the National Oncology Center of Uzbekistan attended a one-day, 8-hour training session. The control group consisted of 25 physicians, who did not attend the training session. Both the experimental and control group were tested before the training and immediately after the training. Additionally, the experimental group was tested 2 weeks after the training workshop. Of the 50 participants, 26 were male (52%) and 24 were female (48%). Lenzi and associates (2005)

also conducted a study utilizing the SPIKES protocol. The demographical data revealed that number of female participants was higher (59%) compared to present study.

Forty-six percent of participants in present study represented the general oncology field, surgeons 12%, radiologists 12%, OBGYN 12%, and 20% specialized in other fields such as hematology, pediatrics, and dermatology. The age of participants ranged from 26 to 61 ( $M = 38.4$ ,  $SD = 9.1$ ), which appears to be higher compares to the US sample ( $M = 33.4$ ,  $SD = 4.7$ ) in the study conducted by Lenzi and colleagues (2005). Years of participants' experience in the field of oncology ranged from 3 to 37 ( $M = 11.8$ ,  $SD = 8.6$ ), longer than study by Lenzi and colleagues ( $M = 3.4$ ,  $SD = 3.5$ ). The present study participant demographics were similar to a study conducted in Spain (Travado et al., 2005). For example, oncologists' average age in Spain was 37.58 with average years of practice of 10.95.

Two paired sample t-tests were conducted to assess whether any significant changes occurred within the experimental and control groups from pre- to post-test on self-efficacy, interpersonal skills, empathy, and psychosocial belief scores. A MANOVA statistical analysis was conducted to assess any significant differences in test scores between the experimental and control groups at post-test. A bivariate correlations analysis and MANOVA statistics were used to assess relationships between physicians' demographical data and their test scores.

## **Review of Results**

Total scores for dependent variables were calculated prior to entering the data into Statistical Package for Social Science (SPSS) software package for Windows version

14.0 (2005). A frequency analysis was conducted in order to assess the assumptions of normally distributed data. Results of this analysis revealed that the data was normally distributed. There were only three variables (pre-SPIKES, post-PBS, and follow-up Total Affection [TA]) that indicate a slight deviation from normal distribution. However, due to robustness of the t-tests and MANOVA, Drew and Hardman (1985) concluded that even a moderate violation of the normality of group variance is mediated. Therefore, the statistical procedures for exploring research questions in this study were parametric tests (MANOVA, t-tests) based on the normal distribution.

Results revealed significant mean differences in self-efficacy, empathy, and PBS scores within the experimental group, but not within the control group, from pre-test to post-test. Additionally, significant mean differences emerged between the experimental and control groups on self-efficacy, empathy, and PBS post-test scores. Participants in experimental group scored higher than in control group.

In contrast, there were no significant mean differences within the experimental and control groups on pre- and post-test interpersonal skills scores. Moreover, no significant mean differences were found between the experimental and control groups on interpersonal skills post-test scores.

Finally, results revealed a significant relationship between gender and the variables of interest at pre-test for entire sample. Additional statistical analysis suggested that there was a significant mean difference between male and female pre- and post-PBS scores for experimental group only, with men scoring significantly higher (an indication of lower psychosocial orientation) than women. No other significant relationships were



found between gender and the variables of interest at post-test, nor between age, years of experience, and specialization and the variables of interest at both pre-test and post-test.

## **Discussion of the Results**

This was the first study in a former Soviet Union (FSU) territory conducted utilizing a communication skills training workshop for oncologists. The results of the preliminary exploratory study conducted in the same facility (described in Chapter One) revealed that none of the physicians had participated previously in this type of training. During the exploratory study, many of the physicians expressed their interest to participate in this type of workshop. In the FSU republics, the subject of physician-patient communication in oncology has been limited to investigation of both patients' and physicians' attitudes toward truth-telling, and patients' and families' desire for information during interaction with a physician (Blinov & Hanson, 1997; Barmina, 2004; Yarovinski, 2006; Yudin & Yasnaya, 1994). For example, Blinov and Hanson (1997) reported that information gathered from 280 cancer patients revealed that the majority (90%) of participants wanted to know their diagnosis fully and preferred detailed information from the physician about their illness. Blinov and Hanson also emphasized the importance of a sensitive and gradual approach to the process of delivering of bad news to patients with cancer. However, there was no indication of "how" this should be approached by the physician.

In contrast to Western laws, where the disclosure of any diagnosis, including cancer, by a physician is a law, in Uzbekistan the law addresses only a patient's right to

be informed about his or her diagnosis. Physicians are not obligated to reveal the diagnosis unless the patient requests it. Despite existence of this regulation, it seems neither patients nor most of physicians are willing to follow these rules (Chjan, 2003). This situation is not unique to Uzbekistan. In other countries such as Japan, China, Greece, Italy, and in Southern Europe, patients diagnosed with cancer either do not ask questions about cancer or are simply not informed of such a diagnosis (Holland & Marchini, 1998; Grassi et al., 2005; Liu, 2005; Moore & Spiegel, 2004; Mustakidou & Parpa, 2005; Ozdogan & Samur, 2004; Salimbene, 2000; Takayama et al., 2001). The results of the exploratory study and personal discussions with physicians in Uzbekistan conducted by this researcher revealed that there was a lack of knowledge and practical experience among oncologists as to: (a) how to address patients' emotions, (b) how to be sensitive and stay composed at the same time, and (c) how to deal with the physicians' personal reactions to patients' conditions. As Buckman (1992) suggested, the clear rules and regulations may assist physicians in the process of informing patients, but it seems that "the patient's rights do not solve all the problems of breaking bad news" (p. 11). Thus, the manner in which the truth is shared may be an even more significant predictor of the overall outcome for the patient than the simple fact that the truth has been told. Therefore, it was the purpose of this study to conduct the training in one of the FSU republics and to assess the effectiveness of training in delivering bad news to patients with cancer. The results of current study showed that improved self-efficacy skills, empathy skills, and psychosocial beliefs toward communication approaches in cancer care can be achieved through a one-day training workshop that integrates didactic teaching, discussions, and role-playing.

## Discussion of Results for Question One

The first question in this study investigated whether oncologists who participate in a training workshop demonstrated statistically significant higher self-efficacy scores, as compared to physicians who do not participate in the workshop. It was hypothesized that (1) there would be no statistically significant difference in self-efficacy scores within oncologists, in their respective experimental and control groups, pre- and post-training; and (2) there would be no statistically significant difference in self-efficacy scores between oncologists in the experimental and control groups at post-test.

Oncologists' self-efficacy skills scores, as measured by a SPIKES protocol Self-Efficacy Scale, increased significantly from pre-test to post-test conditions. These findings align with results of numerous studies conducted by the ONCOTALK team, the authors of the SPIKES protocol (Back et al., 2004, 2007; Baile et al., 1999; Baile et al., 2000; Grassi et al., 2005). Despite the research on teaching methods and assessment of the effectiveness of communication skills workshops for oncologists conducted by the ONCOTALK team, researchers advised the reader that the training sessions they provide were not controlled studies and the results should be interpreted with caution (Back et al., 2007). This was a major difference between the ONCOTALK studies and the current study. By utilizing the pre-test/post-test randomized control group design in the current study, this researcher strived to minimize threats to internal validity, thereby strengthening the study (Campbell & Stanley, 1966; Patten, 2002). The review of literature regarding physician-patient communication revealed that the number of studies utilizing a randomized controlled trial was limited. Moreover, the findings of these studies had conflicting results. For example, findings of a randomized controlled five-day

training program study involving 50 primary care physicians showed an absence of any training effect on participants (Levinson & Roter, 1993). In contrast, a 10-hour communication skills program for 69 primary care physicians, surgeons, and nurse practitioners conducted in Portland, Oregon showed statistically significant improvements in clinicians' self-efficacy skills, but did not show improvements in patient's satisfaction with physician's performance ratings (Brown et al., 1999). Another three-day communication skills training workshop for 61 UK clinical nurse specialists showed significant positive changes in nurses' communication skills competence (Heaven et al., 2006).

Despite the variety in educational methods, duration, and research design of training workshops and programs regarding communications skills in oncology, similar positive findings regarding physicians' self-efficacy measurements were achieved in other studies. For example, a training seminar, consisting of three modules (5 days total) for 155 oncologists from Nordic countries, significantly improved participants' self-confidence scores in communication skills with severely ill cancer patients (Finset et al., 2003). More specifically, Finset and colleagues reported participants to have become "better listeners," to use more open-ended questions, and to be more sensitive to the process of delivering unpleasant news after the training course. There was an obvious difference in a length of above-mentioned study and the current study, despite similar positive outcomes. This occurrence reflects existing nonclarity in the medical literature regarding the optimal level of training for oncologists. A comparison of five- versus three-day training programs (Maguire et al., 1996) revealed no advantage due to participants' saturation of information by the end of day 3. In contrast, Fallowfield and

colleagues (1998) reported that a three-day workshop demonstrated and maintained improvements in participants' communication skills over those physicians who attended a one-and-one-half-day course.

Many training programs on delivering unpleasant news to cancer patients have been reported in the medical literature (Back et al., 2004, 2007; Baile et al., 1999; Baile et al., 2000; Fallowfield et al., 1998; Lenzi et al., 2005; Ungar et al., 2002). The prevalence of these courses may suggest that basic communication skills of health care providers in other areas do not need educators' attention. As Fallowfield and Jenkins (2004) suggested, delivering unpleasant news to patients is only one element of interacting "humanly" with patients. Effective training workshop regarding bad news must aim at improving physician-patient communication in general. The SPIKES protocol as a part of ONCOTALK educational program, is one of a few training programs that offer a wide spectrum of physician-patient interaction skills (Back et al., 2007; Baile et al., 1999; 2000).

By utilizing a structured protocol in this study, participants were able to gain knowledge and confidence in verbal and non-verbal communication skills (cognitive component), rehearse new skills required through the role-play experiential activities (behavioral component), and, finally, explore and discuss the feelings that the role-play evoked with peers (affective component). Unfortunately, due to logistical and time constraints, the experiential activities in the current study did not include audio- or video-taping of the role-play performances of participants for assessment purposes. Furthermore, the experiential part of the training did not provide practicing opportunities with either simulated or real patients. As Hulsman and colleagues (1999) suggested,

behavioral observations via audio- or video-taping with real or standardized patients (individuals who are trained to “perform” a role of a patient for evaluation and research purposes) add many advantages to the study. For example, an observation of physicians’ communication with real patients provides a realistic picture of the clinicians’ performance, whereas interviews with simulated patients are more appropriate for measuring competence (Kurtz et al., 2005). Additionally, patient-outcome measures, such as satisfaction questionnaires or rating scales related to the physician behavior or more distal measures concerning patients’ general health, are also used for measuring training programs effect (Brown et al., 1999; Maguire et al., 1996; Roter et al., 1990; Smith et al., 1998). The assessment of patient-outcome aspects strengthens the case of usefulness of the communication skills training for clinicians (Maguire, 1999). Many researchers agree, however, that these complex studies that involve pre- and post-training audio- or video-recordings of physician-patient interactions, followed by coding and rating of specific clinician’s behaviors, are time-consuming and require a team effort of professionals, as well as requiring financial funding (Fallowfield & Jenkins, 2004; Lenzi et al., 2005; Razavi & Delvaux, 1997).

The effectiveness of the communication training workshop for oncologists in this study was measured solely by utilizing self-rating questionnaires. Sensitivity for response bias of the oncologists’ self-rating was recognized by this researcher; therefore, the findings in this study were analyzed and conclusions were made with caution. As Hulsman and colleagues (1999) and Fallowfield and Jenkins (2004) concluded, post-training improvements on self-reported questionnaires may not only be the result of a training effect, but may also be an indication of participants’ desire to show that the

offered training workshop was useful. These authors also suggested that improvements in scores by using self-report instruments may not provide evidence of effective transfer of learned skills into the clinical practice. The ONCOTALK developers recognized limitations of the utilization of self-report instruments and are making efforts to develop strategies to evaluate the effectiveness of the program by measuring patient outcomes (Back et al., 2007). Other researchers have illustrated not only positive improvements on self-reported measures for physicians, but also favorable patient outcomes by utilizing the SPIKES protocol in their studies (Garg & Buckman, 1997; Lenzi et al., 2005). Garg and colleagues (1997), for example, found that medical students can show improvements in communication skills as evidenced by patients' positive responses. In contrast, a 10-hour training program "Thriving in a Busy Practice: Physician-Patient Communication" that involved 69 physicians did not show improvements in general patient satisfaction (Brown et al., 1999). Limitations of abovementioned study, including the fact that the authors relied on an instrument of undetermined validity and the participants represented a diverse array of clinicians, including physicians, physician assistants, and nurses, may have made it more difficult to observe a training workshop effect.

## **Discussion of Results for Question Two**

The second question in this study addressed whether oncologists who participate in a training workshop demonstrate statistically significant higher interpersonal skills scores, as compared to physicians who do not participate in the workshop. It was hypothesized that (1) there would be no statistically significant difference in interpersonal skills scores (i.e., Total Inclusion [TI], Total Control [TC], Total Affection [TA]) within oncologists, in their respective experimental and control groups, pre- and post-training;

and (2) there would be no statistically significant difference in TI, TC, and TA interpersonal skills scores between oncologists in the experimental and control groups at post-test.

In contrast to significant improvements in participants' self-efficacy scores, the FIRO-B subscales scores in this study did not change significantly from pre- to post-training conditions. Moreover, no significant differences were found between the experimental and control groups on interpersonal skills post-test scores. The assumption may be made that 8-hour training workshop in this study did not produce changes in the FIRO-B subscale scores. A longer, nine-week training program in developing helping skills for 99 nurses in Melbourne, Australia, however, demonstrated significant changes of FIRO-B scores from pre- to post-training (Kenneth, 2001). Similar results were reported by Fox and associates (1991). A five-day basic counseling skills training program was conducted for juvenile court workers in order to improve interpersonal communication. Significant differences were found on Total Inclusion scores from pre- to post-training. It appears that the length of the communication skills training may be an important factor for promoting changes to FIRO-B instrument. In addition, as Schutz (1994) suggested, three interpersonal need areas (inclusion, control, and affection) reflect the individual's basic dimensions of self-esteem, which is a relatively invariant self-concept over time.

The purpose of developing the FIRO-B was to construct a measure of how an individual acts in interpersonal situations (Schutz, 1994). Therefore, the FIRO-B instrument was administered to the oncologists in this study in order to examine the capacity of participants to establish and maintain interpersonal bonds that are essential in



the physician-patient relationship. According to Hammer and Schnell (2000), total need scores, one each for Inclusion, Control, and Affection, range from 0 to 18. The results of analyses indicated that oncologists' scores on all subscales (TI, TC, and TA) for the experimental and control groups were in a medium range (6-12), e.g., appropriately balanced (an indication of absence of dysfunctional manifestations), except TA scores for the control group, which indicated slightly higher mean scores (13.08-13.32). The one possible explanation for these findings is that the control group was represented by a higher percentage of women (72%) compared to the experimental group (28%). Hammer and Schnell (2000) reported the results of FIRO-B test of a national sample of 3,000 adults collected in 1997 and indicated that, on average, women had significantly higher mean scores on Total Affection. In this study there were no scores found either in the extremely low range (0-5) or the extremely high range (13-18). According to Gluck (1990), scores in the lower or higher ranges are indications of behaviors with a compulsive element.

### **Discussion of Results for Question Three**

The third question in this study addressed whether oncologists who participate in a training workshop demonstrate statistically significant higher empathy scores, as compared to physicians who do not participate in the workshop. It was hypothesized that (1) there would be no statistically significant difference in empathy scores within oncologists, in their respective experimental and control groups, pre- and post-training; and (2) there would be no statistically significant difference in empathy scores between oncologists in the experimental and control groups at post-test.

The results suggested that there was a significant improvement in participants' empathy scores from pre-training to post-training conditions. Banja (2006) emphasized the importance of empathy skills for physicians and suggested that an empathic goal for a clinician is to concentrate on caring and demonstrating politeness toward the patient. Banja (2006) continued that the combination of medications and interventions with the use of an empathic physician-patient relationship can enhance the therapeutic potential for the patient. Some studies that provided educational programs also reported improvement in empathy skills. For example, a study of 130 medical students in Israel showed that a course in psychiatry increased their scores on Mehrabian and Epstein's Emotional Empathy Scale (Elizur & Rosenheim, 1992). Increased scores on Carkhuff's Empathic Understanding in Interpersonal Process Scale were observed in 97 medical students at the University of Missouri School of Medicine after attending empathy training (Feighny et al., 1998). Finally, a comprehensive review of articles on medical school education programs with an emphasis on empathic skills conducted by Stepien and Baernstein (2006) revealed that many of the reviewed articles reported an improvement of empathy. However, the authors cautioned the reader to interpret the results of these studies in the light of several limitations, including lack of adequate research design, variation of instruments, and lack of agreement about the conceptualization and definition of empathy.

The average empathy scores for the entire sample ( $N = 50$ ) in present study were lower both at pre-test ( $M = 95.08$ ) and post-test ( $M = 104.66$ ), compared to the normative sample ( $M = 115$ ; Hojat, 2006). These results might be an indication of lower "humanistic" skills in physicians from Uzbekistan. However, the interpretation of these

findings should be made cautiously due to two reasons. First, the training was conducted and evaluated in a culture different from US where norms for the empathy scale were developed. Although the researcher followed appropriate steps, such as using professional translators, back translation, and pilot-testing the translated instruments, in the process of adapting measures for a new target population, the differences in culture and in educational medical institutions may have played a role in differences in findings (Geisinger, 1994). Geisinger suggested that, in general, almost all translated instruments need to be re-normed according to new cultural conditions. Second, the post-test results on the empathy scale in this study showed that the experimental group significantly improved ( $M = 111.44$ ) and suggested that the participation in the training workshop positively affected participants' scores.

In spite of adequate validity values (Cronbach's alpha) of the translated version of all instruments in this study (presented in Chapter Four), the researcher cautiously interpreted the findings. All instruments in this study were translated into Russian language for the first time and Russian translation version norms were not available. Therefore, the future replication of this study might be valuable for the further validation and strengthening of the instruments.

### **Discussion of Results for Question Four**

The fourth question in this study addressed whether oncologists who participate in a training workshop demonstrate statistically significant higher psychosocial belief (PBS) scores, as compared to physicians who do not participate in the workshop. It was hypothesized that (1) there would be no statistically significant difference in psychosocial belief (PBS) scores within oncologists, in their respective experimental and control

groups, pre- and post-training; and (2) there would be no statistically significant difference in PBS scores between oncologists in the experimental and control groups at post-test.

The results of this study showed that participants' attitudes toward a psychological approach to patients with cancer as measured by the Physician Belief Scale significantly improved after the training workshop. Pre-training scores on the PBS suggested that oncologists were not confident about the importance of the psychosocial aspects in cancer care and they still supported the traditional biomedical model in health care. These findings appear to be different from those reported by Ashworth et al. (1984) for their norming sample ( $N = 180$ ), which showed a higher psychosocial orientation in medical professions such as psychiatry and internal medicine in the United States. This can be an indication of specific difficulties that oncologists in Uzbekistan experienced with considering psychological factors alongside the physical aspects of cancer patients' treatment. However, post-training scores in the current study showed that the participation in the training workshop changed physicians' beliefs and attitudes toward psychosocial issues in medicine, which emphasizes a "whole" person treatment approach. Similar results were described by McLennan and associates (1999) and Jenkins and Fallowfield (2002). Jenkins and Fallowfield reported that 48 physicians working within oncology in the United Kingdom who attended a three-day residential communication skills course significantly improved attitudes and beliefs toward psychosocial aspects in cancer care. These improvements were observed by analyzing video-taped recordings of physicians' interactions with patients. The authors concluded that improved communication skills and positive attitudes toward psychosocial issues will increase the

likelihood that the learned skills will be used in the clinical setting. McLennan and associates (1999) found that 405 pediatric clinicians also considered themselves more psychosocially oriented after participating in the six-week family medicine clerkship with the emphasis on physician-patient interaction.

### **Discussion of Results for Question Five**

The fifth question in this study investigated whether there is a statistically significant relationship between oncologists' age, gender, years of experience, and specialization and oncologists' self-efficacy, interpersonal skills, empathy, and psychosocial belief scores. It was hypothesized that (1) there would be no statistically significant relationship between participants' age and years of experience and their self-efficacy, interpersonal skills, empathy, and psychosocial belief scores at both pre-test and post-test; and (2) there would be no statistically significant relationship between participants' gender and specialization and their self-efficacy, interpersonal skills, empathy, and psychosocial belief scores at both pre-test and post-test.

The results of correlation analysis for the entire sample ( $N = 50$ ) in the present study showed a statistically significant relationship between participants' gender and self-efficacy and psychosocial beliefs measures at pre-test in the experimental group. The results of further statistical analysis to explore the nature of this relationship showed that there were no statistically significant mean differences in self-efficacy scores between genders for neither experimental nor for the control group at pre-test. Hence, these findings suggest that in spite of a significant relationship between gender and pre-self-efficacy scores for the entire sample, there were no significant differences found for the separate experimental and control samples. It is possible that when the sample size was

decreased by half, it was more difficult to find significance due to the small-size effect (Field, 2005). In contrast, the additional analysis that was conducted to investigate the relationship between genders and PBS scores showed that the experimental group male participants showed significantly higher pre-PBS scores ( $M = 98.88$ ,  $SD = 7.71$ ) and post-PBS scores ( $M = 80.44$ ,  $SD = 8.82$ ) than the female participants (pre-PBS:  $M = 78.44$ ,  $SD = 15.33$ ; post-PBS:  $M = 68.11$ ,  $SD = 15.58$ ). Higher scores on the PBS instrument is an indication of participants' lower psychosocial orientation. These findings suggest that, in spite the overall significant gain (lower scores) on the PBS instrument for the experimental group after the training, the experimental group male participants continued to demonstrate higher PBS scores. This fact may also suggest that the training intervention was not as effective for male as for female participants.

Gender differences on the PBS instrument, with females demonstrating greater psychosocial orientation, were reported in some studies (Law & Britten, 1995; Markham, 1997). The psychosocial beliefs of 378 fourth-year medical students were investigated by Markham (1997). The findings showed not only differences in gender with female students' showing more positive attitudes toward psychosocial issues in patient care, but also in medical students' future specialization with students choosing family medicine demonstrating greater psychosocial orientation. In contrast, Jenkins & Fallowfield (2002) did not find a significant relationship between gender and attitudes toward psychosocial issues of 93 physicians who participated in a three-day residential communication skills course. Similar findings were reported by Jackson & Kroenke (1999). PBS scores of 38 clinicians did not correlate with physicians' gender, age, or ethnicity. The contradictory

results regarding PBS measurement and physicians' gender suggests a need for future research investigations in this specific area.

In the present study no other significant relationships emerged between participants' gender and specialization and their scores on the variables of interest at post-test ( $p > .05$ ). Likewise, neither physician's age nor years of experience in oncology were related to the psychological measures at both pre-test and post-test conditions.

### **Additional Findings**

At the two-week follow-up assessment of participants there were no significant differences between post-training measures and the follow-up, which can be evidence of maintaining the post-training changes in clinical practice. Butler and associates (2005) emphasized the importance of post-training assessments over time in order to evaluate the lasting practical impact of the training intervention. Due to time limitation in this study, longer follow-up assessments were not practicable. Therefore, it is uncertain as to whether the changes that occurred as a result of the participation in this program will continue over a longer period of time. As Brown and colleagues (1999) suggested, with no continuous feedback on physicians' new behaviors, peer or organizational support, and follow-up workshops there most likely will be a decline of physicians' key communication skills over time. Incorporation of an additional follow-up assessment in future studies might provide more information about the effectiveness of the training workshop for oncologists.

Finally, based on results of the Satisfaction Questionnaire, the training workshop was well received by most participants (94%). All participants indicated that the training workshop was well organized and the content was adequate. The Satisfaction

Questionnaire included space for personal comments, which provided additional information about the training. For example, the majority of physicians (78%) expressed the need for longer programs. Several younger oncologists responded positively to the collegial relationships they had developed with more experienced and “higher positioned” physicians during the training. Participants also reported that this training offered them a unique opportunity to share their experiences with colleagues. Many physicians, for example, expressed a sense of relief to know that they are not alone in their struggles regarding the issues of delivering bad news to patients. Physicians commented on the usefulness of small group activities, open discussions, and the supportive environment. These findings may be an indication of a “Balint group” effect among participants. “Balint group” is a well-recognized method of training physicians in the psychological aspects of clinicians’ work (Kjeldman et al., 2005). The Balint group method is considered a tool for improving practitioners’ understanding of physician-patient relationships (Johnson et al., 2004). This method allows physicians to present clinical cases during which they have experienced a strong emotional reaction such as frustration or uncertainty. Some researchers suggested that by participating in Balint groups, physicians become aware of their particular “blind spots” as well as their individual strengths, which contributes overall to growth in a physician’s personality (Johnson et al., 2004; Kjeldman et al., 2005). Physicians’ responses and comments about the training workshop in this study suggested that the safe, caring, and supportive environment during the training positively influenced participants and possibly enlightened the self-perception of their relationship with patients. All participants



indicated the importance of the topic to the oncology field and also recommended that this topic be implemented early in the medical education curriculum.

## **Limitations and Suggestions for Additional Research**

Some methodological limitations should be noted while interpreting the findings of this study. The limitations and suggestion for future research will be addressed in this section according to: (a) the study's research design; (b) study sample issues; and (c) instrumentation.

### **Research Design Issues**

A quasi-experimental study was designed to determine the degree of difference between the physicians' interpersonal skills, self-efficacy, psychosocial belief, and empathy scores before and after attending the training workshop, and as compared to the scores of a group of physicians who did not attend the training (control group). This type of research design is one of the most strongly recommended designs (Campbell & Stanley, 1963; Patten, 2002). The utilization of a randomly assigned experimental and control groups method allows researchers to control threats that may jeopardize internal (maturation, history, and mortality) and external (interaction effects involving the intervention and some other variables) validity (Campbell & Stanley, 1963). This design calls for simultaneity of pre- and post-testing for both experimental and control groups. In the present study the pre-testing conditions were identical for both groups. All interested participants ( $N = 50$ ) were invited to stay after the one of the staff meetings in order to complete the questionnaires. However, physicians in the control group were contacted for

post-assessments one day after the completion of the training workshop for the experimental group. Additionally, due to unavailability of all the control group physicians at the first day of the control group post-assessment, this process took three days to complete post-evaluations. In spite of the overall positive outcome of the intervention, the “history” factor (e.g., post-assessment for the control group had not been conducted simultaneously with the post-assessment of the experimental group) may have affected the results of the study.

### **Population Sample Issues**

A limitation of this investigation is the fact that the training program was conducted at a single institution, an oncology center in Uzbekistan, with a purposive sample of group of physicians-oncologists. This sample may not be a representative of the larger population of oncologists in Uzbekistan. This limits the generalization of the findings to other medical facilities in Uzbekistan, as well as other countries. It will be important to replicate this study with other populations of physicians, including multi-disciplinary clinicians, such as nurses, psychotherapists, and psychologists, in order to verify and generalize the findings of the study. Furthermore, the sample size was small and limited to 25 participants in each group, which also does not permit generalization of the findings of the study. Investigation based on a larger group of physicians will be needed to draw more precise conclusions about the effectiveness of the offered training. Another limitation of this study is that the physicians participated voluntarily in the training workshop. It is possible that the training workshop was attended by only the clinicians who were motivated to learn communication skills. Therefore, there is no

evidence that the gains observed in this study would be achieved by less motivated physicians.

### **Instrumentation Issues**

The assessment of the effectiveness of the training relied on self-reported, subjective responses of the participants. As Wong and Agisheva (2007) suggested, self-report evaluations lack objectivity and may not represent the effective skills of the physicians in their daily clinical practice. Further studies should examine the effectiveness of training workshops for oncologists by implementing more objective approaches such as video-/audio-taping the physician-patient interaction, examining patients' outcomes, and analyzing feedback from the clinical staff. Furthermore, the translation and adaptation of instruments from English into Russian were conducted for the first time. In spite of acceptable reliability of translated instruments, there were no existing translated instruments' score norms to use for comparison. The replication of this study in future research projects may strengthen the instruments and possibly improve the outcomes of the training programs.

Another limitation of the present study was the two-week interval chosen for the follow-up assessment. Even though participants demonstrated that they had maintained the learned skills, there was no evidence that this change will continue over a longer time frame. Moreover, the lack of continuous feedback and supervisory support after the training most likely will lead to a gradual weakening of the gained communication skills. Therefore, further research is recommended to examine the impact of the training at longer intervals, accompanied by continuous trainer/peer feedback and, if possible, a follow-up training workshop during the "between measurements" periods. Some studies

showed a significant improvement of participants' skills after application of such strategies (Haven & Maguire, 1996; Maguire et al., 1996; Razavi et al., 2000).

### **Implications for the Medical Field**

The overall findings of this study have general implications for research and clinical practice. The results indicated that the training workshop for oncologists was effective in modifying physician communication skills, attitudes, and beliefs about the importance of empathy and psychosocial aspects in treating patients with cancer. Significant improvement was found for self-efficacy rating in relation to delivering bad news situations. There were also significant positive changes in empathy scores, which is an indication of possible improvement in participants' caring behaviors toward patients with cancer. Finally, significant improvement in their psychosocial beliefs scale indicates that physicians support the importance of the psychosocial aspects in cancer care and they perhaps moved away from the traditional biomedical model in health care utilized in the FSU.

This study also supports the effectiveness of the SPIKES protocol in a different cultural setting. Despite the distinct differences in academic structure, health care system, and culture between the USA and Uzbekistan, it is evident that this program can be adapted with successful results. The findings in this study support results demonstrated in similar research with the utilization of the SPIKES protocol conducted not only in the USA, but also in Portugal, Spain, and Italy (Grassi et al., 2005). Additionally, it was uncommon for Uzbek physicians to be in an interactive, learner-centered educational

environment that included small group activities, peer discussions, video clip reviews, and role-plays. Indeed, the traditional teaching methods in medical education in the FSU tends to implement a large rather than small group format approach with the information often presented without correspondence to clinical practice (Wong & Agisheva, 2007).

The organization and successful completion of this study in Uzbekistan was strongly supported by the government health care organizations and, more specifically, by the hospital administrators. This is an indication of the recognition of the importance of physician communication skills with cancer patients. In addition, as the medical literature indicates (Kurtz et al., 2005; Maguire et al., 1999), effective physician-patient interaction can improve patient satisfaction with cancer care and may lead to a decrease of the number of litigation cases from patients and their families. This is an important implication for this region, as in recent years the number of legal complications—especially for oncology institutions—seems to be on the rise (Murathodjaev & Madjidov, 2005).

### **Implications for Counselor Education**

Over the past 20 years there has been significant development in medical professionals' scientific-technical knowledge and skills and, at the same time, much less attention to psychosocial and relational aspects of patients care (Larson & Yao, 2005; Young & Flower, 2001). The literature suggests that traditional medicine emphasized almost exclusively the importance of the biomedical model of illness and the fact that diseases are viewed by many physicians almost in isolation from their patients (Silverman et al., 2005; Stuart & Lieberman, 1993). Clinicians have been successful in

helping people in situations where technological and chemical assistance is required. However, physicians have been having difficulties in facing their patients' problems that cannot be treated by medications, cannot be "fixed," and need more a "humanistic," supportive approach (Halpern, 2001). The published medical literature suggests that the interest of the medical profession has increased as to the importance of physician-patient relationships being an integral part of effective medical care (Larson & Yao, 2005). Furthermore, medical educators and researchers have been focusing on developing effective programs and trainings, an integral part of which is emphasis on physicians' verbal and nonverbal communication, empathy, compassion, and personal connections with patients (Kurtz et al., 2005). In addition, in 2003 the Institute of Medicine (IOM) made recommendations for future medical education curricula and outlined the necessity of mind-body interaction and physician-patient interaction domains (Carr et al., 2007). IOM concluded that these behavioral and social science concepts cannot be integrated without interdisciplinary scientific effort. The results of the current study are the evidence of such integration.

The President of American Counseling Association, Dr. Canfield (2007), suggested that counselors, as a profession, focus on: (a) the strength of human behavior, not pathology; (b) health and wellness, and (c) helping relationships. Other authors describe the importance of the individuals' inner subjective experience (ISE) for the counseling profession (Hansen, 2007; Rudes & Guterman, 2007). It seems these are the specific positions that the medical profession is attempting to strengthen. Thus, counselor educators along with other behavioral and social scientists can play important roles in medical education. The foundation of counseling interventions rests on humanistic and

holistic principles. These basic concepts are identified by the medical educators as important topics for inclusion while educating physicians. Counselor educators must offer their expertise and collaboration in developing a medical school curriculum that can enrich the knowledge and skills of future medical professionals. The current changes in medical education signify unique opportunities for counselors and counselor educators. This study is an example of a favorable circumstance for an evolving counseling profession to strengthen its collective identity and relations with other helping professions.

## **Conclusion**

The current study was the first research project regarding communication skills for oncologists conducted in Uzbekistan. To the researcher's knowledge this was first study conducted in a territory of the former Soviet Union. It investigated effective physician-patient communication skills in cancer care based on quantitative findings. Fifty oncologists participated in this research project. The findings suggested that the training program significantly improved participants' self-efficacy skills, empathy, and psychosocial attitudes and beliefs. The explored effective physician-patient communication skills, beliefs, and attitudes in cancer care in Uzbekistan and the obtained experience in implementing the training workshop provide valuable information for future studies.

## **APPENDIX A: INFORMED CONSENT**



University of Central Florida  
Department of Education

Consent to Participate in Research

Title of the Study:

THE EFFECTIVENESS OF “DELIVERING UNFAVORABLE NEWS TO PATIENTS  
DIAGNOSED WITH CANCER” TRAINING PROGRAM FOR ONCOLOGISTS IN  
UZBEKISTAN

Principal Investigator: Gulnora Hundley

Dear Clinician,

My name is Gulnora Hundley and I am a Doctoral Candidate in the Counselor Education program at the University of Central Florida working under the supervision of faculty members, Edward H. Robinson, PhD and Glenn Lambie, PhD. I am now working on my doctoral dissertation which investigates effectiveness of a delivering bad news skills training program for physicians in cancer care. You are being asked to participate in this study. Approval to conduct this study was obtained from the University of Central Florida Internal Review Board. Additionally, I have the permission of the National Oncology Center administration to conduct this research study.

**Purpose of the study**

The purpose of this study to investigate the effectiveness of the training program for oncologists in Uzbekistan in how to communicate bad news to cancer-diagnosed patients.

### **Procedures**

During the study you will participate in one day, 8-hour workshop. Two workshops identical in their content will be offered to participants. During this training workshop participants will meet in large groups of 20-25 physicians for didactic presentations and then break into small 5-member groups in which they will use role plays and discussions to problem-solve difficult cases from clinical practice.

This study requires that you will be randomly assigned to one of the two groups. At three times during the course of this research projects (before, immediately after the training and two weeks later) you will be asked to complete six questionnaires. It will take 30-35 minutes to complete questionnaires. This research project was designed solely for research purposes and no one except the research team (e.g., principal investigator (PI) and research assistant (RA) will have access to any of your responses. Your identity and responses will be kept confidential using numerical coding system.

### **Risks**

There are no known risks or discomforts associated with participation with this study. However, you may be inconvenienced by taking the extra time to attend the training and complete questionnaires.

### **Benefits**

You will receive extensive training in skills that are associated with improved health care for your patients. At the end of the study you will receive a certificate of completion of a one day workshop.

### **Cost/Compensation**

Participation in this research project will not cost you any money. You will not be compensated for your time. The training will occur during the weekend.

### **Confidentiality**

Your participation in this study is confidential. Your name or other identifying information will not be attached to any of the information gathered in this project. All the information you provide will be identified by code number. All information will be stored in lock cabinets in the research assistant's office. The only document that will contain your name in this consent form which will be separated from the rest of the materials. The data collected will be used for statistical analyses and no individuals will be identifiable from the pooled data. The information obtained from this research may be used in future research and published. However, your right to privacy will be retained. All data will be presented in group format and no individuals will be identifiable from the data.

Your participation in this research project is entirely voluntary. You do not have to participate. You do not have to answer any question(s) that you do not wish to answer. Please be advised that you may choose not to participate in this research study, and may withdraw from the study at any time without consequence. Your department or medical group will not be notified of whether or not you participate.

If you have any questions or comments about this research, please contact Gulnora Hundley 407-973-0872, or my faculty supervisors, Dr. Robinson or Dr. Lambie, College of Education, Orlando, FL; 407-823-2835. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL, 32826-3246. The phone numbers are 407-823-2901 or 407-882-2276.

**Sincerely,**

**Gulnora Hundley**

I understand my rights as a research subject, and I voluntarily consent to participate in this study. I understand what the study is about and how and why it is being done. I will receive a signed copy of this consent form.

\_\_\_\_\_

Subject's Signature

\_\_\_\_\_

Date

## **APPENDIX B: IRB APPROVAL LETTER**



University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901, 407-882-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Notice of Expedited Initial Review and Approval

From : UCF Institutional Review Board  
FWA00000351, Exp. 5/07/10, IRB00001138

To : Gulnora F Hundley

Date : August 03, 2007

IRB Number: SBE-07-05114

Study Title: THE EFFECTIVENESS OF A DELIVERING UNFAVORABLE NEWS SKILLS TRAINING PROGRAM (SPIKES PROTOCOL) FOR ONCOLOGISTS IN UZBEKISTAN

Dear Researcher:

Your research protocol noted above was approved by expedited review by the UCF IRB Vice-chair on 8/3/2007. The expiration date is 8/2/2008. Your study was determined to be minimal risk for human subjects and expeditable per federal regulations, 45 CFR 46.110. The category for which this study qualifies as expeditable research is as follows:

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The IRB has approved a consent procedure which requires participants to sign consent forms. Use of the approved, stamped consent document(s) is required. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

All data, which may include signed consent form documents, must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Advise the IRB if you receive a subpoena for the release of this information, or if a breach of confidentiality occurs. Also report any unanticipated problems or serious adverse events (within 5 working days). Do not make changes to the protocol methodology or consent form before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <http://iris.research.ucf.edu>.

**Failure to provide a continuing review report could lead to study suspension, a loss of funding and/or publication possibilities, or reporting of noncompliance to sponsors or funding agencies.** The IRB maintains the authority under 45 CFR 46.110(e) to observe or have a third party observe the consent process and the research.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 08/03/2007 10:38:51 AM EDT

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