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Relationships Among Health Counseling Training Experiences and Time Engaged in Counseling, Percentage of Patients Counseled, Practitioner Confidence, and Perceived Importance

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Relationships Among Health Counseling Training Experiences and Time
Engaged in Counseling, Percentage of Patients Counseled, Practitioner
Confidence, and Perceived Importance

by

Stephen Edward Lupe

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in Clinical Psychology
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A doctoral research project
submitted to the College of Psychology and Liberal Arts
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for the degree of
Doctor of Psychology

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The undersigned committee,
having examined the attached doctoral research project,
Relationships Among Health Counseling Training Experiences and Time
Engaged in Counseling, Percentage of Patients Counseled, Practitioner Confidence
and Perceived Importance
by
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Abstract

Relationships Among Health Counseling Training Experiences and Time Engaged in Counseling, Percentage of Patients Counseled, Practitioner Confidence, and Perceived Importance

by

Stephen Edward Lupe

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In the current healthcare system, the need for collaborative care is higher than ever. With current reforms in reimbursement and healthcare policies, it is becoming increasingly necessary for psychologists and other practitioners to break ranks with their traditional roles and to participate as a part of a multidisciplinary team that works in collaboration with other healthcare professionals. This study aims to look at the health counseling behaviors of psychologists and graduate psychology students from an APA accredited clinical psychology graduate program. It aims to examine the relationships among health counseling training variables and time spent engaging in health counseling, highest intensity of training completed, confidence in ability to provide health counseling, and perceived importance of health counseling. The intention of this study is to expand on the growing literature on training in health counseling.

Keywords: Health Counseling Training, Primary Care Psychology Training

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Relationships Among Health Counseling Training Experiences and Time Engaged
in Counseling, Percentage of Patients Counseled, Practitioner Confidence, and
Perceived Importance

Introduction: Bold New World

With the evolution of our current healthcare system and the passage of the Affordable Care Act (Patient Protection and Affordable Care Act, 2010), the need for a collaborative team approach is greater than ever (Cox, Adams, & Loughran, 2014). An increased need for services coupled with a decrease in primary care providers leaves patients searching for access to care (Brawler, Martielli, Pye, Manwaring, & Tierney, 2010). The literature highlights the need for both behavioral and medical professionals to come together and work as a team for the best possible patient care. An example presented by Unützer, Schoenbaum, Druss, and Kanton (2006) showed that up to 75% of depressed patients seek care for a physical complaint. Additionally, up to two-thirds of the consults for mood and anxiety related consults in Mexican American populations are done by primary care physicians (Unützer, Schoenbaum, Druss, & Kanton, 2006). These examples demonstrate the vast need in these settings for personnel trained in mental health professions.

In addition to the studies above, it is commonly cited in the medical literature that many medical illnesses have psychosocial and psychological factors that influence their course (Blount, 1998; Blount & Bayona, 1994; Wu, Huang, Liang, Wang, Lee, & Tung, 2011). For example, patients diagnosed with Type 2

diabetes present with significant psychosocial concerns and are at an increased likelihood for developing depression (Wu, Huang, Liang, Wang, Lee, & Tung, 2011). Additionally, patients with diabetes who develop depression show decreased adherence to their treatment regimen, which leads to decreased glycemic control (Wu, Huang, Liang, Wang, Lee, & Tung, 2011). This demonstrates the need for assessment of psychosocial and psychological factors as a part of comprehensive health care.

Not only can psychologists assist in the recognition and treatment of mental health disorders, but they are specifically trained to assist in the behavioral change that is an essential part of increasing overall health and should be part of a comprehensive treatment plan (Cox, Adams, & Loughran, 2014). Therefore, rather than seeing the psychologists as mental health providers, it is important to conceptualize psychologists as applied behavioral scientists. When we reframe the role of psychologists in this light, we see the immense potential to expand the practice into a number of settings, healthcare being a major one.

The goal of this study is to look at how best to prepare practitioners for the challenging task of providing health counseling. For the purposes of this study, health counseling is defined as providing counsel on some type of health behavior (e.g., diet, exercise, smoking, weight, alcohol consumption, medical adherence, seatbelt use, and sleep) (Yearwood, 2014). The literature suggests psychologists do not engage in health counseling because they do not feel confident in their training. The expanding role of the psychologists in the healthcare setting provides great

opportunities to increase the overall well-being of patients by collaborating and offering the skillset psychologists possess, which includes health behaviors, i.e., behaviors that prevent injury or improve health (Cox, Adams, & Loughran, 2014; CDC, 2011a). Psychologists have an opportunity to utilize their specialized training and to contribute to the wellbeing of patients in medical settings; however, there are also barriers to the integration of psychologists. Many practitioners identified discomfort with their training in such activities as smoking cessation, exercise counseling, and other activities associated with increasing health behavior (Tulloch, Fortier, & Hogg, 2006; Akpanudo, Price, Jordan, Khuder, & Price, 2009). This dissertation asserts that working with individuals to increase health behavior is simply another application of psychologists' skills. Further, it demonstrates the need for collaborative care and identifies ways mental health practitioners can assist in providing comprehensive care in the healthcare setting. Finally, it aims to examine the effect that the amount of training that practitioners engaging in this work participate in and the intensity of this training have on the time these practitioners spend on health counseling and the percentage of their patients that they counsel on health behaviors. This study hypothesizes that amount of training and training intensity are related to practitioners' actual health counseling behaviors, their confidence in providing health counseling, and the importance they place on health counseling.

If the expanded role of psychologists in the healthcare setting is to be valued and sought after, then psychologists must be adequately trained to assume

these roles with confidence. Thus, graduate schools may have to consider revamping their programs to include a heavier emphasis on preparing psychologists for healthcare settings. The American Psychological Association (APA) has supported the expansion of psychological practice in healthcare settings and recently emphasized this by grouping clinical, counseling, and school psychology under the title of “health service psychologists” (Standards of Accreditation for Health Service Psychology, 2015). A Delphi study conducted over a decade ago examined the emerging trends in professional psychology and stated “the routine treatment of the behavioral components of health problems in integrated treatment settings with time-effective interventions as some of the most prominent emerging areas of practice for the next decade” (Talen, Fraser, & Cauley, 2005, p.136). Yet these issues are not routinely addressed in graduate school curricula. Doctoral programs preparing psychologists for the practice of psychology have an obligation to help students become prepared for what is recognized as one of the biggest areas of expansion in the practice of psychology; thus, understanding how best to prepare psychologists for this task is paramount. Psychologists must be able to work in collaborative relationships with other healthcare providers and to provide services in those settings. Furthermore, they must engage in program development, implementation, outcome measures, and research. Properly trained doctoral level psychologists can confidently bring all of these skills into the healthcare setting.

Literature Review

Health Behavior

Health behavior is defined as “an action taken by an individual or group of individuals to change or maintain their health status or prevent illness or injury” (CDC, 2011). Further, multiple authors have suggested that these behaviors have an influence not only on overall wellbeing, but also on psychological difficulties experienced by patients (Conner & Norman, 2005; Burton, Pakenham, & Brown, 2010). Thus, an increase in positive health behaviors should result in a reduction in rates of illness and injury. In addition, psychologists have the opportunity to help improve the overall quality of individuals’ lives and alleviate the suffering from traditional psychological difficulties.

Behavioral Change

Behavioral change has long been a staple of practicing psychologists’ training. Psychologists bring a certain skillset to the treatment environment that makes them especially effective as a part of the treatment team (Stachnik, 1980). This skillset puts them in a position where they can assist individuals in changing maladaptive behaviors, increasing health behaviors, and reducing preventable disease, thus increasing overall wellness (Stachnik, 1980). Examples of psychologists’ successes in making behavioral change are the efforts in smoking cessation programs and weight management (James, Folen, Garland, & Davis, 1997; Mojica et al., 2004). These behavior changes result in increased overall health and wellbeing of the patient (Hynes, Buscemi, & Quintiliani, 2015).

Additionally, the literature provides strong evidence that psychosocial factors contribute not only to physical disease etiology but also to treatment (Blount, 1998; Blount & Bayona, 1994; Wu, Huang, Liang, Wang, Lee, & Tung, 2011). Therefore, psychologists can assist by identifying the causal factors of physical disease and those that will affect treatment. Furthermore, primary care has become the default treatment setting for many mental health disorders, and psychologists can assist in the identification and treatment of these disorders when they work in collaboration with physicians (Blount, 1998; Blount & Bayona, 1994).

What Psychologists Do in Healthcare

So, what can psychologists do in a healthcare setting? When examining this, it is important to look at where psychologists can intervene in the process of injury and illness prevention. In a traditional model of illness and injury, there are traditionally three stages of prevention, known as primary, secondary, and tertiary (Brown, et. al, 2002). Psychologists have a role within all of these.

In the primary prevention stage, the focus is directed at efforts to limit the incidence of illness or injury (Brown et al., 2002). Psychological interventions at this stage are directed at examining and addressing risk and protective factors, including psychosocial factors (Blount, 1998; Blount & Bayona, 1994), which affect disease development (Brown et. al, 2002). Psychologists can focus on lifestyle changes that prevent illness and injury from occurring in the first place. Psychologists' abilities to identify behaviors, thoughts, and motivation allow them to contribute greatly at this stage. Examples of interventions at this level are dietary

change and exercise counseling. Additionally, psychologists can assess the person's environment and social world to identify behaviors, factors, and barriers to behavioral change that contribute to negative health outcomes. Thus, psychologists are well trained in these "traditional skills," and can utilize them to affect health outcomes. This would have the benefit of not only improving the lives of patients but also driving down the cost of healthcare.

Rodrigue (1996) conducted a study highlighting primary prevention in which psychologists' skills were utilized to promote health behavior. In this study, they examined the beliefs of mothers in regard to their children's sun exposure and the behaviors that resulted from these beliefs. Then an intervention of didactic education or didactic education and experiential group discussion about sun-safe behaviors was conducted. The participants were followed at two weeks and twelve weeks. Findings indicate that both the group undergoing didactic education and discussion designed to change behavior engaged in sun-safe behaviors. The authors suggest that this behavior change would likely result in the prevention of skin cancer in the children later in life (Rodrigue, 1996). This is one example of how the skills psychologists possess can be applied to primary prevention and can have an impact on the health and wellness of patients.

The second stage, secondary prevention, is thought of as identifying and treating disease early in order to limit its prevalence and severity (Brown et al., 2002). The literature provides examples of how psychologists have applied their skillset in this endeavor for the benefit of patients. One such example is cited in a

study by Bradley et. al (1994) that looked at infant health in low-income families. The study included not only regular pediatric care but also psychoeducation, support, and early educational day care. The results showed this form of secondary prevention had a positive impact on health status and resiliency beyond the group that only received pediatric care (Bradley et. al, 1994). The application of family support and psychoeducation, which are considered fundamental psychological clinical skills, appear to have positively affected the health and lives of these patients.

Roskies et al. (1986) conducted another study that supports utilizing psychological intervention as a secondary prevention strategy. This study looked at “type A behavior” and its effect on cardiovascular disease in men identified with risk factors for the development of cardiovascular disease. In this study, type A behavioral pattern, which included loudness, hostility, competitiveness, and explosiveness, was shown to be correlated with the development of heart disease. The researchers looked at the application of aerobic exercise and cognitive behavioral stress management as treatment conditions, and weight training as a control condition. The goal of all treatments was to reduce physical reactivity, with the thought this would reduce the load on the heart that physical reactivity produces. The study found only the group with cognitive behavioral stress management had a significant decrease in “type A behaviors” and reactivity to stress (Roskies et al., 1986). By identifying that these behaviors were correlated with heart disease and this psychological intervention reduced the behaviors, we

can see the great potential for psychologists to work in the healthcare setting while applying skills with which most practicing psychologists are very comfortable.

The final form of prevention is tertiary prevention, in which efforts are directed at the reduction of suffering and complications that result from disease (Brown, et. al, 2002). Here, appropriately trained psychologists can apply interventions that can be applied in conjunction with medical treatment to further its success. Some of the areas of practice where psychologists have been successful are the management of pain, asthma symptoms, and chronic fatigue syndrome severity (Brown et al., 2002; Gil, Abrams, Phillips, & Keefe, 1989; Godding, Kruth, & Jamart, 1997). A study by Gil, Abrams, Phillips, and Keefe (1989) highlights areas of potential intervention by psychologists in pain populations. In this study, the researchers examined how pain coping skills affected the experience of and adjustment to pain from sickle cell disease. They evaluated the pain coping skills these patients possessed as well as the patients' subjective experience of pain. They found several cognitive factors, such as negative thinking and passive adherence, were significantly related to the ability to adjust to sickle cell disease. Again, we see where psychologists, who are trained to address negative thinking and cognitive errors, could intervene and assist patients. Therefore, the goal moving forward is to take this training and to learn to apply it in the healthcare setting.

In the area of management of asthma symptoms, an article by Godding, Kruth, and Jamart (1997) reviews a program for complicated pediatric patients

diagnosed with asthma and deemed high risk by a pediatrician due to multiple hospitalizations. In this model, a psychological approach was used in conjunction with a traditional medical approach to address psychosocial factors and adherence to treatment. The physician and behavioral health specialist worked together in addressing not only medications, but also behavioral changes that were required by both the patient and the family of the patient to improve treatment outcomes. The team approach to identifying the barriers to treatment adherence, along with the education and health counseling provided by the behavioral health specialists, improved the outcomes for the patients in this study. Furthermore, the cost associated with hospital admissions and the days admitted to the hospital dramatically decreased. Additionally, the authors measured symptom severity, medication compliance, and overall need for increased medication, and all of these showed decreases (Godding, Kruth, and Jamart, 1997). Again, this demonstrates the value of adding a mental health professional and how health counseling as an addition to treatment results not only in better outcomes for patients, but also in broader systemic gains.

Another study looking at psychological interventions in coping with medical problems was conducted by Sharpe et al. (1996). The authors examined the use of cognitive behavioral therapy (CBT) in the treatment of chronic fatigue syndrome. They compared patients treated with only traditional medical care to those who had CBT added as a component of treatment and found that patients who participated in CBT achieved better outcomes than those with medical treatment

alone (Sharpe et al., 1996). Here we see the value of collaborative care where a psychologist works hand in hand with the primary care provider to augment medical treatment and improve patient outcomes.

Overall, these studies demonstrate that when a trained mental health provider is part of the treatment team, not only can they identify psychological and psychosocial factors that influence disease states but they can also develop and implement treatments to improve the health of these patients. Unfortunately, the barrier to providing these services may be the psychologists themselves. The next section reviews how psychologists and other mental health care providers generally do not feel comfortable discussing medical problems or providing health counseling (Akpanudo, Price, Jordan, Khuder, & Price, 2009; Phillips, & Brandon, 2004; Tulloch, Fortier, & Hogg, 2006). This is a problem that will need to be corrected if psychologists are going to move into an integrated care model. Therefore, barriers to purposed training models are evaluated.

Barriers to Practice

Given that psychologists can be instrumental in behavior change, why would a psychologist not engage in health counseling practices? It has been said that psychologists can provide no more lifesaving intervention than smoking cessation (Phillips & Brandon, 2004). A study conducted by Akpanudo, Price, Jordan, Khuder, and Price (2009) looked at smoking cessation and clinical psychologists' role in assisting people to stop smoking. The researchers found that only about 40% of the psychologists even identified whether their clients were

smokers 100% of the time, and 3% of the responding clinical psychologists reported never identifying smoking status. Additionally, 17.1% of psychologists reported they might be hesitant to engage in an activity like smoking cessation counseling because of “my lack of training in tobacco cessation skills” (Akpanudo, Price, Jordan, Khuder, & Price, 2009, p. 465). The authors suggest if psychologists were better trained in smoking cessation, their confidence level in providing this service would increase (Akpanudo, Price, Jordan, Khuder, & Price, 2009).

Another study (Phillips & Brandon, 2004) examined psychologists’ role in smoking cessation and looked at the level of training these practitioners had with this intervention. These researchers asserted that psychologists were in a position to intervene and that their intervention had some advantages over that of intervention by physicians. They stated psychologists work with mental health disorders and there is a higher prevalence of smoking in populations with identified psychological disorders. Additionally, the authors cited psychologists as experts in motivation and behavioral change, and the fact that many times psychologists have a closer and enduring relationship with the people they treat. However, they indicated that less than one in three psychologists reported asking their adult and adolescent clients whether they smoked. Lack of training and being comfortable with the topic were cited by 20% of respondents as the reasons for not intervening. Most of the respondents reported having some training in smoking cessation but felt this training was not in-depth enough allow them to provide this service. These authors suggested a need for psychologists to receive more in-depth training, not

only at the internship and post-doctoral level, but also in graduate school programs. There is great potential to help with a public health crisis and, with psychologists expanding their role in the health care arena, their training needs to expand to assist them in being comfortable using their skills in this setting.

Another example of how psychologists can intervene and use their skills of behavior change and motivation in the healthcare setting is in increasing physical activity. This is an intervention most practicing psychologists already use, in the form of behavioral activation, to treat traditional psychological disorders (Hopko, Sarah, Robertson, & Lejuez, 2006). However, when this skill is applied as exercise counseling, psychologists report feeling uncomfortable with their training (Tulloch, Fortier, & Hogg, 2006).

Physical activity is a health promoting behavior that has been shown to not only increase health and assist in the general wellbeing of patients, but also to manage psychological difficulties, especially anxiety, depression, and stress disorders (Burton, Pakenham, & Brown, 2010). So why are more psychologists not engaging in the practice of promoting exercise? While not about psychologists, a study by Tulloch, Fortier, and Hogg (2006) found one of the reasons providers cited for not providing exercise counseling was a lack of adequate training. Again, the lack of training appears to be a barrier to practitioners being able to confidently treat the whole person, and this is a barrier psychologists will have to address to engage in collaborative care.

A further examination of this study found that offering an exercise training intervention improved the rate of exercise in patients. Furthermore, it showed that when allied health providers (a category that includes psychologists) worked with a physician, compliance rates were higher than if the physician alone provided exercise counseling (Tulloch, Fortier, & Hogg, 2006). This highlights an opportune place for psychologists to step in with their knowledge of behavioral change and motivation techniques and to be an integral part of the healthcare team.

When the question of how do we increase practitioners' confidence is addressed, a study by Vickers, Kircher, Smith, Petersen, and Rasmussen (2007) showed that perceived importance of health counseling was predictive of confidence in health counseling. The above study aimed to see how we increase the rate of health counseling and the data suggested that not only was perceived importance directly linked to the rate of health counseling but also to the level of confidence in health counseling (Vickers, Kircher, Smith, Petersen, & Rasmussen, 2007). This is an interesting issue to address. In a study done by McEntee and Halgin (1996), they address the issue and came to the conclusion that few therapists find it important to discuss health behaviors as part of psychotherapy. If the rate of health counseling and the confidence in health counseling are impacted by the perceived importance of health counseling, this is an area that will need to be addressed. How does the psychological community increase the perceived level of importance in health counseling? While the literature limitedly addresses the importance of perceived importance of health counseling, it is lacking in how to

improve this variable. If this variable is a crucial part of helping practitioners talk to their patients about health behavior, it needs to be addressed by research.

Clearly, psychologists have the knowledge of behavioral change and the abilities to help in changing behavior, attitudes, and ultimately health outcomes. However, psychologists do not generally engage in this practice, largely because of deficits in training. The following examines how psychologists are trained and suggestions that have been made regarding ways to better prepare professional psychologists to work in this area.

Current Training: Health Service Psychology

The American Psychological Association's Commission on Accreditation is the primary body that sets standards for the education of competent psychological practitioners. As stated above, APA has recognized integrated care and medical settings as a rapidly expanding area of practice for psychologists, and in response to this, has released several publications regarding how to best prepare psychologists for this task. One such publication, entitled *Professional Psychology in Health Care Services: A Blueprint for Education and Training* (2013) outlines best practices in preparing psychology students for the task of moving into the healthcare setting. APA's aim is to prepare students in professional psychology to be competent health care providers and thus it suggests that students be prepared not only in the fundamental theories of psychology, but also in human biology, research methodology and design, and in the ability to work with others (American Psychological Association, 2013a). Here the APA, understanding there will be

growth in the field of health psychology, has suggested that, prior to entering graduate school, potential students should begin to familiarize themselves with the fundamentals of health counseling and health psychology (American Psychological Association, 2013a). It has suggested that students have a basic knowledge of the biology of the human body to build upon. This knowledge can be harnessed, and then after learning specific interventions at the graduate school level, providers will feel more competent in the healthcare setting. Not only does the APA suggest this training be completed prior to graduate school but it also recommends evaluating the competency of the candidate in the areas mentioned above through the use of transcripts, standardized tests, and interviews with the candidate (American Psychological Association, 2013a).

While this addresses undergraduate psychology training, several authors have made recommendations about graduate level training for healthcare psychologists. A model proposed by Cox, Adams, and Loughran (2014) outlines a course to be taken in the third year of doctoral training that includes the following: training in interventions, with a specific focus on managing and treating medical illnesses; clarifying the role of a mental health provider in a collaborative care setting; and exploring the ethical and multicultural issues that are part of working in collaborative care settings. This course is further divided into a straight didactic lecture, a shadowing experience, and practice intervention assignments (Cox, Adams, & Loughran, 2014). Another model of graduate training has been proposed by McDaniel, Hargrove, Belar, Schroeder, and Freeman (2004). The model

addresses the skills and areas of knowledge a doctoral student in primary care psychology should be trained in. According to these authors, a primary care psychologist is defined as follows:

A psychologist who works in primary care is a general practitioner who has skills in the psychological assessment of and intervention with common health problems of patients and families throughout the life span. Primary care psychologists work collaboratively with other health care professionals to provide continuity of care and to help identify important questions for research using a biopsychosocial model. (McDaniel, Hargrove, Belar, Schroeder, & Freeman, 2004, p. 64,).

The authors go on to offer specific suggestions for core knowledge areas to prepare psychologists for work in primary care. They propose that psychologists receive a broad level of training that is in line with the definition offered above. The knowledge component they suggest contains training in biological components of health and illness, cognitive components of health and illness, affective components of health and illness, behavioral and developmental aspects of health and illness, sociocultural components of health and illness, health policy and health care systems, common primary care problems, clinical assessment of primary care conditions, clinical interventions in primary care, interprofessional collaboration in primary care, and ethical, legal, and professional issues in primary care, (McDaniel, Hargrove, Belar, Schroeder, & Freeman, 2004). More recently, McDaniel et al. (2014) authored an article that included a list of five core competencies all primary

care psychologists should be trained in, while acknowledging there is a lack of generally accepted competencies. The authors state implementation of these requires graduate programs to train their doctoral students in these competencies. The five areas are science, system, professionalism, relationships, application, and education (McDaniel et al., 2014). These specific areas are then broken into specific skill sets that cover everything from research training in program development and implementation to a greater understanding of the scientific basis of the biopsychosocial model. Additionally, it covers training in leadership, collaborative working relationships, teaching in primary care, education specific to what the system looks like and how it functions, and assessments and interventions specific to the primary care setting (McDaniel et al., 2014). If graduate students were allowed to begin to develop these competencies in graduate school, it would likely increase comfort in counseling patients on healthcare issues as well as increase comfort functioning in the setting.

Knowledge in these areas is the first step in preparing future psychologists to work in the area of primary care. The definition includes training as a generalist in professional psychology; however, beyond this, the student must be prepared for the specific environment of primary care. If students are going to have the knowledge base, they must be presented with the information. The case has been made above that one reason psychologists do not engage in health counseling is their perceived lack of training; perhaps if we were to follow McDaniel's model, this problem would be eliminated. There are several aspects that must be taken into

account when we look at the training of psychologists for the healthcare setting. It not only includes a general knowledge of health psychology, but also an exploration of the issues that arise when working in an interdisciplinary setting.

Coursework and obtaining knowledge is generally followed by practice of the concepts in the form of practicum work (Cox, Adams, & Loughran, 2014). Through this experience, students have the opportunity to take the knowledge they have gained in class and see how these concepts are applied in a healthcare setting. This also gives students an opportunity to begin honing their skills by working collaboratively with professionals outside of their area of expertise (Cox, Adams, & Loughran, 2014). This again reflects the aims of APA's blueprint discussed above. APA has, in agreement with McDaniel, Hargrove, Belar, Schroeder, and Freeman (2004), also emphasized collaborative work and suggested classroom instruction in general psychological theories and health psychology as essential components of the preparation of psychologists for work in healthcare settings (APA, 2013). The literature suggests that a combination of increased class and practicum time in the healthcare setting will increase graduates' overall competency in the practice of health counseling.

The training of a competent healthcare psychologist should not stop with the completion of graduate school. Pingitore (1999) describes a postdoctoral fellowship at a large urban medical center in Detroit, Michigan, describing three basic areas of focus. The first of these is education in behavioral science for medical students; the second is outpatient consultation, and the third is

psychotherapy and behavioral medicine services focused on primary care (Pingitore, 1999). The author makes a point to state the focus is on continuing to grow the fellow's skillset from the natural progression previously discussed (Pingitore, 1999). Furthermore, a discussion of training by Twilling, Sockel, and Sommers (2000) emphasizes building on the collaboration skills with not only physicians but also nursing staff. This is carried to a point where the psychological resident is paired for a three-month period with a medical resident working together evaluating patients and collaboratively developing and implementing care plans (Twilling, Sockel, & Sommers, 2000). This model allows the psychological resident to not only build upon the knowledge base that has been proposed and discussed above, but also allows for continuing practical knowledge in how to collaborate with a medical professional. In addition, this allows the opportunity for the psychology intern to provide knowledge to the medical resident and vice versa, and fosters a more collaborative approach to medicine. Here we see the need for a process that builds on itself. It starts with predoctoral training and continues through postdoctoral residency and beyond in the form of continuing education. This continuing education aspect is needed as the field of health care is ever changing, and psychologists working in health cares will need to stay abreast of these changes (Beachman, et al., 2016). As the research cited above has shown, there have to be changes in the education process if mental health providers are going to have the opportunity to acquire knowledge, skills, and attitudes essential to the changing health care environment. If this model of increased knowledge and

integrated practical work is implemented, it would likely help alleviate the lack of training many psychologists now feel. It would foster a collaborative relationship not only from the psychologist's side, but also from the physician's standpoint and lead to improved health for patients.

As mentioned above, the literature has shown a link between being trained in health counseling and providing counseling on health behaviors (Secker-Walker, Solomon, Flynn, & Dana, 1994). However, the literature pertaining to the minimal amount of training required to engage in health counseling is lacking. Although there are studies documenting the forms of training available, a comprehensive search found no articles that pointed to a minimum that is needed to elicit health counseling in practice. This study hopes to add to the literature and to help establish the minimum level of training required to impart providers with the confidence to counsel patients in health behaviors.

As has been demonstrated, psychologists have a unique skillset that could contribute to the health care system and improve the lives of many. They have the ability to assist with the lifestyle changes that are required to make the healthcare system a success. However, in order to do so, they need to be trained in a way that fosters confidence in their abilities to provide health counseling in this environment. This confidence in health counseling is essential for psychologists and other mental health providers moving into the future. It will be necessary for them to discuss health behaviors and assist patients in making changes that will improve their overall functioning. For far too long there has been a false dichotomy

between medical and psychological health providers and, as the research has highlighted, when the disciplines come together, patients experience better outcomes and decreases in health care costs can be realized. These benefits are so valuable that practitioners must be trained to engage in these interventions so that they can confidently deliver services that improve quality of life and patient satisfaction as well as decrease health care costs.

Statement of Purpose

The review of the literature emphasizes the importance of health counseling as part of comprehensive patient care. Psychologists often fail to take the skillset they have and apply it in the healthcare setting because they do not feel they are well trained (Akpanudo, Price, Jordan, Khuder, & Price, 2009; Phillips & Brandon, 2004; Tulloch, Fortier, & Hogg, 2006). Therefore, graduate schools need to better prepare psychologists to provide these critical services. As shown, there are programs attempting to remedy this and prepare graduate students to deliver these services. The aim of this study is to determine the relationships between the amount of time spent in health counseling and percentage of patients who receive health counseling have with health counseling training, highest level of training, self-rated confidence in health counseling, and perceived importance of health counseling. The goal is to add to the literature of how to best prepare psychologists to engage in the broader healthcare arena. The data for the study were collected from U.S. professional psychologists and trainees utilizing surveys conducted between July 2013 and September 2013 by Yearwood (2014).

Based on a review of the literature, the hypotheses of this study are:

1. The quantity of health counseling training received is positively correlated with and accounts for a significant amount of the variance in the amount of time practitioners spent health counseling and percentage of patients of patients counseled.

2. The highest level of health counseling training received is positively correlated with and accounts for a significant amount of the variance in the amount of time practitioners spent health counseling and percentage of patients counseled.
3. Practitioners' level of confidence in health counseling is positively correlated with and accounts for a significant amount of the variance in the amount of time practitioners spent health counseling and percentage of patients counseled.
4. Practitioners' perceived level of importance of health counseling is positively correlated with and accounts for a significant amount of the variance in the amount of time practitioners spent health counseling and percentage of patients counseled.

Methods

Design

The current study is a cross-sectional survey study and the data was collected by Yearwood as part of a doctoral research project (2014). It was designed to examine psychologists' and trainees' health counseling practices. This study included variables such as the amount of time engaged in health counseling, percentage of patients counseled, quantity of training in health counseling, highest level of training, confidence level of the clinician in health counseling, and perceived importance of health counseling. The sample group consisted of licensed psychologists and health service graduate psychology students from the United States (Yearwood, 2014).

Participants

Participants in this study were a convenience sample who voluntarily participated in the survey. The data for this study was archival and was originally collected from listserves of professional organizations in the form of a survey for the completion of a doctoral research project. These included Florida Institute of Technology, Florida Psychological Association, and American Psychological Association. To be eligible to participate in this study, participants had to be adults (18 years old or above) who identified as professional psychologists or psychology trainees (i.e., graduate student, pre-doctoral intern, or post-doctoral resident). All participants were informed at the time the data were collected that participation was voluntary, and those who participated had an opportunity to win a gift card.

Subjects' names and other identifying information were not included in the data and participants were assigned numbers in coded data (Yearwood, 2014).

Health Behavior Counseling

The rate of current health counseling behavior was assessed with two items that were self-reported by participants. The first question on the questionnaire asked participants to estimate the percentage of patients whom the practitioner counseled on health behavior and was open response, allowing the participant to enter a number response. The second question assessed the frequency of health counseling and broke this up into activities that promoted health such as nutrition, physical activity, weight, smoking, alcohol use, and sleep. The participant was asked to utilize the following scale: 1= Never; 2=Rarely; 3=Sometimes; 4=Usually; 5 = Always, and to rate the relative frequency of their engagement in counseling on the behavior being rated (Yearwood, 2014). For this variable, the frequency of health counseling across domains was the mean of the sum of scores for each respondent across all domains.

Training

Training in health-related counseling was assessed by asking the participants to self-report their training history and experiences. Participants were asked to select all activities they had historically engaged in from the following list: read about topic, attended a single workshop, attended multiple workshops, clinical course work, clinical supervision, an area of expertise, primary area of expertise, other training, and no training or expertise. This variable was examined in two

ways: the mean amount of training (weighted to reflect intensity) across domains for each respondent and by only using the highest training level endorsed. This was done to account for participants who had many smaller weighted trainings as opposed to a person who only endorsed a high-level training such as area of expertise. It was done in an attempt to balance out the discrepancy and see if several smaller weighted trainings would be equal to one high weighted training. To determine the mean, the variables were weighted as follows; 0-no training, 1-other training, 2- read about topic, 3- attended single workshop, 4- attended multiple workshops, 5- clinical course work, 6- clinical supervision, 7- an area of expertise, and 8- primary area of expertise. This was done in an attempt to differentiate between the cumulative effect of attending multiple trainings versus the highest level of training endorsed. The highest intensity of training (0 being lowest, 9 being highest) that each participant endorsed from the list above was used to represent the "highest level of training" variable).

Perceived Confidence in Health Behavior Counseling

All participants rated their perceived level of confidence in their ability to counsel patients on specific health behaviors. Psychologists and trainees endorsed their level of confidence in their abilities to counsel patients on a scale from 1 (not at all confident) to 9 (extremely confident) (Yearwood, 2014). The variable used in this study was reached by calculating the mean of the sum of each respondent's confidence scores across the behavioral domains of nutrition, physical activity, weight, smoking, alcohol use, and sleep.

Perceived Importance of Health Behavior Counseling.

Participants were asked to rate: “How important is counseling patients about health behaviors?” Participants were asked to utilize a nine-point scale: 1= not at all important to 9 = extremely important (Yearwood, 2014). This rating represents the perceived importance variable used in this study.

Analyses

Descriptive statistics were run on all variables (see Table 2). Additionally, intercorrelations were calculated among all variables. Then two stepwise multiple regression analyses were performed with the independent variables being quantity of training and highest level of training, confidence in providing health counseling, and perceived importance of health counseling. The dependent variables were amount of time spent in health counseling and percentage of patients receiving health counseling. A post hoc multiple regression was done to determine the effects of training on the variables shown to account for the most variance in the stepwise regression confidence in providing health counseling, and perceived importance of health counseling.

Results

Participant Demographics

The original data set contained the responses of 497 psychologists and trainees. Of these, 117 of these respondents identified as male, 378 identified as female, and 2 as transgender. Of the female respondents, 237 identified themselves as psychologists and 141 as students. Of the male respondents, 76 identified themselves as psychologists and 41 as students. These results are presented in

Table 1.

Professional Psychologists

Data from APA's Center for Workforce Studies (CWS), in its evaluation of health service psychologists (2015b) indicate that 59.2% of psychologists are female, approximately 40% are male, and less than 0.01% identify as transgender. In this sample 24.28% of the professional psychologists identified as men and 75.72% identified as women. No respondent professional psychologist identified as transgender. Therefore, men are underrepresented in this sample. Of the professional psychologists who responded, ages ranged from 26 to 76 with a mean age of 43.6 years. This is younger than the mean age presented by CWS of 55.7 years. The overwhelming majority (93.61%) of psychologists identified as white. This is fairly consistent with a CWS report in which 87.8% of professional psychologists are white (2015b). The breakdown of psychologists who identified as races other than white are as follows: Black or African American 2.88%, Asian

1.60%, Hawaiian or Other Pacific Islander 0.32%, American Indian or Alaska Native 0.64%, Other 3.83. The majority of respondents responded their ethnicity as non-Hispanic (92.97%).

Trainees

The trainee sample was made up of 77% women, 22% men, and 1% transgender. Data from APA's CWS graduate study in psychology report indicate that the proportion of women obtaining new doctorates in psychology is 75%. In this sample, the percentage of women who identified as trainees was 77%, so the study appears to be commensurate with the numbers reported by the APA CWS report (2009c). The age range of the sample of trainees was from 23 to 68, with a mean of 30.0 years. Approximately 86% of participants identified as white. The APA's report suggests that 76% of graduate students in health service psychology are white. This suggests our data is overrepresentative of white trainees (2009c).

Types of Training

Table 3 shows the types of training and the number of respondents who endorsed participating in those trainings. The training with the largest number of endorsements was read about the topic ($n = 320$) followed by clinical course work. The training with the least amount of endorsements was primary area of expertise ($n = 102$). Table 4 breaks down the different trainings for psychologist and trainees. The study did not define the level of training or years of experience of the psychologists and was more interested in a macro view of how training affects rates

of health counseling, confidence, and perceived importance, and all participants were used in the analysis without differentiation between psychologist or trainee.

Correlations Among the Variables

Time spent counseling patients in health counseling and percentage of patients counseled on health behavior were positively correlated ($r = .62, p < .01$). This was done to account for the fact that both traditional mental health practitioners and health psychologists, who may counsel a higher percent of patients, but for a brief session, participated in the study. Tables 4 and 5 examine the correlations among the dependent and independent variables. The dependent variables were time spent health counseling and percentage of patients counseled on health behavior. The independent variables were quantity of training in health counseling, highest level of training in health counseling, confidence in health counseling, and perceived importance of health counseling. All correlations were positive and significant ($p < .05$).

Relationship between time engaged in health counseling and quantity of training, highest level of training, confidence in health counseling, and perceived importance of health counseling

Table 6 shows the results of a stepwise multiple regression analysis used to test if the health counseling variables (quantity of training, highest level of training, confidence in health counseling, and importance of health counseling) accounted for a significant amount of variance in the amount of the time participants reported counseling patients on health behaviors. In step one,

confidence in health counseling was used as the independent variable and was found to account for 20% of the variance , ($R^2 = .20$, $F(1,282)=71.76$, $p < .001$). In step two, importance of health counseling was added to the model along with confidence in health counseling, which resulted in a significant 6% increase in the R^2 , ($R^2 = .26$, $F(1,281)=50.12$, $p < .001$) In the third step, the highest level of training was added to the model and again a significant 2% increase in R^2 was found. The results of this regression indicated that the three predictors explained 28% of the variance ($R^2 = .28$, $F(1,280)=36.17$, $p < .001$). The variable of quantity of training was not found to significantly contribute to the model.

Relationship between percentage of patients receiving health counseling and quantity of training, highest level of training, confidence in health counseling, and perceived importance of health counseling

Table 7 shows the results of a stepwise multiple regression analysis used to test if the health counseling variables (quantity of training, highest level of training, confidence in health counseling, and importance of health counseling) accounted for a significant amount of variance in the percent of patients counseled on health behaviors. In step one, importance of health counseling was used as the independent variable and was found to account for 11% of the variance , ($R^2 = .11$, $F(1,282)=34.92$, $p < .001$). In step two, the highest level of training was added to the model along with importance of health counseling, which resulted in a significant increase of 5% in the R^2 , ($R^2 = .16$,

$F(1,281)=26.98, p < .001$) In the third step, confidence in health counseling was added to the model and again a significant 2% increase in R^2 was found. The results of this regression indicated that the four predictors explained 18% of the variance ($R^2 = .18, F(1,280)=21.08, p < .001$). The variable of quantity of training was not found to significantly contribute to the model.

Relationship between training variables and confidence

A post hoc analysis was performed to test whether the quantity of training and highest level of training (as independent variables) accounted for a significant portion of the variance in confidence in health counseling. Table 8 shows the results of a multiple regression analysis used to test if the training variables (quantity of training and highest level of training) significantly predicted the mean confidence of health counseling. The results of the regression indicated that the independent variables explained 10% of the variance ($R^2 = .10, F(2, 476)=26.59, p < .001$). The variable that was significantly related to mean confidence of health counseling was highest level of training.

Relationship between training variables and perceived importance

A post hoc analysis was performed to test if the quantity of training and highest level of training (as independent variables) accounted for a significant portion of the variance in perceived importance of health counseling. The results of the regression indicated that the independent variables explained 10%

of the variance ($R^2 = .10$, $F(2, 283) = 15.12$, $p < .001$) in perceived importance. However, only highest level of training was significant (see Table 9).

Discussion

The aim of this study was to examine the relationships between quantity and intensity (highest level) of training methods and time spent engaging in health counseling, percentage of patients counseled, as well as confidence in and perceived importance of health counseling. The goal is to add to the literature of how to best prepare practitioners to engage in the healthcare setting.

The study hypothesized both quantity and highest level of training would account for a significant portion of the variance in time spent health counseling, percentage of patients provided with health counseling, confidence in providing health counseling, and perceived importance of health counseling. This study confirmed the intercorrelation among all these variables with mixed results regarding the amount of variance that training variables account for in quantity of health counseling, percentage of patients counseled, confidence in health counseling, and perceived importance of health counseling. Regression data suggest that the more intense training a person receives, the more time is spent engaged in health counseling and the greater percentage of patients is reported for counseling on health behavior. However, the quantity of training received was not significantly predictive of more time spent in health counseling or a greater percentage of patients counseled on health behaviors.

Another interesting finding is that the highest level of training had a stronger correlation with the confidence variable than when the quantity of trainings was used. This finding was repeated for the importance variable with

highest level of training being a greater correlation than mean of training. This is an especially interesting finding due to the fact that both importance and confidence were significantly correlated and predictive of time spent health counseling and percent of patients counseled on health behaviors. So, while quantity of training received may not be directly predictive of the quantity of time spent counseling patients on health behaviors, it was significantly correlated with this variable, thus suggesting some relationship. However, the regressions did not show it to account for a significant amount of the variability in either level of confidence or level of importance of health counseling.

The literature suggested that confidence was important for predicting rates of health counseling, which was supported in this study. Confidence was significantly positively correlated with quantity of health counseling and percentage of patients provided with health counseling; additionally, it accounted for a significant amount of the variance of both variables. Upon examination, highest level of training had a low to moderate correlation with confidence and was minimally predictive in the regression model. This suggests that addressing confidence directly through training may not be the best way to increase health counseling. Future research should focus on how best to increase confidence and perceived importance of health counseling rates of practitioners. It has been shown both in the original study by Yearwood (2014) as well as in the study by Vickers, Kircher, Smith, Petersen, and Rasmussen (2007) as well as in this study that perceived level of importance is correlated and predictive of confidence and

quantity of time spent counseling; however, it has not been shown how best to increase level of confidence to increase health counseling behaviors.

One of the variables most correlated with and predictive of quantity of time health counseling and percentage of patients counseled on health was perceived importance of health counseling. A question that should be addressed by future research is how do we increase the perception of the importance of health counseling? The regression that was run with training predicting importance shows that the higher the level of training (e.g., attended multiple workshops over read a book) was more predictive of perception of importance than the mean quantity of training. This suggests that we would do better by offering more intense trainings than by repeated exposure to the topic if we want to increase the perceived importance of health counseling. As mentioned above, confidence was also moderately correlated with perceived level of importance; therefore, examining what other variables other than training affect all of these variables is important. Looking at what other variables (e.g., number of hours practicing, time since completion of graduate school, and supervision variables) should be considered. It may be that a combination of more training and a series of other variables is the key to increasing confidence, importance, and time spent engaged in health counseling.

This study did demonstrate that the more training in health counseling a person had, the more time they spent counseling patients on health behavior. A question this study hoped to answer was whether there is a minimum quantity of

training at which a practitioner had sufficient confidence to increase in quantity of health counseling. However, this study found that quantity of training did not account for a significant amount of variance in level of confidence. Therefore, it would be helpful for the field to consider determining the desired time spent in or percentage of patients provided with health counseling, considering various settings that psychologists practice in. Future research efforts should be directed at determining the level of training required to accomplish these goals.

Ideally all practitioners should, at minimum, ask their patients about smoking behavior and this would be considered a form of health counseling. That being said, there should be more research done into the minimal level of training necessary to get practitioners to ask all patients about this important behavior.

Another interesting question for future research would be how much does each level of training affect the amount of time or percentage of patients counseled? If answered, training programs could target that level. This study looked at health counseling training quantity and intensity holistically with respect to their effects on time spent health counseling and percentage of patients counseled. If a more micro view that looked at the types and intensities of training with respect to specific health behaviors were conducted, it would be helpful in tailoring programs to address specific health concerns of populations and communities.

The article by Vickers, Kircher, Smith, Petersen, and Rasmussen (2007) showed an effect for gender and discipline of practice (physicians counseled more

on health behaviors than nurses or nurse practitioners). The study pointed out a significant effect for gender, but when we look at who is most likely to be a physician, according to the Kaiser Family Foundation website, 66% of physicians in the United States are men (Kaiser Family Foundation, 2016). This brings up an interesting question about the possibility of gender effect. If physicians are overall more confident in counseling on health behaviors and most physicians are men, then the question is are men in general more confident, and if so why? Future research should examine this question and see if there is a gender effect on confidence in health counseling.

The limitations of this study have to do with the macro level view taken. This study has shown in the broad sense, the more training a person has in health counseling, the more time will be spent engaged in it and the more patients will be counseled; however, it is unable to suggest at what level programs should target their training and for which specific health behaviors.

An additional limitation has to do with the use of archival data. Since the data was previously collected, it was impossible to set criteria for what constitutes health counseling. The questions from the original study asked broadly about what amount of time the respondents spent counseling across domains, but did not set any behavioral anchors to standardize responses. It would be helpful to establish behavioral anchors, including but not limited to providing psychoeducation, providing behavior intervention(s), and providing extensive follow up, rather than simply asking practitioners their perceptions of how much counseling they provide.

Future research may also focus on strengthening the evidence base with respect to the effectiveness of various types of health counseling and types of training needed to provide the necessary level of care.

Another weakness of this study has to do with the variable within the training data labeled “other training.” The other levels of training were classified in a hierarchical fashion. For example, it was intuitive that taking a class would be more intensive than reading a single book and was coded as higher. The other training variable had no specific definition and was coded as the lowest level since it was not known what trainings would fit into this category and other higher levels were fairly clearly delineated. There is no way to tell what the respondents who used this category were classifying as other (n = 143). Was it discussing health counseling issues with a colleague, watching videos on health counseling, listening to a podcast or something else that we have not considered? It is difficult to ascertain the meaning of this variable until it is operationally defined. In future research, it would be helpful to either define this variable or eliminate it to clarify the effects of training.

The limitation related to training was a lack of operational definitions surrounding length of workshops. There may be a difference in the training one receives from a three-day intensive workshop on health counseling and two 40-minute workshops. In future research, it would be helpful to further define these variables. It would be helpful to ask for an estimated number of hours along with the number of workshops to help clarify this problem.

A further weakness of the data in this study was its inability to distinguish training level of trainees and years of practice of psychologists. This means that a post-doctoral resident would be in the same classification as a third-year doctoral student. Additionally, some states allow for licensure without a post-doctoral training year. This being said, it is therefore possible, because the data was collected nationally, for a first-year licensed psychologist to be at the same training level as a post-doctoral resident, depending on state. In future research, the exact year of practice should be determined.

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Notice of Exempt Review Status

From: Florida Tech Institutional Review Board
FWA00014339, IRB00001690

To: Stephen Lupe

Date: October 28, 2016

IRB Number: 16-174

Study Title: Effects of training experiences on time engaged in health counseling

Dear Researcher:

Your research protocol was reviewed and approved by the IRB Chairperson. Per federal regulations, 45 CFR 46.101, your study has been determined to be minimal risk for human subjects and exempt from 45 CFR 46 federal regulations and further IRB review or renewal unless you change the protocol or add the use of participant identifiers.

All data, which may include signed consent form documents, must be retained in a secure location 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. Access to data is limited to authorized individuals listed as key study personnel.

The category for which exempt status has been determined for this protocol is as follows:

4) Research involving the **collection or study of existing data, documents, records, or specimens** if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, indirectly or through identifiers linked to the subjects.



RESEARCH INVOLVING HUMAN PARTICIPANTS
Exempt Application

This form shall be used if there is **minimal risk** to human subjects and one or more of the conditions below apply. If there is more than minimal risk associated with the research (none of the conditions below apply) or if the research utilizes a special population (children, prisoners, institutionalized individuals, etc.), please use the expedited/full application form found on the IRB website.

You should consult the university's document "Principles, Policy, and Applicability for Research Involving Human Subjects" prior to completion of this form. Copies may be obtained from the Office of Sponsored Programs and on the IRB website.

IRB Contact Information:

Dr. Lisa Steelman, IRB Chairperson
lsteelma@fit.edu 674-7316

John Politano, Associate Vice President for Research
jpolitano@fit.edu 674-7239

Investigator Information:

Title of Project: Effects of Training Experiences on Time Engaged in Health Counseling
Date of Submission: 10/17/2016
Expected Project Start Date: 10/17/2016
Expected Project Duration: 2months

Principal Investigator: Stephen Lupe, M.S.
Title: Graduate Student
Academic Unit: Clinical Psychology
Phone: (239) 464-7794
Email: _____

Co Investigator: _____
Title: _____
Academic Unit: _____
Phone: _____
Email: _____

Co Investigator: _____
Title: _____
Academic Unit: _____
Phone: _____
Email: _____



Categories of Exempt Research

Researcher must choose one:

- ☐ 1) Research conducted in established or commonly accepted educational settings, involving **normal educational practices**, such as:
 - a. research on regular and special education instruction strategies, or
 - b. research on the effectiveness of or the comparison among instruction techniques, curricula, or classroom management methods.
- ☐ 2) Research involving the use of **educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior** unless:
 - a. the subjects can be identified, directly or through identifiers linked to the subjects and
 - b. any disclosure of subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Note: This exemption does not apply to survey procedures or interviews involving minors.
- ☐ 3) Research involving the use of educational tests, survey or interview procedures, or observation of **public behavior** if:
 - a. the subjects are elected or appointed public officials or candidates for public office or
 - b. the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- x 4) Research involving the **collection or study of existing data, documents, records, or specimens** if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, indirectly or through identifiers linked to the subjects.
- ☐ 5) Research and demonstration projects that are conducted by or subject to the approval of Department or Agency heads and that are designed to study, evaluate, or otherwise examine:
 - a. **public benefit or service programs**,
 - b. procedures for obtaining benefits or services under those programs,
 - c. possible changes in or alternatives to those programs or procedures, or
 - d. possible changes in methods or levels of payment for benefits or services under those programs.
- ☐ 6) **Taste and food quality evaluation** and consumer acceptance studies if:
 - a. wholesome foods without additives are consumed or
 - b. food is consumed that contains food ingredients found to be safe by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

If any part of this study will be funded by an external funding source, you must note the funding source and award/solicitation number below:

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Answer the following questions as thoroughly as possible.

1. List the objectives of the proposed project.

The objectives of the proposed project are to review data collected by Yearwood (2014) at the Florida Institute of Technology as part of her Doctoral Research Project and examine the following hypothesis:

1. Intensity of health counseling training received is positively correlated with both practitioners' confidence in their health counseling abilities and with the amount of time practitioners spend health counseling.

2. Quantity of health counseling training received is positively correlated with, and predictive of practitioners' confidence in their health counseling abilities.

3. Practitioners' perceived level of confidence in health counseling is positively correlated with, and predictive of the amount of time reported engaged in health counseling.

4. Practitioners' perceived level of importance of health counseling will be positively correlated with, and predictive of the amount of time engaged in health counseling.

5. Practitioners' perceived level of importance of health counseling will be positively correlated with, and predictive of quantity of training in health counseling.

6. Practitioners' perceived level of confidence in health counseling is positively correlated with, and predictive of the amount of time reported engaged in health counseling.

Additionally, as the literature did not reveal any minimal level of training required to feel confident in one's ability to counsel on health behavior, it is hoped this study will shed some light on this question. The author hopes to identify a minimum quantity of training required to feel confident, which it is hoped will increase the amount of time spent engaged in health counseling.



2. Describe the research project design/methodology. Discuss how you will conduct your study, and what measurement instruments you are using. Attach all research materials to this application. Please describe your study in *enough detail* so the IRB can identify what you are doing and why.

Methods

Design

The current study is a cross-sectional survey study. It was designed to examine psychologists' and trainees' health counseling practices. This included variables such as the amount of time spent engaged in health counseling, the confidence level of the clinician in health counseling, and the type of training the clinician had in health counseling (Yearwood, 2014). The sample group consisted licensed psychologists, and health service psychology graduate students from the United States (Yearwood, 2014).

Health Behavior Counseling.

The rate of current health counseling behavior was assessed with two items, which were self-reported by participants (Yearwood, 2014). Additionally, frequency of health counseling practices was assessed within the questionnaire (Yearwood, 2014). The questions within the questionnaire asked participants to estimate the percentage of patients whom the practitioner counseled on health behavior, and included response options presented on a five-point scale (1= Never; 2=Rarely; 3=Sometimes; 4=Usually; 5 = Always). This asked practitioners to rate this behavior based on their counseling on activities that promoted health such as nutrition, physical activity, weight, smoking, alcohol use and sleep.

Training.

Training in health related counseling was assessed by asking the participants to self-report their training history and experiences. Participants were asked to select all activities they had historically engaged in from the following list: read about topic, attended single workshop, attended multiple workshops, clinical course work, clinical supervision, an area of expertise, primary area of expertise, other training, and no training or expertise.

Perceived Confidence for Health Behavior Counseling.

All participants rated their perceived level of confidence in their ability to counsel patients on specific health behaviors. Psychologists and trainees endorsed their level of confidence in their abilities to counsel patients on a scale from 1 (not at all confident) to 9 (extremely confident) (Yearwood, 2014).

Perceived Importance of Health Behavior Counseling.

Participants were asked to rate: "How important is counseling patients about health behaviors?" (Yearwood, 2014). Participants were asked to utilize a nine-point scale (1= not at all important; 9 = extremely important).

Analysis.

The variables in this study listed above will all have descriptive statistics performed on them. Additionally, correlations and regression matrix will be conducted on the variables of training and amount of time spent in health counseling; perceived confidence and amount of time spent in health counseling; importance of health behavior counseling and amount of time spent in health counseling. Furthermore, a stepwise regression will be conducted with each level of training in an attempt to determine how much each type of training contributes to engaging in health counseling.



3. Describe the characteristics of the participant population, including number, age, sex, and recruitment strategy (attach actual recruitment email text, recruitment flyers etc).

Participants

Participants in this study were a convenience sample whom voluntarily participated in the survey. The data for this study was archival and was originally collected in the form of a survey for completion of a doctoral research project, from listservs of professional organizations from July 14, 2013 when the survey was posted on QuestionPro and until September 16, 2013 (Yearwood, 2014). These included Florida Institute of Technology, Florida Psychological Association, and American Psychological Association. The data for this study was collected from the responses to several of the questions, which were included in this survey. To be eligible to participate in this study participants must have been adults (18 years old or above) whom identified as professional psychologists or psychology trainees (i.e., graduate student, pre-doctoral intern, or post-doctoral resident). All participants were informed at the time data was collected, that participation was voluntary and those who participated had an opportunity to win a gift card. Subjects' names and other identifying information were not included in the data and participants were assigned as number in coded data (Yearwood, 2014).

4. Describe any potential risks to the participants (physical, psychological, social, legal, etc.) and assess their likelihood and seriousness. Describe steps that will be taken to mitigate each risk.

The risk to subjects will be minimal due to the fact that the data is coded so that each subject has a number. The data is archival and no names can be associated with the data.

5. Describe the procedures you will use to maintain the confidentiality and privacy of your research participants and project data. If video or audio recordings will be made, you must review the video/audio recording policy found on the IRB website and address precautions you will take in this section.

The data has been coded so that the identity of respondents is concealed. This is archival data and the current researcher would not have access to the names of the respondents.

6. Describe your plan for informed consent (attach proposed form).

The original data was collected with informed consent. The original study stated that the data was collected by participants voluntarily participating in a survey with informed consent, and they had the opportunity to withdrawal from participation at any point.

For the Current study there is no informed consent as archival data are being used.

7. Discuss the importance of the knowledge that will result from your study (benefits to the field and to society) and what benefits will accrue to your participants (if any). Include information about participant compensation if appropriate.

The goal of this study is to look at how to best prepare practitioners for the challenging task of providing health counseling. The literature suggests psychologists do not engage in health counseling because they do not feel confident in their training (Tulloch, Fortier, & Hogg, 2006; Akpanudo, Price, Jordan, Khuder, and Price, 2009). Looking at the expanding role of the psychologists in the healthcare setting, there are great opportunities to increase the overall well-being of patients by collaborating and offering the skill set psychologists possess, which includes health behaviors, i.e. behaviors that prevent injury or improve health (Cox, Adams, & Loughran, 2014; CDC, 2011). Psychologists have an opportunity to utilize their specialized training and to contribute to the wellbeing of patients in medical settings; however, there are also barriers to the integration of psychologists. Many practitioners identified



discomfort with their training in such activities as smoking cessation, exercise counseling, and other activities associated with increasing positive health behaviors (Tulloch, Fortier, & Hogg, 2006; Akpanudo, Price, Jordan, Khuder, and Price, 2009). This paper asserts that working with individuals to increase health behavior is really just working on behavior and psychologists are well trained to meet this task. It also demonstrates the need for collaborative care and identify ways mental health practitioners can assist in providing more comprehensive care in the healthcare setting. If the expanded role of psychologists in to the health care setting is to be valued and sought after, then psychologists must be adequately trained to assume these roles with confidence. Thus, graduate schools may have to consider revamping their programs to include a heavier emphasis in preparing psychologists for healthcare settings. The study itself aims to look at the forms of training the practitioners engaging in this work undergo and the effect the intensity of this training has on the amount of time these practitioners spend on health counseling. This study hypothesizes that intensity, defined as time of exposure, of health counseling training received is positively correlated with both practitioners' confidence in their health counseling abilities and with the amount of time they spend health counseling.

8. Explain how your proposed study meets criteria for exemption from Institutional Review Board review (as outlined on page 2 of this form).

As stated above the data for this study is archived data collected by Yearwood (2014) at the Florida Institute of Technology as part of her Doctoral Research Project. It was reviewed by the Florida Institute of technology IRB and approved. The data for this study is de-identified coded data. The identities of the participants cannot be determined and there is no risk to participants.



Signature Assurances

I understand Florida Institute of Technology's policy concerning research involving human participants and I agree:

1. to accept responsibility for the scientific and ethical conduct of this research study,
2. to obtain prior approval from the Institutional Review Board before amending or altering the research protocol or implementing changes in the approved consent form,
3. to immediately report to the IRB any serious adverse reactions and/or unanticipated effects on participants which may occur as a result of this study.

PI Signature

Date

10/17/16

Advisor Assurance: If primary investigator is a student

This is to certify that I have reviewed this research protocol and that I attest to the scientific merit of the study, the necessity for the use of human subjects in the study to the student's academic program, and the competency of the student to conduct the project.

Major Advisor

Date

10/17/16

Major Advisor (print)

KRISTIN VAN SICKLE, PSYD

Academic Unit Head: It is the PI's responsibility to obtain this signature

This is to certify that I have reviewed this research protocol and that I attest to the scientific merit of this study and the competency of the investigator(s) to conduct the study.

Academic Unit Head

Date

10/17/16

FOR IRB USE ONLY

IRB Approval

Date

10-28-16

Name

110-1761

IRB #

Table 1

Demographic characteristics of psychologists and trainees

	P		T	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
<u>Gender^a</u>				
Male	76	24.28	41	22.28
Female	237	75.72	141	76.63
Transgender	0	0	2	1.09
<u>Race^b</u>				
White	293	93.61	159	86.41
Black or African American	9	2.88	8	4.35
Asian	5	1.60	11	5.98
Hawaiian or Other Pacific Islander	1	0.32	1	0.54
American Indian or Alaska Native	2	0.64	1	0.54
Other	12	3.83	4	2.17
Don't know/ Refused	0	0	0	0
<u>Ethnicity^c</u>				
Hispanic or Latino	20	6.39	15	8.15
Not Hispanic or Latino	291	92.97	168	91.30
Don't know/Not sure	2	0.64	1	0.54

Note: P = Professional Psychologists; T = Trainees.

^aData available for professionals (N=313), trainees (N = 184).

^bData available for professionals (N=311), trainees (N = 184) .

^cData available for professionals (N=313), trainees (N = 184),

Table 2

Descriptive statistics for all variables

Sample N=497			
	<i>n</i>	<i>M</i>	<i>SD</i>
Quantity of training	497	3.91	1.46
Highest level Training	497	5.63	2.19
Confidence	479	5.97	1.33
Level of Importance	286	6.78	1.36
Time Spent	497	1.74	.03
Percent of Patients Counseled	497	52.82	36.23

Table 3

Types of training in health issues, in order of increasing intensity, for sample

	N=497	
	<u>n</u>	<u>%</u>
No training or expertise	28	5.6
Other training	143	28.8
Read about topic	320	64.4
Attend single workshop	109	21.9
Attend multiple workshops	214	43.1
Clinical course work	312	62.8
Clinical supervision	288	57.8
An area of expertise	151	30.4
Primary area of expertise	102	20.5

Table 4

Training in health issues broken down into psychologists and trainees

	P N=313		T N=184	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Read about topic	262	83.71	161	87.50
Attend single workshop	65	20.77	44	23.91
Attend multiple workshops	155	49.52	59	32.07
Clinical course work	186	59.42	126	68.48
Clinical supervision	162	51.76	126	68.48
An area of expertise	110	35.14	41	22.28
Primary area of expertise	74	23.64	28	15.22
Other training	82	26.20	61	33.15
No training or expertise	18	5.75	10	5.43

Note. P = Professional Psychologists; T = Trainees.

Table 5

Intercorrelations among time spent health counseling, percentage of patients counseled on health behaviors, quantity of training, highest level of training, confidence in health counseling, and importance of health counseling

	1	2	3	4	5	6
1. Quantity of health counseling	—	.62**	.25**	.31**	.45**	.40**
2. Percentage of Patients counseled on health behaviors		—	.25**	.32**	.31**	.33**
3. Quantity of training			—	.89**	.25**	.25**
4. Highest level of training				—	.31**	.31**
5. Confidence in health counseling					—	.39**
6. Importance of health counseling						—

Note. * $p < .05$, ** $p < .01$

Table 6

Regression analysis for quantity of health counseling, quantity of training, intensity of training, confidence in health counseling, and importance of health counseling

Variable	R^2	ΔR^2	sr	β
Step 1				
Confidence in health counseling	.20	.20	.45	.45**
Step 2				
Confidence in health counseling	.26	.06	.32	.35**
Importance of health counseling			.25	.27**
Step 3				
Confidence in health counseling	.28	.02	.28	.31**
Importance of health counseling			.21	.24**
Highest level of training			.13	.14*

Note. sr = semipartial correlation coefficient

Variable Quantity of Health Counseling training was not included in the model as it was found to not contribute significantly to the model

* $p < .05$, ** $p < .01$

Table 7

Regression analysis for percent of patients counseled on health behaviors, quantity of training, intensity of training, confidence in health counseling, and importance of health counseling

Variable	R^2	ΔR^2	sr	β
Step 1				
Confidence in health counseling	.11	.11	.33	.33**
Step 2				
Confidence in health counseling	.16	.05	.25	.26**
Importance of health counseling			.23	.24**
Step 3				
Confidence in health counseling	.18	.02	.18	.20**
Importance of health counseling			.19	.20**
Highest level of training			.15	.17**

Note. sr = semipartial correlation coefficient

Variable Quantity of Health Counseling training was not included in the model as it was found to not contribute significantly to the model

* $p < .05$, ** $p < .01$

Table 8

Regression analysis for confidence in health counseling and quantity of training

Variable	B	SEB	β
Quantity of training	-.11	.09	-.12
Highest level of training	.25	.56	.41**

Note. $R^2 = .10$ ($N = 497$, $p < .01$)

* $p < .05$, ** $p < .01$

Table 9

Regression analysis for importance of health counseling and quantity of training

Variable	B	SEB	β
Quantity of training	-.09	.11	-.09
Highest level of training	.24	.08	.39**

Note. $R^2 = .10$ ($N = 497$, $p < .01$)

* $p < .05$, ** $p < .01$