DEVELOPMENT OF AN EVALUATIVE INSTRUMENT TO ASSESS KNOWLEDGE, COMPETENCY, AWARENESS AND PROFESSIONAL SENSITIVITY OF EXERCISE PROFESSIONALS WHO INTERACT WITH FEMALE CLIENTS WHO HAVE EXPERIENCED SEXUAL ABUSE

by

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A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science in Exercise Science

Middle Tennessee State University

May 2017

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This is dedicated to all women who have experienced sexual abuse who press on and who work hard to bravely live healthy, courageous lives.

ACKNOWLEDGEMENTS

Thank you to Dr. Don Morgan and Dr. Dana Fuller, without your skill, patience, knowledge, and hours upon hours of work this study would only be a dream.

To my husband and children for your encouragement to dream big and never stop learning, and my parents who laid the foundation of education for me during my youth.

To the counselors, exercise professionals, and survivors who have donated time to review this assessment thoroughly, your input is what has made this project a success.

ABSTRACT

An evaluative instrument (the Sexual Abuse Assessment Tool, or SAAT) was developed to assess the competency of exercise professionals to incorporate sensitive training practices when interacting with women who have experienced sexual abuse. Twelve content experts rated the relevance of each assessment item, after which items were dichotomized as being relevant or non-relevant. The readability of the SAAT was a grade level of 13.1. Of the 64 test items comprising the final version of the SAAT, the range of domain-content validity index values was narrow (0.86-0.87) and the scale content validity index, defined as the average of the item-content validity index values for all assessment items, was 0.87. Future research efforts should be aimed at documenting the reliability of the SAAT, broadening the assessment to include male survivors of abuse, exploring the possibility of creating a shorter version of this evaluative tool, and administering the SAAT to fitness leaders.

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CHAPTER I

INTRODUCTION

Most legal definitions describe sexual abuse as any non-consensual sexual experience (Broach et al., 2006). While sexual abuse can be experienced by both sexes, the prevalence of sexual abuse in the United States is greater among women (Butchart & Harvey, 2006). The reported prevalence of sexual abuse in women is not well-established and can reflect both broad descriptions of this phenomenon, such as general sexual harassment, or types of sexual advance or attack, such as indecent exposure or rape. While as many as 45% of women have reported some form of sexual abuse (Black et al., 2010), this percentage can vary widely based on the definitions of and laws surrounding sexual abuse, which, in turn, are influenced by statutes governing local jurisdiction and survivors' experiences. When these factors are taken into account, studies have reported that 2% to 20% of women have experienced sexual abuse (Broach, et al., 2006 & Black, et al., 2010 & Butchart Harvey, 2006).

Recent findings have shown that an association exists between past sexual abuse and a host of negative health consequences, such as anxiety (Feerick & Snow, 2005), impaired glucose metabolism (Chugani, Behen, Muzik, Juhasz, Nagy & Chugani, 2001), a greater likelihood of central or abdominal obesity (Borrell & Samuel, 2014), and cardiovascular disease (Borrell & Samuel, 2014). Many lifelong health risks and behaviors in adulthood are influenced by early childhood experiences. The emotional and physical toll of sexual abuse and assault occurring early in childhood may continue into adolescence and adulthood, resulting in long-term health consequences (Alvarex,

Pavao, Baumrind, & Kimerling, 2007). In addition, a statistically significant dose-response relationship has been observed between early-life abuses and cardiovascular, pulmonary, and liver disease, cancer, and fractures (Felitti et al., 1998).

It is widely accepted that adopting and maintaining an active lifestyle can have a positive impact on health (Okonski, 2003). While barriers such as time constraints, safety concerns, bad weather, or low energy can reduce exercise involvement for many adults (Baruth, Sharpe, Medina, Wilcox, 2015), additional and unique barriers to physical activity participation exist for women who have been abused sexually. Due to the emotional and physical effects of sexual abuse, which can include exaggerated coping strategies (Alvarex, Pavao, Baumrind, & Kimerling, 2007), the side effects of sexually transmitted diseases (Gielen, McDonnell, Wu, O'Campo & Faden, 2001), and emotional discomfort surrounding changing areas (Harrison & Narayan, 2003), many women who have been abused sexually are unsuccessful in adhering to a consistent exercise program (Schachter et al., 1999). Because regular participation in physical activity can promote better health outcomes (Borrell & Samuel, 2014), any general or specific barriers that can hinder consistent exercise performance among women who have experienced past sexual abuse should be identified and addressed (Schachter et al., 1999).

Like many people who desire to improve their health profile, adult survivors of abuse may benefit from the services of group fitness instructors, personal trainers, and physical therapists who can provide safe and effective physical conditioning, enhance sport performance, and restore and maintain physical function and health. According to the Bureau of Labor Statistics, in 2014, there were 241,000 fitness trainers and aerobics

instructors in the United States and 3,580 in Tennessee (http://www.bls.gov/oes/current/oes399031.htm). Exercise trainers are typically trained and certified by educational institutions and professional organizations that evaluate competency in a number of areas, including (1) exercise physiology, (2) health appraisals, (3) exercise training and establishment of exercise programs, (4) exercise testing and prescription for typical and special populations; (5) nutrition and weight management; (6) program administration; (7) safety and injury prevention, (8) exercise psychology and human behavior, and (9) biomechanics. (American College of Sports Medicine, 2015; American Council on Exercise, 2015; http://www.studyguidezone.com/acsm.htm; Bryant & Green, 2010; Thompson, 2010).

Exercise professionals can play an important role in promoting the health and fitness of the general population and persons with specific health challenges. However, while many adult women report having experienced some form of sexual abuse, fitness leaders do not typically receive formalized training or instruction to work with this particular demographic (American College of Sports Medicine, 2015; American Council on Exercise, 2015; http://www.studyguidezone.com/acsm.htm; Bryant & Green, 2010; Thompson, 2010). A possible explanation for this disconnect between exercise trainers and females who have been abused sexually is a lack of disclosure from the client to the fitness professional of past sexual abuse. Non-disclosure of previous abusive episodes is understandable, as sexual abuse is a sensitive topic and its consequences are often not perceived to be directly connected to exercise performance (Schachter et al., 1999). However, the availability of educational information and specialized training regarding

sensitive practices with women who have experienced past sexual abuse would provide a safer and more comfortable physical activity environment for clients, potentially resulting in lower program withdrawal and dropout and higher rates of continued individual exercise participation, even after formal training has ceased (Schachter et al., 1999). Knowing that an exercise professional has received specialized training and instruction in sensitive practices when working with women who have been abused sexually may also encourage clients to share their personal abuse histories and allow for even greater sensitivity and awareness to be present in the client-professional relationship.

As a preliminary step to creating enhanced training opportunities in this area, it is important to evaluate the knowledge base of exercise professionals to competently instruct women who have experienced sexual abuse. However, an assessment tool does not currently exist to determine the competency of exercise instructors who conduct individualized or group training with female survivors of sexual abuse. Consequently, the purpose of this study was to develop an evaluative instrument to assess the knowledge and competency of exercise professionals to incorporate sensitive training practices when instructing women who have experienced sexual abuse.

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter, published literature related to the topic of sexual abuse and the competency of exercise professionals who interact with women who have encountered this form of abuse is reviewed. The chapter begins with an overview of the topic of sexual abuse and the legal consequences of engaging in this behavior. Next, the relationship between sexual abuse and health consequences is explored. The third section of the review identifies and describes barriers to physical activity and exercise participation in women who have been abused sexually and includes a discussion of the training, competency, and roles of exercise professionals who work with adult females who have experienced sexual abuse at some point in their life. The chapter concludes with an overall summary.

Sexual Abuse

Introduction. Sexual abuse can be manifested in many ways and experienced differently by individuals. While traditional and legal definitions often characterize sexual abuse as any non-consensual sexual experience, unwanted sexual experiences which occur after consent has been provided (e.g., being coerced to engage in sexual activity) are also considered a form of sexual abuse (Broach, et al., 2006). Interestingly, not all unwanted sexual activity is viewed as sexual abuse in the legal system. An adult, for example, may consent to participate in sexual experiences as a result of manipulation, fear, unequal libido, or a lack of shared expectations. Although legal action may not be

warranted for these forms of unwanted sexual encounters, each person may perceive her or his own situation as abusive or non-abusive (Broach & Petretic, 2006).

Unwelcome sexual experiences, including rape and sexual contact, and non-contact sexual experiences, such as indecent exposure, have been reported by nearly 45% of U.S. women (Black et al., 2010). While members of both sexes report being sexually abused, females are significantly more likely to experience such abuse (Butchart & Harvey, 2006). Among college-aged females, the prevalence of past sexual coercion ranges from 6% to 21% and the percentage of attempted rape in this population varies from 2% to 15% (Broach et al., 2006). According to one source, as many as 20% of females have reported sexual abuse in their youth (Butchart & Harvey, 2006), while others have cited values ranging from 2% (non-consensual intercourse) to 15% (other unwanted sexual experiences) (Broach et al., 2006).

Legal Consequences for Perpetrators of Sexual Abuse. Legal consequences exist for persons who force another person to participate in a sexual experience (Broach & Petretic, 2006). In the United States, children are not permitted to provide consent for any form of sexual activity; therefore, all sexual experiences with a child are illegal. The charges for abuse crimes in Tennessee vary with the specific crime. For example, the rape of a child in the state of Tennessee is a Class A Felony punishable by no less than 25 years imprisonment, whereas being an accessory to this crime after the fact (or providing assistance to an offender with knowledge that this crime had been committed) is considered a Class E Felony and punishable with a minimal fine and a significantly shorter prison sentence. Convicted sexual abusers are subject to monetary fines and jail

time and must (a) obtain identification of this legal status on their Tennessee Driver's License, (b) register with the state as a sex offender, and (c) limit access to past and potential victims (Tennessee Bureau of Investigation, 2015).

Sexual Abuse and Health Outcomes

Sexual Abuse and Obesity. Women who have been abused sexually display higher obesity rates compared to women who have not experienced sexual abuse (Greenfield & Marks, 2008). The rates of adult-onset obesity are also higher among females who have experienced sexual and physical abuse compared to those who have undergone other forms of abuse (Richardson, Dietz, & Gordon-Larsen, 2014). A greater severity of childhood sexual abuse prior to 18 years of age has been linked to an adult body mass index exceeding 30 kg/m^2 (Brewer-Smyth, 2014), or Grade I obesity (Borrell & Samuel, 2014). More specifically, a high severity of sexual abuse is related to higher central patterns of obesity compared to women who have not been abused or been victims of less-severe abuse (Boynton-Jarrett, et al., 2012). From a health perspective, obesity is associated with a host of medical conditions, including Type 2 diabetes, atrial fibrillation, central obesity, and a greater incidence of all-cause mortality, heart attack, and cardiovascular disease (Borrell & Samuel, 2014).

Although not completely understood, the positive association between sexual abuse and obesity may be tied to biological and emotional stresses. These dual types of stress can sometime be manifested as binge eating disorders or general overeating and can negatively impact eating behaviors in adulthood (Alvarez, Pavao, Baumrind, & Kimerling, 2007; Greenfield & Marks, 2009). Obesity is associated with poor nutritional

and physical activity habits, high stress levels, and low socioeconomic status (Brewer-Smyth, 2014). In addition, a lack of activity and sports participation throughout youth and into adulthood can lead to negative health consequences, such as obesity (Harrison & Narayan, 2003). Despite health behavior education, many survivors of physical and sexual abuse engage in risky behaviors, including emotional overeating, that can lead to obesity (Brewer-Smyth, 2014). A tendency to eat in response to stress has also been noted in survivors of childhood violence (Boynton-Jarrett, Rosenberg, Palmer, Boggs & Wise, 2012).

Sexual Abuse and Underweight. In addition to obesity, survivors of abuse exhibit a greater potential for depression and more severe expression of anorexia nervosa (Carter, Bewell, Blackmore, & Woodside, 2006). Malnourishment can exist in the presence of poverty, neglect or poor self-care (Borrell & Samuel, 2014) and the absence of healthful nutrition and inadequate caloric intake can sometimes result in a low BMI (BMI < 18.5 kg/m^2) (Borrell & Samuel, 2014). Similar to those who are classified as having Grade II (BMI $\geq$ 35.0 kg/m^2) or Grade III (BMI $\geq$ 40.0 kg/m^2) obesity, underweight adults exhibit higher rates of all-cause mortality and cardiovascular disease than adults who display a normal weight status (Borrell & Samuel, 2014).

Emotional and Neurological Consequences of Sexual Abuse. When a person experiences sexual abuse at any age, the negative effects of this mistreatment are often manifested even after the abuse has ceased. While a large body of research has described the consequences of childhood sexual abuse, much less is known regarding the negative outcomes of adult sexual abuse. In both men and women, a higher rate of suicide

attempts has been documented in persons who have experienced childhood abuse or neglect and the presence of sexual abuse in a person's life increases the suicide attempt rate by 11.5% (Roy & Janal, 2006). In women, an association exists between sexual abuse in childhood and anxiety, social distress, and severity of posttraumatic stress disorders (Feerick & Snow, 2005). The prevalence of childhood sexual abuse is also higher among inpatients with anorexia nervosa compared to the general population (Carter et al., 2006). Among female adult patients who have been diagnosed with anorexia nervosa, women who have experienced sexual abuse in childhood or adolescence exhibited higher rates of depression and anxiety, low self-esteem, a greater severity of obsessive-compulsive symptoms, and interpersonal problems when contrasted with women who have not been the recipients of this type of abuse (Carter et al., 2006).

In addition to influencing emotional health, the sexual abuse of a young child can also alter brain chemistry (Hodel, Hunt, Cowell, Van Den Heuvel, Gunnar & Thomas, 2015). Brain scans taken of children who have experienced severe early-life stressors, such as neglect or malnourishment, show abnormal prefrontal cortex scans, even after accounting for the presence of other life stressors (Hodel, et al., 2015). These neurological changes can lead to poor social relationships, behavioral issues, a higher risk of depression, and an adverse effect on glucose metabolism (Chugani, Behen, Muzik, Juhasz, Nagy & Chugani, 2001). Taken together, these findings suggest that early-life experiences can result in negative health outcomes that can be difficult to avoid in adulthood. Clearly, the emotional and neurological aftermath of sexual abuse can affect

decision-making skills and emotional and physical health, all of which have the potential to influence health behaviors, including adherence to exercise.

Sport Participation and Behavioral Consequences of Sexual Abuse. Persons who experience abusive or dysfunctional situations in their homes early in life are less likely to participate in sports, which can lead to social isolation, emotional struggles, and physical inactivity (Harrison & Narayan, 2003). School-sponsored and community-based activities can provide the basis for promoting lifelong fitness habits and friendships and developing technical sports skills, team leadership, and cooperation (Harrison & Narayan, 2003). However, even when these school and community sport opportunities are available, rates of activity participation can diminish in the presence of abuse and lack of family support. Adolescents who have a family history or personal experience with substance, physical, or sexual abuse do not report a high level of socially-supportive relationships or activities and are more likely to experience suicidal ideations, such as general desires for death or more specific plans for carrying out suicide (Harrison & Narayan, 2003). In contrast, a higher social connectedness through sport participation is associated with fewer abuses within the family unit, along with increased exercise participation and milk consumption, healthier emotions and view of one's self-confidence, and fewer suicidal thoughts (Harrison & Narayan, 2003).

Early Abuse and High-Risk Behaviors in Adulthood. Negative experiences during childhood, such as abuse and family conflict, have the potential to increase risk factors associated with poor health in adulthood, and the number of early-life stressors is positively associated with adult BMI (Gunstad, Paul, Spitznagel, Cohen, Williams, &

Gordon, 2006). In addition, more traumatic or frequent negative experiences early in life are linked to poor health and obesity in adulthood (Greenfield & Marks, 2009). Survivors of sexual abuse who have undergone additional physical abuse display a higher severity of obesity compared to individuals who are obese, but who have not been abused (Richardson, Dietz and Gordon-Larsen, 2013). Significant dose-response relationships have also been shown to exist between (1) early life psychological abuse, (2) physical abuse, (3) contact sexual abuse, (4) exposure to substance abuse, (5) mental illness of a household member, (6) violent treatment to a matriarch within the home, and (7) criminal behavior by a member of the household and the presence of the following health risk factors: (1) cigarette smoking, (2) severe obesity (BMI $\geq$ 35 kg/m^2), (3) no physical activity, (4) depression (> 2 weeks in a depressed mood annually), (5) suicide attempts, (6) alcoholism, (7) drug use, (8) sexual partners numbering 50 or higher, and (9) past occurrence or presence of a sexually-transmitted disease (Felitti et al., 1998). Given these findings, health practitioners must be educated to respond in an appropriate and sensitive manner to survivors of abuse.

Physical Activity and Exercise Following Sexual Abuse

Introduction. A variety of health measures, such as quality of life, physical wellness, and emotional well-being, may decline following abuse, but will often show improvement in the presence of regular exercise (Okonski, 2003). These findings support the beneficial use by mental health professionals of safe and consistent exercise routines to yield positive physiological and psychological outcomes, such as stress management, weight management, and improved self-esteem. (Okonski, 2003). In addition, women

who have experienced abusive situations may choose to seek out training and consulting opportunities with qualified exercise professionals skilled in physical training or rehabilitation and who emphasize participation in regular physical activity to enhance cardiovascular endurance, improve body composition, and increase bone density (Centers for Disease Control and Prevention, 2015; Gielen et al., 2001). Incorporating stress management and physical conditioning as part of a traditional therapy and wellness program that is personalized to individual clients can also aid in stabilizing emotions and producing total wellness (Myers, Sweeney & Witmer, 2000).

Exercise Barriers in Women. Women face unique barriers to participation in exercise and physical activity. Even when the desire to adopt a more active lifestyle is present, some women experience emotional or physical discomfort when exercising that can limit activity participation. However, many women express feelings of guilt if physical conditioning is not a regular part of their normal living routine (Baruth, Sharpe, Medina & Wilcox, 2015). Environmental, personal, and social factors associated with exercise participation and adherence in women include safety, enjoyment, motivation, time, energy, cultural preferences, desired body shape, and achievement of intended results (Baruth, Sharpe, Medina & Wilcox, 2015).

With respect to body size, women who are obese perceive not only many of the same barriers to exercise as do healthy weight women, but may also discern barriers specific to their larger size. For example, when an obese woman ventures out for a walk or exercises at a gym, she may perceive that she is being judged for having a larger physical size or on her lack of familiarity with a given exercise movement. In addition,

the physical environment of an exercise setting may not suitably accommodate the girth of an overweight or obese woman, thus limiting her ability to easily navigate throughout the facility or comfortably use the exercise equipment. Barriers to exercise reported by women who are obese include being teased about their size, feeling emotional discomfort related to being the largest person at the gym, being intimidated or lacking knowledge while performing certain exercises, concern about not having the energy to walk to their car or house, or generally overexerting themselves (Baruth, et al., 2015).

Exercise Barriers in Female Abuse Survivors. Exercise participation in men and women is sometimes limited not only by a traditional view of gender roles or physical size, but also by positive and negative life experiences. Because women who have experienced sexual abuse display a greater likelihood for poor health due to an increase in obesity and negative risk behaviors, participation in a balanced exercise program is important for this population (Felitti, et al., 1998). Many risk factors, diseases, and psychological stressors associated with previous sexual abuse can be modified in the presence of healthy behaviors, such as exercise and proper physical rehabilitation. However, female survivors of sexual abuse perceive unique barriers to exercise and rehabilitation that may not be readily apparent to exercise and rehabilitation professionals (Schachter, Stalker, & Teram, 1999), but can limit exercise participation or adherence to physical therapy after injury and potentially result in worsening health.

Beginning early in life, sport participation is less prevalent among children who live with abuse. When compared to children who have not experienced dysfunction or abuse in the home, there is a low participation rate in sports and unique barriers to

exercise exist among youth from single-parent homes or homes in which abuse or addictions are present (Harrison & Narayan, 2003). Possible reasons for the absence of sport participation among these children include limited finances and a lack of reliable transportation, especially if the home is led by a single parent. (Harrison & Narayan, 2003). Moreover, a student in a single-parent home may be expected to keep a job or attend to younger siblings after school (Harrison & Narayan, 2003), which restricts the time available to engage in sporting activities. Although speculative, it is possible that without the necessary physical skills and confidence provided by early life sport experiences, these children may be less likely to enjoy participating in sports as they age into adulthood.

Sexual abuse in childhood among females may lead to a significant reduction in sport activity during childhood that is not found when engaging in sedentary pursuits (Harrison & Narayan, 2003). Thus, it has been hypothesized that there are barriers to participating in body and movement-centered activities in this population, such as athletics, that may not be present for non-sport activities, such as joining a book club or playing in a chess tournament (Harrison & Narayan, 2003). Trauma-related barriers to sport participation include a distorted body image and self-consciousness and exposure in showers or changing rooms (Harrison & Narayan, 2003).

Quality of Life

Survivors of sexual abuse may have emotional scars or physical injuries and restrictions that influence their ability to fully enjoy and participate in activities of daily life. For example, women who have been diagnosed with human immunodeficiency virus

and experienced sexual abuse report a lower quality of life compared to women who do not share this diagnosis or have not experienced sexual abuse (Gielen, McDonnell, Wu, O'Campo & Faden, 2001). While adequate levels of physical functioning and exercise participation have been associated with a higher quality of life, side effects from sexually-transmitted disease or treatments for these diseases can reduce exercise participation (Gielen, McDonnell, Wu, O'Campo & Faden, 2001).

Coping Skills

By creating distance from related emotions, exaggerated coping skills act as a protective measure for individuals in an abusive situation. However, coping skills developed during abusive episodes may be interpreted as negative behaviors when displayed in life situations unrelated to abuse. When specific exercise movements are demonstrated or performed, a victim of sexual abuse may experience emotional triggers that, while acting to serve as helpful coping mechanisms, may actually become a hindrance to achieving an exercise goal (Schachter, et al., 1999). Consequently, it is important to determine how past abuse and coping habits influence adults in post-trauma physical activity and exercise settings (Alvarex, Pavao, Baumrind, & Kimerling, 2007).

Safety Issues

Previous abusive situations involving women may result in distrust of others, specifically with regard to attention drawn to physical movements, appearance, and body positioning (Schachter, et al., 1999). For instance, a female who has been abused physically may display a heightened need to confirm her sense of safety when interacting with exercise professionals who are in positions of authority. While all clients have an

underlying desire to feel safe in the presence of an exercise or fitness instructor, a lack of security among survivors of sexual abuse has been identified as a reason to leave a client-therapist relationship or stop performing specific exercise movements (Schachter, et al., 1999).

The Role of Exercise Professionals in Working with Survivors of Sexual Abuse

Introduction. Exercise professionals have a unique opportunity to educate, encourage, and inspire clients who desire to engage in community-based fitness programming. With proper training and heightened awareness, exercise professionals can ease discomfort and increase participation in and adherence to physical activity programs among women who have experienced abuse. While emotional counseling is not within the scope of practice for most exercise specialists, referral to counseling, encouragement towards self-care, and education about the human body are components of holistic wellness that can be provided by fitness professionals to clients who have been sexually abused.

General Competency Measures for Exercise Professionals. According to the Bureau of Labor Statistics, in 2014, there were 241,000 fitness trainers and aerobics instructors in the United States, with 3,580 working in Tennessee (http://www.bls.gov/oes/current/oes399031.htm). Exercise professionals are typically trained and certified by educational institutions and professional organizations in a host of specialties, including (1) exercise physiology, (2) health appraisal, (3) nutrition, (4) weight management, (5) program administration, (6) safety, injury prevention, and (7) exercise testing and prescription for general and special populations. In addition to these

competencies, a mastery of interpersonal skills is necessary to apply this scientific knowledge in an effective manner (Thompson, 2010; Bryant & Green, 2010; American College of Sports Medicine, 2015; American Council on Exercise, 2015; http://www.studyguidezone.com/acsm.htm). According to the American College of Sports Medicine (ACSM, 2010), exercise professionals are expected to be competent in (1) client interviewing and recording skills, (2) communicating with medical staff, (3) administering fitness testing and assessments, (4) leading clients in goal setting, (5) designing and prescribing exercise programs, (6) providing physical demonstrations and verbal instructions for specific exercises and techniques, (7) actively supervising and spotting exercise movements, (8) motivating clients, (9) answering questions, and (10) educating clients (ACSM, 2010). Required competencies among professionals in a community-based fitness environment also include formal training to work with and provide instruction and guidance to special populations (Gerrity, & Matthews, 2006). This comprehensive knowledge base is only useful to a client if the exercise professional is able to clearly demonstrate these competencies to clients by identifying their needs, making consistent eye contact, and being receptive to body language communication (Franzmann, Krause, Haberstroh & Pantel, 2014). For women who have experienced abuse, communication of expectations (especially surrounding physical touch), a proficiency in reading body language, and a willingness to share control of exercises and seek alternative body positions are skills of a fitness professional that can be measured through self-assessment or evaluated by clients and are reflective of a skilled exercise

specialist who approaches training sessions with sensitivity and empathy (Schachter, et al., 1999).

Competency Measures for Exercise Professionals Working with Survivors of Sexual Abuse. Currently, many exercise professionals do not receive instruction from certifying agencies regarding sensitivity practices which should be adopted when working with survivors of sexual abuse. For instance, in its manual for personal trainers, the American College of Sports Medicine (Thompson, 2010), the preeminent national and international sports medicine organization which certifies exercise and fitness professionals, devotes little or no mention of how to interact with women who have experienced sexual abuse, beyond briefly summarizing the importance of avoiding the act or appearance of sexual harassment, not spending time in closed offices, and being aware of liability concerns surrounding sexual abuse (Thompson, 2010). The American Council on Exercise (Bryant & Green, 2010), another well-recognized professional group which certifies health coaches and group and personal fitness trainers, addresses the behavior of exercise professionals in a slightly more expanded manner by advising fitness trainers to avoid touching clients unless it is necessary, informing participants of the purpose of touch, and adopting alternative coaching strategies if participants resist physical touch (Bryant, et al., 2010). Neither ACSM nor ACE designates survivors of sexual abuse as a special population or offers continued education in working with this group. In fact, no competency test or continuing education program exists for exercise and fitness professionals who train survivors of sexual abuse (American College of Sports Medicine, 2015; American Council on Exercise, 2015).

The Question of Disclosure. Ironically, women who need the greatest confirmation of security are sometimes the least likely to request it. Consequently, disclosure of abuse history at the onset of the client-therapist relationship remains a debatable issue. On one hand, without knowing a client's personal history, the exercise professional is less likely to display sensitivity to her specific needs. However, some survivors of abuse view exercise prescription and treatment as not connected to past sexual trauma and find it unnecessary to disclose incidents of sexual abuse to exercise professionals (Schachter, et al., 1999).

Behavioral Responses to Emotional Triggers When triggered by past sexual abuse, clients at an exercise or fitness facility may experience a recurrence of feelings related to being abused, leading to unfavorable behaviors and avoidance of physical activity and exercise. These potential responses include a greater tendency to tighten muscles, refusal to perform exercise, and use of coping mechanisms, such as dissociation, that were developed during the abusive episode(s). These individuals may also appear to be uncooperative or cease treatment with physical therapists or other health professionals (Schachter, et al., 1999). Even though many triggering situations are preventable, a conventionally-trained exercise professional may not have a complete grasp of the importance of modifying his or her own behaviors or the activity environment to prevent or minimize negative responses from clients. Without this level of enhanced awareness and understanding, progress in the exercise or therapeutic setting may be stunted and clients may be viewed as unwilling to give a full effort.

While safety is the overarching need for many women who have experienced sexual trauma, there are several potential triggers related directly to past sexual abuse that may be present in exercise or physical therapy sessions. Exercise professionals may have limited communication with a client about expectations regarding undressing or touch, and these conversations may be rushed or awkward, especially if the client is underdressed or in a therapy gown. In addition, women who have experienced abuse may be fearful or feel ignored by staff members who display a controlling attitude concerning movements or positions that a client should perform. Likewise, when the focus of the exercise professional is solely on the injured body part and not on the woman, she may feel dehumanized. A female who has been abused, for example, may feel exposed or trapped, depending on the size of the room and the positioning of body parts, or if her back is placed against a door or she is asked to assume a prone position. These environmental factors and behaviors, which are modifiable, have the potential to trigger feelings and coping behaviors associated with past abuse (Schachter, et al., 1999). Women who have experienced sexual abuse may also be touched, asked to perform a movement that is uncomfortable, face a mirror while engaging in physical activity, or directed to focus on her body without proper concern for, or recognition of, her previous history of abuse. All of these instructions, which are easily accepted and followed by the majority of persons in a typical exercise setting, may engender feelings associated with past trauma for a survivor of abuse.

Overall, very little is known regarding the likelihood of a trauma survivor to be retraumatized while performing physical exercise. However, persons in helping

professions must be made aware of this possibility and instructed on how to lessen the potential incidence of retraumatization. The vast majority of support group professionals who counsel survivors of sexual abuse recognize that there is some potential for retraumatization in group therapy settings, although only a few believe that a very high risk of retraumatization exists. It is thought that retraumatization can occur through activation of a variety of triggers unique to each individual (Gerrity, et al., 2006).

Assessment of Professional Competencies

All exercise professionals are expected to possess knowledge and skills appropriate to their job duties. Exercise professionals who have undergone a prescribed program of training may also obtain supplemental certifications to obtain additional expertise to become more effective in working with and better understanding the physical disabilities, health limitations, and emotional needs of special populations. The process of identifying professional competencies highlights the skills and knowledge components which are necessary and beneficial for persons working in a given profession and educators who are responsible for their training (Maicher & Frank, 2015). Tests developed to specifically measure the presence of these identified competencies can be useful in evaluating the preparedness of individuals and groups of professionals (Johnson, 1997). Competency tests may also be employed to assess the credentials of current professionals or certify new job applicants (Maicher & Frank, 2015).

Prior to test development, it is important to review current literature to identify and define specific competency areas for any profession (Maicher & Frank, 2015). Familiarization with relevant published materials allows the test developer to build upon

existing information and specify main themes, or domains, that need to be included in the assessment instrument to create an outline for a proposed test (Sorensen et al., 2014).

Identifying Domains. Initially, a test developer identifies the main domains which describe the critical knowledge, skills, and abilities needed for an individual to adequately perform the tasks relevant to the job position. These primary themes may also be understood as course objectives or key concepts (Sutherland, Schwartz & Dickison, 2012) and are used as the framework of the test. As a general principle, domain identification should be as simple and focused as possible. Combining similar competencies can also aid in making this process less cumbersome and easier to understand (Maicher & Frank, 2015).

Five domain areas appear to be standard for competency test development (Maicher & Frank, 2015 & Miller, 2010). If necessary, each domain may be assigned a weight or level of importance that is reflected by a greater or fewer number of questions to ensure that the assessment instrument adequately reflects key aspects of a professional area (Sorensen et al., 2014).

Test Format. While demonstration of competency through applied, practical, or performance tests is often considered superior to written exams, the cost and impractical nature of administering these tests can viewed as barriers. Hence, written assessment tools which are cheaper and more convenient to administer are acceptable for most skill sets and are more commonly used (Sorensen et al., 2014). Each test developer must decide which format is appropriate for a particular test, depending on the group which

will take the test and the level of risk associated with the certification or credentials that will be earned.

Item Writing. Following a review of published literature, identification of domains, and format selection, questions are created to assess the competence of a professional in each domain area. The basic goal of each test item is to differentiate between persons who are and are not competent in each domain (Sutherland, Schwartz & Dickison, 2012). A range of 9 to 50 test items has used by previous test developers and can be assumed to be an appropriate standard (Sorensen et al., 2014; Marchiori, Adams & Henderson, 1999; Franzman, Krause, Haberstroh, & Pantel, 2014). Ideally, each test item addresses a specific area of the broader domains (Sutherland, Schwartz & Dickison, 2012). To avoid developing an excessively long competency test, each test item must provide a meaningful measurement of important concepts, while avoiding the inclusion of trivial items (Sutherland, Schwartz & Dickison, 2012). Although the incorporation of unfamiliar or confusing language and use of overall wordiness can hinder the assessment of competency (Sutherland, Schwartz & Dickison, 2012), a lead-in, or short description of a practical situation, can appear prior to a single question or multiple set of questions (Sorensen et al., 2014).

A single correct-answer multiple-choice question is an effective test format for evaluating written knowledge competency (Sorensen et al., 2014). Using this approach, after each test question has been written, the test developer provides possible answers for the question (Sutherland, Schwartz & Dickison, 2012). A total of three possible answer options (one correct and two incorrect) is generally sufficient, although additional

potential answers can be included (Sorensen et al., 2014). Test questions should provide an opportunity to measure both knowledge and application (Sutherland, Schwartz & Dickison, 2012). Items become more difficult when test takers mark not only the correct answer, but also exhibit an understanding of the skills necessary to demonstrate the practical application of knowledge in the workplace or health-based setting (Sutherland, Schwartz & Dickison, 2012). While this testing format can be less challenging if the available distractors (i.e., non-correct answer choices) do not seem plausible, it is important that the distractor responses are worded in such a way that they are definitely incorrect (Sutherland, Schwartz & Dickison, 2012). When formulating the distractor answers, a test developer may consider using common misinformation from sources which do not display a high level of competency (Sutherland, Schwartz & Dickison, 2012).

Test items should also be written without bias towards individuals or groups (Sutherland, Schwartz & Dickison, 2012), meaning that historical events, cultural preferences, sway towards one gender, or forms of ageism should be avoided, if at all possible. If an answer stands out because of wording or length, the test taker may be drawn towards this response without having the knowledge and skills necessary to properly evaluate its merit. For this reason, all possible answers should be written in a standardized format (Sutherland, Schwartz & Dickison, 2012). If a test is a large-scale examination or does not provide credentials or certification for high-stake professional positions that affect important decisions or set minimal standards (Ysseldyke, 1985),

informal assessment of item difficulty may be acceptable (Sutherland, Schwartz & Dickison, 2012).

Content Validity. The process of validating a test also includes assessing content, or face, validity (Sorensen et al., 2014). Establishing content validity confirms that test items reflect main themes or domains and appear to measure what they are intended to measure. This can be assessed by verifying that an appropriate number of test items for each domain have been included in the evaluation instrument and that test items not pertinent to the domains are excluded (Johnson & Christensen, 2012). Determining content validity includes an assessment of the language chosen for the test and protocols for test administration and scoring (Johnson & Christensen, 2012). Content validation guarantees that items are purposeful and complete (Maicher & Frank, 2015). Ideally, 12 to 17 experts should be consulted to assess content validity (Maicher & Frank, 2015; Sorensen et al., 2014). As an example Table 1 displays a portion of a table to show how descriptors further clarify each domain by providing more specific information about the background, knowledge, skills, or preparedness required for a given profession (Maicher & Frank, 2015).

Table 1

Example of a Domain and Related Competencies and Descriptors

Sample of Competency Descriptors Across Five Domains

3.0 Situational Practice **Domain** Competencies focus on the application of evaluative thinking in analyzing and attending to the unique interests, issues and contextual circumstances in which evaluation skills are being applied. Two sample competencies are provided.	
Competency 3.1 Respects the uniqueness of the site	**Descriptors** of the Competency 1) Assess and appreciate the characteristics and conditions of the evaluation site for the program/project evaluation
Competency 3.2 Examines program/project organizational, political, community, and social contexts	**Descriptors** of the Competency 1) Assess the organizational structure and culture of the 2) Recognized and monitor the political influences that may affect the evaluation 3) Understand and be responsive to the community in which the evaluation will occur 4) Understand and be responsive to the social context in which the evaluation will occur.

(Source: Maicher, B. & Frank, C. (2015). The development and initial validation of competencies and descriptors for Canadian evaluation practice. *Canadian Journal of Program Evaluation. 29*(3), 54-69. doi:10.3138/cjpe.29.3.54)

To ensure that descriptors align with their associated domain competencies, validation must include expert review of each descriptor and each item must be refined, as needed (Maicher & Frank, 2015). These reviews may address topics such as clarity, feasibility, language and format consistency (Maicher & Frank, 2015). A Likert-type scale can then be used to rate each question item for its level of fit with a particular written descriptor of a given domain (Maicher & Frank, 2015). Time or space for additional comments may also be provided. Revising the test to address the feedback

from these professional review ratings and comments can aid in improving the content validity of the test (Sorensen et al., 2014).

Construct Validity. After the content validity of a test has been established, it is important to demonstrate that the test also exhibits an acceptable level of construct validity. Construct validity implies that a test adequately measures the constructs, or competency domains, it was intended to measure. For this to be achieved, the test developer must first clearly describe each domain area and then ensure that each test item aligns with these descriptions (Johnson & Christensen, 2012). An example of this process is shown in Table 1, wherein a number of descriptors form the basis for each competency and a set of competencies undergird a single domain. Additionally, for a test to display construct validity, it must generate scores that differentiate among professionals who vary widely in competence. Statistical validation of each test item is used to determine how well the test measures the difference between a student learner and an expert in the field (Sorensen et al., 2014). During preliminary assessment of individuals with varying degrees of knowledge and experience, a developer can show that the test measures what it is intended to measure, which is competence in each domain (Sorensen et al., 2014). A range of approximately 25 to 55 testers is appropriate to assess construct validity during pilot testing (Sorensen et al., 2014; Naumann, Moore, Mildon, & Jones, 2014). A statistical item-total correlation (or the likelihood that a comparable peer would answer in the same way) of greater than 0.30 is considered acceptable in demonstrating construct validity (Sorensen et al., 2014). Conversely, questions with an

item-total correlation of less than or equal to 0.30 should be discarded or revised and validated (Sorensen et al., 2014).

Reliability. It is important for all items of a test to produce reliable scores when measuring the competency of a professional. Cronbach's alpha can be used to quantify internal consistency. A reliability coefficient of 0.70 or higher is generally acceptable for lower-stakes testing (Sorensen et al., 2014), although some literature suggests that a score of 0.60 demonstrates acceptable reliability (Ysseldyke, 1985). For tests providing higher-stakes scores, a Chronbach alpha of 0.90 or higher should be obtained (Sorensen et al., 2014 and Ysseldyke, 1985

Test Administration. Because of technological advances, the administration of a test can occur using a variety of formats, including written exams and computerized formats. Competency test instructions must specify if there is a need for a test proctor and credentials to administer and proctor the examination (Ysseldyke, 1985).

Conclusion

Sexual abuse is associated with an increase in lifelong health risks and behaviors. Because some of these risk factors, such as obesity, are modifiable, the physical health of females who have been abused sexually can be improved by participating in regular doses of appropriate physical activity. However, women who have experienced past sexual abuse sometimes perceive unique barriers to consistent exercise participation and may view physical activity in a negative fashion. Because exercise professionals base their instruction on supervising and working closely with clients during physical activity sessions to ensure that proper body movements and body positioning are achieved, the

potential exists for activity leaders to inadvertently trigger emotional memories that can lead to retraumatization in women who have experienced previous sexual abuse. In contrast, many opportunities exist for exercise professionals to encourage women who have been sexually abused to become healthier and successfully participate in exercise programs or physical rehabilitation that is delivered in a sensitive manner. Given the lack of valid competency measures for exercise leaders who work and interact with survivors of sexual abuse, the development of a valid instrument to assess professional competency and sensitive practice is a positive step towards improving the health and well-being of women who have been abused sexually.

CHAPTER III

METHODS

Participants

Twelve content experts were identified to determine the content validity of the Sexual Abuse Assessment Tool (SAAT). These content experts comprised the "Subject Matter Expert" group (SME). Members of the SME were required to (1) meet at least one of the following three criteria: (a) self-reported as having experienced past sexual abuse and, following the abusive episode, received formal exercise programming from an exercise specialist (e.g., fitness instructor, personal trainer, physical therapist); (b) employed for at least five years and certified by a national organization as an exercise professional who prescribes exercise within a medical or therapeutic practice; or (c) currently employed as a therapist who has counseled survivors of sexual abuse; (2) be at least 18 years of age, and (3) be familiar with the use of a computer and the English language. SME members were screened to confirm that they met study entry criteria prior to their active participation in this investigation. Of the 12 study participants, four primarily identified as survivors of past sexual abuse, four primarily identified as exercise professionals, and four primarily identified as therapists or counselors. The average age of the Subject Matter Experts (11 females, 1 male) was 39.5 years (range = 30 to 57 years). Each content expert provided written informed consent and received a description of the benefits and risks of participating in this study. This investigation was reviewed and approved by the university Institutional Review Board.

Measures

The Sexual Abuse Assessment Tool (SAAT) was developed to evaluate specific competencies in the area of sensitive professional exercise practice with women who have experienced sexual abuse. Created following an exhaustive review of published literature to identify barriers to exercise in this population, the SAAT also reflects knowledge acquired by the primary investigator during 13 years of professional fitness training, including 3.5 years of experience with adult female survivors of sexual abuse in exercise and rehabilitation settings.

The SAAT features five broad domains (i.e., attributes) of competent exercise professionals, identifies competencies (i.e., key concepts) to more fully describe each domain, and lists individual descriptors under each competency statement. The domains, competencies, and descriptors were used to create individual assessment items (Viar-Paxton, Ebesutani, Kim, Ollendick, Young, & Olatunji, 2015). The five domains identified in the SAAT include (1) background knowledge and attitudes toward sexual abuse and extent of sexual abuse; (2) sexual abuse and health concerns; (3) barriers to exercise among women who have experienced sexual abuse; (4) environmental and interpersonal emotional triggers in exercise settings and during exercise programming; and (5) sensitive behaviors of the exercise professional.

Procedures

Although study participants were fully briefed regarding the nature of the study, did not experience physical injury, and were not asked to recount personal stories of possible emotional traumatization or retraumatization related to prior sexual abuse, each

member was informed of his or her right to stop the review of the SAAT at any time and provided with quality contacts for debriefing (if needed) once the review was completed.

After written informed consent was obtained, study participants received an emailed or paper version of the SAAT and a document containing the domains, competencies, and descriptors associated with the SAAT and were given approximately one week to rate the SAAT for proper subject matter content. Each SME group member was given the choice of returning the SAAT to the primary investigator by email, postal mail, or in person. Members of the SME were not asked to complete the SAAT or recall any specific memories or abuses from their past; rather, their sole responsibilities were to review the SAAT for appropriate subject matter content, provide feedback on proposed assessment items, and suggest additional test questions. Responses concerning subject matter fit, or the relevance of each test item to a given domain, competency, and descriptor, were marked on a Likert-type scale using the following anchors (1= Not Relevant; 2 = Somewhat Relevant; 3 = Quite Relevant; or 4 = Highly Relevant), after which each test item was dichotomized as either being relevant or non-relevant (Polit, Beck, & Owen, 2007). Open-ended questions were also included in the SAAT to allow SME participants to suggest further test questions or provide editorial comments.

SAAT test items deemed to be non-relevant were revised or eliminated and SME participants were given an opportunity to propose additional test questions, which resulted in a new iteration of the SAAT and a revised listing of the domains, competencies, and descriptors. While members of the SME could view all test items retained in the modified assessment, they were asked to evaluate only those test items

that were revised or added to the assessment during subsequent reviews. This process continued until no additional meaningful subject matter content changes were suggested. Six content experts comprised of a stratified and randomized sample of two survivors of sexual abuse, two exercise professionals, and two therapists, reviewed each modified version of the SAAT (Polit & Beck, 2006).

Data Analysis

The reading level of the SAAT was evaluated using Flesch-Kincaid readability statistics (Gray, 2012). Item content validity indices (I-CVI), defined as the number of raters who rated a test item a "3" (quite relevant) or "4" (highly relevant) divided by the total number of raters, were calculated for each test item (Polit & Beck 2006). Interpretation of I-CVI values is based on the number of raters reviewing the assessment. Because the SME included 12 content experts, test items that received scores of "1" (not relevant) or "2" (somewhat relevant) from more than four raters received a low I-CVI (< 0.75) and were considered to be non-relevant or in need of revision. Conversely, test items with an I-CVI value of 0.75 or greater were retained in revised versions of the SAAT (Polit & Beck, 2007). Test items with an I-CVI score ranging from 0.50 to 0.74 were revised and subjected to further review, and test items with an I-CVI value below 0.50 were deleted from the SAAT. In addition to itemized data analysis, indices for content validity relative to each domain (D-CVI) and for the entire scale (S-CVI) were quantified (Polit & Beck 2007). As recommended by Polit & Beck, (2006), D-CVI values were obtained by averaging I-CVI ratings for each domain and S-CVI scores were calculated by averaging I-CVI ratings across all test items.

CHAPTER IV

RESULTS

Sixty-six test items were contained in the initial version of the SAAT. After the first review, 51 test items received relevant scores (i.e., I-CVI $\geq$ 0.75), 14 underwent revision, and one was deleted from the SAAT. Following the second review of the document, nine of the 14 revised test items received relevant scores and five items required additional modification. After completion of the third review of the SAAT, two of the five revised test items received relevant scores, one item was removed, and two items underwent further changes. Following a fourth review of the assessment, one of the two revised test items received a relevant score and one item required further modification. After the fifth review of the SAAT, the remaining test item received a relevant score and the content review process was completed. In total, the final revised version of the SAAT (see Table 2) contained 64 test items.

For the five SAAT domains, DCV-I values were .86 (Domain 1: Background Knowledge and Attitudes Toward Sexual Abuse and Extent of Sexual Abuse), 0.87 (Domain 2: Sexual Abuse and Health Concerns), 0.87 (Domain 3; Barriers to Exercise Among Women Who Have Experienced Sexual Abuse), 0.86 (Domain 4: Environmental and Interpersonal Emotional Triggers in Exercise Settings and During Exercise Programming, and 0.86 (Domain 5: Sensitive Behaviors of the Exercise Professional). The scale content validity index (SCV-I) of the SAAT was 0.87. The reading level of the

SAAT, evaluated using Flesch –Kincaid readability statistics available on Microsoft Word (Gray, 2012), is at a reading grade level of 13.1.

Table 2

Final Version of the *Assessment Items for the Sexual Abuse Assessment Tool (SAAT)*

Assessment Items	I-CVI
Domain 1- Background Knowledge and Attitudes toward Sexual Abuse and Extent of Sexual Abuse	
1. Sexual abuse is more likely to be experienced by females compared to males.	.75
2. Sexual abuse is more likely to occur between two strangers compared to persons who know and are familiar each other.	.92
3. Legal protection and assistance are available for all forms of unwanted sexual experiences if the victim understands how to use available resources and is willing to speak up about her experience.	.92
4. Health history forms are intended to provide information about a client's physical and emotional risk factors.	
*Most health history forms typically contain questions regarding overall physical health, injury status, and potential emotional barriers to exercise related to sexual abuse.	1
5. The percentage of sexual abuse cases is difficult to pinpoint because not all sexual abuse cases are reported.	.83

Table 2 (continued)

Assessment Items	I-CVI
6. It is difficult to accurately estimate the percentage of cases of sexual abuse because definitions of and laws surrounding sexual abuse differ among states.	
*It is difficult to accurately estimate the percentage of cases of sexual abuse because definitions of and laws surrounding sexual abuse differ among states and not all cases of sexual abuse are reported.	.83
7. Sexual abuse is estimated to affect less than 2% of the population.	Deleted
8. If a client does not disclose past sexual abuse to her exercise trainer, the trainer should assume that abuse has not occurred.	.75
Domain 2 – Sexual Abuse and Health Concerns	
9. Women who have experienced sexual abuse are more likely to be obese compared to those who have not been abused sexually.	.75
10. Sexual abuse increases the risk for central (or abdominal) obesity.	
*History of severe sexual abuse is related to an increased risk for central (or abdominal) obesity.	.83
11. Obesity in women who have experienced sexual abuse may be linked to physiological factors.	1
12. Obesity in women who have experienced sexual abuse may be related to emotional responses to the trauma of their abusive situation(s).	.92

Table 2 (continued)

Assessment Items	I-CVI
13. Stress associated with past sexual abuse may be manifested as binge eating disorder or general overeating.	1
14. Neurological changes related to sexual abuse generally improves social relationships.	
*Neurological changes related to sexual abuse may be associated with poor social relationships.	.83
15. Neurological changes related to sexual abuse can lead to depression.	.83
16. Neurological changes associated with sexual abuse can alter glucose metabolism.	.92
17. Adolescents who have a family or personal history of sexual abuse are more likely to experience higher rates of anxiety compared to adolescents who have not experienced these forms of sexual abuse.	.92
18. Adolescents who have a family or personal history of sexual abuse are more likely to experience thoughts and acts of suicide compared to adolescents who have not experienced these forms of sexual abuse.	.83
19. The severity of anorexia nervosa is greater among individuals who have experienced sexual abuse.	.83
20. Clients who exercise excessively or experience anger or great disappointment if a workout is missed may be showing signs of underlying anxiety related to having experienced past sexual abuse.	.83

Table 2 (continued)

Assessment Items	I-CVI
21. Women who have experienced past sexual abuse are more likely to have a healthy (normal) body mass index (weight-to-height ratio) compared to women who have not been abused sexually.	Deleted
Domain 3 – Barriers to Exercise among Women Who Have Experienced Sexual Abuse	
22. Physical scarring caused by previous sexual abuse in women may create barriers to exercise.	1
23. Complications from sexually transmitted diseases, such as rashes or side effects from medications, may create physiological barriers to exercise in women who have experienced sexual abuse.	.83
24. Effects of malnourishment, such as low bone density, may create physiological barriers to exercise in women who have experienced sexual abuse.	.83
25. Sleep disturbances associated with past sexual abuse, such as night terrors or post-traumatic stress disorder, may result in extreme fatigue and negatively impact exercise performance.	.92
26. Participation rates in physical sport activities are consistently higher among children who have experienced sexual abuse at home.	
*Youth who experience sexual abuse at home are less likely to engage in lifelong exercise and sport activities compared to	.83

Table 2 (continued)

Assessment Items	I-CVI
youth who live in homes where sexual abuse is not present.	
27. Clothing worn during exercise, such as swimwear, tight-fitting attire, or clothes that allow skin to show, may create an emotional barrier to exercise participation among women who have experienced sexual abuse.	.92
28. In order to hide self-inflicted physical scarring, a woman who has experienced sexual abuse may resist participating in physical activity and exercise that require swimwear or clothes that allow skin to show.	.92
29. If a women who has been sexually abused feels that she appears attractive in fitness clothes or swimwear, she will not experience emotional barriers to exercise participation when she wears these types of active wear.	
*Women who have been sexually abused may experience emotional barriers to exercise if they wear swimwear or clothes that are tight fitting or that expose skin.	1
30. Abusers may attempt to control the body weight or appearance of their victims by restricting their availability to food and nourishment.	.75
31. Abusers may attempt to control the body weight or appearance of their victims by encouraging overeating by the individuals being abused.	.75

Table 2 (continued)

Assessment Items	I-CVI
32. Abusers may attempt to control the body weight or appearance of their victims by discouraging exercise participation by the persons being abused.	.83
Domain 4 – Environmental and Interpersonal Emotional Triggers in Exercise Settings and During Exercise Programming	
33. An exercise professional should tell clients how much pain or discomfort they should feel during a given exercise movement.	.75
34. If a woman discloses that she has experienced sexual abuse, she should automatically be assigned a female trainer to make her feel more comfortable.	.83
35. An exercise professional should always request permission to touch a client.	1
36. Once a trusting relationship is established, exercise professionals do not need to request permission to touch their clients.	.92
37. Outdoor activities, like running, will not trigger memories or emotions from past sexual abuse.	
*Any type of physical activity may trigger memories or emotions from past sexual abuse.	1
38. If clients who have experienced sexual abuse feel emotionally uncomfortable performing a particular exercise or physical movement, they are likely to be forthcoming about why they feel uncomfortable.	.92

Table 2 (continued)

Assessment Items	I-CVI
39. An exercise professional should be open to changing a client's exercise plan, based on the client's stated dislike of one or more of the exercises which comprise the plan.	.92
40. If clients who have been abused sexually feel physically uncomfortable performing a given exercise or physical movement, they are likely to explain why they feel uncomfortable.	.92
41. Underlying emotions related to past sexual abuse may be triggered by exercising at a fitness facility and lead to a decrease in exercise participation.	.92
42. Sex-specific locker rooms and changing areas will make survivors of sexual abuse feel more comfortable.	
*Being able to change clothes in sex-specific fitness and gym facilities removes all emotional barriers to exercise for women who have experienced past sexual abuse.	.83
43. Involuntary physical responses tied to past sexual abuse may negatively affect exercise performance.	1
Domain 5 – Sensitive Behaviors of the Exercise Professional	
44. If a client does not disclose past sexual abuse to an exercise professional, there is nothing that the exercise professional can do to show sensitivity about the possibility that the client may have experienced past sexual abuse.	1

Table 2 (continued)

Assessment Items	I-CVI
45. Exercise professionals should display a professional focus on physical health.	.83
46. Exercise professionals should encourage clients to find a healthy emotional support system.	.75
47. Exercise professionals should display a professional focus on physical beauty to increase clients' self-esteem.	
*Exercise professionals should display a professional focus on a client's physique and physical attractiveness.	.83
48. Exercise professionals who display sensitive practice will tell a client how her body should feel when performing a given exercise.	
*Exercise professionals who display sensitive practice will help by verbalizing how a client's body should feel when performing a given exercise.	.83
49. Clients who have experienced sexual abuse may "space out" or become unaware of their bodies when a movement triggers a traumatic memory.	1
The following scenario is to be used for Assessment Items 50 – 52.	
After you describe how to perform a new exercise, you notice that your client tenses her muscles as she moves toward the starting position, but does not say anything.	
How should you respond to this situation?	

Table 2 (continued)

Assessment Items	I-CVI
50. You should encourage your client by commenting on the improvements you've seen in her physique and body shape.	.83
51. You should ask your client to look in the mirror so that she can see herself perform the exercise.	
*You should ask your client to look in the mirror to check her own form even if she expresses some hesitation in doing so.	.83
52. You should offer your client a comparable modification of the exercise and allow her to choose which form of the exercise she prefers.	.92
This scenario is to be used for Assessment Items 53 – 54.	
You have been working with a client for two months. She has appeared to be uncooperative at times, even though she seems to really want to lose weight. As your client finishes up with an exercise set, you place your hand on her lower back to remind her to use proper form. In response, your client abruptly stops exercising, even though you believe she could have easily completed the set.	
How should you respond to this situation?	
53. You should tell your client to finish up the exercise set, while continuing to help her maintain correct body form by keeping your hand on, or near, her back.	.83
54. You should ask your client to decide if she can finish the exercise set and provide her with additional room	1

Table 2 (continued)

Assessment Items	I-CVI
by standing a little farther away from her and speaking to her if her form begins to deteriorate.	
This scenario <u>was</u> to be used for Assessment Items 55 - 56.	*Scenario was deleted for final revision. Items 55 and 56 now stand alone.*
During an initial office meeting with a new client, she constantly looks over her shoulder, gazes out the window, and seems distracted and disinterested in your comments.	
How should you respond to this situation?	
55. You should finish the meeting quickly because the client seems anxious to leave.	
*When meeting with a client, an exercise professional should allow her to sit wherever she wants to, rather than direct her to a particular seat in the office.	.83
How appropriate is this action?	
56. You should ask the client if she would feel comfortable moving the meeting to an open table at the front of the gym.	

Table 2 (continued)

Assessment Items	I-CVI
*During an initial office meeting with a new female client, she constantly looks over her shoulder, gazes out the window, and seems distracted and disinterested. You should ask the client if she would feel comfortable moving the meeting to an open table at the front of the gym. How appropriate is this response to this situation?	.83
This scenario is to be used for Assessment Items 57 - 58. A new client walks into your fitness class. How appropriate are the following next steps?	
57. Invite your client to set up her exercise equipment where she feels most comfortable.	.92
58. Offer to set up her exercise equipment in a space where she can clearly see you during the training session.	.75
This scenario is to be used for Assessment Items 59 - 61. While working with a client on a particular exercise machine, she begins to stare past the machine and her mind appears to be somewhere else. She continues exercising, but seems disconnected and forgets how many repetitions she has completed. How appropriate are the following next steps?	
59. You should check to see whether she displays additional signs of stroke.	

Table 2 (continued)

Assessment Items	I-CVI
*You should evaluate your client to see if she is feeling okay since she seems overly distracted and unfocused during her workout.	.83
60. You should state your client's name and allow her to stop exercising. If the exercise session is continued, allow her to perform a comparable exercise.	.83
61. You should ask your client to stop exercising and help her off the exercise machine so that you can adjust the resistance.	.75
This scenario is to be used for Assessment Items 62 - 64.	
A client confides in you that her husband has sexually abused her and her 14-year-old son and that she has never admitted this to anyone else before.	
How should you respond to your client's remarks?	
62. Offer her information about local resources for herself and her son and inform local police of your client's statement regarding her son.	.92
63. Respect her privacy and withhold sharing this information with others, as it may not even be true.	.83
64. Offer to talk your client through her feelings or provide counsel whenever she is ready to share more information about the incident.	.92

Table 2 (continued)

Assessment Items	I-CVI
This scenario is to be used for Assessment Items 65 - 66.	
A new member in your group fitness class sometimes fails to participate in certain exercises, even though she appears to be strong enough to participate.	
How should you respond to this situation?	
65. Remind this member that "sticking to the program" is the only way for results to occur.	.75
66. Provide this member with modifications for the exercise movement to reduce the possibility of injury, take into account differences in fitness levels, and provide emotional comfort, if needed.	1

*Wording after final revision of the assessment item
I-CVI - Item content validity index

CHAPTER V

DISCUSSION AND CONCLUSION

Although not well-established, it is generally accepted that a large percentage of women have experienced some form of sexual abuse (Broach, et al., 2006 & Black, et al., 2010 & Butchart Harvey, 2006). Many lifelong health risks and behaviors in adulthood are influenced by adverse early-childhood life events, such as sexual abuse (Alvarex, Pavao, Baumrind, & Kimerling, 2007). While maintenance of an active lifestyle is beneficial to good health (Okonski, 2003), the emotional and physical effects of sexual assault may prevent many women who have been victimized from regularly engaging in physical activity and exercise (Schachter et al., 1999). Unfortunately, fitness leaders do not typically receive formalized instruction on how to implement physical activity programming for women who have been abused sexually and little is known regarding the ability of exercise professionals to follow sensitive training practices when interacting with female survivors of sexual abuse (American College of Sports Medicine, 2015; American Council on Exercise, 2015; http://www.studyguidezone.com/acsm.htm; Bryant & Green, 2010; Thompson, 2010). To address these concerns, five broad domains encompassing competencies and descriptors were identified that relate to sensitive practices for fitness specialists involved in training women who have been the victims of sexual assault. Based on this information, assessment items were written, compiled into a Sexual Abuse Assessment Tool, and reviewed by content experts to document knowledge of sexual abuse, health-related consequences of experiencing unwanted sexual activity, and the extent to which fitness and health professionals recognize and display an

understanding of survivors' reactions during structured exercise and activity-based therapy and rehabilitation sessions.

Test-Item Relevancy and Content Validity

Following the first review of the SAAT, 77% of assessment items were judged as having achieved an acceptable level of content relevance. As the revision process continued, this percentage rose to 91 %, 94%, 95%, and 97% following the second, third, fourth, and fifth reviews of the SAAT, respectively. Taken together, these data suggest that the original version of this survey provided an adequate framework for the eventual development of the SAAT. Of the 64 test items which comprised the final version of the SAAT, 19% received an I-CVI of 1.0, indicating that all members of the SME group rated these test items as either "Quite Relevant" or "Highly Relevant", and these unanimously relevant items were distributed across all five content domains.

The range of D-CVI scores (0.86 - 0.87) reported in the present study was extremely narrow when compared to content validity index values associated with the development of tests evaluating professional standards, human rights, and social contexts (range = 0.71 – 1.0) (Maicher & Frank, 2015). With respect to S-CVI values, a mean scale content validity index of 0.87 was calculated for the SAAT, which falls between excellent (0.90) and reasonable (0.80) levels of scale content validity (Polit & Beck, 2006). Application of these standards to D-CVI scores also suggests that the target domains of the SAAT demonstrated satisfactory content validity.

Subject Matter Expert Commentary

The majority of commentary from subject matter experts concerning SAAT test items in need of additional revision focused on improving clarity of wording, avoiding the use of double-barreled questions, and confusion tied to reverse-worded questions. A recurring theme aimed at broadening the potential scope of the SAAT assessment was to include test items addressing exercise leaders' knowledge and sensitivity when working with sexual abuse survivors of both sexes. In the present investigation, the decision to create the SAAT was based on the professional experience of the primary investigator as a fitness trainer for women and the greater availability of research literature on women who have experienced sexual abuse.

In addition to analyzing test items contained in the original version of the SAAT, subject matter experts were invited to compose other test items that could be included in the survey instrument and list additional domains, competencies, or descriptors to enhance the usefulness of future versions of the SAAT. Interestingly, no members of the SME group offered supplemental material for present or future iterations of this assessment tool. This finding provides support for employing the current revised version of the SAAT to assess the knowledge base of exercise professionals and the degree to which sensitive training practices are employed by fitness trainers and therapists who interact with women who have experienced sexual abuse. However, because our Subject Matter Expert group was comprised almost entirely of females, it would be of interest to repeat the study and perform an analysis of test items using a more balanced representation of both sexes.

Study Limitations

One potential limitation of the current study is that the readability of the SAAT is set at a grade level of 13.1 (Gray, 2012). While this reading level is appropriate for many exercise professionals, some may be more comfortable completing an evaluation with a slightly lower standard of reading difficulty, especially since a high-school education is sufficient for many fitness careers (Bryant & Green, 2010; Thompson, 2010). Another potential study limitation is that the present version of the SAAT contains 64 test items, which may dissuade some fitness leaders from completing the assessment. In previous studies involving interpersonal and clinical skills such as clinical performance competencies in radiology, clinical competencies in multidisciplinary emergency training, and social competencies among caregivers in dementia care, assessment instruments have contained 9 to 50 questions (Franzman, Krause, Haberstroh, & Pantel, 2014; Marchiori, Adams & Henderson, 1999; Sorensen et al., 2014). Consequently, it is likely that any drawbacks associated with the current number of items in the SAAT will emerge once it is administered to adequately-sized groups of exercise professionals to quantify instrument reliability and obtain feedback regarding the length of the test. Use of confirmatory factor analysis to determine which test items load most strongly on a given domain may also prove useful in developing a condensed version of the SAAT.

Summary and Conclusion

The purpose of this study was to develop an assessment tool (Sexual Abuse Assessment Tool, or SAAT) for use by exercise professionals to determine their knowledge of sexual abuse and evaluate their ability to adopt sensitive practice when

interacting with and training female survivors of sexual abuse. After relevant literature was reviewed, domains and competencies were established and initial assessment items were written. Twelve content experts were asked to provide feedback on proposed test items and other aspects of the SAAT. Test items found to be non-relevant were revised or eliminated and four revisions of the assessment instrument were evaluated until all test items were deemed to be relevant. Results indicated that the final revised version of the SAAT demonstrated good domain and scale content validity.

Continued refinement of the SAAT will require its administration to groups of exercise professionals to document the reliability of the instrument and compare responses obtained from exercise facilities or fitness programs which primarily market their services to one or both sexes. Inclusion of test items that are appropriate for male and female adult survivors of sexual abuse is another potential direction for future research activity. Following efforts to further improve the SAAT, use of this assessment tool should be encouraged to facilitate the development and implementation of educational programming to improve the knowledge, understanding, and application of sensitive training practices of exercise and fitness leaders and physical therapists who supervise females who have experienced sexual abuse.

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APPENDICES

APPENDIX A

INFORMED CONSENT

Principal Investigator: Rebecca E. Claypool, BSW
Study Title: *Development of an evaluative instrument to assess the knowledge base and competency of exercise professionals to incorporate sensitive training practices when instructing women who have experienced sexual abuse*
Institution: Middle Tennessee State University

Name of participant: _____ Age: _____

The following information is provided to inform you about the research project and your participation in it. Please read this form carefully and feel free to ask any questions you may have about this study and the information given below. You will be given an opportunity to ask questions, and your questions will be answered. Also, you will be given a copy of this consent form.

Your participation in this research study is voluntary. You are also free to withdraw from this study at any time. In the event new information becomes available that may affect the risks or benefits associated with this research study or your willingness to participate in it, you will be notified so that you can make an informed decision whether or not to continue your participation in this study.

For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance at (615) 494-8918.

1. **Purpose of the study:**
   You are being asked to participate in a research study because of your knowledge regarding survivors of sexual abuse and/or your role as an exercise professional. The main purpose of this study is to contribute to the development of an evaluative instrument (Sexual Abuse Assessment Tool, or SAAT) to assess competency, awareness and professional sensitivity among exercise professionals with regard to clients who have experienced prior sexual abuse.

2. **Description of procedures to be followed and approximate duration of the study:**
   After reading and signing the informed consent form, you will be provided with two documents: (1) the Subject Matter Expert Content Review of the SAAT and (2) the Domains, Competencies and Descriptors (DCD) document. The DCD document will be used to help you complete the content review of the SAAT. You will not evaluate the domains, competencies, and descriptors listed on the DCD document; rather, the purpose of referring to the DCD document is to help you complete your review of the SAAT. You will be using the DCD document to assist you in determining whether each assessment item in the SAAT reflects the domain, competency, and descriptor under which it is listed. Your responses concerning the relevance of each test item on the SAAT will be circled or highlighted on the review form as either being not relevant, somewhat relevant, quite relevant, or highly relevant.

You will have approximately one week to complete the content review of the SAAT. In completing this review, you will evaluate the SAAT for subject matter content, provide feedback on proposed assessment items, and suggest additional assessment items. You will be given approximately one week to evaluate each revised version of the SAAT.

3. **Expected costs:**
   There are no expected costs for study participants.

4. **Description of the discomforts, inconveniences, and/or risks that can be reasonably expected as a result of participation in this study:**
   In any discussion regarding abuse, there is a potential for feelings of sadness, anxiety, or retraumatization. It is important to emphasize that you will not be asked to complete the SAAT or recount or recall personal stories of possible emotional traumatization or retraumatization related to possible prior sexual abuse. Your sole role in this project is to determine the ability of the proposed assessment tool to evaluate the competency, awareness and professional sensitivity of exercise professionals who interact with clients in health and fitness settings who may have experienced past sexual abuse

5. **Compensation in case of study-related injury:**
   Compensation will not be provided in case of study-related injury.

6. **Anticipated benefits from this study:**
   The primary anticipated benefit of your participation in this study is to aid in the development of an evaluative instrument (SAAT) to assess competency, awareness, and professional sensitivity of exercise professionals who interact with clients who have experienced past sexual abuse. This tool can be used in future research investigations to establish best practice guidelines for exercise professionals and may benefit all survivors of sexual abuse by improving the education and training of exercise professionals, thus potentially creating emotionally safer physical activity and exercise settings and lessening the risk of retraumatization.

7. **Alternative treatments available:**
   Currently, there does not exist an assessment tool to determine the competency of exercise professionals who conduct individualized or group training with female survivors of sexual abuse.

8. **Compensation for participation:**
   No monetary compensation will be provided.

9. **Circumstances under which the Principal Investigator may withdraw you from study participation:**
   You may be withdrawn from the study if you are not able to complete the review associated with this investigation within an appropriate time frame.

10. **What happens if you choose to withdraw from study participation:**
    Participation in this project is completely voluntary and you may discontinue participation at any time without risk of prejudice or penalty.

11. **Contact Information.** If you should have any questions about this research study or possible injury, please feel free to contact Rebecca Claypool, BSW, at 615-347-2423 or my faculty advisor, Dr. Don Morgan, at 615-898-5549.

12. **Confidentiality.** All efforts, within reason, will be made to keep the personal information in your research record private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, if you or someone else is in danger or if we are required to do so by law.

13. **STATEMENT BY PERSON AGREEING TO PARTICIPATE IN THIS STUDY**
I have read this informed consent document and the material contained in it has been explained to me verbally. I understand each part of the document, all my questions have been answered, and I freely and voluntarily choose to participate in this study.

_____ _____

Date Signature of patient/volunteer

Consent obtained by:

_____ _____

Date Signature

_____

Printed Name and Title

APPENDIX B:

ORIGINAL STUDY DOCUMENT 2: DOMAINS, COMPETENCIES & DESCRIPTORS

Domains, Competencies & Descriptors

Domain 1: Background Knowledge and Attitudes Toward Sexual Abuse and Extent of Sexual Abuse

Competency 1: Compared to males, females are more likely to have experienced sexual abuse or harassment.

Descriptor: Exercise professionals of both sexes will understand and be mindful that the prevalence of women who have experienced sexual abuse is greater than the prevalence of men who have experienced sexual abuse. (AI1)

Competency 2: A person is more likely to be sexually abused by a family member, friend, or acquaintance than to be sexually abused or attacked by a stranger.

Descriptor: Exercise professionals will understand that abusers often develop a trusting relationship with a person in his or her family prior to abuse. This sometimes makes it difficult for a survivor to feel safe in a new relationship. (AI2)

Competency 3: While many laws and legal consequences are in place to protect people from sexual abuse, some forms of unwanted sexual contact that a person may interpret as abusive, especially when consent is given or understood, have no solid legal framework for lawful action.

Descriptor: Exercise professionals will understand that even if a woman reports sexual abuse and utilizes all of available legal resources, she may still not have access to legal protections. (AI3)

Competency 4: Very few health history or interview forms used by exercise professionals address past sexual abuse.

Descriptor: Exercise professionals will understand that health history forms typically emphasize concerns regarding physical health and muscular and bone injuries and do not address sexual abuse or the possibility of retraumatization associated with previous abusive situations or emotional issues related to sexual abuse. (AI4)

Competency 5: The definitions of and laws surrounding sexual abuse differ based on local jurisdiction and survivors' experiences; therefore, the percentage of women

affected by sexual abuse is unclear. However, this form of abuse affects a substantial number of women

Descriptor: Exercise professionals will understand that because not all sexual abuse is reported, it is difficult to quantify the extent to which sexual abuse occurs is difficult to measure accurately. (AI5)

Descriptor: Exercise professionals will understand that the lack of accurate statistics regarding sexual abuse is not due to a small number of cases. (AI6, AI7)

Descriptor: Exercise professionals will understand that even though some survivors have not disclosed past sexual abuse for a variety of reasons, including perceived stigmas or fear, this non-disclosure should not be interpreted as meaning that previous abuse is a trivial concern. (AI8)

Domain 2: Sexual Abuse and Health Concerns.

Competency 6: Women who have experienced sexual abuse are more likely to be obese than those who have not been abused sexually.

Descriptor: Exercise professionals will understand that a history of severe sexual abuse in women is related to higher obesity (specifically, central (or abdominal) patterns of obesity), compared to women who have not been abused or have been victims of less-severe sexual abuse. (AI9, AI10)

Descriptor: Exercise professionals will understand that the positive association between sexual abuse and obesity may be tied to biological and emotional stress. (AI11, A112)

Descriptor: Exercise professionals will understand that stress associated with past sexual abuse can be manifested as binge eating disorders or general overeating and can negatively impact eating behaviors in adulthood. (AI13)

Competency 7: Trauma such as severe sexual abuse can change brain chemistry and alter glucose metabolism.

Descriptor: Exercise professionals will understand that neurological changes related to past experiences of sexual abuse can lead to poor social relationships and an increased risk of depression and have a negative impact on glucose metabolism. (AI14, AI15, AI16)

Competency 8: Higher rates of mental illness occur among adolescents who have a family history or personal experience with sexual abuse.

Descriptor: Exercise professionals will understand that higher rates of anxiety are reported in adolescents who have a personal or family history of sexual abuse. (AI17)

Descriptor: Exercise professionals will understand that higher rates of suicide are reported in adolescents who have family or personal history of sexual abuse. (AI18)

Competency 9: Anorexia nervosa is observed with greater severity in survivors of sexual abuse compared to persons who have been diagnosed with anorexia nervosa, but have not been abused sexually.

Descriptor: Exercise professionals will understand that more severe cases of anorexia nervosa are observed in persons who have experienced prior sexual abuse. (AI19)

Competency 10: Compulsive exercising is sometimes observed in response to anxiety and may be associated with a desire for physical thinness or strength or may reflect a form of self-harm.

Descriptor: Exercise professionals will understand that individuals who are seemingly obsessed with exercising may be dealing with underlying anxiety associated with previous sexual abuse. (AI20)

Competency 11: Cardiovascular health risks are more frequently seen in persons who have experienced past sexual abuse.

Descriptor: Exercise professionals will understand that an individual who has experienced prior sexual abuse is less likely to maintain a healthy weight status. (AI21)

Domain 3: Barriers to Exercise Among Women Who Have Experienced Sexual Abuse.

Competency 12: Physiological barriers exist for women who have experienced past sexual abuse.

Descriptor: Exercise professionals will understand that physical scarring and scar tissue formation in the skin or muscle caused by previous sexual abuse in women may create physiological barriers to exercise later in life. (AI22)

Descriptor: Exercise professionals will understand that complications from sexually transmitted diseases, such as rashes or side effects from medications, may establish physiological barriers to exercise later in life among women who have experienced previous sexual abuse. (AI23)

Descriptor: Exercise professionals will understand that effects of malnourishment which may accompany past sexual abuse in women, such as low bone density, may create physiological barriers to exercise later in life. (AI24)

Descriptor: Exercise professionals will understand that the effects of sleep disturbances, such as extreme fatigue, may create physiological barriers to exercise later in life. (AI25)

Competency 13: Sexual abuse occurring in home settings correlates positively with reduced sport participation in youth.

Descriptor: Exercise professionals will understand that sport participation is lower among youth who live in homes where sexual abuse is present. (AI26)

Competency 14: Exercise attire can create a barrier to exercise in women who have experienced past sexual abuse.

Descriptor: Exercise professionals will understand that clothing worn during exercise, such as swimwear, tight-fitting attire, or clothes that allow skin to show, may create an emotional barrier to exercise participation in women who have experienced previous sexual abuse, who have self-harmed, or who may not desire to appear attractive or feminine because these attributes may have been liabilities in previous sexual abuse episodes. (AI27, AI28, AI29)

Competency 15: Sexual abuse of women may be accompanied by physical or emotional control and manipulation by the abuser that may impact exercise participation.

Descriptor: Exercise professionals will understand that some sexual abusers may restrict food and nourishment to keep body weight low in females who have been abused sexually. (AI30)

Descriptor: Exercise professionals will understand that some abusers enable or encourage overeating or discourage exercise to increase a woman's weight to suit the preference of the abuser or provide a level of perceived "safety" for the abuser, in the hope that the victim will be less likely to feel empowered to leave. (AI31, AI32)

Domain 4: Environmental and Interpersonal Emotional Triggers in Exercise Settings and During Exercise Programming.

Competency 16: Some female clients who have experienced sexual abuse report discomfort when they perceive an exercise professional, such as a physical therapist, indicating that they know what is best for their client's body.

Descriptor: Exercise professionals will understand that telling female clients what they should feel physically or how much pain they should be experiencing may create an emotional trigger of past sexual abuse for a woman who has been abused sexually. (AI33)

Competency 17: Because individuals experience the world differently, female clients, regardless of sexual abuse status, should be given a choice of selecting the sex of their

personal trainer, whenever possible, as sexual abuse occurs between any combination of sexes.

Descriptor: Exercise professionals will understand that the sex, appearance, or personality of an exercise professional may trigger memories of past sexual abuse which, in turn, may create initial distrust from a client and result in the client requesting a different exercise professional without providing an explanation to the trainer. (AI34)

Competency 18: Exercise professionals should display sensitive practice by asking clients who have been sexually abused for permission to touch them each time the need arises to reduce the likelihood of retraumatization in response to emotional triggers tied to the previous abusive situation.

Descriptor: Exercise professionals will understand that among some survivors of past sexual abuse, physical touch creates an emotional trigger of past sexual abuse and the potential for retraumatization. (AI35, AI36)

Competency 19: Because reactions to prior sexual abuse situations vary among individuals, some clients who have experienced sexual abuse may be triggered to recall past sexual abuse by specific activities that do not trigger memories of previous sexual abuse in other clients.

Descriptor: Exercise professionals will understand that all clients, including those who have experienced sexual abuse, exhibit different physical activity preferences. (AI37)

Descriptor: Exercise professionals will understand that some clients may not fully convey their thoughts and feelings when resisting or refusing to perform a particular exercise or physical movement that triggers memories of past sexual abuse. (AI38)

Competency 20: A specific exercise or physical activity may improve fitness, but may be inappropriate, uncomfortable, or emotionally traumatizing for women who have been abused sexually.

Descriptor: Exercise professionals will understand that in order for a person who has experienced sexual abuse to adhere to an exercise program, it must be emotionally comfortable as well as physically safe and effective. (AI39)

Descriptor: Exercise professionals will understand that some clients who have been abused sexually may not fully convey their thoughts and feelings when resisting or refusing to perform a particular exercise or physical movement that triggers memories of past sexual abuse or are difficult to perform due to physical scarring. (AI40).

Competency 21: Clients who have experienced sexual abuse have stated that feeling uncomfortable in locker rooms can create an emotional barrier to exercise participation. Sex- or gender-specific locker rooms may provide some level of comfort for certain clients.

Descriptor: Exercise professionals will understand that some clients who have experienced sexual abuse may not fully state their thoughts and feelings when expressing reluctance to join a sports team, engage in aquatic exercise, or prepare to exercise at a gym or fitness facility. (AI41)

Descriptor: Exercise professionals will understand that one potential barrier to exercise for survivors of past sexual abuse is the need to change clothes in a gym facility or locker room in which they may feel vulnerable. (AI42)

Competency 22: Physiological signs of emotional triggers or post-traumatic stress include muscle stiffening or tightening.

Descriptor: Exercise professionals will understand that involuntary physical responses can occur in response to emotions tied to past sexual abuse. (AI43)

Domain 5: Sensitive Behaviors of the Exercise Professional.

Competency 23: Exercise professionals can display sensitive practices to all clients through awareness, education, and training,

Descriptor: Exercise professionals will understand that because past sexual abuses may have been experienced by some of their female clients, it is important to demonstrate respect and sensitivity related to this possibility. (AI44)

Competency 24: Exercise professionals can display sensitive practice by being aware of physiological signs of emotional triggers or post-traumatic stress, such as muscle stiffening or tightening.

Descriptor: Exercise professionals will understand that being open to providing modifications of exercise and physical movements in response to outward signs of emotional stress may improve exercise adherence and the program success of a client who has experienced prior sexual abuse. (AI52)

Competency 25: It is vital for exercise professionals to display sensitive practice by asking for permission before touching a client.

Descriptor: Exercise professionals will understand that one way to provide sensitive practice to all clients, including survivors of sexual abuse, is to ask permission before touching a client. (AI53, AI54)

Competency 26: Some clients who have experienced past sexual abuse become anxious when they are placed in a small room, are positioned with their backs to the door, or are asked to look at themselves in a mirror.

Descriptor: Exercise professionals will understand that one way to display sensitive practice is to allow their clients to choose a seat or location in an office or group fitness studio, instead of being told where to sit or exercise. (AI55, AI56, AI57, AI58)

Descriptor: Exercise professionals will understand that one way to display sensitive practice is to offer various options for a client to check her own form if she appears uncomfortable looking in the mirror. (AI51)

Competency 27: One physical sign of emotional triggers or post-traumatic stress related to past sexual abuse is dissociation, which is characterized by a blank stare, forgetfulness, or appearing disconnected from the body.

Descriptor: Exercise professionals will understand and be sensitive to the possibility that dissociation may have been used previously by individuals who have experienced sexual abuse to remove themselves mentally and emotionally from the abusive situation. (AI49)

Descriptor: Exercise professionals will understand that physical signs of emotional triggers or post-traumatic stress related to past sexual abuse may mimic symptoms of other health conditions that would normally require appropriate responses and treatment. (AI59)

Descriptor: Exercise professionals will understand that when a person shows signs of dissociation, appropriate responses include using the person's name, remaining patient and calm, allowing clients to remove themselves from the activity environment or reposition their body, providing suitable modifications to the exercise routine, or taking a short walk or water break. (AI60)

Descriptor: Exercise professionals will understand that yelling at, touching, or attempting to physically move a client who is showing signs of dissociation are not sensitive and appropriate responses of an exercise professional. (AI61)

Competency 28: It is vital for an exercise professional to display sensitive practice by asking general follow-up questions related to the health and well-being of their clients, including past abusive situations.

Descriptor: Exercise professionals will understand that a sensitive and responsible professional always reports child abuse to local authorities. (AI62, AI63)

Descriptor: Exercise professionals will understand that referrals to a local counselor or shelter may be appropriate if an adult client discloses current or past sexual abuse. (AI62)

Descriptor: Exercise professionals will understand that counseling a client about disclosure or past sexual abuses is not within their professional scope of practice.
(AI64)

Competency 29: Some clients who have experienced sexual abuse feel uncomfortable with the idea of being considered attractive or feminine or showing off specific body parts, as these physical attributes have sometimes proved to be liabilities in past abusive situations.

Descriptor: Exercise professionals will understand that sensitive practice is displayed by focusing on physical health and encouraging emotional support systems. (AI45, AI46)

Descriptor: Exercise professionals will understand that sensitive practice is not displayed by focusing on physical attractiveness or stereotypical views of beauty. (AI47, AI50).

Descriptor: Exercise professionals will understand that sensitive practice is not displayed by telling clients how their bodies should feel when performing a specific exercise or physical movement. (AI48)

Competency 30: Responsible and sensitive trainers are able to modify specific exercises or exercise programs to suit clients' needs.

Descriptor: Exercise professionals will understand that insistence on "staying the course" and "sticking to the program" are not always appropriate responses to clients who resist or refuse to perform an exercise and do not reflect sensitive practices or professional behaviors. (AI65)

Descriptor: Exercise professionals will understand that modifications to an exercise program should always be offered in group settings as a means of displaying appropriate sensitivity towards injuries, recognizing individual differences in fitness levels, and providing emotional comfort, and that modifying exercise routines may be necessary to increase program adherence and success. (AI66)

APPENDIX C

ORIGINAL STUDY DOCUMENT 1: SUBJECT MATTER EXPERT REVIEW

Subject Matter Expert Content Review of the Sexual Abuse Assessment Tool

Thank you for participating in a content review for a proposed assessment of the Sexual Abuse Assessment Tool (SAAT). The goal of this content review is to aid in the development of an evaluative tool to assess the competence, preparedness, and sensitivity of exercise professionals as they instruct, train, and interact with women who have experienced past sexual abuse. **DO NOT RESPOND TO STATEMENTS CONTAINED WITHIN THE SEXUAL ABUSE ASSESSMENT TOOL (SAAT) ITSELF (*Left Column*). Instead, please review each item of the proposed assessment tool for the relevancy of its content (*Right Column*).**

Please circle or highlight one response option for each assessment item (AI). The four available options, which include, "Not Relevant", "Somewhat Relevant", "Quite Relevant", and "Highly Relevant", are intended to describe the extent to which each AI belongs in this assessment. The selection of response options should be based on your professional expertise and background, knowledge and awareness of each item being assessed, and personal experience. In addition, as part of the process of selecting a response option for each AI, please refer to the 'Domains, Competencies, and Descriptors' document and evaluate how well the AI represents and reflects the content in related domain, competency, and descriptor statements. For each AI, you may provide additional feedback in the space provided for optional comments (*Right Column*). At the end of the SAAT content review, you will have an opportunity to suggest additional test

questions or provide editorial comments, as you see fit. You may choose to stop reviewing the proposed assessment at any time.

I am requesting that you complete this content review within a 7-day period. When you have finished this review, please scan the document and return to me via e-mail to rec4n@mtmail.mtsu.edu or print this document in its entirety and send it through the mail. Again, thank you very much for your willingness to participate in this project.

Participant ID# _____

AI1. Sexual abuse is more likely to be experienced by females compared to males. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI2. Sexual abuse is more likely to occur between two strangers compared to persons who know and are familiar each other. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI3. Legal protection and assistance are available for all forms of unwanted sexual experiences if the victim understands how to use available resources and is willing to speak up about her experience. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI4. Health history forms are intended to provide information about a client's physical and emotional risk factors. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI5. The percentage of sexual abuse cases is difficult to pinpoint because not all sexual abuse cases are reported. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI6. It is difficult to accurately estimate the percentage of cases of sexual abuse because definitions of and laws surrounding sexual abuse differ among states. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI7. Sexual abuse is estimated to affect less than 2% of the population. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI8. If a client does not disclose past sexual abuse to her exercise trainer, the trainer should assume that abuse has not occurred. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI9. Women who have experienced sexual abuse are more likely to be obese compared to those who have not been abused sexually. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI10. Sexual abuse increases the risk for central (or abdominal) obesity. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI11. Obesity in women who have experienced sexual abuse may be linked to physiological factors. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI12. Obesity in women who have experienced sexual abuse may be related to emotional responses to the trauma of their abusive situation(s). Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI13. Stress associated with past sexual abuse may be manifested as binge eating disorder or general overeating. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI14. Neurological changes related to sexual abuse generally improves social relationships. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI15. Neurological changes related to sexual abuse can lead to depression. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI16. Neurological changes associated with sexual abuse can alter glucose metabolism. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI17. Adolescents who have a family or personal history of sexual abuse are more likely to experience higher rates of anxiety compared to adolescents who have not experienced these forms of sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI18. Adolescents who have a family or personal history of sexual abuse are more likely to experience thoughts and acts of suicide compared to adolescents who have not experienced these forms of sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI19. The severity of anorexia nervosa is greater among individuals who have experienced sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI20. Clients who exercise excessively or experience anger or great disappointment if a workout is missed may be showing signs of underlying anxiety related to having experienced past sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI21. Women who have experienced past sexual abuse are more likely to have a healthy (normal) body mass index (weight-to-height ratio) compared to women who have not been abused sexually. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI22. Physical scarring caused by previous sexual abuse in women may create barriers to exercise. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI23. Complications from sexually transmitted diseases, such as rashes or side effects from medications, may create physiological barriers to exercise in women who have experienced sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI24. Effects of malnourishment, such as low bone density, may create physiological barriers to exercise in women who have experienced sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI25. Sleep disturbances associated with past sexual abuse, such as night terrors or post-traumatic stress disorder, may result in extreme fatigue and negatively impact exercise performance. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI26. Participation rates in physical sport activities are consistently higher among children who have experienced sexual abuse at home. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI27. Clothing worn during exercise, such as swimwear, tight-fitting attire, or clothes that allow skin to show, may create an emotional barrier to exercise participation among women who have experienced sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI28. In order to hide self-inflicted physical scarring, a woman who has experienced sexual abuse may resist participating in physical activity and exercise that require swimwear or clothes that allow skin to show. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

A29. If a women who has been sexually abused feels that she appears attractive in fitness clothes or swimwear, she will not experience emotional barriers to exercise participation when she wears these types of active wear. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI30. Abusers may attempt to control the body weight or appearance of their victims by restricting their availability to food and nourishment. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI31. Abusers may attempt to control the body weight or appearance of their victims by encouraging overeating by the individuals being abused. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI32. Abusers may attempt to control the body weight or appearance of their victims by discouraging exercise participation by the persons being abused. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI33. An exercise professional should tell their clients how much pain or discomfort they should feel during a given exercise movement. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI34. If a woman discloses that she has experienced sexual abuse, she should automatically be assigned a female trainer to make her feel more comfortable. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI35. An exercise professional should always request permission to touch a client. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI36. Once a trusting relationship is established, exercise professionals do not need to request permission to touch their clients. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI37. Outdoor activities, like running, will not trigger memories or emotions from past sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI38. If clients who have experienced sexual abuse feel emotionally uncomfortable performing a particular exercise or physical movement, they are likely to be forthcoming about why they feel uncomfortable. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI39. An exercise professional should be open to changing a client's exercise plan, based on the client's stated dislike of one or more of the exercises which comprise the plan. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI40. If clients who have been abused sexually feel physically uncomfortable performing a given exercise or physical movement, they are likely to explain why they feel uncomfortable. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI41. Underlying emotions related to past sexual abuse may be triggered by exercising at a fitness facility and lead to a decrease in exercise participation. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI42. Sex-specific locker rooms and changing areas will make survivors of sexual abuse feel more comfortable. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI43. Involuntary physical responses tied to past sexual abuse may negatively affect exercise performance. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI44. If a client does not disclose past sexual abuse to an exercise professional, there is nothing that the exercise professional can do to show sensitivity about the possibility that the client may have experienced past sexual abuse. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI45. Exercise professionals should display a professional focus on physical health. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI46. Exercise professionals should encourage clients to find a healthy emotional support system. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI47. Exercise professionals should display a professional focus on physical beauty to increase clients' self-esteem. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI48. Exercise professionals who display sensitive practice will tell a client how her body should feel when performing a given exercise. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI49. Clients who have experienced sexual abuse may "space out" or become unaware of their bodies when a movement triggers a traumatic memory. Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
The following scenario is to be used for Assessment Items 50 – 52. **After you describe how to perform a new exercise, you notice that your client tenses her muscles as she moves toward the starting position, but does not say anything.** **How should you respond to this situation?**	**Optional Comments about this Item:**

AI50. You should encourage your client by commenting on the improvements you've seen in her physique and body shape. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI51. You should ask your client to look in the mirror so that she can see herself perform the exercise. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI52. You should offer your client a comparable modification of the exercise and allow her to choose which form of the exercise she prefers. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
This scenario is to be used for Assessment Items 53 – 54. **You have been working with a client for two months. She has appeared to be uncooperative at times, even though she seems to really want to lose weight. As your client finishes up with an exercise set, you place your hand on her lower back to remind her to use proper form. In response, your client abruptly stops exercising, even though you believe she could have easily completed the set.** **How should you respond to this situation?**	**Optional Comments about this Item:**

AI53. You should tell your client to finish up the exercise set, while continuing to help her maintain correct body form by keeping your hand on, or near, her back. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI54. You should ask your client to decide if she can finish the exercise set and provide her with additional room by standing a little farther away from her and speaking to her if her form begins to deteriorate. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

This scenario is to be used for Assessment Items 55 - 56. **During an initial office meeting with a new client, she constantly looks over her shoulder, gazes out the window, and seems distracted and disinterested in your comments.** **How should you respond to this situation?**	**Optional Comments about this Item:**
AI55. You should finish the meeting quickly because the client seems anxious to leave. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI56. You should ask the client if she would feel comfortable moving the meeting to an open table at the front of the gym. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
This scenario is to be used for Assessment Items 57 - 58. **A new client walks into your fitness class.** **How appropriate are the following next steps?**	**Optional Comments about this Item:**

AI57. Invite your client to set up her exercise equipment where she feels most comfortable. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI58. Offer to set up her exercise equipment in a space where she can clearly see you during the training session. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

This scenario is to be used for Assessment Items 59 - 61. **While working with a client on a particular exercise machine, she begins to stare past the machine and her mind appears to be somewhere else. She continues exercising, but seems disconnected and forgets how many repetitions she has completed.** **How appropriate are the following next steps?**	**Optional Comments about this Item:**
AI59. You should check to see whether she displays additional signs of stroke. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI60. You should state your client's name and allow her to stop exercising. If the exercise session is continued, allow her to perform a comparable exercise. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI61. You should ask your client to stop exercising and help her off the exercise machine so that you can adjust the resistance. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

This scenario is to be used for Assessment Items 62 - 64. **A client confides in you that her husband has sexually abused her and her 14-year-old son and that she has never admitted this to anyone else before.** **How should you respond to your** **client's remarks?**	**Optional Comments about this Item:**
AI62. Offer her information about local resources for herself and her son and inform local police of your client's statement regarding her son. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI63. Respect her privacy and withhold sharing this information with others, as it may not even be true. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**
AI64. Offer to talk your client through her feelings or provide counsel whenever she is ready to share more information about the incident. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

This scenario is to be used for Assessment Items 65 - 66. **A new member in your group fitness class sometimes fails to participate in certain exercises, even though she appears to be strong enough to participate.** **How should you respond to this situation?**	**Optional Comments about this Item:**
AI65. Remind this member that "sticking to the program" is the only way for results to occur. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

AI66. Provide this member with modifications for the exercise movement to reduce the possibility of injury, take into account differences in fitness levels, and provide emotional comfort, if needed. Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate	**Item Relevance (Please Circle or Highlight One Option)** Not Relevant Somewhat Relevant Quite Relevant Highly Relevant **Optional Comments about this Item:**

1. **If you'd like to suggest additional assessment items specific to the domains, competencies, and descriptors listed in the current version of the Sexual Abuse Assessment Tool (SAAT), please list them in the space below.**

2. **If you have suggestions for other domains, competencies, or descriptors that should be included in future versions of the Sexual Abuse Assessment Tool (SAAT), please list them in the space below.**

APPENDIX D
FINAL STUDY DOCUMENT 2: DOMAINS, COMPETENCIES & DECRIPTORS

Domains, Competencies & Descriptors

Domain 1: Background Knowledge and Attitudes Toward Sexual Abuse and Extent of Sexual Abuse

Competency 1: Compared to males, females are more likely to have experienced sexual abuse or harassment.

Descriptor: Exercise professionals of both sexes will understand and be mindful that the prevalence of women who have experienced sexual abuse is greater than the prevalence of men who have experienced sexual abuse. (AI1)

Competency 2: A person is more likely to be sexually abused by a family member, friend, or acquaintance than to be sexually abused or attacked by a stranger.

Descriptor: Exercise professionals will understand that abusers often develop a trusting relationship with a person in his or her family prior to abuse. This sometimes makes it difficult for a survivor to feel safe in a new relationship. (AI2)

Competency 3: While many laws and legal consequences are in place to protect people from sexual abuse, some forms of unwanted sexual contact that a person may interpret as abusive, especially when consent is given or understood, have no solid legal framework for lawful action.

Descriptor: Exercise professionals will understand that even if a woman reports sexual abuse and utilizes all of available legal resources, she may still not have access to legal protections. (AI3)

Competency 4: Very few health history or interview forms used by exercise professionals address past sexual abuse.

Descriptor: Exercise professionals will understand that health history forms typically emphasize concerns regarding physical health and muscular and bone injuries and do not address sexual abuse or the possibility of retraumatization associated with previous abusive situations or emotional issues related to sexual abuse. (AI4)

Competency 5: The definitions of and laws surrounding sexual abuse differ based on local jurisdiction and survivors' experiences; therefore, the percentage of women affected by sexual abuse is unclear. However, this form of abuse affects a substantial number of women

Descriptor: Exercise professionals will understand that because not all sexual abuse is reported, it is difficult to quantify the extent to which sexual abuse occurs is difficult to measure accurately. (AI5)

Descriptor: Exercise professionals will understand that the lack of accurate statistics regarding sexual abuse is not due to a small number of cases. (AI6)

Descriptor: Exercise professionals will understand that even though some survivors have not disclosed past sexual abuse for a variety of reasons, including perceived stigmas or fear, this non-disclosure should not be interpreted as meaning that previous abuse is a trivial concern. (AI7)

Domain 2: Sexual Abuse and Health Concerns.

Competency 6: Women who have experienced sexual abuse are more likely to be obese than those who have not been abused sexually.

Descriptor: Exercise professionals will understand that a history of severe sexual abuse in women is related to higher obesity (specifically, central (or abdominal) patterns of obesity), compared to women who have not been abused or have been victims of less-severe sexual abuse. (AI8, AI9)

Descriptor: Exercise professionals will understand that the positive association between sexual abuse and obesity may be tied to biological and emotional stress. (AI10, AI11)

Descriptor: Exercise professionals will understand that stress associated with past sexual abuse can be manifested as binge eating disorders or general overeating and can negatively impact eating behaviors in adulthood. (AI12)

Competency 7: Trauma such as severe sexual abuse can change brain chemistry and alter glucose metabolism.

Descriptor: Exercise professionals will understand that neurological changes related to past experiences of sexual abuse can lead to poor social relationships and an increased risk of depression and have a negative impact on glucose metabolism. (AI13, AI14, AI15)

Competency 8: Higher rates of mental illness occur among adolescents who have a family history or personal experience with sexual abuse.

Descriptor: Exercise professionals will understand that higher rates of anxiety are reported in adolescents who have a personal or family history of sexual abuse. (AI16)

Descriptor: Exercise professionals will understand that higher rates of suicide are reported in adolescents who have family or personal history of sexual abuse. (AI17)

Competency 9: Anorexia nervosa is observed with greater severity in survivors of sexual abuse compared to persons who have been diagnosed with anorexia nervosa, but have not been abused sexually.

Descriptor: Exercise professionals will understand that more severe cases of anorexia nervosa are observed in persons who have experienced prior sexual abuse. (AI18)

Competency 10: Compulsive exercising is sometimes observed in response to anxiety and may be associated with a desire for physical thinness or strength or may reflect a form of self-harm.

Descriptor: Exercise professionals will understand that individuals who are seemingly obsessed with exercising may be dealing with underlying anxiety associated with previous sexual abuse. (AI19)

Competency 11: Cardiovascular health risks are more frequently seen in persons who have experienced past sexual abuse.

Descriptor: Exercise professionals will understand that an individual who has experienced prior sexual abuse is less likely to maintain a healthy weight status. (AI9, AI11, AI15, AI18)

Domain 3: Barriers to Exercise Among Women Who Have Experienced Sexual Abuse.

Competency 12: Physiological barriers exist for women who have experienced past sexual abuse.

Descriptor: Exercise professionals will understand that physical scarring and scar tissue formation in the skin or muscle caused by previous sexual abuse in women may create physiological barriers to exercise later in life. (AI20)

Descriptor: Exercise professionals will understand that complications from sexually transmitted diseases, such as rashes or side effects from medications, may establish physiological barriers to exercise later in life among women who have experienced previous sexual abuse. (AI21)

Descriptor: Exercise professionals will understand that effects of malnourishment which may accompany past sexual abuse in women, such as low bone density, may create physiological barriers to exercise later in life. (AI22)

Descriptor: Exercise professionals will understand that the effects of sleep disturbances, such as extreme fatigue, may create physiological barriers to exercise later in life. (AI23)

Competency 13: Sexual abuse occurring in home settings is associated with reduced exercise and sport participation in youth.

Descriptor: Exercise professionals will understand that sport participation is lower among youth who live in homes where sexual abuse is present. (AI24)

Competency 14: Exercise attire can create a barrier to exercise in women who have experienced past sexual abuse.

Descriptor: Exercise professionals will understand that clothing worn during exercise, such as swimwear, tight-fitting attire, or clothes that allow skin to show, may create an emotional barrier to exercise participation in women who have experienced previous sexual abuse, who have self-harmed, or who may not desire to appear attractive or feminine because these attributes may have been liabilities in previous sexual abuse episodes. (AI25, AI26, AI27)

Competency 15: Sexual abuse of women may be accompanied by physical or emotional control and manipulation by the abuser that may impact exercise participation.

Descriptor: Exercise professionals will understand that some sexual abusers may restrict food and nourishment to keep body weight low in females who have been abused sexually. (AI28)

Descriptor: Exercise professionals will understand that some abusers enable or encourage overeating or discourage exercise to increase a woman's weight to suit the preference of the abuser or provide a level of perceived "safety" for the abuser, in the hope that the victim will be less likely to feel empowered to leave. (AI29,AI30)

Domain 4: Environmental and Interpersonal Emotional Triggers in Exercise Settings and During Exercise Programming.

Competency 16: Some female clients who have experienced sexual abuse report discomfort when they perceive an exercise professional, such as a physical therapist, indicating that they know what is best for their client's body.

Descriptor: Exercise professionals will understand that telling female clients what they should feel physically or how much pain they should be experiencing may create an emotional trigger of past sexual abuse for a woman who has been abused sexually. (AI31)

Competency 17: Because individuals experience the world differently, female clients, regardless of sexual abuse status, should be given a choice of selecting the sex of their

personal trainer, whenever possible, as sexual abuse occurs between any combination of sexes.

Descriptor: Exercise professionals will understand that the sex, appearance, or personality of an exercise professional may trigger memories of past sexual abuse which, in turn, may create initial distrust from a client and result in the client requesting a different exercise professional without providing an explanation to the trainer. (AI32)

Competency 18: Exercise professionals should display sensitive practice by asking clients who have been sexually abused for permission to touch them each time the need arises to reduce the likelihood of retraumatization in response to emotional triggers tied to the previous abusive situation.

Descriptor: Exercise professionals will understand that among some survivors of past sexual abuse, physical touch creates an emotional trigger of past sexual abuse and the potential for retraumatization. (AI33, AI34)

Competency 19: Because reactions to prior sexual abuse situations vary among individuals, some clients who have experienced sexual abuse may be triggered to recall past sexual abuse by specific activities that do not trigger memories of previous sexual abuse in other clients.

Descriptor: Exercise professionals will understand that all clients, including those who have experienced sexual abuse, exhibit different physical activity preferences. (AI35)

Descriptor: Exercise professionals will understand that some clients may not fully convey their thoughts and feelings when resisting or refusing to perform a particular exercise or physical movement that triggers memories of past sexual abuse. (AI36)

Competency 20: A specific exercise or physical activity may improve fitness, but may be inappropriate, uncomfortable, or emotionally traumatizing for women who have been abused sexually.

Descriptor: Exercise professionals will understand that in order for a person who has experienced sexual abuse to adhere to an exercise program, it must be emotionally comfortable as well as physically safe and effective. (AI37)

Descriptor: Exercise professionals will understand that some clients who have been abused sexually may not fully convey their thoughts and feelings when resisting or refusing to perform a particular exercise or physical movement that triggers memories of past sexual abuse or are difficult to perform due to physical scarring. (AI38).

Competency 21: Clients who have experienced sexual abuse have stated that feeling uncomfortable in locker rooms can create an emotional barrier to exercise participation. Sex- or gender-specific locker rooms may provide some level of comfort for certain clients.

Descriptor: Exercise professionals will understand that some clients who have experienced sexual abuse may not fully state their thoughts and feelings when expressing reluctance to join a sports team, engage in aquatic exercise, or prepare to exercise at a gym or fitness facility. (AI39)

Descriptor: Exercise professionals will understand that one potential barrier to exercise for survivors of past sexual abuse is the need to change clothes in a gym facility or locker room in which they may feel vulnerable. (AI40)

Competency 22: Physiological signs of emotional triggers or post-traumatic stress include muscle stiffening or tightening.

Descriptor: Exercise professionals will understand that involuntary physical responses can occur in response to emotions tied to past sexual abuse. (AI41)

Domain 5: Sensitive Behaviors of the Exercise Professional.

Competency 23: Exercise professionals can display sensitive practices to all clients through awareness, education, and training,

Descriptor: Exercise professionals will understand that because past sexual abuses may have been experienced by some of their female clients, it is important to demonstrate respect and sensitivity related to this possibility. (AI42)

Competency 24: Exercise professionals can display sensitive practice by being aware of physiological signs of emotional triggers or post-traumatic stress, such as muscle stiffening or tightening.

Descriptor: Exercise professionals will understand that being open to providing modifications of exercise and physical movements in response to outward signs of emotional stress may improve exercise adherence and the program success of a client who has experienced prior sexual abuse. (AI43)

Competency 25: It is vital for exercise professionals to display sensitive practice by asking for permission before touching a client.

Descriptor: Exercise professionals will understand that one way to provide sensitive practice to all clients, including survivors of sexual abuse, is to ask permission before touching a client. (AI51, AI52)

Competency 26: Some clients who have experienced past sexual abuse become anxious when they are placed in a small room, are positioned with their backs to the door, or are asked to look at themselves in a mirror.

Descriptor: Exercise professionals will understand that one way to display sensitive practice is to allow their clients to choose a seat or location in an office or group fitness studio, instead of being told where to sit or exercise. (AI53, AI54, AI55, AI56)

Descriptor: Exercise professionals will understand that one way to display sensitive practice is to offer various options for a client to check her own form if she appears uncomfortable looking in the mirror. (AI49)

Competency 27: One physical sign of emotional triggers or post-traumatic stress related to past sexual abuse is dissociation, which is characterized by a blank stare, forgetfulness, or appearing disconnected from the body.

Descriptor: Exercise professionals will understand and be sensitive to the possibility that dissociation may have been used previously by individuals who have experienced sexual abuse to remove themselves mentally and emotionally from the abusive situation. (AI47)

Descriptor: Exercise professionals will understand that physical signs of emotional triggers or post-traumatic stress related to past sexual abuse may mimic symptoms of other health conditions that would normally require appropriate responses and treatment. (AI57)

Descriptor: Exercise professionals will understand that when a person shows signs of dissociation, appropriate responses include using the person's name, remaining patient and calm, allowing clients to remove themselves from the activity environment or reposition their body, providing suitable modifications to the exercise routine, or taking a short walk or water break. (AI58)

Descriptor: Exercise professionals will understand that yelling at, touching, or attempting to physically move a client who is showing signs of dissociation are not sensitive and appropriate responses of an exercise professional. (AI59)

Competency 28: It is vital for an exercise professional to display sensitive practice by asking general follow-up questions related to the health and well-being of their clients, including past abusive situations.

Descriptor: Exercise professionals will understand that a sensitive and responsible professional always reports child abuse to local authorities. (AI60, AI61)

Descriptor: Exercise professionals will understand that referrals to a local counselor or shelter may be appropriate if an adult client discloses current or past sexual abuse. (AI60)

Descriptor: Exercise professionals will understand that counseling a client about disclosure or past sexual abuses is not within their professional scope of practice.
(AI62)

Competency 29: Some clients who have experienced sexual abuse feel uncomfortable with the idea of being considered attractive or feminine or showing off specific body parts, as these physical attributes have sometimes proved to be liabilities in past abusive situations.

Descriptor: Exercise professionals will understand that sensitive practice is displayed by focusing on physical health and encouraging emotional support systems. (AI43, AI44)

Descriptor: Exercise professionals will understand that sensitive practice is not displayed by focusing on physical attractiveness or stereotypical views of beauty. (AI45, AI48).

Descriptor: Exercise professionals will understand that sensitive practice is not displayed by telling clients how their bodies should feel when performing a specific exercise or physical movement. (AI46)

Competency 30: Responsible and sensitive trainers are able to modify specific exercises or exercise programs to suit clients' needs.

Descriptor: Exercise professionals will understand that insistence on "staying the course" and "sticking to the program" are not always appropriate responses to clients who resist or refuse to perform an exercise and do not reflect sensitive practices or professional behaviors. (AI63)

Descriptor: Exercise professionals will understand that modifications to an exercise program should always be offered in group settings as a means of displaying appropriate sensitivity towards injuries, recognizing individual differences in fitness levels, and providing emotional comfort, and that modifying exercise routines may be necessary to increase program adherence and success. (AI64)

APPENDIX E
FINAL VERSION OF THE SEXUAL ABUSE ASSESSMENT TOOL (SAAT)

Sexual Abuse Assessment Tool

1. Sexual abuse is more likely to be experienced by females compared to males.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

2. Sexual abuse is more likely to occur between two strangers compared to persons who know and are familiar each other.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

3. Legal protection and assistance are available for all forms of unwanted sexual experiences if the victim understands how to use available resources and is willing to speak up about her experience.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

4. Most health history forms typically contain questions regarding overall physical health, injury status, and potential emotional barriers to exercise related to sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

5. The percentage of sexual abuse cases is difficult to pinpoint because not all sexual abuse cases are reported.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

6. It is difficult to accurately estimate the percentage of cases of sexual abuse because definitions of and laws surrounding sexual abuse differ among states and not all cases of sexual abuse are reported.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

7. If a client does not disclose past sexual abuse to her exercise trainer, the trainer should assume that abuse has not occurred.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

8. Women who have experienced sexual abuse are more likely to be obese compared to those who have not been abused sexually.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

9. History of severe sexual abuse is related to an increased risk for central (or abdominal) obesity.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

10. Obesity in women who have experienced sexual abuse may be linked to physiological factors.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

11. Obesity in women who have experienced sexual abuse may be related to emotional responses to the trauma of their abusive situation(s).

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

12. Stress associated with past sexual abuse may be manifested as binge eating disorder or general overeating.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

13. Neurological changes related to sexual abuse may be associated with poor social relationships.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

14. Neurological changes related to sexual abuse can lead to depression.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

15. Neurological changes associated with sexual abuse can alter glucose metabolism.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

16. Adolescents who have a family or personal history of sexual abuse are more likely to experience higher rates of anxiety compared to adolescents who have not experienced these forms of sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

17. Adolescents who have a family or personal history of sexual abuse are more likely to experience thoughts and acts of suicide compared to adolescents who have not experienced these forms of sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

18. The severity of anorexia nervosa is greater among individuals who have experienced sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

19. Clients who exercise excessively or experience anger or great disappointment if a workout is missed may be showing signs of underlying anxiety related to having experienced past sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

20. Physical scarring caused by previous sexual abuse in women may create barriers to exercise.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

21. Complications from sexually transmitted diseases, such as rashes or side effects from medications, may create physiological barriers to exercise in women who have experienced sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

22. Effects of malnourishment, such as low bone density, may create physiological barriers to exercise in women who have experienced sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

23. Sleep disturbances associated with past sexual abuse, such as night terrors or post-traumatic stress disorder, may result in extreme fatigue and negatively impact exercise performance.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

24. Youth who experience sexual abuse at home are less likely to engage in lifelong exercise and sport activities compared to youth who live in homes where sexual abuse is not present.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

25. Clothing worn during exercise, such as swimwear, tight-fitting attire, or clothes that allow skin to show, may create an emotional barrier to exercise participation among women who have experienced sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

26. In order to hide self-inflicted physical scarring, a woman who has experienced sexual abuse may resist participating in physical activity and exercise that require swimwear or clothes that allow skin to show.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

27. Women who have been sexually abused may experience emotional barriers to exercise if they wear swimwear or clothes that are tight fitting or that expose skin.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

28. Abusers may attempt to control the body weight or appearance of their victims by restricting their availability to food and nourishment.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

29. Abusers may attempt to control the body weight or appearance of their victims by encouraging overeating by the individuals being abused.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

30. Abusers may attempt to control the body weight or appearance of their victims by discouraging exercise participation by the persons being abused.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

31. An exercise professional should tell clients how much pain or discomfort they should feel during a given exercise movement.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

32. If a woman discloses that she has experienced sexual abuse, she should automatically be assigned a female trainer to make her feel more comfortable.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

33. An exercise professional should always request permission to touch a client.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

34. Once a trusting relationship is established, exercise professionals do not need to request permission to touch their clients.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

35. Any type of physical activity may trigger memories or emotions from past sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

36. If clients who have experienced sexual abuse feel emotionally uncomfortable performing a particular exercise or physical movement, they are likely to be forthcoming about why they feel uncomfortable.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

37. An exercise professional should be open to changing a client's exercise plan, based on the client's stated dislike of one or more of the exercises which comprise the plan.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

38. If clients who have been abused sexually feel physically uncomfortable performing a given exercise or physical movement, they are likely to explain why they feel uncomfortable.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

39. Underlying emotions related to past sexual abuse may be triggered by exercising at a fitness facility and lead to a decrease in exercise participation.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

40. Being able to change clothes in sex-specific fitness and gym facilities removes all emotional barriers to exercise for women who have experienced past sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

41. Involuntary physical responses tied to past sexual abuse may negatively affect exercise performance.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

42. If a client does not disclose past sexual abuse to an exercise professional, there is nothing that the exercise professional can do to show sensitivity about the possibility that the client may have experienced past sexual abuse.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

43. Exercise professionals should display a professional focus on physical health.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

44. Exercise professionals should encourage clients to find a healthy emotional support system.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

45. Exercise professionals should display a professional focus on a client's physique and physical attractiveness.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

46. Exercise professionals who display sensitive practice will help by verbalizing how a client's body should feel when performing a given exercise.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

47. Clients who have experienced sexual abuse may "space out" or become unaware of their bodies when a movement triggers a traumatic memory.

Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

This scenario is to be used for Assessment Items

48-50.

After you describe how to perform a new exercise, you notice that your female client tenses her muscles as she moves toward the starting position, but does not say anything.

How should you respond to this situation?

48. You should encourage your client by commenting on the improvements you've seen in her physique and body shape.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

49. You should ask your client to look in the mirror to check her own form even if she expresses some hesitation in doing so.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

50. You should offer your client a comparable modification of the exercise and allow her to choose which form of the exercise she prefers.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

This scenario is to be used for Assessment Items 51-52.

You have been working with a female client for two months. She has appeared to be uncooperative at times, even though she seems to really want to lose weight. As your client finishes up with an exercise set, you place your hand on her lower back to remind her to use proper form. In response, your client abruptly stops exercising, even though you believe she could have easily completed the set.

How should you respond to this situation?

51. You should tell your client to finish up the exercise set, while continuing to help her maintain correct body form by keeping your hand on, or near, her back.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

52. You should ask your client to decide if she can finish the exercise set and provide her with additional room by standing a little farther away from her and speaking to her if her form begins to deteriorate.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

55. When meeting with a client, an exercise professional should allow her to sit wherever she wants to, rather than direct her to a particular seat in the office.

How appropriate is this action?

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

56. During an initial office meeting with a new female client, she constantly looks over her shoulder, gazes out the window, and seems distracted and disinterested. You should ask the client if she would feel comfortable moving the meeting to an open table at the front of the gym.

How appropriate is this response to this situation?

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

This scenario is to be used for Assessment Items 55 - 56.

A new female client walks into your fitness class.

How appropriate are the following next steps?

55. Invite your client to set up her exercise equipment where she feels most comfortable.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

56. Offer to set up her exercise equipment in a space where she can clearly see you during the training session.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

This scenario is to be used for Assessment Items 57-59.

While working with a female client on a particular exercise machine, she begins to stare past the machine and her mind appears to be somewhere else. She continues exercising, but seems disconnected from her surroundings and forgets how many repetitions she has completed.

How appropriate are the following next steps?

57. You should evaluate your client to see if she is feeling okay since she seems overly distracted and unfocused during her workout.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

58. You should state your client's name and allow her to stop exercising. If the exercise session is continued, allow her to perform a comparable exercise.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

59. You should ask your client to stop exercising and help her off the exercise machine so that you can adjust the resistance.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

This scenario is to be used for Assessment Items 60- 62.

A female client confides in you that her husband has sexually abused her and her 14-year-old son and that she has never admitted this to anyone else before.

How should you respond to your client's remarks?

60. Offer her information about local resources for herself and her son and inform local police of your client's statement regarding her son.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

61. Respect her privacy and withhold sharing this information with others, as it may not even be true.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

62. Offer to talk your client through her feelings or provide counsel whenever she is ready to share more information about the incident.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

This scenario is to be used for Assessment Items 63-64.

A new member in your group fitness class sometimes fails to participate in certain exercises, even though she appears to be strong enough to participate.

How should you respond to this situation?

63. Remind this member that "sticking to the program" is the only way for results to occur.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

64. Provide this member with modifications for the exercise movement to reduce the possibility of injury, take into account differences in fitness levels, and provide emotional comfort, if needed.

Very Inappropriate Inappropriate Sometimes Appropriate Very Appropriate

IRB APPROVAL

IRB

INSTITUTIONAL REVIEW BOARD

Office of Research
Compliance, 010A
Sam Ingram Building,
2269 Middle
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Murfreesboro, TN
37129

IRBN001 - EXPEDITED PROTOCOL APPROVAL NOTICE

Tuesday, June 07, 2016

Investigator(s): Rebecca Elizabeth Claypool (Student PI) and Don Morgan
(FA) Investigator(s') Email(s): *rec4n@mtmail.mtsu.edu; don.morgan@mtsu.edu;*

Department: Health and Human Performance

Study Title: ***Development of an evaluative instrument to assess knowledge, competency, awareness, and professional sensitivity among exercise professionals with regard to female clients who experienced sexual abuse***

Protocol ID: **16-2275**

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXPEDITED** mechanism under 45 CFR 46.110 and 21 CFR 56.110 within the category *(7) Research on individual or group characteristics or behavior* A summary of the IRB action and other particulars in regard to this protocol application is tabulated as shown below:

IRB Action	APPROVED for one year from the date of this notification	
Date of expiration	**6/7/2017**	
Sample Size	15 (FIFTEEN)	
Participant Pool	**Adult participants who fit one of the three criteria listed the protocol**	
Exceptions	NONE	
Restrictions	**Signed informed consent forms mandatory**	
Comments	NONE	
Amendments	**Date**	**Post-approval Amendments** NONE

This protocol can be continued for up to THREE years (**6/7/2019**) by obtaining a continuation approval prior to **6/7/2017**. Refer to the following schedule to plan your annual project reports and be aware that you may not receive a separate reminder to complete your continuing reviews. Failure in obtaining an approval for continuation will automatically result in cancellation of this protocol. Moreover, the completion of this study MUST be notified to the Office of Compliance by filing a final report in order to close-out the protocol.

Continuing Review Schedule:

Reporting Period	Requisition Deadline	IRB Comments
First year report	5/7/2017	INCOMPLETE
Second year report	5/7/2018	INCOMPLETE
Final report	5/7/2019	INCOMPLETE

The investigator(s) indicated in this notification should read and abide by all of the post-approval conditions imposed with this approval. Refer to the post-approval guidelines posted in the MTSU IRB's website. Any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918 within 48 hours of the incident. Amendments to this protocol must be approved by the IRB. Inclusion of new researchers must also be approved by the Office of Compliance before they begin to work on the project.

All of the research-related records, which include signed consent forms, investigator information and other documents related to the study, must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data storage must be maintained for at least three (3) years after study completion. Subsequently, the researcher may destroy the data in a manner that maintains confidentiality and anonymity. IRB reserves the right to modify, change or cancel the terms of this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board