5-13-2024

Sex Offenders' Cognitive Self-Change in Group Treatment: A Pre-/Posttest Study

Malinda Rae Peterson
Walden University

Walden University

College of Psychology and Community Services

This is to certify that the doctoral dissertation by

Malinda Rae Peterson

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Leslie Barnes-Young, Committee Chairperson, Psychology Faculty
Dr. Michael Johnson, Committee Member, Psychology Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2024

Abstract

Sex Offenders' Cognitive Self-Change in Group Treatment: A Pre-/Posttest Study

by

Malinda Rae Peterson

MS, Walden University, 2017

BS, Walden University, 2014

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

May 2024

Abstract

Wisconsin policy makers implement sex offender treatment programs with the purpose of decreasing reoffending while increasing safety for victims and communities. Research has suggested that the cognitive behavioral therapy group curriculum, Thinking for a Change (T4C), has been effective for offenders; however, this program's key component of cognitive self-change among sex offenders has yet to be researched. The purpose of the current study was to fill a gap in T4C research and, specifically, explore whether sex offender probationers gained the T4C component of cognitive self-change as compared to non-sex offender probationers from Wisconsin. Beck's cognitive behavioral theory was used as the study's theoretical framework. The key research question was whether there was a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for T4C pretest scores among 51 Wisconsin adult male sex offenders and 51 adult male non-sex offender probationers. Archival data were obtained from the Alternative to Traditional Incarceration of Citizens Correctional Services database. Using ANCOVA, the T4C posttest scores revealed there was not a statistically significant difference among and between the non-sex offenders and sex offender probationers regarding the T4C's component of cognitive self-change. Thus, the T4C program did not have a different effect on sex offenders than it did on non-sex offender probationers. This study may impact positive social change by encouraging further T4C research among sex offenders that may increase knowledge into the multidimensional factors that hinder sex offenders' cognitive self-change, thus improving the likelihood to decrease reoffending and improve safety to victims and communities.

Sex Offenders' Cognitive Self-Change in Group Treatment: A Pre-/Posttest Study

by

Malinda Rae Peterson

MS, Walden University, 2017

BS, Walden University, 2014

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

May 2024

Dedication

This dissertation is dedicated to my Glorious Almighty God, Beautiful Lord Jesus Christ my Savior, and The Holy Spirit, my forever best friend. For God is my refuge, source of strength, and foundation of wisdom. I also dedicate this dissertation to my nieces, Sarah Schmidtke, Erika Jonas, and Anna Peterson. Their resiliency to heal from sexual violence has inspired me to be a compassionate, loving, forgiving, and humble individual.

Finally, my dissertation is dedicated to the Iron County, Wisconsin community. I embrace the continued courage and efforts to end sexual violence. The resilient alliance I witnessed during my time as a member of the Coordinated Community Response Team was an honor. I look forward to continuing this journey.

Acknowledgments

Profound and abiding gratitude goes to the gatekeeper of my heart, my beautiful husband, Roger Peterson. His support, adoration, and providing assurance motivated my ambitions to complete this dissertation. Roger instructed me to remain true to my faith and lead my dissertation with compassion, integrity, and competence. I pay special appreciation to my parents, Ronald and Sharon Jones. They offered immeasurable love and encouragement. My mother is a true champion! Conversely, I thank my siblings, nieces, nephews, and friends who gently carried me through the most challenging times. Furthermore, I am grateful to Larry Peterson for his humble support.

Additionally, I thank Dr. Daniel Gardner, Ph.D., MSCP, and Dr. Karlin Marks, Ph.D., LP, whose psychological knowledge and supervision helped me to complete my dissertation despite life's challenges. Conversely, I am grateful to Tom Jensen. His door and heart were always open with sustained support and confidence in my ability to succeed. Finally, I acknowledge my Committee Chair, Dr. Leslie Barnes-Young, and Methodologist, Dr. Johnson, for influencing my dissertation journey with their expertise, knowledge, and esteemed intellect in the field of psychology.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

On March 12, 2016, the Iron County Wisconsin Sheriff's Department received a 911 call reporting a fire at the Bear Trap Inn in Saxon, Wisconsin (State of Wisconsin Court of Appeals District III, 2018). When deputies arrived, the building was engulfed in flames, and Lisa Waldros, the bartender, was missing (State of Wisconsin Court of Appeals District III, 2018). On April 14, 2016, Donald Rick, a registered sex offender probationer of child sexual assault, admitted to killing Waldros and burning the tavern to cover up the murder (State of Wisconsin Court of Appeals District III, 2018). Rick was charged with first-degree intentional homicide, armed burglary, armed robbery, possession of a firearm by a felon, arson of a building, and mutilation of a corpse and is serving life in prison without parole (State of Wisconsin Court of Appeals District III, 2018). At the time of the murder, Rick had attended a community correctional offender program known as Thinking for a Change (T4C). This murder led the community to wonder how beneficial the T4C program is for sex offenders.

Since its inception, research on the T4C program has not evaluated the core component of cognitive self-change among those convicted as sex offenders. There is a gap in the T4C research regarding whether there is a change in the global measure of cognitive self-change among adult male sex offender probationers who completed the T4C program. Cognitive self-change is critical to evaluate because it is linked to decreasing criminal activity (Busch et al., 2011). T4C studies (e.g., Aos et al., 2006; CEBP, 2011; Clark, 2011; Gehring et al., 2010; Glick, 2006; Golden, 2002; Golden et al., 2006; Landenberger & Lipsey, 2005; Latessa et al., 2000; Lowenkamp et al., 2009;

Milkman et al., 2007; Schweitzer, 2009) are relatively limited, archaic, revealed conflicting results, were not specific to sex offenders, and have not evaluated cognitive self-change (Busch et al., 2011). Thus, there was a need to evaluate cognitive self-change among adult male sex offender probationers. The purpose of the current study was to explore cognitive self-change among adult male sex offender probationers who completed the T4C program between 2014 and 2019 in 19 jurisdictions in Wisconsin as compared to adult male non-sex offenders. This study may provide insight for sex offender probationers and the Wisconsin Community Corrections with an opportunity to learn if the T4C program promotes its core component of cognitive self-change with the selected population. Group treatment programming, such as T4C, in community corrections aims to reduce the likelihood of reoffending among sex offenders.

The potential positive social change implications of the study include that the study may be used to improve Wisconsin sex offender management policies that frequently recommend such programs focused on sex offender rehabilitation. Community-based sex offender treatment resources are limited; therefore, it is imperative to know whether sex offenders benefit from the T4C program's core component of cognitive self-change. Additionally, economic limitations determine who receives treatment; thus, any information on whether sex offenders exhibit cognitive self-change after the T4C program could aid in the allocation of resources where treatment programming for sex offenders is concerned.

In Chapter 1, I present the background information, problem statement, purpose of the study, research question and hypotheses, theoretical framework, nature of the

study, definitions, assumptions, scope and delimitations, limitations, and significance. The chapter concludes with a summary.

Background

Research related to the scope of the current study on the T4C core component of cognitive self-change among sex offenders is limited. The T4C program is a structured group intervention developed by Bush et al. (2011) in collaboration with The National Institute of Corrections. The focus of the T4C program is to change criminogenic thinking through the core behavioral intervention of cognitive self-change throughout 24 lessons. The T4C curriculum integrates cognitive behavior theory, social skills development, and the utility of problem-solving proficiencies (Busch et al., 2011). The T4C program was not designed as a sex offender treatment program per se, although such offenders are commonly placed in it (Busch et al., 2011). The primary target population of T4C was convicted adult and youth offenders, regardless of the crime, including both males and females (Busch et al., 2011).

Golden et al. (2006) assessed the T4C program with 100 male and 42 female adult criminal probationers and found that participation was associated with reduced recidivism by 33% as well as improved problem-solving skills. They also determined that technical violations of probation were significantly higher for program dropouts than the probationers who completed the T4C program. Similarly, Lowenkamp et al. (2009) determined that criminal offenders who participated in the T4C program had a significantly lower recidivism rate compared to similar offenders who were not affiliated

with the program. These studies did not select sex offenders as their probationers or first-time offenders for their statistical models.

While T4C appears to hold some promise, as noted above, this program was not designed for sex offenders despite commonly being assimilated into it. Therefore, insufficient evidence exists to demonstrate that sex offenders benefit from the core component of cognitive self-change in the T4C program. There is a critical need to collect empirical evidence that measures both whether there is significant cognitive self-change and whether there is a decreased risk of reoffending among sex offenders who complete the T4C program (Geer et al., 2001). I conducted the current study to address this gap in knowledge and gain insight into whether adult male sex offender probationers achieve a level of cognitive self-change to reduce the risk of reoffending by altering their criminal thinking processes, which cognitive self-change aims to deliver.

Problem Statement

Exploring cognitive self-change among sex offender probationers who completed the T4C program may aid in determining if cognitive self-change is obtained, thus decreasing sexual violence criminality. According to Busch et al. (2011), the gap in the literature is that the T4C program is a cognitive behavioral group intervention designed for offenders on probation for various offenses. They noted that T4C has not been tested for effectiveness with sex offenders, and the program was not developed as a specific sex offender program, although they are routinely assigned to it. The core component of T4C is cognitive self-change, and this component teaches offenders a concrete process for self-reflection aimed at uncovering antisocial thoughts, feelings, attitudes, and beliefs

(Busch et al., 2011). For Busch et al., cognitive self-change refers to guiding offenders' thinking away from violence and toward feeling good about themselves when they achieve a positive thinking pattern.

Purpose of the Study

The purpose of this quantitative archival study was to explore if there was a statistically significant between-group difference in posttest scores of cognitive self-change while controlling for pretest scores among 73 sex offenders and 73 non-sex offender probationers from Wisconsin between 2014 and 2019. The independent variable (IV) was grouped with two categories: Group 1 of non-sex offenders (NON-SO) and Group 2 of sex offender (SO) probationers. The dependent variable (DV) was the T4C posttest scores of cognitive self-change. The covariate was T4C pretest scores.

I obtained archival data from the Alternative to Traditional Incarceration of Citizens (ATTIC) Correctional Services database. The data specifically included T4C pre- and posttest score percentages of adult male sex offender probationers and non-sex offender probationers who completed the T4C program between 2014 and 2019 in 19 rural jurisdictions in Wisconsin. ATTIC, Inc. is a private 501(c) (3) organization that receives funding from the Wisconsin Department of Corrections, Wisconsin Department of Health Services, U.S. District Courts, and the Minnesota Department of Corrections to administer the T4C program. (ATTIC Correctional Services, Inc., 2015).

Research Question and Hypotheses

This study addressed the following research question and hypotheses:

RQ: Is there a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for T4C pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019?

H_0: There is not a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for T4C pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019.

H_a: There is a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for T4C pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019.

Theoretical Framework

I used Beck's cognitive behavioral theory as the theoretical framework for this study. This theory is a process that helps challenge, modify, or replace negative, irrational thoughts or cognitive distortions (Keegan & Holas, 2009). In the theory, Beck suggested that distorted negative thinking is an essential part of depression and other negative mental cognitions (Keegan & Holas, 2009). The cognitive behavior theory is used to challenge distorted cognitive content, replacing it with unbiased cognitions and reducing the negative emotional impact (Keegan & Holas, 2009).

Moster et al. (2008) indicated that most sex offender treatment programs in the United States use a combination of cognitive behavioral treatment interventions focusing

on victim awareness and cognitive restructuring. The fundamental component of the cognitive behavior theory with sex offender treatment is learning about the sexual violence cycle and changing deviant sexual arousal patterns (Moster et al., 2008).

Nature of the Study

In this quantitative study, I obtained archival data in the form of demographic information about the participants (i.e., adult, male, sex offender probationers) from the ATTIC database. The data set included the probationers who completed the T4C pre- and posttest assessment tool within multiple jurisdictions in Wisconsin between 2014 and 2019 and their the T4C pre- and posttest scores of cognitive self-change. I used ANCOVA statistical analyses in this study to explore if there was a between-group difference in T4C posttest scores while controlling for T4C pretest scores.

Definitions

Cognitive behavioral therapy (CBT) programs: Moster et al. (2008) stated that CBT was centered on the notion that in any given situation, a person's thoughts, attitudes, and beliefs determine their emotional experience and behavior; therefore, anyone can change how they behave or experience emotion. The primary goal of CBT with sex offenders is to reduce sexual recidivism by helping offenders regain a sense of self-worth and live a prosocial life (Moster et al., 2008).

Cognitive distortions: Ciardha and Ward (2013) stated that cognitive distortions, within the context of sex offender literature, are beliefs that were developed because of the disparity between deviant sexual interests and perception of societal norms.

Cognitive self-change: The idea that thinking directs behavior, repeated patterns of thoughts and behavior become habits, and direct conscious attention towards habits (Stinson et al., 2011).

Criminogenic need principle: Criminogenic needs of dynamic risk factors: targeting the needs in treatment to reduce recidivism (Andrews & Bonta, 2010).

Dynamic risk factors: the broad range of potentially changeable predictors of recidivism divided into stable and acute dynamic risk factors (Scoones et al., 2012).

Internal responsivity factors: Characteristics of offenders that impact their ability to benefit from treatment interventions (Loomis et al., 2005).

Sex offenders: Individuals with prior sex crime convictions, predatory characteristics, who utilize violence in crimes, and refuse or fail to complete sex offender treatment programs (Hanson et al., 2014).

Recidivism: Relapse or return to criminal behavior, which may be operationalized as a re-offense, rearrest, conviction, and incarceration (Budd & Desmond, 2014).

Responsivity principle: Identifying offender characteristics and adapting treatment techniques specific to offenders' needs (Andrews & Bonta, 2010).

Risk principle: Corresponding the service level to the offender risk level (Andrews & Bonta, 2010).

Assumptions

I made 10 assumptions in this archival quantitative study: (a) having a continuous DV of T4C posttest scores, (b) an IV that is categorical with two independent groups (i.e., Group 1: Non-SO probationers and Group 2: SO probationers), (c) a covariate

variable of T4C pretest scores, and (d) independence of observations. The remaining six assumptions were (e) linearity, (f) homogeneity of regression slopes, (g) normality of within-group residuals, (h) testing for homoscedasticity, (i) homogeneity of variances, and (j) outliners.

Scope and Delimitations

In this study, I used archival data from ATTIC rather than collecting primary data for analysis. The study included data about sex offenders and non-sex offender probationers from the state of Wisconsin. The archival data collection relied on the cooperation and permission from ATTIC.

Limitations

The primary foreseen limitation of this archival study was poor internal validity. Archival data may represent poor internal validity (Brown et al., 2016). Common threats to internal validity with archival data included incomplete data and the inability to ensure the data best represented the population (Shultz et al., 2001).

Significance

The potential contributions of this study include helping the discipline of sex offender rehabilitation by providing insight into whether the T4C program influences sex offenders' cognitive self-change. Sex offenders who gain cognitive self-change may take accountability and understand their criminal attitudes, thus decreasing their rate of reoffending, which creates safer communities. It is vital to continue research on sex offender programming that reduces sexual reoffending because only through valid research will stakeholders be able to expand state and federal compliance efforts with

community correctional sex offender programming, decrease sexual violence, and inform judicial decision making for sex offender treatment programming. Research is lacking, and this current study may help address this gap in the literature.

Summary

In this archival quantitative study, I describe a murder within Iron County, Wisconsin that led to the primary question of how beneficial the T4C program is among sex offenders. The background contained a discussion of identified research related to the scope of the current study on the T4C core component of cognitive self-change among sex offenders and its limitations. In this chapter, I also presented the purpose of the study, research question, hypothesis, theoretical framework, nature of the study, definitions, assumptions, scope and delimitations, limitations, and significance. Chapter 2 will include an introduction to the problem under study, a discussion of the literature search strategy and theoretical foundation; and a review of the relevant literature and concepts.

Chapter 2: Literature Review

I conducted this literature review with the aim of examining previously published research on the problem under study. The problem addressed by this archival quantitative study was that the T4C program had not been tested for effectiveness with sex offenders. In particular, the core component of cognitive self-change has not been evaluated. Busch et al. (2011) conceptualized cognitive self-change as a process of self-reflection aimed at uncovering antisocial thoughts, feelings, beliefs, and attitudes. Additionally, Busch et al. theorized that these processes may change criminal thinking and decrease sexual violence criminality. This study's purpose included exploring if there was a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for T4C pretest scores among 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019.

LaPlant et al. (2020) evaluated the T4C program within prison systems and focused on improvements in problem-solving skills. In a rare publication on the effectiveness of the T4C program, the CEBP (2011) evaluated this program within community corrections in Indiana and found that on average, 60% of probationers completed the program successfully, while 25.2% did not complete the program. The offenders, in this case, were not evaluated on the measure of cognitive self-change or were they sex offenders. Despite the abundance of literature (e.g., LaPlant et al., 2020; Lowenkamp et al., 2009; Vanstone, 2010) regarding the T4C program for general offenders, there is a gap in the literature on the benefits of the T4C program among sex offenders and its core component of cognitive self-change.

In this chapter, I discuss the literature search strategy and theoretical foundation before presenting a literature review of critical variables and concepts. The chapter concludes with a summary.

Literature Search Strategy

I used the Walden University Library holdings to conduct a literature search of peer-reviewed editorials published between the years of 2009-2022 in the following electronic databases: American Psychological Association PsycNET, Bureau of Justice Statistics, Criminal Justice Periodicals, SAGE Journals, SAGE Stats, SocINDEX, and Wisconsin Department of Corrections Sex Offender Registry. Search terms used included *CBT interventions with sex offenders, T4C programming in Wisconsin among sex offenders, predictors of treatment completion among sex offenders, cognitive self-change among male sex offenders, first-time male sex offender amenability to CBT programming, criminogenic needs of sex offenders, pro-criminal attitudes, theoretical framework of the constructs of sexual deviance,* and *cognitive behavior theory*. I selected articles from qualitative and quantitative research journals to support this literature review. Although some archaic editorials were utilized, particular emphasis was placed to ensure the literature was as current as possible.

Theoretical Foundation

Beck's (1970) cognitive behavioral theory was used as the theoretical framework of this archival quantitative study. Beck, a psychiatrist at the University of Pennsylvania, is considered one of the pioneers of the cognitive revolution of psychoanalytic treatment and the theory of cognitive behavior (Clark, 2014). Cognitive behavior theory describes a

process of thinking in which maladaptive thoughts can be identified and changed (Clark, 2014). Broadly put, cognitive behavior theory refers to a structured approach in which distressed individuals are taught how to identify, evaluate, and modify faulty thoughts and beliefs considered responsible for psychological disturbance (Clark, 2014). Cognitive behavior theory has been widely utilized across treatment programs for all psychiatric diagnoses. Kirsch et al. (2006) stated that it has been used in sex offender treatments since the 1970s to alter deviant sexual arousal patterns.

The theory of cognitive behavior includes cognitive self-change (Bush et al., 2011). Cognitive self-change is a cognitive behavioral intervention used with sex offenders that aims to reduce violence with patterns of antisocial behavior and sexual criminality (Bush et al., 2011). The cognitive self-change process can accommodate combinations of thoughts, feelings, attitudes, and beliefs that reinforce sex offenders' violence and criminality (Bush et al., 2011). Irrational and distorted thinking can be identified as hostile attribution, negative attitudes, and pro-criminal beliefs (Bush et al., 2011). The methods in which these thought processes lead to sexual violence were explored with intervention strategies developed to directly target the component of cognitive self-change (Bush et al., 2011).

The use of Beck's cognitive behavior theory has been fundamental to sex offender treatment because of its emphasis on reducing problematic thoughts associated with criminal behavior (Moster et al., 2008). Research on Beck's cognitive behavior theory has shown some efficacy in sex offenders' cognitive self-change and has been used to explain the offenders' role of deviant thoughts in their sexual offending behavior (Clark,

2014). Miller (2012) stated that cognitive behavior theory provided offenders with information on correcting sex-offending thoughts. Additionally, the cognitive behavior theory helps offenders challenge their inappropriate thoughts (Moster et al., 2008). One obstacle with the cognitive behavior theory is correcting cognitive distortions, as many sex offenders deny committing a crime (Moster et al., 2008). For instance, Schlank and Shaw (1996) developed a program for offenders who engaged in cognitive distortion, denied their crimes, and were resistant to changing their position in treatment. The researchers presented a module of pretreatment sessions where offenders were able to reduce the percentage of deniers by half. Although sexual reoffending is a problem that may never be solved, evaluating the cognitive self-change component of T4C is an essential first step toward impacting communities and sex offenders and determining if their sexual offending behaviors can be reduced (Clark, 2014).

Literature Review Related to Key Variables and Concepts

In this section, I describe previous studies related to the constructs, methodology, and methods that are consistent with the scope of the current archival quantitative study. The section also includes an explanation of the ways researchers of the T4C program have approached their studies and the strengths and weaknesses inherent in their approaches. I also review and synthesize previous studies related to the key IV and DVs and the constructs of the study. I conducted the current study to evaluate cognitive self-change among adult male sex offenders and adult male non-sex offender probationers from 19 jurisdictions in Wisconsin as measured before and after T4C program completion between 2014–2019. In this section, I also provide the rationale for the

selected variables and concepts, identify what is considered controversial, and highlight the gaps in the current literature.

T4C Program Review

For the last 19 years, the National Institute of Corrections has designed various sex offender treatment programs (Bush et al., 2002). Their research and construction of these programs provided insight into how sexual criminal behaviors were more adaptable to cognitive self-change using CBT (Bush et al., 2002). As a result, the authors of T4C took on the ambitious task of synthesizing the theoretical framework from cognitive behavior theory into a complete integrated intervention known as T4C (Bush et al., 2002).

At its core, the T4C program is based on cognitive behavior theory and the global measure of cognitive self-change (Bush et al., 2002). While the concept was presented systematically, participants learned that cognitive behavior does require cognitive skill methods, including identifying thinking, beliefs, attitudes, and values (Bush et al., 2002). The cognitive behavior concept of cognitive self-change is introduced during the program's 11 initial lessons (Bush et al., 2002). Interspersed are targets of critical social skills that support the cognitive behavior theory process of cognitive self-change. The components include problem-solving techniques and lessons supported by social skills (Bush et al., 2002). The problem-solving portion of the T4C curriculum relies heavily upon the concepts of cognitive self-change (Bush et al., 2002). By the 12th lesson, cognitive self-change should benefit the participants, and by the 22nd lesson, participants

are ready to evaluate themselves using a skills checklist to develop their cognitive self-change (Bush et al., 2002).

T4C Curriculum Format

The T4C program includes 22 lessons that can extend the program indefinitely, depending on how many cognitive skills are taught (Bush et al., 2002). The program recommends that the group meet for an additional 10 sessions based on the self-evaluations each participant completes in the 22nd lesson (Bush et al., 2002). These additional sessions result from further assessment of each participant's skill deficits and are then collected across the group. This method provides each group participant a sense of empowerment to participate in their learning and self-development, providing a forum for continued skills and cognitive self-change development (Bush et al., 2002).

Each lesson is formatted with a beginning summary and a rationale for providing the scope, breadth, and reason for teaching the lesson (Bush et al., 2002). Next are concepts and definitions, which outline the lesson's key points and any definitions necessary for the facilitator to teach each lesson. The lesson objectives are then outlined, followed by significant activities in the lesson. Within each lesson, there are suggested facilitator scripts in which the fundamental and required information is provided (Bush et al., 2002). Specific facilitator notes in parallel columns also embellish the training script.

T4C Cognitive Restructuring: Cognitive-Self Change

Cognitive self-change may be defined as the ability to direct lives by deliberately controlling thinking (Bush et al., 2002). The component of cognitive self-change was designed to teach violent offenders how to steer their thinking away from violence and

crime and to feel good about themselves when they do it (Bush et al., 2002). Cognitive self-change consists of four thinking skills: (a) learning how to pay attention to thoughts and feelings, (b) learning to recognize when thoughts and feelings are leading toward violence or crime, (c) finding new thinking that leads away from crime and violence, and (d) practice using cognitive self-change until the individual can do it when it counts (Bush et al., 2002). The methods used to teach these skills are thinking reports, cognitive check-ins, and journal assignments (Bush et al., 2002).

T4C Research Related to Archival Quantitative Study

Golden (2002) evaluated the efficacy of the T4C program for 100 adult male and 42 female medium- and high-risk offenders (but no sex offenders) on probation. The categories of felony offenders encompassed drug-related, theft, fraud, assault, weapons, endangering child or older individual, criminal mischief, organized crime, attempted murder, and tampering with physical evidence (Golden, 2002). As measured by the Social Skills Self-Evaluation, there was a significant positive change in social skills for the experimental group (i.e., completers and dropouts); contrastingly, social skills for the comparison group remained constant (Golden, 2002). A limitation of Golden's study was the measures used were self-reported instruments. The validity of self-reported instruments largely depends on the respondents' perceptions and must be used cautiously, especially with the offender population (Golden, 2002). Additionally, Golden used a sample size that was too small to highlight the significant variances in new criminal behavior between the completer and comparison groups.

Lowenkamp et al. (2009) evaluated the effectiveness of the T4C program in the Tippecanoe County probation department, comparing the recidivism rates of 121 felony and misdemeanor offenders on probation. Their study indicated that participation in the T4C program, as delivered by the Tippecanoe County probation division, was associated with a considerable reduction in recidivism. Furthermore, they found that a specific CBT curriculum effectively reduces recidivism for the selected felony and misdemeanor offenders. The foremost limitation of Lowenkamp et al.'s study was that participants were not randomly assigned to the varying treatment conditions. The comparison and treatment groups were similar in most factors, which fostered the possibility that there was some selection bias in assigning offenders to the T4C groups. The concern is tempered by the fact that the two groups of offenders, which were felony drug and alcohol offenses, were similar in demographic characteristics except for risk, which is a difference favoring the comparison group (Lowenkamp et al., 2009). The other identified variance between the two groups was the length of follow-up time, which was another limitation (Lowenkamp et al., 2009). The researchers would have preferred a standardized time frame and extended follow-up period, but contextual factors and data limitations prohibited this from occurring.

LaPlant et al. (2020) evaluated whether participation in the T4C program improved social problem-solving skills in prison. Their randomized study focused on whether improvements were attributed to program completion or dosage. Their findings indicated a significant improvement accruing to probationers who received greater program dosage; however, program completion, commonly viewed as a primary marker

of satisfactory program performance, was not associated with improved social problem solving. LaPlant et al. did not find any evidence of reduced program fidelity concerning the content or structure of the T4C program. They recommended that further prison trials must be mindful of maintaining the fidelity of the T4C program. Based on the results, they also recommended greater experimentation to assess the benefits of modified delivery formats and additional components of the T4C program.

Impact of Cognitive Self-Change Among Sex Offenders

The primary objective of the CBT components of cognitive self-change with sex offenders is to help them gain a sense of self-worth to foster a prosocial life (Moster et al., 2008). Mpofu et al. (2018) noted that sex offenders are less likely to admit responsibility for their crimes, so there is a need to explore the evidence of cognitive self-change in the T4C program to manage the risk of sexual reoffending. Mpofu et al. stated that sex offenders exhibit denial, lack of empathy for their victims, and cognitive distortions; therefore, they may benefit from a CBT intervention aimed at taking responsibility for their crimes. Further research should seek to define evidence of efficacy cognitions and behavior change oriented to cognitive self-change (Mpofu et al., 2018). Mpofu et al. also reported that the sexual offense recidivism rate was 10.5% for those treated with CBT compared with 19.96% for other treatments. However, research has not focused on sex offenders (Mpofu et al., 2018). One of the primary shortcomings of prior research is the lack of comparison or specifically assessing sex offenders and the type of recidivism(i.e., sexual versus violent versus General; Mpofu et al., 2018).

Cognitive Distortions

One of the critical elements of cognitive self-change is the treatment of cognitive distortions (Moster et al., 2008). The reduction of cognitive distortions decreases the risk of sexual reoffending (Moster et al., 2008). Research has discovered that sex offenders hold attitudes and beliefs that minimize their sex-offending behavior (Moster et al., 2008). Child molesters defend their sexual abuse with more permanent cognitive distortions because they believe their victims want and accept a sexual relationship (Moster et al., 2008). Those who sexually offend adults often use blame attributions associated with their offense (Moster et al., 2008). Sex offenders also misperceive their victim's behaviors, cues, and actions (Moster et al., 2008). Research affirmed that rapists often misinterpret women's negative cues for encouraging cues, such as perceiving distress as an evident expression of enjoyment (Moster et al., 2008). Child molesters perceive non responsiveness as an indication of enjoyment and compliance (Moster et al., 2008).

Empathy

Research has shown that sex offenders exhibit differences in empathy deficits (Moster et al., 2008). Rapists are not able to identify their victim's distress levels (Moster et al., 2008). Additionally, child molesters have a deficit in the ability to decipher a child's distress level (Moster et al., 2008). Ninety-four percent of sex offender treatment programs contain empathy enhancement modules (Moster et al., 2008). The technique of the T4C program does not utilize empathy development, including not using victim impact statement videos to show the offender the aftermath of a sexual assault (Moster et

al., 2008). Additional techniques are not included in the T4C program, such as a form of restorative justice: letter writing from the offender to the victim (Moster et al., 2008). This process promotes accepting responsibility for their crime and demonstrating empathy for the victims (Moster et al., 2008).

Risk Factors Associated With Sex Offenders

Andrews and Bonta (2010) conveyed that not all sex offenders are equally likely to reoffend. Some sex offenders illustrate a low risk, while others pose a higher rate of recidivism (Andrews & Bonta, 2010). The most straightforward risk classification for sex offenders is offense type. Incest offenders have lower recidivism rates than non-familial child molesters (Andrews & Bonta, 2010). Deviant sexual fantasies are viewed as a central correlation to high-risk sex offending (Andrews & Bonta, 2010). These fantasies are an indicator of sexual preoccupation, which is a risk factor for sexual offending and sexual aggression (Andrews & Bonta, 2010). Wilpert et al. (2018) suggested the risk-need-responsivity (RNR) model is the most beneficial tool to delineate a sex offender's risk level (i.e., static factors that are stable or difficult to change and dynamic factors that are modifiable), target the criminogenic needs related to their offending behavior, and responds to the offender's learning style and abilities. Additional risk factors that aid in identifying sex offenders include psychopathy scores, post index behavior used to revise risk assessments, and the length of time that individuals do not reoffend when allowed to do so (Hanson et al., 2014). Additional risk factors of sex offenders include antisocial cognition, antisocial associates (i.e., lack of prosocial associates), antisocial personality patterns (i.e., irritability, anger, mood swings, hostile affect), family and marital

circumstances (i.e., conflict in relationships), school and employment (i.e., problems with performance and decline in education), leisure/recreation (i.e., lack of involvement in prosocial leisure activities), and substance abuse (Wilpert et al., 2018).

Gap in Literature

The suggestions for future research included matching relevant moderator variables of sex offenders (i.e., history of sexual offending, type of offense, recidivism risk, age, family support, and treatment setting), which would assist in carefully profiling treatment interventions (Mpofu et al., 2018). Additional suggestions include conducting longitudinal studies with several data collections, allowing for a more complete comprehension of treatment impact (Mpofu et al., 2018). The gap in Golden's (2002) research on T4C indicated that future research should continue to explore which components of rehabilitation programs effectively reduce recidivism, as this remains unclear. Future research should also examine the effectiveness of CBT programs with higher-risk probationers (Golden, 2002). Finally, the gap Lowenkamp et al. (2009) signified is to investigate the impacts of the T4C program across multiple jurisdictions with a different sample of offenders, which would speak to the generalizability of T4C in reducing recidivism.

Summary and Conclusions

The Wisconsin Community Corrections rehabilitation services offer sex offender probationers numerous CBT programs: T4C, dialectical behavior therapy, and Moving On. Additional programming addresses adaptive deficits, cognitive distortions, and managing dynamic risk factors (Mpofu et al., 2018). Additional programs include Sex

Offender Treatment, Low Risk, Sex Offender Treatment, Short-Term Institutional, Sex Offender Treatment, Long Term Intensive Residential, and Sex Offender Treatment Aftercare (Wisconsin Department of Corrections, 2018). Furthermore, the Wisconsin Community Corrections offers educational services: high school equivalency diploma, career technical educational skills, career awareness proficiencies, and college correspondence courses (Wisconsin Department of Corrections, 2018).

In Chapter 3, I will overview this study's research methodology and design. This chapter will include descriptions of the target population, instruments, data collection, and analysis procedures. Finally, the chapter will conclude with a discussion of the ethical considerations of the utility of archival data and a summary of the methodology followed.

Chapter 3: Research Method

I conducted this archival pre- and posttest quantitative study to explore if there was a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for T4C pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers. The probationers were from 19 rural communities in the northern region of Wisconsin between 2014 and 2019.

In this chapter, I discuss the research design and rationale, methodology, archival data collection, gaining access to the data set, permissions, software analyses, data analysis plan, statistical tests, rationale for inclusion of covariates, parameter estimates, threats to validity, and ethical procedures before concluding with a summary.

Research Design and Rationale

I chose a quantitative, experimental, between-group design for this archival study. The selected research design allowed me to explore the cause-and-effect relationships between the identified variables (see Thomas et al., 2023). There will always be IVs, DVs, and extraneous variables within the quantitative experimental design (Thomas et al., 2023). For the current study, the IV was Group 1 of Non-SO and Group 2 of SO, the DV was T4C posttest scores (a global measure of cognitive self-change), and the covariate was T4C pretest scores. Fundamentally, I was interested in determining whether the T4C program's core component of cognitive self-change (i.e., T4C posttest scores) was statistically significant, with a between-group difference among sex offender probationers compared to non-sex offender probationers. The quantitative experimental

design was divided into a between-group pre- and posttest design. This test is commonly called before-and-after experiments (Thomas et al., 2023). In the current study, the T4C pretest scores are the groups' baseline of cognitive self-change. The T4C posttest scores were explored to determine a between-group difference in cognitive self-change after the T4C program. Thomas et al. (2023) stated that this design is measured only after the intervention of the IV, and there must be two groups or more for this to work.

The quantitative experimental research design is also focused on how the data are collected. For this study, I obtained archival data from the ATTIC database of T4C pre- and posttest scores from 73 adult male non-sex offender probationers and 73 adult male sex offender probationers who completed the T4C program from 19 rural jurisdictions in Wisconsin. Using archival data minimized the data collection time compared to using a qualitative design. Additionally, the use of archival data reduces time constraints, and maintaining resources is easily controlled compared to using human participants, which is often characteristic of qualitative research designs. Quantitative designs are usually employed to test a theory; therefore, a qualitative design may have been a different selection for this study. Showing cognitive self-change of the T4C post-test scores (i.e., the DV) based on the between-groups, Non-SO and SO probationers, and the strength of those differences while controlling for T4C pretest scores, as outlined in the previous chapters, may provide helpful information for ATTIC and the Wisconsin Department of Community Corrections (DCC) who facilitate the T4C program among sex offenders. These agencies want to know what programs are effective in reducing sexual criminal

reoffending behaviors, increasing safeguards for communities, and improving cost savings of sex offender treatment programming (Geer et al., 2001).

Methodology

In this quantitative study, I used the archival data of 146 community correctional probationers who completed the T4C program in northern rural Wisconsin. Founded in 1977, ATTIC is a private, nonprofit 501(c)(3) corporation. ATTIC receives funding from the Wisconsin Department of Corrections and various Wisconsin and Minnesota counties (ATTIC Correctional Services, Inc., 2015). ATTIC offers a wide variety of community corrections programs, including T4C and serves over 50 counties and more than 10,000 clients each year throughout Wisconsin and Minnesota (ATTIC Correctional Services, Inc., 2015). For this study, there were two groups of probationers, for a total of 146 participants: 73 non-sex offenders and 73 sex offender probationers. The 146 probationers were adult males 18 years old or older from varied socioeconomic backgrounds and ethnicities. All 146 probationers in the database were released from prison, returned to the community, completed the T4C program, and were on probation by the Wisconsin DCC.

I collected the archival data T4C pre- and posttest scores from the ATTIC Correctional Services Client/Program. The scoring methodology of the T4C pre-/posttests includes higher scores, which equals a decrease in the core component of cognitive self-change. Fundamentally, higher scores indicate not obtaining the T4C core component of cognitive self-change. The T4C pre-/posttests are duplicates and consist of 25 questions: 19 fill-in-the-blank questions, five multiple-choice questions, and one true/false question.

Sample Size Calculation

The population for this study included two groups: The first group was 73 adult male non-sex offender probationers (i.e., Group 1: Non-SO), and the second group was 73 adult male sex offender probationers (Group 2: SO). These probationers were randomly selected by ATTIC's database within the calendar years of 2014 and 2019 from 19 rural jurisdictions in Wisconsin. I used the G* Power calculator Version 3.1.9.2 (Heinrich-Heine University, 2023) to calculate a sample size with the difference between the two independent means among the groups. Field (2013) described power as the ability of a test to detect an effect of a particular size and a value of 0.80 is a reasonable level. For this study, I used a value of 0.80, indicating a probability of finding a statistically significant effect if one exists.

Table 1 demonstrates the sample size calculation with a power of 0.80. The sample size calculations for each group included 51 probationers for Group 1: Non-SO and 51 for Group 2: SO. For this study, each group had 73 probationers with a total sample size of 146 within the means of the sample size calculations. The T4C pre- and posttest scores track participants' progress by T4C facilitators trained to administer the tests before and after the T4C program. Achieved or not achieved cognitive self-change was measured by the T4C posttest scores.

Table 1

Sample Size Calculation: t *Tests Power: 0.80*

t tests - Means: Difference between two independent means (i.e., two groups)	
Analysis: A priori: Compute required sample size	
Input: Tail(s)	= One
Effect size *d*	= 0.5
α err prob	= 0.05
Power (1-β err prob)	**= 0.80**
Allocation ratio N2/N1	= 1
Output: Noncentrality parameter δ	= 2.5248762
Critical *t*	= 1.6602343
df	= 100
Sample size group 1	= 51
Sample size group 2	= 51
Total sample size	= 102
Actual power	= 0.8058986

Archival Data Procedures

I followed the request for permission protocol for archival data collection after receiving Walden University Institutional Review Board (IRB) approval on April 19, 2023, providing permission to access the data from ATTIC. Following IRB approval, I sent the vice president of operations at ATTIC the Data Use Agreement (Appendix A) and Confidentiality Agreement (Appendix B) via email for them to sign, so I could gain access to the ATTIC data set. A conference call was then held with the ATTIC vice president of operations to discuss archival data sharing, data collection procedures, ethical standards, confidentiality, and the significance of maintaining the anonymity of the probationers. After the ATTIC vice president of operations electronically signed both agreements, the archival data were sent to me via secured email in a Windows Excel document. For this study, I kept all information for all probationers confidential. Using archival data is considered the most ethical method to conduct a study, especially for

vulnerable populations such as sex offenders (Walden University Research, 2023). ATTIC removed the probationers' names from the data set to avoid confidentiality risks.

There are challenges when using archived data for research. One primary challenge includes needing more data. For this study, the archived data set used had all the information needed to address the research question.

Data Analysis Plan

I used Statistical Product and Service Solutions (SPSS) software for data analysis in this study. The data cleaning techniques included removing all female probationers because this study was focused on males. Next, I identified and removed duplicate probationers by sorting data by their admission date. There were no duplicates. The final stage was sorting non-sex offender probationers from sex offender probationers to formulate this study's IV, which was the Groups of Non-SO and SO.

This study's research question and hypotheses were as follows:

RQ: Is there a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019?

H_0: There is not a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 – 2019.

H_a: There is a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019.

I used ANCOVA analysis to test this study's hypotheses. ANCOVA is used to determine if there is a statistically significant difference between two or more independent groups after accounting for one or more covariates (Dimitrov et al., 2003). A covariate is a continuous variable that covaries with the response variable (Dimitrov et al., 2003). A one-way ANCOVA analysis allowed me to explore any changes of cognitive self-change (i.e., T4C posttest scores, the DV) between the two groups (i.e., the IV of Non-SO and SO probationers). I was interested in determining whether cognitive self-change, identified as T4C posttest scores, was statistically significant among sex offenders as compared to non-sex offender probationers. Any increase would depend on both groups' initial knowledge of cognitive self-change, their baseline knowledge. As such, the T4C pretest scores were a covariate when comparing the T4C posttest scores between the two groups. Field (2013) stated that to reduce within-group error variance, ANCOVA can explain some unexplained variance in terms of other variables, such as covariates. Reducing the error variance allows the IV's effect to be assessed more accurately (Field, 2013).

Threats to Validity

Validity is a significant factor in research because it determines how the study findings lead to valuable conclusions. Andrews and Bonta (2010) stated that the validity

of an instrument is the extent to which it correctly measures the constructs it implies to evaluate. For this study, assuring and maintaining the confidentiality and anonymity of the archival data participants was critical. The statistical tests for the reliability and validity of the archival data may strengthen the validity and aid in controlling the threats to this study's statistical validity. Cheng and Phillips (2014) conveyed that data collection methods may threaten the validity of information obtained from archival data sets. In this study, I developed an analytic plan that included specific variables considered and analysis types. The analytic plan encompassed a comprehensive understanding of the archival data set's strengths and weaknesses, such as detailed descriptions of the selected population, time frame of data collection, proficiency in statistical software programs (i.e., SPSS and G*Power), and quality control measures.

Ethical Procedures

Quantitative research must meet three fundamental ethical procedures: Researchers must facilitate data access, production transparency, and analytical transparency (Franco et al., 2023). Researchers should reference the data used, generated, collected, and compiled (Franco et al., 2023). Providing production transparency provides an account of the procedures used in the generation and collection of the data. These ethical procedures safeguard against the unethical practice of misrepresenting or inventing data (Franco et al., 2023). Ensuring analytical transparency provides the link between the data and the research conclusion to ensure delineation (Franco et al., 2023). Fundamentally, a researcher must explain the process that led to the conclusion based on the data used. The empirical evidence must map the theoretical framework of the research

and identify that the probability of successful publication is honest (Franco et al., 2023). Quantitative research knowledge validity requires replicating existing work (Franco et al., 2023). When access to quality data is limited, it can become challenging to determine whether the research findings are authentic (Franco et al., 2023).

For this current study, I followed ethical procedures for working with archived data. As part of the formal procedures, I received permission from the Walden University IRB to conduct this study (Walden University IRB Approval Number 04-19-23-0231652). After IRB approval, ATTIC granted me permission to conduct research using their archived data set. ATTIC removed all identifying information of the participants from the data file before sending it to me. I stored the archived data anonymously on a password-protected computer with one user access.

Summary

The purpose of this quantitative archival data study was to explore if there was a statistically significant difference among and between the T4C pre- and posttest scores of cognitive self-change of Wisconsin adult male non-sex offenders (i.e., Group 1: Non-SO) and adult male sex offender (i.e., Group 2: SO) probationers between 2014 and 2019. In this chapter, I discussed the participants, research design and rationale, threats to validity, ethical protection of participants in the archival data, and the data collection and data analysis plans. In Chapter 4, I will provide a detailed presentation of the completed data collection and analysis process for this study.

Chapter 4: Results

I conducted this archival quantitative pre- and posttest study to explore if there was a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin. The following research question and hypotheses guided this study:

RQ: Is there a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019?

H_0: There is not a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 – 2019.

H_a: There is a statistically significant between-group difference in T4C posttest scores of cognitive self-change while controlling for pretest scores of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019.

In this chapter, I provide a general overview of the data collection process, results, and summary. The Data Collection section contains information about the timeframe for data collection, discrepancies presented in Chapter 3, demographic characteristics, external validity, univariate analyses, statistical assumptions, and adversities related to

this study. In the Results section, I present descriptive statistics, statistical assumptions, and statistical analysis of the findings, which includes an illustration of study results using tables and a plot figure. The Summary section of Chapter 4 includes an answer to the research question. In Chapter 5, I will provide an interpretation of findings, the limitations of the study, my recommendations, the implications for positive social change, and a conclusion.

Data Collection

I obtained Walden University IRB approval on April 19, 2023. The vice president of operations at ATTIC signed both the Data Use Agreement (Appendix A) and the Confidentiality Agreement (Appendix B) on April 20, 2023. I received the uncleaned archival data from ATTIC in Microsoft Excel format via email. The information contained in the ATTIC archived data set consisted of participants' date of birth, sex, county of residence, admission date of the T4C program, employment status, marital status, age, offense, disability, primary language, pretest scores of T4C, and posttest scores of the T4C program. I carefully reviewed the archived data to ensure there were no discrepancies in the data collection from the plan presented in Chapter 3.

Discrepancies in the Archival Data

There was one unexpected issue with the archived data. Specifically, there was a total of 73 adult male sex offender probationers. I had anticipated a higher number for this population. The initial data cleaning was completed in Windows Excel before opening the data via SPSS for statistical analysis. The first step included eliminating adult female probationers, which resulted in 73 adult male sex offenders. I selected these 73

adult male sex offenders and then randomly selected 73 adult male non-sex offenders from varying counties in Wisconsin with varying criminal offenses. I deleted identifying information from the file and created a unique code for each participant using each participant's admission date. Cross-checking included the participants' county, offense type, T4C pretest scores, and T4C posttest scores.

Data Preparation

I randomly selected 73 non-sex offenders because there were over 200 possible participants in the archived data set. The non-sex offender probationers were grouped under the title of Group 1: Non-SO with the variable information 1.00, along with their T4C pre- and posttest scores. The sex offender probationers were grouped under the title of Group 2: SO with the variable information 2.00 and their T4C pre- and posttest scores.

Data Conversion

I imported the modified Microsoft Excel file containing the 146 probationers separated into Group 1: Non-SO of 73 adult male sex offenders (1.00) and Group 2: SO of 73 non-sex offenders (2.00) into SPSS. The data set created in SPSS was then ready for statistical analysis. Table 2 identifies the descriptive offense type of the T4C group treatment participants.

Table 2

Primary Offenses: Adult Male Sex Offender and Non-Sex Offender Probationers

Offense Type	Abbreviation	Frequency	Percent	Valid percent	Cumulative percent
Battery, disorderly conduct, domestic assault, and reckless endangerment	BA	5	3.4	3.4	3.4
Burglary, theft from property	BG	3	2.1	2.1	5.5
Bail jumping	BJ	1	.7	.7	6.2
Child abuse (nonsexual)	CA	1	.7	.7	6.8
All drug-related offenses, racketeering	DR	14	9.6	9.6	16.4
Forgery, worthless checks, credit card forgery, uttering a forged instrument: making counterfeit money	FO	1	.7	.7	17.1
Fraud, credit card theft	FR	4	2.7	2.7	19.9
Nonsupport payment	NSP	1	.7	.7	20.5
Car theft, operating a motor vehicle without the owner's consent	OMVWOC	1	.7	.7	21.2
Operating a motor vehicle while intoxicated	OWI	39	26.7	26.7	47.9
Sex offender	SO	73	50.0	50.0	97.9
Theft, identity theft, unlawful use of telephone, bribery	TH	3	2.1	2.1	100.0
	Total	146	100.0	100.0	

Sample Descriptive Statistics and Estimates

Table 3 reflects the baseline descriptive characteristics of the sample. This option produces means and standard deviations for each group. Table 3 also identifies adult male non-sex offenders (i.e., Group 1: Non-SO) and adult male sex offender probationers (i.e., Group 2: SO). There was no missing data in the tables.

Table 3

Descriptive Statistics: DV: T4C Posttest Scores

Two groups: Non-SO and SO	*M*	*SD*	*N*
NON-SO	15.01	14.740	73
SO	28.44	9.937	73
Total	21.73	14.223	146

Note. The standard deviation (14.740) was interpreted as 14.7% for Non-SO probationers. Thus, (9.937) was interpreted as 10% for SO probationers.

ANCOVA Assumption Testing and Data Analysis

Ten assumptions must be considered when using a one-way ANCOVA (Laerd Statistics, 2023). The design of the current study met the first four assumptions, including having a continuous DV of T4C posttest scores, an IV that is categorical with two independent groups (i.e., Non-SO and SO probationers), a covariate variable (i.e., pretest scores), and independence of observations. I examined the remaining six assumptions of linearity, homogeneity of regression slopes, normality of within-group residuals, testing for homoscedasticity, homogeneity of variances, and outliers using SPSS to determine the appropriateness of an ANCOVA. I deployed an ANCOVA with the IV of Group 1: Non-SO (at 1.00) and Group 2: SO (at 2.00), the DV as T4C posttest scores, and the covariate as T4C pretest scores.

Testing for Linearity

I assumed there was a linear relationship between T4C pretest scores (i.e., the covariate), T4C posttest scores (i.e., the DV), and for each level of the group (i.e., Non-SO and SO; the IV). I plotted a scatterplot of T4C posttest scores against T4C pretest scores in the IV group to test this assumption. The scatterplot shown in Figure 1 was used to examine whether this assumption was met visually.

Figure 1

Scatterplot of Linearity for Groups: Non-SO and SO

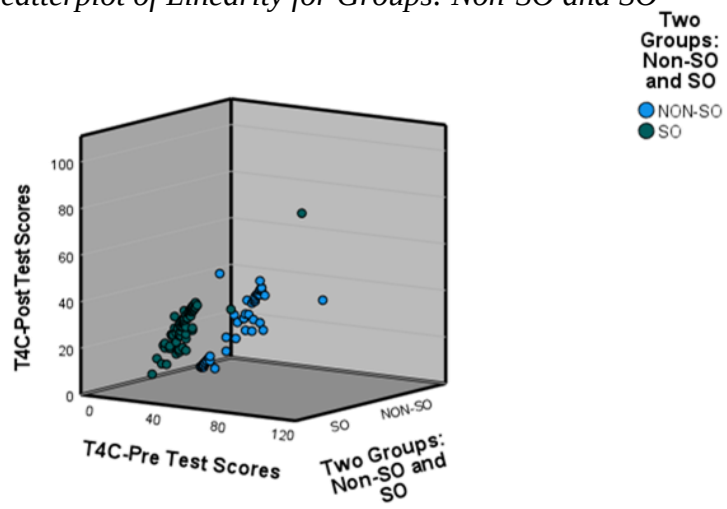
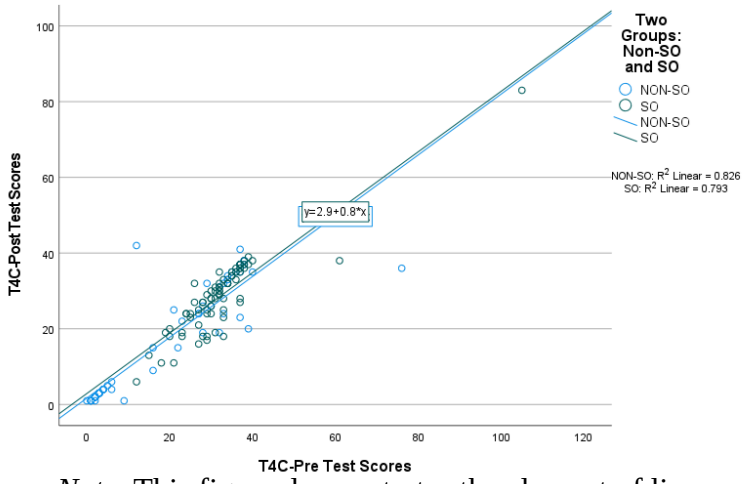


Figure 2 shows the linear regression line for groups: Non-SO and SO. There was a linear relationship between the T4C pre- and posttest scores for each T4C intervention as assessed by visual inspection of the scatterplot. Both Groups 1 and 2 have a linear relationship between the covariate and the DV.

Figure 2

Linear Regression Line for Groups: Non-SO and SO



Note. This figure demonstrates the element of linear regression.

Testing for Homogeneity of Regression Slopes

I ran the assumption of homogeneity of regression slopes test to examine the interaction between the covariate, T4C pretest scores, and the IV group: Non-SO and SO. To meet this assumption, the regression lines must be parallel. To determine if there was homogeneity of regression slopes and whether this interaction was statistically significant, the interaction between the covariate and IV group must not be statistically significant ($p > .05$). For this study, Table 4 shows there was homogeneity of regression slopes because the interaction term was not statistically significant, $F(1, 143) = .288$, $p = .008$; therefore, this assumption was met.

Table 4

Tests of Between-Subjects Effects Testing Homogeneity of Regression Slopes

Dependent variable: T4C posttest scores

Source	Type III Sum of Squares	*df*	Mean Square	*F*	Sig.	Partial Eta Squared
Corrected model	25,144.345[a]	2	12,572.173	429.413	<.001	.857
Intercept	184.548	1	184.548	6.303	.013	.042
T4CPre	18,566.263	1	18,566.263	634.146	<.001	.816
GROUP	33.292	1	33.292	1.137	.288	.008
Error	4,186.696	143	29.278			
Total	98,246.000	146				
Corrected total	29,331.041	145				

a. R Squared = .857 (Adjusted R Squared = .855)

Note: This table demonstrates there was homogeneity of regression slopes because the interaction term was not statistically significant.

Testing for Normality Within Group

I used the Shapiro-Wilk test for normality to test the within-group residuals. The assumption of normality is necessary for statistical significance testing using a one-way ANCOVA. Table 5 demonstrates the test of normality. The predicted values, covariate, the T4C pretest scores, and standardized residuals (ZRE_1) were not normally distributed, violating the normality assumption of within-group residuals.

Table 5

Test of Normality

		Kolmogorov-Smirnov			Shapiro-Wilk		
Standardized residual for T4C post	Two groups	Statistic	*df*	Sig.	Statistic	*df*	Sig.
	NON-SO	.253	73	<.001	.754	73	<.001
	SO	.179	73	<.001	.904	73	<.001

*. This is a lower bound of the true significance.

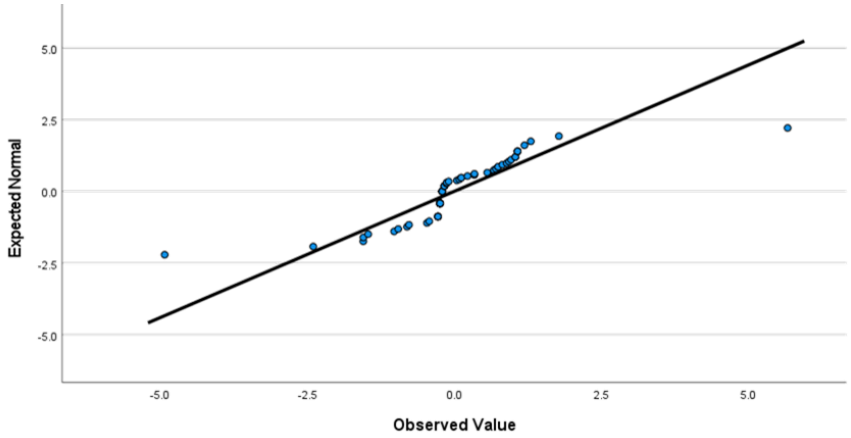
[a.] Lilliefors Significance Correction.
Note: This table demonstrates the predicted values, covariate, the T4C pretest scores, and standardized residuals (ZRE_1) were not normally distributed, violating the normality assumption of within-group residuals.

The significance level of Shapiro-Wilk was less than .05 ($p < .05$). The standardized residuals for the interventions were not normally distributed as assessed by the Shapiro-Wilk test ($p < .05$). According to Laerd Statistics (2023), there are three ways to deal with violations of normality: (a) transform the DV, (b) use a nonparametric test, or (c) carry on regardless. I selected to run the test regardless because the one-way ANCOVA is robust to deviations from normality. Laerd Statistics (2023) stated that sample sizes (i.e., numbers in each group) are equal or nearly equal; only substantial violations of normality might cause problems. Conversely, if sample sizes have skewed distributions, they are not always problematic (Laerd Statistics, 2023). Nonnormality does not affect the Type I effort rate substantially, and the one-way ANCOVA can be considered robust (Laerd Statistics, 2023). This violation will be identified in the results.

Figure 3 shows that the residuals are randomly distributed around zero, indicating that the interventions were not normally distributed as assessed by the Shapiro-Wilk test ($p < .05$).

Figure 3

Standardized Residual for T4C Posttest Scores for Group 1: Non-SO



Note. The plot shows that the residuals are randomly distributed around zero, indicating that the interventions were not normally distributed as assessed by the Shapiro-Wilk test ($p < .05$).

Figure 4 demonstrates the standardized residual for the DV, T4C post-test scores from SO group.

Figure 4

Standardized Residual for T4C Post-Test Scores for Group 2: SO

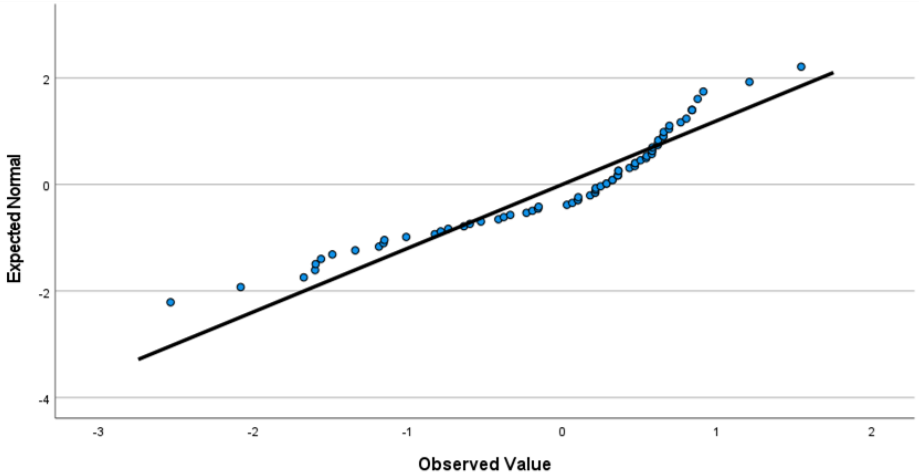


Figure 5 shows the standardized residual for the DV, T4C post-test scores from the Non-SO group.

Figure 5

Detrended Normal Plot for Group 1: Non-SO

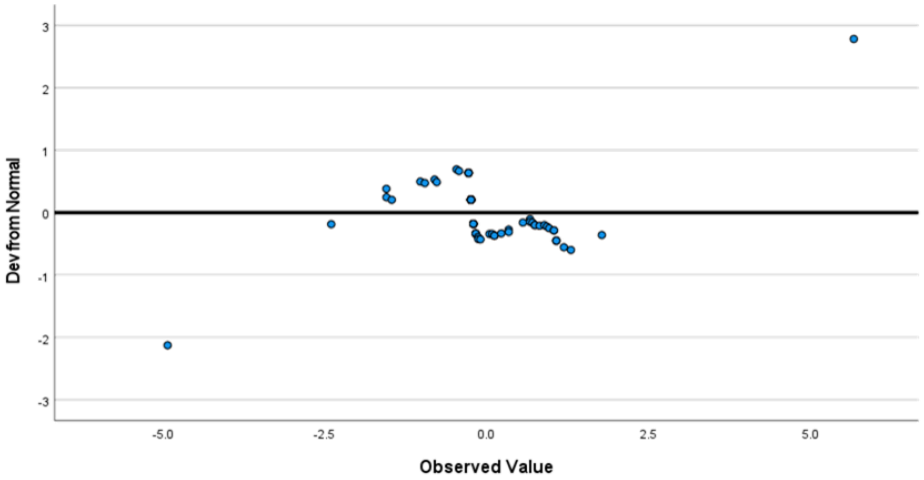


Figure 6 demonstrates the graphical representation of detrended normal plot for the SO group. This figure helped assess whether the data points followed a normal distribution after removing the linear trend.

Figure 6

Detrended Normal Plot for Group 2: SO

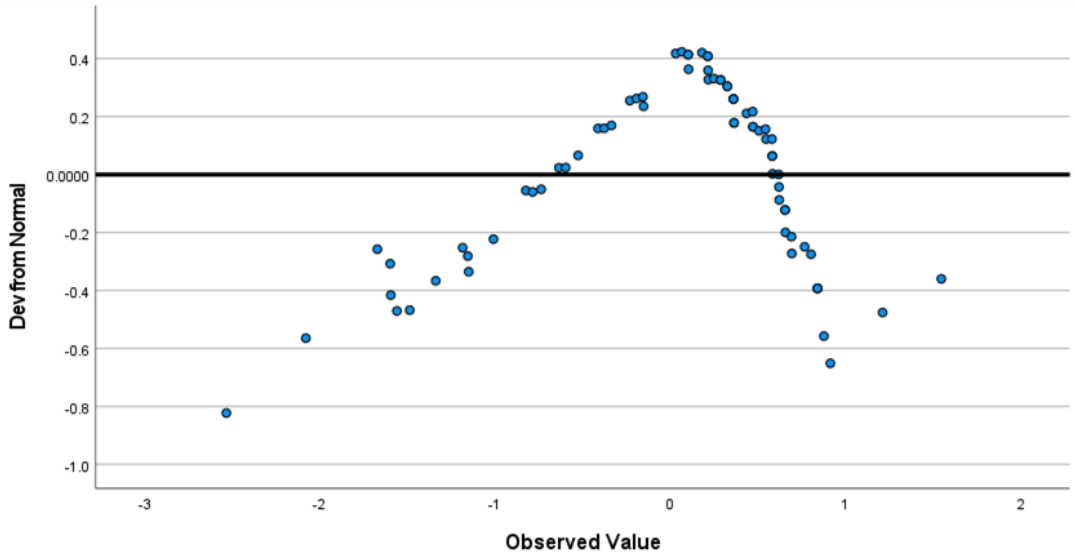
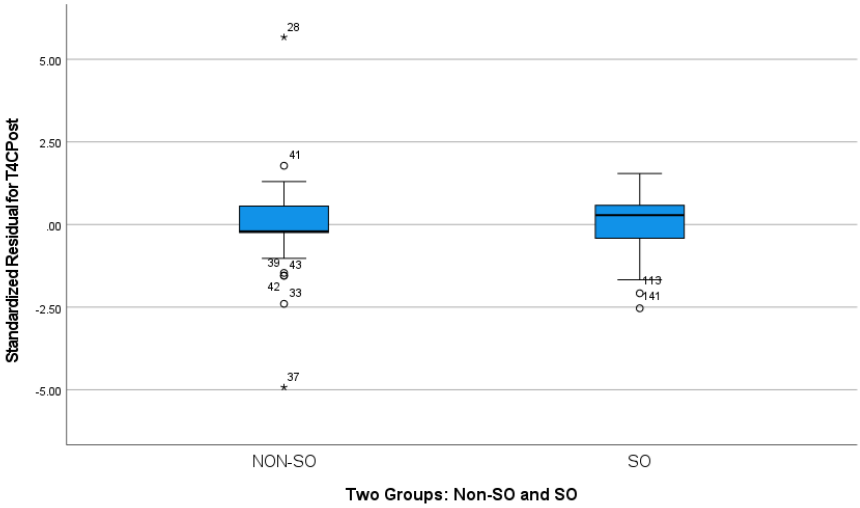


Figure 7 shows the standardized residuals for both groups: Non-SO and SO. This represented the difference between and among the observed value and the predicted value in the regression model. Conversely, this figure identified two outliers.

Figure 7

Standardized Residual for Groups: Non-SO and SO



Testing for Homoscedasticity

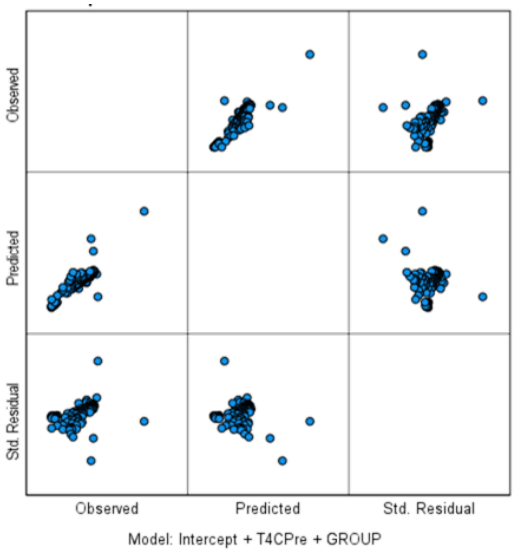
The test for homoscedasticity is an essential assumption of a one-way ANCOVA. Laerd Statistics (2023) emphasized two measures: (a) there is homoscedasticity of error variances within each group, and (b) the error variances are equal between groups. I checked the assumption of equal error variances by inspecting the plot of the standardized residuals, ZRE_1, against the predicted values, PRE_1 (see Figure 9). The chart builder command In SPSS was used to create a scatterplot of the standardized residuals (ZRE_1) against the predicted values (PRE_1), grouped by the IV group: Non-SO and SO. Homoscedasticity is met if the standardized residuals (errors of prediction), ZRE-1, will be equal across the predicted values, PRE_1. Laerd Statistics stated that (a)

the points of each of the scatterplots will exhibit no pattern and will be approximately constantly spread on the y-axis across the predicted values x-axis, and (b) the spread of points should be similar in the y-axis for all categories of the IV group. The spread of points should be similar on the y-axis for each scatterplot (Laerd Statistics, 2023).

Figure 8 demonstrates the standardized residuals which were not randomly scattered or had an approximate constant spread. Based on visual inspection of the standardized residuals plotted against the predicted values, homoscedasticity was not met.

Figure 8

Scatter Plot of Standardized Residual for T4C Post by Predicted Value for T4C Post by Groups: Non-SO and SO



Testing for Homogeneity

The assumption of homogeneity of variances was tested using Levene's test of equality of variances. The one-way ANCOVA assumes that the variance of the residuals is equal for all groups: Non-SO and SO, the IV. Laerd Statistics (2023) stated that if the variances are unequal, this can affect the Type I effort rate. The Levene's test is

statistically significant if $p < .05$, which would indicate not having equal variances and have violated the assumption of homogeneity of variances. If Levene's test is not statistically significant, $p > .05$, this would indicate equal variances and not violate the assumption (Laerd Statistics, 2023).

Table 6 demonstrates the Levene's Test of Equality of Error Variances. For this study, Levene's test of equality of error variances revealed a homogeneity of variances for this study: $p = .987$.

Table 6

Levene's Test of Equality of Error Variances

Dependent variable: T4C-Posttest scores			
F	*df*1	*df*2	Sig.
.000	1	144	.987

Note. Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + T4CPre + GROUP

Table 7 demonstrates the estimates of the covariate appearing elevated in the T4C pretest scores.

Table 7

Estimates

Dependent variable: T4C posttest scores				
Two groups: Non-SO and SO	*M*	Std. Error	95% confidence interval Lower bound	Upper bound
NON-SO	21.182[a]	.679	19.840	22.524
SO	22.270[a]	.679	20.928	23.613

[a.] Covariates appearing in the model are evaluated at the following values: T4C pretest Scores = 24.29.

Table 8 shows the pairwise comparisons of the groups: Non-SO and SO with the DV, T4C posttest scores. This helped to determine a higher quantitative value or whether they are equal.

Table 8

Pairwise Comparisons

Dependent variable: T4C posttest scores						
(I) Two groups: Non-SO and SO	(J) Two groups: Non-SO and SO	Mean difference (I-J)	Std. Error	Sig.[a]	95% confidence interval for difference Lower bound	Upper bound
NON-SO	SO	-1.089	1.021	.288	-3.106	.929
SO	NON-SO	1.089	1.021	.288	-.929	3.106

Note. Based on estimated marginal means

[a.] Adjustment for multiple comparisons: Bonferroni.

Testing for Outliers

There were two outliers of genuine unusual values. It was established that the outliers were neither the results of a data entry error nor a measurement error. Laerd Statistics (2023) stated that genuine unusual data points are complicated. These data points could be better from a statistical perspective as they violate one of the assumptions of the one-way ANCOVA (Laerd Statistics, 2023). Laerd Statistics also noted that there is no good reason to reject genuine unusual values as invalid. There was no single recommended procedure. These outliers do not mean the data are useless; thus, the outliers were not initially removed from the analysis. This decision was made because I did not foresee the result would be materially affected. Ideally, I am looking for a method that evaluates whether the outlier has an appreciable effect on my analysis. Lastly,

presenting the data ethically is critical. Deleting outliers to alter the conclusion may be considered as a breach of research ethics. The two outliers were from Group 1: Non-SO T4C posttest scores: -4.92, below -3 *SD*, a negative value. The next outlier was 5.67, a value greater than +3 standard deviations.

Data Transformation

According to Laerd Statistics (2023), parametric tests may be used to gain valid results. A common assumption is that the DV is approximately normally distributed for every IV category (Laerd Statistics, 2023). For this study, a parameter estimate with robust standard errors was calculated as shown in Table 9. Table 11 shows the heteroskedasticity-consistent standard errors, which are based on the original large sample, the estimator of the covariate, and the T4C pretest scores of the parameter estimates. Table 12 shows the variance of the errors for the DV, the post-test scores, on the values of the IV group: Non-SO and SO. Table 13 is the *F* Test, which tests the variance of the errors that do not depend on the values of the IV group: Non-SO and SO.

Table 9 demonstrates the parameter estimates with robust standard errors. This provided an alternative to the traditional standard errors to account for potential heteroskedasticity, unequal variance of the data.

Table 9

Parameter Estimates With Robust Standard Errors

Dependent variable: T4C posttest scores						
					95% confidence interval	
Parameter	*B*	Robust Std. Error	*t*	Sig.	Lower bound	Upper bound
Intercept	2.789	2.568	1.086	.279	-2.288	7.865

T4CPre	.802	.080	10.062	<.001	.644	.959
GROUP:1.00	-1.089	1.895	-.574	.567	-4.834	2.657
GROUP:2.00	0[b]	.	.	.	.	.

[a.] HC4 method

[b.] This parameter is set to zero because it is redundant.

Table 10 shows the modified Breusch-Pagan test. This was used to detect heteroskedasticity in the regression model as there were two outliers present in this study.

Table 10

Modified Breusch-Pagan Test for Heteroskedasticity

Chi-Square	*df*	Sig.
5.648	1	.017

[a.] Dependent variable: T4C posttest scores.

[b.] Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

[c.] Predicted values from design: Intercept + T4CPre + GROUP

Table 11 demonstrates the F test for heteroskedasticity. This test provided information in the spread of residuals, the differences between the observed and predicted values.

Table 11

F Test for Heteroskedasticity

F	*df*1	*df*2	Sig.
5.795	1	144	.017

[a.] Dependent variable: T4C posttest scores

[b.] Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

[c.] Predicted values from design: Intercept + T4CPre + GROUP

Study Results

For this study, an ANCOVA was performed to explore whether there were any statistically significant between-group (Non-SO and SO) differences on the DV, T4C posttest scores (a global measure of cognitive self-change) after adjusting for the covariate, T4C pretest scores. The rating scale of the T4C program pre- and posttest scoring methodology is higher, and the score equals a decrease in cognitive self-change. If a participant receives a higher score in the posttest, they demonstrate decreased knowledge of the primary CBT component of the T4C program of cognitive self-change.

During the assumption testing, the initial four assumptions were met: continuous DV and T4C posttest scores, a categorical IV group, Non-SO and SO, covariate, and T4C pretest scores, and independence of observations. The following assumption (Assumption #5) tested whether there was a linear relationship between the covariate, T4C pre-test scores, and the DV, T4C posttest scores for each level of the IV group: Non-SO and SO. For one-way ANCOVA, it is assumed that the covariate, the T4C pretest scores, are linearly related to the DV, the T4C posttest scores, for all groups of the IV: Non-SO and SO. For this study, the scatterplot (Figure 1) visually identified a linear relationship between the T4C pre- and posttest scores for each T4C intervention. Both groups (Non-SO and SO) had a linear relationship between the covariate (pretest scores) and the dependent variable (posttest scores).

The following assumption (Assumption #6) for this study was the homogeneity of regression slopes. This assumption checked if there was no interaction between the covariate, T4C pre-test scores, and the IV group: Non-SO and SO. The regression lines

plotted must be parallel. There was homogeneity of regression slopes as the interaction term was not statistically significant, F (1, 142) = .005, p =.944, p >.05, the interaction meets the homogeneity of regression slopes. The next step was to carry out a one-way ANCOVA, including testing for the assumptions of normality, homoscedasticity, homogeneity of variance, and outliers. These assumptions were tested against the predicted values and standardized residuals (errors).

Assumption #7 was of normality. This assumption was necessary for statistical significance testing using a one-way ANCOVA. According to Field (2013), ANCOVA is a linear model. Therefore, there are considerations to undertake. Some violations of normality can be tolerated as the test may provide valid results (Laerd Statistics, 2023). This study used the Shapiro-Wilk test for normality of within-group residuals to determine whether the data was normally distributed for each IV, Non-SO, and SO group. For this study, standardized residuals for Non-SO and SO were not normally distributed as assessed by Shapiro-Wilk's within-group test: $p < .05 = .001$. Dealing with the violation of normality, I continued to run the test. This decision was made as the one-way ANCOVA is robust to deviations from normality (Laerd Statistics, 2023). According to Laerd Statistics (2023), nonnormality does not affect Type I error rate substantially, and the one-way ANCOVA can be considered robust.

The following assumption (Assumption #8) was homoscedasticity. A scatterplot (Figure 9) was calculated of the standardized residuals, ZRE_1, against the predicted values, PRE_1, by the categories of the IV group: Non-SO and SO. For this study, the standardized residuals in the scatterplot appeared not randomly scattered and did not have

a constant spread. On this basis, the assumption of homoscedasticity was not met. Through visual inspection, heteroscedasticity was present. According to Field (2013), heteroscedasticity occurs when the residuals at each predictor variable(s) level have unequal variances. At each point along any predictor variable, residuals spread differently (Field, 2013). Thus, parameter estimates with robust standard errors, modified Breusch-Pagan test for heteroskedasticity, and *F* test for heteroskedasticity were run. These tests confirmed heteroskedasticity was present, $p < 0.05$ (Modified Breusch-Pagan $p = .017$ and Parameter Estimates with Robust Standard Errors $p = .001$).

Assumption #9 of homogeneity of variances was calculated using Levene's test of equality of variances. According to Laerd Statistics (2023), one-way ANCOVA assumes that the variance of the residuals is equal for all IV groups. If the variances are unequal, this can affect the Type I error rate (Laerd Statistics, 2023). For this study, the variance of the standardized residuals ZRE_1 should be equal for the different categories of the IV group: Non-SO and SO. The results of Levene's test for this study indicated that variances were homogeneous ($p = .987$). Next, Assumption #10 included testing for outliers. Outliers can significantly negatively affect results because they can significantly influence change in the mean for the IV group, Non-SO, and SO, affecting the statistical test results.

For this study, outliers were any standardized residuals, ZRE_1, where the score exceeds +3 standard deviations. The data were sorted by the ZRE_1 scores within SPSS. This was conducted to identify any outliers. After the procedure to sort the data, an inspection was conducted on the standardized residuals to determine whether there were

any residuals greater than +3 *SD*s. Additionally, the inspection was completed to see if there were any cases below -3 *SD*s. For this study, there were two outliers in the data: 1.00 = 5.67 (+3 *SD*s) and 1.00 = -4.92 (-3 *SD*s). The outliers were from the IV group: Non-SO. For this study, consideration for the outliers was assessed. There were three considerations for the two outliers of this study.

The first consideration was data entry errors. After checking the data entry, the results indicated that the outliers were not due to data entry errors. The next consideration was measurement errors. There were no measurement errors, such as equipment malfunction or out-of-range values. The final consideration was genuine unusual values. For this study, genuine unusual values were considered. According to Laerd Statistics (2023), genuine data points are the hardest to deal with because, although they could be better from a statistical perspective, there is no good reason to reject them as invalid. Deciding to move forward was multidimensional, as there was no single recommended procedure (Laerd Statistics, 2023).

According to Laerd Statistics (2023), one possible reason for outliers is when the error (residual) distribution is not normally distributed but takes another form, such as a skewed distribution, where outliers can be found in the direction of the skew. When a transformation is applied to a skewed distribution to coax the distribution to normality, the outliers are pulled toward the bulk of the data (Laerd Statistics, 2023). This may reduce the data to such an extent that the outliers may no longer be considered outliers on the transformed scale (Laerd Statistics, 2023). Additionally, a transformation approach

may expose outliers on the non-skewed side and introduce more outliers (Laerd Statistics, 2023). It was determined, at this point of analysis, to keep the outliers.

After running the one-way ANCOVA procedures and testing that the data meets the assumptions, the results of the one-way ANCOVA are interpreted. The primary purpose of running the one-way ANCOVA was to establish whether there were any statistically significant between-group differences in the DV, T4C posttest scores, after adjusting for the covariate, T4C pretest scores. To determine whether the IV group (Non-SO and SO) were statistically significant ($p < .05$), it can be concluded that not all adjusted group means are equal in the population. For this study, $p > .05$ resulted in no statistically significant differences between the adjusted group means Non-SO and SO. After adjustment for the covariate, T4C pretest scores, there was not a statistically significant difference in the DV, T4C posttest scores between the IV group: Non-SO and SO, $F(1,143) = 1.137$, $p > .288$, partial N2 = .008.

After consideration of the findings, it was determined to omit the two outliers. Conversely, a reflect and logarithmic transformation was conducted. This included computing an arithmetic numeric expression of the special variable (Lg10) to transform the T4C post-test scores in SPSS. The results did not change, $F(1, 137) = .048$, $p > .05$, partial $n^2 = .000$. There was not a statistically significant difference in the DV, T4C posttest scores between the IV group: Non-SO and SO. The T4C cognitive self-change component did not have any different effect on SO sample group than it did on the Non-SO sample group.

The comparison of the DV, T4C posttest score group means, indicated that both group scores decrease considerably from the covariate, T4C pretest scores. There is a large between-group difference in scores at both points. The results of this study conclude that, according to the data, there was no statistically significant difference among and between the two groups, SO and Non-SO, on the T4C component of cognitive self-change. That is, T4C's global measure of cognitive self-change did not have any different effect on the SO group than it did on Non-SO group in the sample.

Summary

Chapter 4 provided a synopsis of the data collection methods and reported the current study's findings. The null hypothesis was rejected based on the results revealing there was not a statistically significant T4C post-test score value of cognitive self-change among and between the groups: non-sex offenders and sex offenders. In Chapter 5, the purpose and nature of the current study will be provided. Interpretation of the findings and details of limitations will follow. Recommendations for further research are grounded in the strengths and limitations of the current study. Finally, Chapter 5 includes implications for positive social change and a conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of the current study was to fill a gap in T4C research. Specifically, I employed an archival quantitative pre- and posttest design to explore whether there was a statistically significant between-group difference in T4C posttest scores of cognitive self-change among a sample of 73 adult male sex offender probationers and 73 adult male non-sex offender probationers from Wisconsin between 2014 and 2019. The current study was conducted to meet a vital need, and the results could benefit sex offenders and communities.

The key findings of this study revealed no statistically significant difference among and between the two groups on the T4C component of cognitive self-change. That is, T4C's global measure of cognitive self-change did not have a different effect on sex offender probationers than it did on non-sex offender probationers in the sample.

In this chapter, I provide an interpretation of the results of the statistical analysis. The chapter also contains a description of the limitations and comparison with the limitations identified before conducting the study. Additionally, I discuss my recommendations for future research and the implications for positive social change. The chapter ends with a conclusion.

Interpretation of the Findings

In this section, I describe how the current study findings confirm, disconfirm, and extend the knowledge from the peer-reviewed literature in Chapter 2. The interpretation of the study findings is described in the context of the CBT theoretical framework.

Confirm With Peer-Reviewed Literature

The findings of the current study are congruent with the well-established peer-reviewed literature in Chapter 2 regarding treatment impact and the criminogenic profile of sex offenders. That is, the T4C component of cognitive self-change did not have a different statistically significant impact on the sex offender probationers than it did on the non-sex offender probationers. For instance, Mpofu et al. (2018) proposed that there are varying typologies (e.g., sadists, rapists, fixated child molesters, etc.) and diverse personality traits among sex offenders. These offenders often exhibit denial, lack of empathy, and cognitive distortions that frequently deter amenability to treatment (Mpofu et al., 2018). As it relates to the current study's findings, it is reasonable to assume the SO sample group included varying types and personality traits (e.g., antisocial behaviors, lack of empathy, etc.), preventing them from learning the T4C cognitive self-change component. This resulted in indistinguishable between-group mean differences and not having any observed differences between the sample groups of SO and Non-SO.

The current study's results also confirm Moster et al. (2008) who stated that reducing cognitive distortions decreases the risk of sexual reoffending. For example, child molesters perceive non responsiveness as an indication of enjoyment and compliance (Moster et al., 2008). The current study's population of sex offenders confirmed Moster et al.'s findings, emphasizing the importance of reducing cognitive distortions to decrease sexual reoffending risk. The T4C program does not include the modality of reducing cognitive distortions, and this discrepancy may have an association with the SO sample groups' results of not having any different effect of cognitive self-

change because their cognitive distortions were not addressed or decreased. Additionally, it is reasonable to assume the SO sample group may have exemplified the prevalence of antisocial-type sex offenders. Joyal et al. (2014) stated that sex offenders of the antisocial type are opportunistic, self-centered, impulsive, lack inhibition, and demonstrate verbal processing impairments. Conversely, working memory deficits and other executive dysfunctions have also been reported among antisocial-type sex offenders (Joyal et al., 2014). As this relates to the current study, the SO sample group of this study may have included antisocial-type sex offenders, which may have created another deterrence in their ability to ascertain the cognitive self-change component, especially if the SO sample group had executive function impairments. Such an occurrence could have played a role in the resulting lack of a between-group mean differences explored.

The results of the current study confirm, to some extent, the T4C research and its CBT modalities among sex offenders. The T4C program is a CBT-based intervention that integrates cognitive self-change, social skills, and problem-solving skills components (Lowenkamp et al., 2009). Historically, CBT programs are considered a mainstream treatment method for reducing sexual crime (Carvalho et al., 2023). Moster et al. (2008) stated that CBT interventions based on the principles of the RNR model had consistently been effective among sex offenders. In another study, Yates (2013) concluded that adherence to the RNR model demonstrated effective treatment outcomes when the treatment level of intensity was matched to sex offenders' risk. Additionally, Wilpert et al. (2018) suggested that the RNR model is the most beneficial tool to delineate sex offenders' risk levels and target the criminogenic needs related to their offending

behavior. The RNR model helped to understand the offenders' learning proficiencies and response levels, which fostered more accurate placement to treatment programs (Wilpert et al., 2018).

These studies relate to the current study because the T4C program does not incorporate the RNR model. This may have caused an interference with the SO sample because the T4C cognitive self-change component may have been incompatible with their level of risk, resulting in no difference in the effect on cognitive self-change as compared to the Non-SO group. Moster et al. (2008) also suggested that CBT interventions alone are not effective with sex offenders, stating instead that cognitive behavioral-based interventions should include the treatment of teaching empathy and implementing emotion management. Regarding the current study, T4C does not teach empathy or emotional management; specifically, the T4C cognitive self-change component instructs participants on how thinking controls behavior, paying attention to thinking, recognizing risk, and using new thinking (National Institute of Corrections, 2024).

It is reasonable to postulate that due to the T4C's missing modalities of the RNR model, cognitive distortions, teaching empathy, and emotional management, T4C may not be an effective program for sex offenders to gain cognitive self-change. It is also reasonable to assume sex offenders simply are unable to obtain the T4C component of cognitive self-change. Joyal et al. (2014) showed that sex offenders who victimized adults tended to score similarly to the non-sex offender group in inhibition and verbal

deficits. As this relates to the current study, there may indeed have been no different effect on cognitive self-change among the SO and Non-SO group samples.

Golden (2002) stated that the validity of the T4C pre- and posttest self-report instrument largely depends on the respondents' perceptions. Golden suggested that the instruments must be used cautiously, especially with their selected offender population and their ability to report genuine answers. Regarding the current study, the archival data consisted of the SO and Non-SO groups' T4C pre- and posttest self-reported instruments. It is feasible that the SO and Non-SO group probationers may have demonstrated a low degree of willingness to answer the fill-in-the-blank questions about cognitive self-change, did not answer truthfully, or did not learn the cognitive self-change component, deterring their ability to answer the questions accurately. Ultimately, based on the findings of this study, there is no clear indication if the SO sample group experienced an improved sense of cognitive self-change.

Sex offenders have different treatment needs, such as reducing cognitive distortions, addressing specific personality traits, and teaching empathy (Harrison et al., 2020). Due to the addressed fundamental treatment limitations of the T4C program, cognitive self-change may continue to have no different effect among sex offenders with any other population until their specific treatment needs are implemented.

Disconfirm With Peer-Reviewed Literature

The current study's findings disconfirm the T4C research identified in Chapter 2 (i.e., Golden, 2002; LaPlant et al., 2020; Lowenkamp et al., 2009). This misalignment is not surprising. Apart from the current study, the cognitive self-change component among

sex offenders has yet to be researched related to T4C. While prior T4C research (Golden, 2002; Lowenkamp et al., 2009) has consistently shown a positive correlation between their selected comparison groups and the T4C components of social and problem-solving skills, the current study revealed disconfirming results. Golden (2002) evaluated the efficacy of the T4C program for 100 adult male and 42 female medium- and high-risk offenders (but no sex offenders) on probation. Results indicated a significant change in social skills for the experimental group (Golden, 2002). As this relates to the current study, the cognitive self-change component did not have any different effect on the sample groups (SO and Non-SO).

Lowenkamp et al. (2009) evaluated the effectiveness of the T4C program, comparing the recidivism rates of 121 felony and misdemeanor offenders on probation. Their results indicated that participation in the T4C program significantly reduced recidivism. Furthermore, their findings showed that a specific CBT curriculum effectively reduces recidivism for the selected felony and misdemeanor offenders (Lowenkamp et al., 2009). As this relates to the current study's results, there was no indication of any effective cognitive self-change component of the T4C program, demonstrating inconsistencies in T4C research results. The possible reason for these inconsistencies may include variations in the archival data collection, measurement tools, and sample characteristics of the sex offenders.

LaPlant et al. (2020) evaluated whether participation in the T4C program improved social problem-solving skills in prison. Their findings indicated a significant improvement among probationers who received greater program dosage. The within-

group comparison of LaPlant et al. differed from that of the current study. It is reasonable to consider that certain groups exhibit unexpected outcomes or diverge from the overall trend that the previous T4C research demonstrated. The differences may have occurred due to the characteristics of the SO sample group of the current study. Having no different effect between the SO and Non-SO samples may imply that the T4C cognitive self-change component did not have a discernible effect. This outcome indicated that the cognitive self-change component did not lead to noticeable learning objectives between the sample groups.

Extending Knowledge

The findings of this study also extend knowledge in T4C research. As noted in Chapter 2, the existing T4C research has focused on the program's problem-solving and social skills components (CEBP, 2011; LaPlant et al., 2020). LaPlant et al. (2020) evaluated the T4C program within prison systems, reporting improvements in problem-solving skills. In a rare publication on the effectiveness of the T4C program, the CEBP (2011) evaluated the program within community corrections in Indiana and found that, on average, 60% of probationers completed the program successfully, while 25.2% did not complete the program. The offenders, in this case, were not evaluated on the measure of cognitive self-change or were they sex offenders. Despite the abundance of literature (e.g., LaPlant et al., 2020; Lowenkamp et al., 2009; Vanstone, 2010) regarding the T4C program for general offenders, cognitive self-change among sex offenders has yet to be researched apart from the current study. Notably, the current study's findings may provide a relevant baseline of T4C knowledge and have broken new ground, illuminating

the need to explore further T4C's component of cognitive self-change among sex offenders.

The findings of this study extend knowledge in the prevalence of personality disorders among sex offenders and self-change. For instance, Arbanas (2022) stated sex offenders have higher prevalence of as compared to non-sex offenders. The most frequent personality disorders were antisocial (37.5%), narcissistic (32.1%), dependent (10.7%), and borderline (Arbanas, 2022). Ferretti et al. (2021) noted that understanding personality disorders among sex offenders is crucial for effective assessment, intervention, and rehabilitation. Tailored approaches can address specific facets, such as irresponsibility, which may promote self-change and reduce reoffending risk (Ferretti et al., 2021). Additionally, Darjee et al. (2011) indicated common treatment programs for sex offenders with personality disorders included dialectical behavioral therapy and cognitive analytic therapy. Self-change may be possible when interventions addressed abnormal cognitions, prosocial coping, emotional dysregulation, and interpersonal problems (Darjee et al., 2011). Darjee et al. also stated that where personality pathology is more severe among sex offenders, there are no published controlled outcome studies of such approaches for personality disordered sex offenders.

As these studies relate to the current study's findings, it is reasonable to postulate the SO group sample exemplified personality disorders. Due to T4C's limitation regarding specific approaches for the treatment of personality disorders, it seems rational to assume that the sex offenders of this study just could not cognitively self-change.

Theoretical Framework

The theoretical framework is the foundation of all knowledge for research (Grant et al., 2014). The current study's analysis and interpretation of findings misalign with the chosen theoretical framework of Beck's (1970) cognitive behavioral theory. The preliminary selection of CBT for the current study was not arbitrary because the theory's was related to the current study's topic of sex offenders and T4C's cognitive self-change cognitive behavioral theory component. The theoretical framework of cognitive behavioral theory is a widely accepted intervention for sex offenders (Bush et al., 2011). The profound misalignment is that the current study's findings contradict the cognitive behavioral theory's principle that modifying cognition leads to behavioral change among sex offenders (see Harrison et al., 2020). The current study's results showed a lack of significant difference between the sample groups, indicating that the cognitive behavioral theory-based T4C program did not lead to noticeable improvements in cognitive self-change. This misalignment may have been due to the SO sample group not responding to the cognitive self-change component. It is common for sex offenders to respond at varying levels to treatment interventions, especially due to their risk levels (Yates, 2013).

Additionally, the T4C program may not have been authentically executed. Perhaps there were additional factors (e.g., trauma history, lack of social support, personality traits) that may have influenced the SO sample groups' effect on cognitive self-change. It is reasonable to propose revisiting the theoretical assumptions and exploring alternative explanations in the context of sex offenders and treatment interventions.

Sex offender treatment is multidimensional. Perhaps the T4C program alone may not be sufficient for sex offenders to obtain cognitive self-change. Additionally, it may prove beneficial to avoid assuming cognitive behavioral theory is a universally effective theory in the context of sex offenders. A multimodal approach (e.g., combining cognitive behavioral theory with other theories) should be considered because it may build and establish a more distinct explanation aimed at bridging effective treatment interventions among sex offenders.

Limitations of the Study

In this section, I describe the limitations that arose from the execution of the current study. These limitations are revised from what was identified in Chapter 1. Reliability and validity must be met for research to be meaningful and contribute to a field of study (Laerd Statistics, 2023). This study's findings that there was no statistically significant between-group difference among the two groups on the T4C component of cognitive self-change has been interpreted cautiously. Only some assumptions necessary for the one-way ANCOVA were satisfied. In particular, the IV, the Non-SO and SO groups, were not normally distributed, violating normality. Additionally, homoscedasticity was not met due to unequal scattering of residuals, resulting in heteroscedasticity. Two outliers of genuinely unusual values also existed within the Non-SO data set. The first outlier was a score greater than +3 standard deviations from the standardized residuals, meaning the probationer may have overgeneralized their answers. The second outlier, also from the Non-SO group, scored below -3 standard deviations, meaning the probationer may have undergeneralized their answers. After consulting the

literature, I omitted the outliers, having no change in the study's results. Initially, the decision to keep the outliers was made since a transformation may have resulted in a skewed distribution with the possibility of exposing additional outliers (see Laerd Statistics, 2023). Removing the outliers from the data may have transformed the DV. Laird Statistics (2023) stated that transforming the DV is usually not warranted due to negative consequences. For instance, the transformation must be completed for every value of the DV, creating a risk of transforming other nonnormal distributions (Laerd Statistics, 2023). Finally, through consideration, I conducted a reflect and logarithmic transformation and omitted the two outliers. The results did not change and showed the T4C cognitive self-change component did not have any different effect on the SO sample group than it did on the Non-SO sample group.

Another limitation of this study included the nature of the archived data set. While using archival data provided an in-depth analysis of this study, the validity and reliability of the data were an issue. The data from ATTIC assumed the participants responded truthfully and answered judiciously per instructions of the T4C pre-test and post-test instruments. Using archival data limits the scope and direction of the current study, keeping it within the limits of the data results to uphold validity and reliability. Archival data are subject to gaps and incompleteness, making it difficult to determine whether the data represents the population (Shultz et al., 2001). Furthermore, the archival data for this study was from rural communities in Wisconsin. The sample population was smaller than anticipated. Therefore, findings from this study may not be generalized to urban populations where the T4C program is facilitated to sex offender probationers.

Conversely, the archival data from ATTIC needed to be more organized with what appeared to be possibly incomplete data, creating additional implications to validity. Golden et al. (2006) stated that community corrections data had common problems. The data may need to be completed, complex to extract, or disorganized (Golden et al., 2006). Finally, the archival data for the current study did not specify the types of sex offenders in the sample group. Having the knowledge on what type of sex offenders were in the sample may have helped better discern the study's findings. Conversely, being able to know the types of sex offenders of the SO sample could have assisted to identify personality traits (e.g., antisocial behaviors, lack of empathy etc.). This may have proved beneficial to interpret the possible indistinguishable group means and not having any observed differences between the sample groups of SO and Non-SO.

Recommendations

This section describes recommendations for further research grounded in the strengths and limitations of the current study and the literature reviewed in Chapter 2. Despite the current study's limitations, this study may be helpful to the Wisconsin DCC and ATTIC as it seeks to identify evidence-based approaches among sex offenders. Specifically, it may prove beneficial to assess further if T4C's structured modalities, including cognitive self-change, are beneficial among sex offenders. It seems evident from research that sex offender treatment should not be a one-size-fits-all approach (Lin et al., 2000).

It is recommended for further research on the T4C cognitive self-change component among sex offenders. An example of further research may be a group

comparison study. The population of sex offender probationers assigned to the T4C program could be matched with a comparison group not assigned to the program. The research may then contrast the cognitive self-change component pre- and post-program completion. Golden et al. (2006) used a comparison group analysis with probationers. The results indicated that probationers who completed the T4C program improved significantly in interpersonal problem-solving skills. Those who did not attend the T4C program had no such gains.

The current study discovered that archival risk assessment data of the probationers would have been valuable. Sex offender programming is linked to risk level. Thus, assessment tools that provide reliable and valid risk measurement are critical (Golden, 2006). It is recommended that the Wisconsin DCC and ATTIC evaluate if their risk assessment tools effectively calculate sex offenders' risk levels, especially for those assigned to the T4C program. The paradigm of archival research can provide comprehensive information to the field of psychology. Golden et al. (2006) stated that there is no guarantee of the quality and consistency of archival data, making validity problematic. This study encountered this limitation.

As identified in the limitations of this study, research identified data from community corrections is often incomplete, complex to extract, or disorganized (Golden et al., 2006). It is recommended that the Wisconsin DCC and ATTIC unify data reporting and collection mechanisms. This may encompass utilizing a communal data element format. Furthermore, using a standard data management system that defines what data must be submitted and what format may prove beneficial. This recommendation may

improve the ability to evaluate the effectiveness of probationer treatment programming, thus improving validity in future research on community correctional programming.

It is recommended for consideration upon funding availability sex offenders of the T4C program have neuropsychological assessments. This may provide critical data to categorize specific sex offender typologies, such as antisocial type, thus creating an additional group to analyze for future research. For the current study, having a third group to explore a statistically significant between-group difference may have generated more distinct patterns and themes to help generate an improved significance in the current study's findings. Bloomberg (2007) stated that moving back and forth between research findings and crossing one dimension with another helps to establish what might be meaningful or significant. The observed values in Figures 3 through 7 of the sample groups (Non-SO and SO) were cross-checked. This helped to identify patterns and themes consistent with this study's result of no statistically significant difference among the sample groups. Suppose there was a third group (e.g., antisocial sex offenders). In that case, it may have created additional dimensions of analysis. This may have proven helpful creating additional identifying matrices and linkages, which could have helped to unfold the phenomenon of this study. It is anticipated that future T4C research may inquire about neuropsychological assessments to help discern and extend knowledge of the T4C cognitive self-change component among sex offenders.

Regarding this study's limitations in defining a statistically significant between-group difference, it cannot be assumed that there was no impact. Barros et al. (2022) noted that psychological treatment programs for sex offenders have been widely studied,

yet these studies tend to have inconsistent and, sometimes, undesirable results. While the overall objective is to define effective treatment programming for sex offenders, the research efforts continue to be complicated (Barros et al., 2022). The results of this study demonstrated there is a continual need to explore further the T4C's component of cognitive self-change among sex offenders. It is recommended the current study's results be considered when selecting the T4C program for sex offenders. Barros et al. stated that the impact of selecting the right intervention programs with empirical findings for rehabilitation is crucially significant among sex offenders.

Implications

The implications section will describe the current study's potential impact on positive social change at the individual, organizational, policy, and societal levels. Positive social change is defined as transforming patterns of thought, behavior, social relationships, institutions, and social structure to generate beneficial outcomes for individuals, communities, organizations, society, and beyond (Stewart, 2024).

Positive Social Change: Sex Offenders and Victims/Survivors

The current study's potential impact on positive social change may include an individual level for sex offenders and victims/survivors of sexual violence. Gaining insight into the factors that hinder sex offenders' cognitive self-change of the T4C program may assist in restructuring the T4C program with improved interventions such as reducing cognitive distortions, accepting responsibility, empathy, RNR, and emotional management. Implementing these modalities in the T4C program may improve sex offenders' cognitive self-change while reducing sexual offending behaviors. Perhaps this

would break their sexual criminal cycle, enhancing acceptance, personal growth, and taking accountability for their crimes.

There must always be a place of positive social change for victims and survivors of sexual violence. This may be experienced through various methods contributing to their healing and wellness (Brown et al., 2019). Victims and survivors can advocate for legal reforms related to sexual assault, sharing advocacy efforts to help foster informed and compassionate communities and social connections that empower survivors to share their stories and address effective coping strategies (Brown et al., 2019).

Positive Social Change: Organizational/Policy

The current study may impact positive social change at the organization and policymaking level for sex offenders. The strengths of the current study provided insight into the nature and complexities of sex offenders (criminogenic profile and typologies) and how their criminal constructs may impact treatment interventions such as cognitive self-change of the T4C program. By gaining these insights, Wisconsin policymakers can generate informed decisions about sex offender treatment programming. These decisions may include how to select best treatment programs that match their level of risk (RNR) and psychological constructs.

Positive Social Change: Societal/Communities

Sex offenders have a significant impact on society (Clark, 2014). Reducing sexual reoffending serves a critical purpose that contributes to safer communities (Clark, 2014). The potential impact for positive social change at the societal level appears simplistic, yet the implementation is complex. This study's findings, although limited, showed that the

treatment of sex offenders is complex at its roots. Understanding the etiology of sex offenders, level of risk, cognitive functioning, and theoretical framework in the context of sex offenders are critical steps toward possible reducing these offending behaviors. Fundamentally, if the T4C program integrates these components, there may be an increase in cognitive self-change, formulating effective sex-offending treatment, thus promoting public safety.

Future Sex Offending Research: Theory

Future sex offending T4C research may benefit by focusing on the utility of the integrated theory of sexual offending (ITSO). This theory is an interlevel theoretical framework that includes genetic predispositions, adverse development experiences (e.g., abuse, rejections, attachment difficulties), psychological dispositions, trait factors (e.g., deviant sexual preferences), attitudes supportive of sexual assault, empathy deficits, emotional skills deficits, interpersonal problems, social and cultural structures and processes, and contextual situational factors (Ward et al., 2016). The ITSO demonstrates the theoretical resources to unify other prominent theories of sexual offending that provide an clinically valuable context for the assessment and treatment of sexual offenders (Ward et al., 2016). Furthermore, this theory accounts for multiple offense variations that may help clinicians to formulate cases in ways that focus on sex offenders' unique problems (Ward et al., 2016). Finally, the ITSO is abstract for thinking systematically about sexual offending and its causal variables (Ward et al., 2016). This theory focuses on the multiple explanatory levels of human functioning and naturalistic

orientation, which are essential in maintaining and understanding sexual offending (Ward et al., 2016).

Conclusion

Wisconsin has the fifth-highest rate of sex offenders in the nation (Satterliee, 2022). As of 2022, the Wisconsin sex offender registry contained 25,887 offenders. Of this number, 6,179 were in the community under supervision (Huberty, 2023). In recent years, the Wisconsin DCC and ATTIC implemented the T4C program to address probationers' cognitive, social, and emotional needs. Among these probationers referred to this program are sex offenders. While much research has examined the effectiveness of T4C's social and emotional factors (Caldeira et al., 2023; LaPlant et al., 2020; Lowenkamp et al., 2009; Vanstone, 2010), the T4C's component of cognitive self-change among sex offenders has not been investigated prior to this study. Failure to recognize if sex offenders obtain cognitive self-change of the T4C program may increase the likelihood of reoffending, deterring rehabilitation and thus decreasing public safety.

The fundamental essence of this quantitative archival study suggested that the T4C component of cognitive self-change did not have any different effect on sex offender probationers than it did on non-sex offender probationers. Thus, determining if T4C is an effective treatment program for sex offenders needs further exploration. Each generation in research appears to lead in waves on what paradigm of sex offender programming should entail: clinical-medical model, community risk-protection model, and cognitive behavioral therapy model (Lussier et al., 2023). We have entered a new wave generated in part by the #MeToo movement. The focus remains on understanding the sexual

offender phenomena and designing treatment approaches that foster rehabilitation and improve community safety.

The murder of Lisa Waldros in 2016 by registered sex offender Donald Rick endures unanswered questions primarily due to his attendance in the T4C program. Although this study has limitations, there is promise with the T4C's CBT modalities (Carvalho et al., 2023). The T4C program reached its 25th year in July 2023 and remains the most requested training offered by the National Institute of Corrections (National Institute of Corrections, 2023). The T4C program has undergone many changes since its inception in 1998 (National Institute of Corrections, 2023). The latest version of T4C, 4.0, has three CBT components: cognitive self-change, social skills, and problem-solving skills (National Institute of Corrections, 2023). The effective management, operational strategies, and enhancement of the T4C program have an encouraging future in rehabilitating probationers from Wisconsin. Continue research efforts that explore whether sex offenders obtain cognitive self-change from the T4C program may provide numerous benefits. This may contribute to improving sex offenders' lives and improve community safety. Conversely, a primary benefit may include the likelihood of sex offenders choosing responsible, self-reflected behaviors that cultivate cognitive self-change.

References

Abel, G. G., Becker, J. G., & Cunningham-Rathner, J. (1984). Complications, consent, and cognitions in sex between children and adults. *International Journal of Law and Psychiatry, 7*(1), 89-103. https://doi.org/10.1016/0160-2527(84)90008-6

Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.) Matthew Bender & Company, Inc.

Arbanas, G. (2022). Personality disorders in sex offenders, compared to offenders of other crimes. *The Journal of Sexual Medicine, 19*(11). https://doi.org/10.1016/j.jsxm.2022.08.022

ATTIC Correctional Services, Inc. (2015). *About us: History, mission statement, and leadership*. https://correctionalservices.org/about-us/

Aytes, E. K., Olsen, S. S., Zakrajsek, T., Murray, P., & Ireson, R. (2001). Cognitive behavioral treatment for sexual offenders: An examination of recidivism. *Sexual Abuse: A Journal of Research and Treatment, 13*(4), 223-231. https://doi.org/10.1177/10790632010130040

Barnett, G. D., & Mann, R. E. (2013). Cognition, empathy, and sexual offending. *Trauma, Violence, and Abuse, 14*(1), 22-33. https://doi.org/10.1177/1524838012467857

Bench, L. L., & Allen, T. D. (2013). Assessing sex offender recidivism using multiple measures: A longitudinal analysis. *The Prison Journal, 93*(4), 411-428. https://doi.org/10.1177/0032885513500765

Beyko, M. J., & Wong, S. C. P. (2005). Predictors of treatment attrition as indicators for program improvement not offender shortcomings: A study of sex offender treatment attrition. *Sexual Abuse: A Journal of Research and Treatment, 17*(4), 375-389. https://doi.org/10.1007/s11194-005-8050-8

Bickle, G. (2013). *An intermediate outcome evaluation of the evaluation of the thinking for a change program.* The Ohio Department of Rehabilitation and Corrections, Bureau of Research and Evaluation. https://www.drc.ohio.gov/Portals/0/Planning%20and%20Evaluations/Eval_ThinkingforaChange.pdf?ver=2016-08-02-132320-567

Blake, E., & Gannon, T. (2008). Social perception deficits, cognitive distortions, and empathy deficits in sex offenders. *Trauma, Violence, and Abuse, 9*(1), 34-55. https://doi.org/10.1177/1524838007311104

Bonnar-Kidd, K. K. (2010). Sexual offender laws and prevention of sexual violence or recidivism. *American Journal of Public Health, 100*(3), 412-419. https://doi.org/10.2105/AJPH.2008.153254

Bosma, A., Kunst, M., Reef, J., Dirkzwager, A., & Nieuwbeerta, P. (2016). Prison-based rehabilitation: Predictors of offender treatment participation and treatment completion. *Crime & Delinquency, 62*(8), 1095-1120. https://doi.org/10.1177/0011128714549654

Bourgon, G., & Armstrong, B. (2005). Transferring the principles of effective treatment into a “real world” prison setting. *Criminal Justice and Behavior, 32*(1), 3-25. https://doi.org/10.1177/0093854804270618

Brannon, Y. N., Levenson, J. S., Fortney, T., & Baker, J. N. (2007). Attitudes about community notification: A comparison of sexual offenders and the non-offending public. *Sex Abuse, 19*, 369-379. https://doi.org/10.1007/s11194-007-9055-2

Brown, T. R., Tabery, J., & Aspinwall, L. G. (2016). Understanding validity in empirical legal research: The case of methodological pluralism in assessing the impact of science in court. *Division of Medical Ethics and Humanities at the University of Utah, 67*, 1067-1086. http://www.hastingslawjournal.org/wp-content/uploads/Brown_Tabery_Aspinwall-67.4.pdf

Brunner, F., Neumann, I., Yoon, D., Rettenberger, M., Stuck, E., & Briken, P. (2019). Determinants of dropout from correctional offender treatment. *Frontiers in Psychiatry, 10*(142), 1-12. https://doi.org/10.3389/fpsyt.2019.00142

Budd, K., & Desmond, S. A. (2014). Sex offenders and sex crime recidivism: Investigating the role of sentence length and time served. *International Journal of Offender Therapy and Comparative Criminology, 58*(6), 1481-1499. https://doi.org/10.1177/0306624X13507421

Bush, J., Glick, B., & Taymans, J. (2002). *Thinking for a change: Integrated cognitive behavior change program*. https://ccoso.org/sites/default/files/import/016672-Curriculum.pdf

Bush, J., Glick, B., Taymans, J., & Guevara, M. (2011). *Thinking for a change integrated cognitive behavior change program Version 3.1*. National Institute of Corrections. http://trainercounselor.com/wp-content/uploads/2011/11/016672-Curriculum.pdf

Caldeira, L., Bagdon-Cox, C., & Sharp, B. A. (2023). *Evaluating the efficacy of thinking for a change (T4C) in reducing recidivism.* Department of Corrections Washington State. https://doc.wa.gov/docs/publications/reports/500-RE004.pdf

Center for Adolescent and Family Studies, Indiana University. (2011). *Effectiveness of community corrections in the State of Indiana*. https://www.in.gov/idoc/files/CEBP_long_report(1).pdf

Cheng, H. G., & Phillips, M. R. (2014). Archival analysis of existing data: Opportunities and implementation. *Shanghai Arch Psychiatry*, *26*(6), 371-375. https://doi.org/10.11919/j.issn.1002-0829.214171

Ciardha, C. O., & Ward, T. (2013). Theories of cognitive distortions in sexual offending: What the current research tells us. *Trauma, Violence, and Abuse, 14*(1), 5-21. https://doi.org/10.1177/1524838012467856

Clegg, C., Fremouw, W., Horacek, T., Cole, A., & Schwartz, R. (2011). Factors associated with treatment acceptance and compliance among incarcerated male sex offenders. *International Journal of Offender Therapy and Comparative Criminology*, *55*(6), 880-897. https://doi.org/10.1177/0306624X10376160

Craissati, J., Webb, L., & Keen, S. (2008). The relationship between developmental variables, personality disorder, and risk in sex offenders. *Sexual Abuse: A Journal of Research and Treatment*, *20*(2), 119-138. https://doi.org/10.1177/1079063208317464

Darjee, R. & Russel, Katharine. (2011). *The assessment, treatment and management of sexual offenders with personality disorders including psychopathy.* https://doi.org/10.1192/apt.bp.111.009373

Davies, W. (2015). Is sexual offending genetic? *Practice Ethics*. https://blog.practicalethics.ox.ac.uk/2015/04/is-sexual-offending-genetic/

Day, A., Ross, S., Casey, S., Vess, J., Johns, D., & Hobbs, G. (2019). The intensity and timing of sex offender treatment. *Sexual Abuse, 31*(4), 397-409. https://doi.org/10.1177/1079063217745069

DeBaca, L. C. (2015). Adult sex offender management: Sex offender management assessment and planning initiative. *Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking*, 1-8. https://www.smart.gov/pdfs/AdultSexOffenderManagement.pdf

Dimitrov, D. M., & Rumrill, P.D. (2003). Pre-test-post-test designs and measurement of change. *Work, 20*, 159-165. https://www.researchgate.net/publication/10826237_Pretest-Posttest_Designs_and_Measurement_of_Change?enrichId=rgreq-6f942e78a62b10d8997e5d5529397d93-

Doren, D. M., & Yates, P. M. (2008). Effectiveness of sex offender treatment for psychopathic sexual offenders. *International Journal of Offender Therapy and Comparative Criminology, 52*(2), 234-245. https://doi.org/10.1177/0306624X07303914

Faupel, B. (2014). Etiology of adult sexual offending. *Office of Justice*: *Sex Offender Management Assessment and Planning Initiative*, 23-44. https://www.smart.gov/SOMAPI/sec1/ch2_etiology.html

Ferretti, F., Carabellese, F., Catanesi, R., Coluccia, A., Ferracuti, S., Schimmenti, A., Caretti, V., Lorenzi, L., Gualteri, G., Carabellese, F., & Pozza, A. (2021). DSM-5 personality trait facets amongst child molesters: an exploratory comparison with other types of offenses. *BMC Psychology*, 9-117. doi: https://doi.org/10.1186/s40359-021-00619-1

Franco, J., Lee, C., Vue, K., Bozonelos, D., Omae, M., & Cauchon, S. (2023). Research Ethics in Quantitative Research. *LibreTexts Social Science ASCC*. Retrieved from: Social Sci LibreTexts

Geer, T. M., Becker, J. V., Gray, S. R., & Krauss, D. (2001). Predictors of treatment completion in a correctional sex offender treatment program. *International Journal of Offender Therapy and Comparative Criminology, 45*(3), 302-313. https://doi.org/10.1177/0306624X01453003

Golden, L. (2002). *Evaluation of the efficacy of a cognitive behavioral program for offenders on probation: Thinking for a change*. https://s3.amazonaws.com/static.nicic.gov/Library/018190.pdf

Grady, M. D., Levenson, J. S., & Bolder, T. (2017). Linking adverse childhood effects and attachment: A theory of etiology for sexual offending. *Trauma, Violence, and Abuse, 18*(4), 433-444. https://doi.org/10.1177/1524838015627147

Gully, K., Mitchell, C., Butter, C., & Harwood, R. (1990). Sex offenders: Identifying who can complete a residential treatment program. *Behavioral Sciences and the Law, 8*, 465-471. https://doi.org/10.1002/bsl.2370080412

Hanson, R. K., Harris, A. J., Helmus, L., & Thornton, D. (2014). Sex offenders may not be high risk forever. *Journal of Interpersonal Violence, 29*(15), 2792-2813. https://doi.org/10.1177/0886260514526062

Hassan, M. (2024). *Internal validity threats, examples, and guide*. https://researchmethod.net/internal-validity/

Hyatt, J. (2013). *The impact of cognitive-behavioral therapy on the recidivism of high risk probationers: Results from a randomized trial*. https://repository.upenn.edu/cgi/viewcontent.cgi?article=1802&context=edissertations

Jones, A. T., & Neal, T. M. S. (2019). A call for research on sex offender treatment programs. *International Journal of Offender Therapy and Comparative Criminology*, *63*(1), 77-85. https://doi.org/10.1177/0306624X18786608

Keegan, E., & Holas, P. (2009). *Cognitive-behavior therapy. Theory and practice*. https://doi.org/10.1093/acprof:oso/9780190214623.003.0003

Kim, B., Benekos, P. J., & Merlo, A. V. (2016). Sex offender recidivism revisited: Review of recent meta-analyses on the effects of sex offender treatment. *Trauma, Violence, and Abuse, 17*(1), 105-117. https://doi.org/10.1177/1524838014566719

King, R., & Elderbroom, B. (2014). *Improving recidivism as a performance measure*. https://www.bja.gov/Publications/UI-ImprovingRecidivism.pdf

Kirk-Provencher, K. T., Nelson-Aguiar, R. J., & Spillane, N. S. (2020) Neuroanatomical differences among sexual offenders: A targeted review with limitations and implications for future directions. *Violence Gender, 7*(3), 86-97. https://doi.org/10.1089/vio.2019.0051

Knight, R. A. (1999, September). *Unified theory of sexual coercion.* https://doi.org/10.1177/0886260504266882

Lambie, I., & Stewart, M. W. (2012). Community solutions for the community's problem: An evaluation of three New Zealand community based treatment programs for child sexual offenders. *International Journal of Offender Therapy and Comparative Criminology, 56*(7), 1022-1036. https://doi.org/10.1177/0306624X11420099

Langan, P. A., Schmitt, E., & Durose, M. (2003*). Recidivism of sex offenders released from prison in 1994.* U.S. Department of Justice, Office of Justice Program, Bureau of Justice Statistics. Retrieved from: https://bjs.ojp.gov/content/pub/pdf/rsorp94.pdf

Langevin, R. (2006). Acceptance and completion of treatment among sex offenders. *International Journal of Offender Therapy and Comparative Criminology, 50*(4), 402-417. https://doi.org/10.1177/0306624X06286870

LaPlant, E. G., Bellair, P. E., Kowalski, B. R., Addison, D., & Starr, S. (2020). Assessing the delivery of the thinking for a change program in modified formats: An experimental approach. *International Journal of Offender Therapy and Comparative Criminology,* 1-26. https://doi.org/10.1177/0306624X20975159

Looman, J., & Abracen, J. (2011). Substance abuse among high-risk sexual offenders: Do measures of lifetime history of substance abuse add to the prediction of recidivism over actuarial risk assessment instruments? *Journal of Interpersonal Violence, 26*(4), 683-700. https://doi.org/10.1177/0886260510365871

Looman, J., Dickie, I., & Abracen., J. (2005). Responsivity issues in the treatment of sexual offenders. *Trauma, Violence & Abuse, 6*(4), 330-353. https://doi.org/10.1177/1524838005280857

Losel, F., & Schmucker, M. (2005). The effectiveness of treatment for sexual offenders: A comprehensive meta-analysis. *Journal of Experimental Criminology, 1*, 117-146. https://psycnet.apa.org/doi/10.1007/s11292-004-6466-7

Lowenkamp, C. T., Hubbard, D., Makarios, M. D., & Latessa, E. J. (2009). A quasi-experimental evaluation of thinking for a change: A real world application. *Criminal Justice and Behavior, 36*(2), 137-146. https://doi.org/10.1177/0093854808328230

Lussier, P., Deslauriers-Varin, N., & Ratel, T. (2010). A descriptive profile of sex offenders under intensive supervision in the province of British Columbia, Canada. *International Journal of Offender Therapy and Comparative Criminology, 54*(1), 71-91. https://doi.org/10.1177/0306624X08323236

Mancini, C. (2013). Sex offender treatment: Two promising approaches. *Social Criminology, 1*(1), 1-2. http://dx.doi.org/10.4172/2375-4435.1000e102

Manejwala, R. (2016). History of behavioral and cognitive behavioral treatment for sex offenders. *The Histories, 3*(13), 1-23. https://doi.org/10.1177/107906320301500201

Marino, K. M. (2009). Probation management of sex offenders: An analysis of co-facilitators' perceptions of offender progress in treatment. *Criminal Justice Review*, *34*(3), 382-403. https://doi.org/10.1177/0734016808328671

Marshall, W. L., Hamilton, K., & Fernandez, Y. (2001). Empathy deficits and cognitive distortions in child molesters. *Sexual Abuse: A Journal of Research and Treatment*, *13*(2), 123-130. https://doi.org/10.1177/107906320101300205

McGerry, P. (2013). *The potential of community corrections to improve safety and reduce incarceration*. Retrieved from: http://www.safetyandjusticechallenge.org/wp-content/uploads/2015/05/potential-of-community-corrections.pdf

McGrath, R. J., Cumming, G. F., Hoke, S. E., & Bonn-Miller, M. O. (2007). Outcomes in a community sex offender treatment program: A comparison between polygraphed and matched non-polygraphed offenders. *Sex Abuse, 19,* 381-393. https://doi.org/10.1177/107906320701900404

McKillop, N., Smallbone, S., Wortley, R., & Andjic, I. (2012). Offenders' attachment and sexual abuse onset: A test of theoretical propositions. *Sexual Abuse: A Journal of Research and Treatment*, *24*(6), 591-610. https://doi.org/10.1177/1079063212445571

Meloy, M. L. (2005). The sex offender next door: An analysis of recidivism, risk factors, and deterrence of sex offenders on probation. *Criminal Justice Policy Review, 16*(2), 21- 236. https://doi.org/10.1177/0887403404270601

Milkman, H., & Wanberg, K. (2007). *Cognitive-behavioral treatment: A review and discussion for corrections professionals.* National Institute of Corrections. https://info.nicic.gov/nicrp/system/files/021657.pdf

Miller, A. (2012). Instructor's manual for Aaron beck on cognitive therapy with Aaron t. Beck, M.D. *Psychotherapy Institutional*. Becks-Cognitive-Model.pdf (thebehaviourinstitute.com)https://www.psychotherapy.net/data/uploads/51102b99efbaf.pdf

Moster, A., Wnuk, D. W., & Jeglic, E. L. (2008). Cognitive behavioral therapy interventions with sex offenders. *Journal of Correctional Health Care, 14*(2), 109-121. https://doi.org/10.1177/1078345807313874

Mpofu, E., Athanasou, J. A., Rafe, C., & Belshaw, S. H. (2018). Cognitive-behavioral therapy efficacy for reducing recidivism rates of moderate- and high-risk sexual offenders: A scoping systematic literature review. *International Journal of Offender Therapy and Comparative Criminology, 62*(1), 170-186. https://doi.org/10.1177/0306624X16644501

The National Institute of Corrections. (2021). *Thinking for a Change 4.0*. https://info.nicic.gov/t4c40/

Nunes, K. L., Babchishin, K. M., & Cortoni, F. (2011). Measuring treatment change in sex offenders: Clinical and statistical significance. *Criminal Justice and Behavior, 38*(2), 157-173. https://doi.org/10.1177/0093854810391054

Nunes, K. L., & Jung, S. (2012). Are cognitive distortions associated with denial and minimization among sex offenders? Sexual Abuse: *A Journal of Research and Treatment*, *25*(2), 166-188. https://doi.org/10.1177/1079063212453941

Oluwaseun, S., Ibrahim, O., & Abayomi, A. (2019). An assessment of the reliability of archival data in management science research. *International Journal of Business and Management Review, 3*, 27-43. An-Assessment-of-the-Reliability-of-Secondary-Data-in-Management-Science-Research.pdf (eajournals.org)

Olver, M. E., Marshall, L. E., Marshall, W. L., & Nicholaichuk, T. P. (2018). A long-term outcome assessment of the effects on subsequent re-offense rates of a prison-based cbt/rnr sex offender treatment program with strength-based elements. *Sexual Abuse*, 1-27. https://doi.org/10.1177/1079063218807486

Olver, M. E., Nicholaichuk, T. P., Gu, D., & Wong, S. C. P. (2012). Sex offender treatment outcome, actuarial risk, and the aging sex offender in Canadian corrections: A long-term follow-up. *Sexual Abuse: A Journal of Research and Treatment*, *25*(4), 396-422. https://doi.org/10.1177/1079063212464399

Olver, M. E., Wong, S. P., & Nicholaichuk, T. P. (2009). Outcome evaluation of a high-intensity inpatient sex offender treatment program. *Journal of Interpersonal Violence, 24*(3), 522-536. https://doi.org/10.1177/0886260508317196

Peugh, J., & Belenko, S. (2001). Examining the substance use patterns and treatment needs of incarcerated sex offenders. *Sexual Abuse: A Journal of Research and Treatment, 13*(3), 179-195. https://doi.org/10.1177/107906320101300303

Przbylski, R. (2015). *The effectiveness of treatment for adult sexual offenders.* U.S. Department of Justice Office of Sex Offender Sentencing, Monitoring, apprehending, Registering, and Tracking. https://www.smart.gov/pdfs/TheEffectivenessofTreatmentforAdultSexualOffenders.pdf

Rape, Abuse and Incest National Network. (2016). *Victims of sexual violence statistics.* https://www.rainn.org/statistics/victims-sexual-violence

Roberts, C. F., Doren, D. M., & Thornton, D. (2002). Dimensions associated with assessments of sex offender recidivism risk. *Criminal Justice and Behavior, 29*(5), 569-589. https://doi.org/10.1177/107906320601800203

Scalora, M. J., & Garbin, C. (2003). A multivariate analysis of sex offender recidivism. *International Journal of offender Therapy and Comparative Criminology, 47*(3), 309- 323. https://doi.org/10.1177/0306624X03047003005

Schweitzer, R., & Dwyer, J. (2003). Sex crime recidivism: Evaluation of a sexual offender treatment program. *Journal of Interpersonal Violence, 18*(11), 1292-1310. https://doi.org/10.1177/0886260503256658

Scoones, C. D., Willis, G. M., & Grace, R. C. (2012). Beyond static and dynamic risk factors: The incremental validity of release planning for predicting sex offender

recidivism. *Journal of Interpersonal Violence, 27*(2), 222-238. https://doi.org/10.1177/0886260511416472

Shaw, T. A., Herkov, M. J., & Greer, R. A. (1995). Examination of treatment completion and predicted outcome among incarcerated sex offenders. *Bulletin of the American Academy of Psychiatry & the Law, 23*(1), 35-41. http://jaapl.org/content/jaapl/23/1/35.full.pdf

Shultz, K. S., Hoffman, C. C., & Reiter-Palmon, R. (2001). Using archival data for i-o research: Advantages, pitfall, sources, and examples. *The Industrial Organizational Psychologist*. https://digitalcommons.unomaha.edu/psychfacpub/5?utm_source=digitalcommons.unomaha.edu%2Fpsychfacpub%2F5&utm_medium=PDF&utm_campaign=PDFCoverPages

Smid, W. J., Kamphuis, J. H., Wever, E. C., & Beek, D. V. (2016). A quasi-experimental evaluation of high-intensity impatient sex offender treatment in the Netherlands. *Sexual Abuse: A Journal of Research and Treatment, 28*(5), 469-485. https://doi.org/10.1177/1079063214535817

Song, L., & Lieb, R. (1994). *Adult sex offender recidivism: A review of studies.* Washington State Institute for Public Policy. http://www.wsipp.wa.gov/ReportFile/1161/Wsipp_Adult-Sex-Offender-Recidivism-A-Review-of-Studies_Full-Report.pdf

Strassberg, D., Whittaker, W., & Dillinger, R. (2000). *Predicting residential treatment outcome for sex offenders*. https://doi.org/10.1177/1524838005280857

Stripe, T., Abracen, J., Stermac, L., & Wilson, R. (2006). Sexual offenders' state of mind regarding childhood attachment: A controlled investigation. *Sex Abuse, 18,* 289-302. https://doi.org/10.1177/107906320601800307

Sperber, K. G., & Lowenkamp, C. T. (2017). Dosage is more than just counting program hours: The importance of role-playing in treatment outcomes. *Journal of Offender Rehabilitation*, *56*(7), 433–451. https://doi.org/10.1080/10509674.2017.1359222

State of Wisconsin Court of Appeals District III vs. Donald F. Rick, Appeal No. 2018P41-CR (November 13, 2018).

Tatar, J. R., & Streveler, A. (2015). *Performance measurement series: Sex offender recidivism after release from prison.* State of Wisconsin Department of Corrections Office of the Secretary Research and Policy Unit. https://doc.wi.gov/DataResearch/RecidivismReincarceration/SexualOffenderRecidivismReport.pdf

Taxman, F. S., Perdoni, M. L., & Harrison, L. D. (2007). Drug treatment services for adult offenders: The state of the state. *Journal of Substance Abuse Treatment, 32*(2), 239-254. https://doi.org/10.1016/j.jsat.2006.12.019

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Allyn & Bacon.

Vogt, P. W., Gardner, D. C., & Haeffele, L. M. (2012). *When to sue archival designs: literature reviews and archival data analyses.* Guilford Publications. www.guilford.com/p/vogt

Wilpert, J., Horn, J. E., & Boonmann, C. (2018). Comparing the central eight risk factors: Do they differ across age groups of sex offenders? *International Journal of Offender Therapy and Comparative Criminology, 62*(13), 4278-4294. https://doi.org/10.1177/0306624X18758899

Wisconsin Department of Corrections. (2018). *Opportunities and options resource guide*. https://doc.wi.gov/Documents/AboutDOC/AdultInstitutions/OpportunitiesOptionsResourceGuideEnglish.pdf

Wisconsin Department of Corrections. (2019). *Sex offender registry*. https://appsdoc.wi.gov/public/faq#A20

Wisconsin Department of Health Services. (2019). *Sexual violence prevention needs assessment report.* https://www.dhs.wisconsin.gov/publications/p02445.pdf

Yamamoto, M., & Mori, T. (2016). Assessing the effectiveness of the correctional sex offender treatment program. *Online Journal of Japanese Clinical Psychology, 3*, 1-13. https://www.ajcp.info/en/journal/pdf/03/p001p013.pdf

Appendix A: Data Use Agreement

This Data Use Agreement ("Agreement"), effective as of April 20, 2023 ("Effective Date"), is entered into by and between, Malinda Peterson ("Data Recipient") and ATTIC Correction Services, Inc. (Data Provider").

The purpose of this Agreement is to provide Data Recipient with access to a Limited Data Set ("LDS") for use in research in accord with the HIPAA and FERPA Regulations.

1. Definitions. Unless otherwise specified in this Agreement, all capitalized terms used in this Agreement not otherwise defined have the meaning established for purposes of the "HIPAA Regulations" codified at Title 45 parts 160 through 164 of the United States Code of Federal Regulations, as amended from time to time.

2. Preparation of the LDS. Data Provider shall prepare and furnish to Data Recipient a LDS in accord with any applicable HIPAA or FERPA Regulations

Data Fields in the LDS. **No direct identifiers such as names may be included in the Limited Data Set (LDS).** The researcher will also not name the organization in the doctoral project report that is published in Proquest. In preparing the LDS, Data Provider or designee shall include the **data fields specified as follows**, which are the minimum necessary to accomplish the research:

Demographics: gender, age, ethnicity, education, marital status, income

Participant (High Risk Sex Offender Probationers) Categories: category of sexual offense(s), number of months on supervision at start and end of T4C

Pre and Post-test T4C offender tests/scores

Facilitator monthly progress reports: homework quality, participation, understanding of session concepts

Participant re-arrests reports (new offenses and probation violations after completion of T4C: aid identifying recidivism rate)

Participant homework documentation (if available)

Criminal Sentiment Scales and/or assessments

T4C course evaluations

3. Responsibilities of Data Recipient. Data Recipient agrees to:

a. Use or disclose the LDS only as permitted by this Agreement or as required by law.

b. Use appropriate safeguards to prevent use or disclosure of the LDS other than as permitted by this Agreement or required by law;

c. Report to Data Provider any use or disclosure of the LDS of which it becomes aware that is not permitted by this Agreement or required by law;

d. Require any of its subcontractors or agents that receive or have access to the LDS to agree to the same restrictions and conditions on the use and/or disclosure of the LDS that apply to Data Recipient under this Agreement; and

e. Not use the information in the LDS to identify or contact the individuals who are data subjects.

4. Permitted Uses and Disclosures of the LDS. Data Recipient may use and/or disclose the LDS for its research activities only.

5. Term and Termination.

a. Term. The term of this Agreement shall commence as of the Effective Date and shall continue for so long as Data Recipient retains the LDS, unless sooner terminated as set forth in this Agreement.

b. Termination by Data Recipient. Data Recipient may terminate this agreement at any time by notifying the Data Provider and returning or destroying the LDS.

c. Termination by Data Provider. Data Provider may terminate this agreement at any time by providing thirty (30) days prior written notice to Data Recipient.

d. For Breach. Data Provider shall provide written notice to Data Recipient within ten (10) days of any determination that Data Recipient has breached a material term of this Agreement. Data Provider shall afford Data Recipient an opportunity to cure said alleged material breach upon mutually agreeable terms. Failure to agree on mutually agreeable terms for cure within thirty (30) days shall be grounds for the immediate termination of this Agreement by Data Provider.

e. Effect of Termination. Sections 1, 4, 5, 6(e) and 7 of this Agreement shall survive any termination of this Agreement under subsections c or d.

6. Miscellaneous.

   a. Change in Law. The parties agree to negotiate in good faith to amend this Agreement to comport with changes in federal law that materially alter either or both parties' obligations under this Agreement. Provided however, that if the parties are unable to agree to mutually acceptable amendment(s) by the compliance date of the change in applicable law or regulations, either Party may terminate this Agreement as provided in section 6.

   b. Construction of Terms. The terms of this Agreement shall be construed to give effect to applicable federal interpretative guidance regarding the HIPAA Regulations.

   c. No Third Party Beneficiaries. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns, any rights, remedies, obligations, or liabilities whatsoever.

   d. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

   e. Headings. The headings and other captions in this Agreement are for convenience and reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed in its name and on its behalf.

DATA PROVIDER
Signed: Shawn Yeager
Print Name: Shawn Yeager
Print Title: Vice President of Operations

DATA RECIPIENT
Print Name: Malinda Peterson
Print Title: Walden University Doctoral Student

Appendix B: Confidentiality Agreement

Name of Signer: Malinda R. Peterson

During my activity in collecting data for this proposed study dissertation research, I will have access to information which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement, I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access, and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.