Evaluating the Effects of a Pennsylvania-based Medicaid-funded Mental Health Peer Support Program

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A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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Abstract

Certified peer specialists, or mental health peer support services, have grown as a non-traditional service to provide mental health and recovery support to individuals struggling with a mental health diagnosis. The use of mental health peer support services is an attempt to provide non-clinical mental health recovery support through the lived experience of individuals in recovery. This non-experimental study aimed to evaluate the effects of Medicaid-funded mental health peer support services on mental health recovery outcomes of individuals with serious mental illness or severe emotional disturbances. This study used quantitative analysis of archival data. Four mental health recovery outcome variables were assessed for pretest and posttest change over one year of peer support services. Pretest and posttest recovery outcome scores were collected through the Adult Needs and Strengths Assessment archival data. This assessment measures individual strengths, mental health needs, risk behaviors, and life domain functioning of mental health peer support participants. Repeated measures analysis evaluated the pretest and posttest scores of 188 (n = 188) peer support services and identified significant differences between the means of pretest and posttest scores. These scores represented the variables of individual strengths and risk behaviors, suggesting that peer support effectively improves participants' strengths and risk behaviors. The analysis also identified a decrease in the means of mental health needs and life domain functioning scores, suggesting peer improvement in these domains; however, the decrease was not statistically significant. The findings of this study indicate that receiving mental health peer support services increases an individual's personal strengths and decreases their engagement in risk behaviors.

Keywords: serious mental illness, mental health, recovery, peer support, recovery support, peer workers, peer specialists, certified peer specialist, recovery mentors

Dedication

This work is dedicated to my father, Patrolman Ronald J. Turek, who lost his life in the line of duty responding to a call of a severe mental health crisis. Through his sacrifice to our community and my own journey of grief and loss, I have dedicated my education and career to serving and supporting those who struggle with mental illness. This work is also dedicated to my mother, "bonus" father, and grandparents, who modeled lives of love and forgiveness, illustrating that compassion and empathy are the greatest gifts we can offer.

To my husband and best friend, my life did not begin until you walked into it. Our journey through life together has allowed me to find my value and worth, allowing me to see that I was capable of completing a doctorate and deserved the opportunity to do so. I will never be able to thank you enough for loving me and helping me learn to love myself.

To my two intelligent, caring, beautiful daughters, you two are the reason my heart beats, and my lungs breathe. You have watched me dream of completing this degree, but honestly, you two are my biggest dreams come true. Being your mother will always be my greatest joy and brings me the most pride.

Lastly, to the Certified Peer Specialists that have turned their hurdles to healing and their pain into purpose, I am grateful for your compassion and dedication to serving others. Your strength and guidance offer support to the lonely and hope to the hopeless.

Acknowledgments

I would like to extend my sincerest gratitude to Dr. Jeff Doyle for his time and effort in helping me through this process. It was both a pleasure and an honor to have the opportunity to navigate this journey together and I know you will be successful in helping many others through this process in the future.

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List of Abbreviations

Certified Peer Specialists (CPS)

Adult Needs and Strengths Assessment (ANSA)

Managed Care Organization (MCO)

Office of Mental Health and Substance Abuse Services (OMHSAS)

Pennsylvania Certification Board (PCB)

Serious Mental Illness (SMI)

Substance Abuse and Mental Health Service Administration (SAMHSA)

Chapter One: Introduction

Overview

The purpose of this study was to evaluate the effects of Medicaid-funded mental health peer support services through the analysis of recovery outcome measures. Mental health peer support services implement mentorship and support through certified peer specialists trained to use their own experience of mental illness and recovery to guide others through the recovery journey. While mental health peer support services are often recognized as an evidence-informed strategy for improving overall wellness and mental health recovery, there is limited research on the effects of mental health peer support on individual recovery outcomes. This chapter highlights the identified need for a quantitative research study evaluating the effects of Medicaid-funded mental health peer support services. Subsequent chapters provide a review of literature that describes the roots of mental health peer support while also illustrating the need for further quantitative outcomes research. The researcher also describes the research method utilized for this quantitative study, findings, and final discussion.

Background

Throughout the past two decades, mental health peer support services have expanded in use as a unique, individualized, and recovery-driven approach to managing symptoms and barriers associated with serious mental illness [SMI] (Cronise et al., 2016; Fortuna et al., 2020; Mutschler et al., 2021; Storm et al., 2020; White et al., 2020). Recovery from SMI was once thought to be an unrealistic goal; however, through research and practice using a recovery model of mental illness, individuals struggling with SMI have additional options for support and guidance that can complement traditional medical-model treatment approaches (Dobbins et al., 2020; Ewens et al., 2021; Jacob, 2015; Lamb & Weinberger, 2017; Myers et al., 2016). Utilizing

the benefits of mutual understanding, non-judgmental support, and experiential knowledge gained through one's recovery journey, the recovery model has encouraged mental health treatment organizations to employ the use of mental health peer specialists as recovery coaches and mentors supporting individuals with SMI (Dell et al., 2021; SAMHSA, 2020; White et al., 2018). Since 2003, these mental health peer support services have been viewed as a cost-effective mechanism of offering non-clinical support that improves the quality of life for individuals with SMI while also decreasing the use of psychiatric hospitalization and crisis services (Murphy & Higgins, 2018).

Problem Statement

Although growing in its use as a Medicaid-funded recovery service across the United States, there are some challenges. These challenges include research limitations partnered with peer specialist role confusion, peer support service ambiguity, and variations in mental health peer support rules and regulations. These barriers have made it difficult for researchers to get an accurate and consistent picture of the effects of mental health peer support services on mental health recovery outcomes (Charles et al., 2021; Cheesmond et al., 2020; Cronise et al., 2016; Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020).

Mental health peer support research conducted within the past three years is limited. In a systematic review of peer support literature completed by White et al. (2020), the authors stated:

> Most studies of peer workers in paraclinical roles, including case management, and healthcare assistant roles, are now well over 10 years old, as are the majority of studies that compare peer workers to other mental health workers performing a similar role. (p. 15)

The identified studies conducted within the past three years express the same concerns regarding available mental health peer support research. Most available research is of qualitative design and focuses on the implementation and attitudes of mental health peer support services without quantitative data validating the proof of mental health peer support effectiveness (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). A lack of measurable quantitative outcomes on the effectiveness of mental health peer support impacts the credibility of the service and its future implementation and use (Mutschler et al., 2021). Quantitative outcome research aims to identify measurable changes in recovery outcomes. These changes are needed to improve the value and credibility of mental health peer support services, improve the implementation of mental health peer support services, and improve the service delivery of mental health peer support services (Charles et al., 2021; Cheesmond et al., 2020; Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020).

Previous studies also suggest that a lack of industry standardization in the roles and activities of mental health peer support services has led to inconsistent research results across mental health peer support services. This can also limit the availability of outcome research that can be generalized to other mental health peer support programs (Cabral et al., 2014; Walsh et al., 2018; Shalaby & Agyapong, 2020; White et al., 2020; Mutchler et al., 2021). More specifically, White et al. (2020) stated:

> If and where peer support is having a beneficial effect, there will be a greater likelihood of observing this in a more carefully designed trial. Furthermore, as the evidence base for peer support grows, it would be methodologically desirable to conduct more focused

> reviews of groups of similar interventions (rather than continuing to review a heterogeneous group of interventions as a whole). (p. 18)

A 2020 audit of mental health peer support services across the United States also confirmed the identified lack of industry standardization. The audit highlighted that each state has its own mental health peer support program descriptions, training curriculum, staff certification process, and mental health peer support service-delivery requirements (Copeland Center for Wellness, 2020b).

Multiple studies conducted by various authors in the past all suggest that quantitative mental health peer support outcome research is needed to evaluate the effectiveness of mental health peer support services through measurable change (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020). It is also suggested that researchers should attempt to describe specific peer support roles and program descriptions associated with their sample population to eliminate the ambiguity found in other studies (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020).

Purpose Statement

The purpose of this study was to evaluate the outcome data of a Medicaid-funded peer support program to investigate if there is a measurable change in recovery outcomes over one year of receiving peer support services. This study also included clarification and description of the specific mental health peer provider being evaluated, including the specific type of peer support, the service description of the participating program, and the insurance requirements and anticipated service goals of the mental health peer support program.

This study assessed 48 outcomes of 188 individuals (n = 188) receiving Medicaid-funded mental health peer support services in Pennsylvania. The researcher separated the 48 available outcomes into four recovery-focused categories on the staff-administered Adult Needs and Strengths assessment tool. The four categories were based on The Praed Foundation (2020):

1. Individual Strengths: What strengths does an individual have that can be used to advance healthy development?
2. Mental Health Needs: What behavioral health needs does the individual have?
3. Risk Behaviors: What factors exist in the individual's life that can increase the likelihood of developing mental health and other difficulties? What current behaviors place the individual at risk?
4. Life Domain Functioning: How is the individual functioning in the different social interactions individually, with family, peers, school, and community?

More specifically, this study utilized quantitative archival data from over 495 Medicaid-funded mental health peer support clients collected from a Pennsylvania-based peer support provider over two years. The researcher utilized the Adult Needs and Strength Assessment (ANSA). The ANSA was administered by trained staff certified to conduct the assessment and included client-reported measures of rankings based on observable behaviors and experiences. The researcher completed an analysis of archival data on pretest and posttest measures assessed by the ANSA assessment tool. It was administered by trained and certified staff at the onset of mental health peer support services and again at 12 months.

Significance of the Study

Since 2007, the use of mental health peer support services has continued to grow throughout the United States. It is encouraged by the United States Department of Health's

Centers for Medicaid and Medicare Services as an evidence-based approach to improving mental health recovery (Dobbins et al., 2020; Ewens et al., 2021; Jacob, 2015; Lamb & Weinberger, 2017; Landers & Zhou, 2014; Myers et al., 2016). However, inconsistent findings and limited numbers of quantitative research studies have made it difficult to generalize available findings to measure the effects of mental health peer support.

This study provides current quantitative outcomes measuring the effectiveness of mental health peer support services that are lacking in existing research. Through the use of archival data collected in a consistent and standardized manner, this analysis of measurable outcomes can help inform the future development and use of mental health peer support services in Pennsylvania. Outcomes provided through a standardized assessment and collection process can help develop quantifiable practice techniques for other peer support providers, policymakers, and managed care organizations.

This study also describes the state-specific restrictions and guidelines that Medicaid-funded peer support providers must implement in Pennsylvania, eliminating role and service ambiguity noted in other studies (Asad & Chreim, 2016; Cronise et al., 2016; Daniels et al., 2013; Shalaby & Agyapong, 2020; Storm et al., 2020; Walsh et al., 2018; White et al., 2020). This study further clarifies the goals and role definition of the specific peer support services evaluated by providing detailed information about the internal guidelines, training requirements, service delivery, and service description of the Pennsylvania-based peer support provider.

Overall, this study can increase the professionalism and fidelity of mental health peer support policy and practice. This study can also illustrate the measurable change in recovery outcomes collected by one organization implementing standardized practices and data collection techniques. Lastly, it can help inform and develop organizational, local, and state service

provisions such as service-delivery guidelines and funding opportunities. This study provided quantifiable guidance for improving the capabilities of peer support providers through evidence-informed training and intervention development, improving the overall wellness and life satisfaction of the individuals served and supported.

Research Question

RQ1: Does participation in Medicaid-funded mental health peer support services increase the individual strengths of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

RQ2: Does participation in Medicaid-funded mental health peer support services decrease the mental health needs of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment (ANSA)?

RQ3: Does participation in Medicaid-funded mental health peer support services decrease the risk behaviors of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

RQ4: Does participation in Medicaid-funded mental health peer support services increase the life domain functioning of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

Definitions

1. *Peer support services* – Recovery-oriented mental health support services provided by individuals with lived experience of mental health recovery. These individuals use their own experience of recovery to guide and mentor the journey of mental health recovery for other help-seekers through a non-clinical approach (Oborn et al., 2019; White et al.,

2020). For this study, peer support services refer to Medicaid-funded mental health peer support services, which are billed and regulated by Medicaid.

2. *Certified Peer Specialist* – Individuals who have experienced mental health struggles and recovery attend state-approved training and complete state-approved certification to support and assist others (Loumpa, 2012; Pennsylvania Department of Human Services, 2016).
3. *Recovery* – A self-directed journey to improve health and wellness through active participation in mental health treatment even if or when symptoms persist. (Dell et al., 2021; Myers et al., 2016; SAMHSA, 2020).
4. *The Recovery Model* – A mental health treatment or support model that recognizes recovery as a holistic and individualized experience rather than a medically driven healing outcome (Field & Reed, 2016).
5. *Archival data analysis* – A non-experimental research study design that utilizes historical data to measure relationships between an independent and dependent variable (Rosenstein, 2019).

Summary

This study evaluated the effects of Medicaid-funded mental health peer support services through archival data analysis. This study adds to existing research by providing quantitative data on the effectiveness of mental health peer support services, a gap that has been identified in multiple studies (Asad & Chreim, 2016; Fortuna et al., 2020; Gillard et al., 2021; Lloyd-Evans et al., 2014; Mutschler et al., 2021; Storm et al., 2020; White et al., 2020). In addition, this body of research provided valuable information that directs the future planning, implementation, and delivery of mental health peer support services in Pennsylvania. More specifically, this study can

help guide training needs, standards, and program activity guidelines for Pennsylvania-based mental health peer support providers. Completing a detailed outcome evaluation with descriptive information about the specific support provided addresses the recurring concerns identified in the available literature while informing the development and delivery of mental health peer support services in hopes of improving the overall wellness and recovery of mental health peer support service recipients.

Chapter Two: Literature Review

Overview

Since 2007, mainstream mental health services have expanded in their use of mental health peer support services for recovery-oriented care (Centers for Medicare and Medicaid Services, 2007). The use of individuals with lived experience of mental health struggles and mental health recovery has grown as a cost-effective attempt to improve wellness, promote empowerment, and inspire hope to individuals struggling with SMI (Marshall et al., 2008; Slade et al., 2014).

Unlike traditional mental health services, mental health peer support workers receive training and education on offering support rather than treatment through mutual respect, positive regard, and mentorship (Ahmed et al., 2012). However, limited research exists on the impact and effectiveness of utilizing peer support workers to improve mental health recovery outcomes (Cruwys et al., 2020). Greater limitations in understanding the effectiveness of mental health peer support services exist due to the specific lack of research analyzing the measurable change in recovery outcomes for individuals receiving mental health peer support services (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020). This literature review described the foundation of mental health peer support while also illustrating the need for further quantitative outcomes research evaluating the effects of mental health peer support.

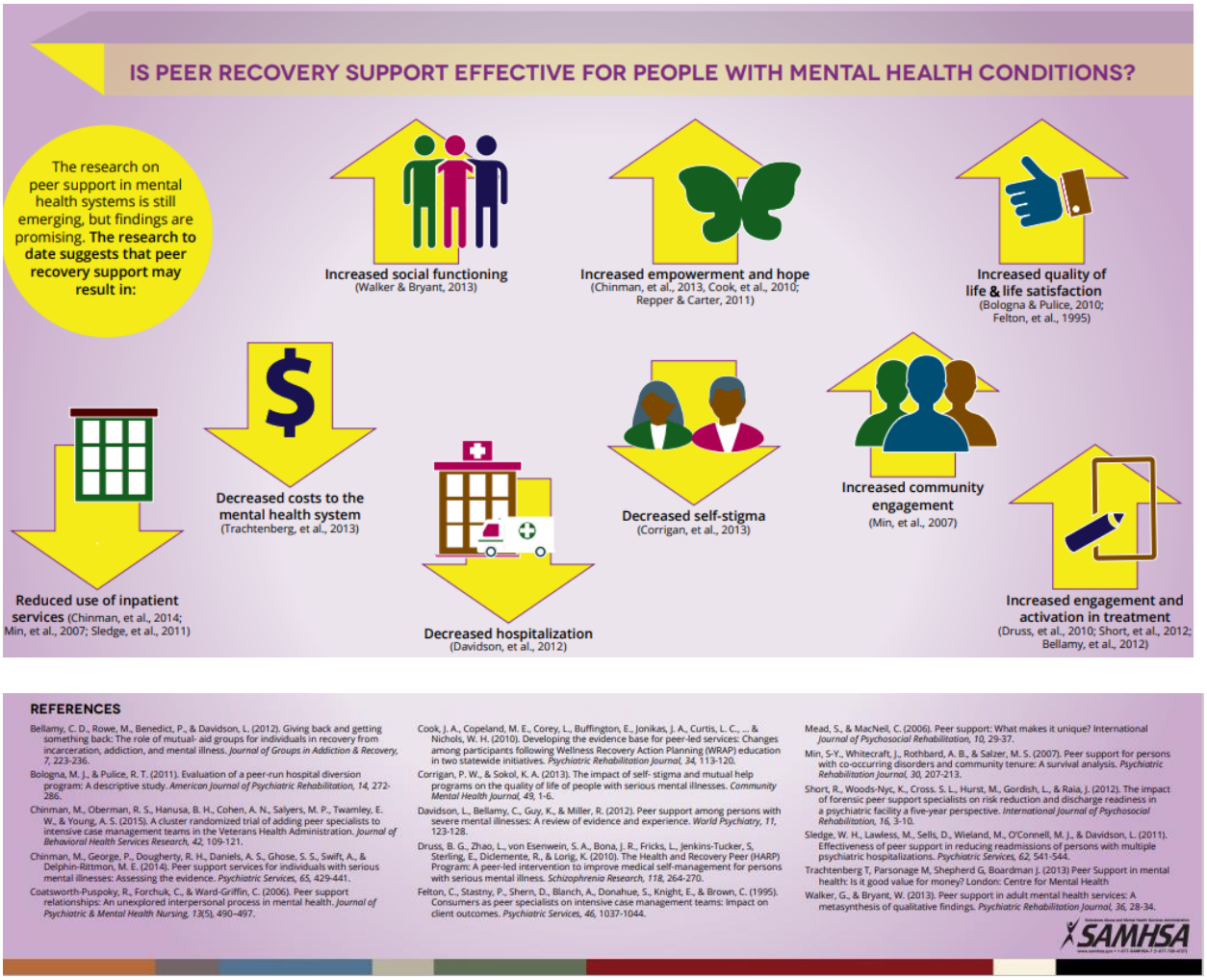
Mental Health Peer Support Services

Mental health peer support services were recognized by the Centers for Medicare and Medicaid Services (CMS) in 2007 as an evidence-based practice for mental health support (see Figure 1). These services are still lesser-known recovery-oriented support for mental health

practitioners and the general community. These services focus on mentoring the journey of recovery from a lived experience perspective (Pennsylvania Department of Human Services, 2016; White et al., 2020).

Figure 1

Peer Recovery Support for People with Mental Health Condition



Note: Peers Supporting Recovery from Mental Health Conditions Infographic. from by The Substance Abuse and Mental Health Services Administration (SAMHSA), 2017, https://www.samhsa.gov/sites/default/files/programs_campaigns/brss_tacs/peers-supporting-recovery-mental-health-conditions-2017.pdf

Through mentoring and additional service coordination, peer support services aim to "inspire hope and promote empowerment, self-determination, understanding, coping skills, and resiliency" (Pennsylvania Department of Human Services, 2016, p. 2). Mental health peer support workers are role models attempting to prove to those struggling with mental illness symptoms that recovery is not only possible, but with support and treatment, it is probable (Kukla et al., 2021).

Mental health peer support services are designed to be a non-clinical approach to mental health support utilizing knowledge from the lived experience of mental illness and recovery (Community Care Behavioral Health Organization, n.d.; Oborn et al., 2019).

Historically, knowledge of mental health treatment has been reflected by formal education and advanced degrees in psychology and counseling (Oborn et al., 2019). However, rather than treating mental health symptoms through clinical and educational knowledge, mental health peer support specialists provide support and guidance using subjective knowledge and experiential knowledge they have gained through their journey of mental health recovery. Peer specialists model recovery and wellness strategies while mentoring clients through their individualized recovery journey (Oborn et al., 2019).

Clients emphasize the comfort and understanding of having the shared experience with mental health peer workers as a primary benefit of receiving mental health peer services compared to traditional mental health services (Muralidharan et al., 2017). This mutual support concept emphasizes the importance of the acceptance, understanding, and empathy of connecting to a support service with the lived experience of a mental health struggle (Davidson et al., 2006). A qualitative study conducted by Castellano (2012) identified this mentor relationship and

mutual partnership as the most important and essential elements of mental health peer support services.

Mental health peer support services often provide guidance and assistance in community integration through community-based support strategies rather than office or facility-based. These community-based strategies offer opportunities for individuals to receive support in their natural environment while developing strategies for functioning independently (Jun & Choi, 2020). Peer support workers and the client receiving services often share similar life experiences (such as having a mental illness diagnosis), engage in reciprocal support (advice, empathy, and validation), and work together to encourage a sense of belonging and community (Murphy & Higgins, 2018).

Mental health peer support services are often provided in one of two ways: in-line with the grassroots movement of recovery in voluntary peer-led support group organizations or as a Medicaid-funded support service. The term intentional peer support is often used in literature when discussing the shift from informal peer support to formalized paid peer support services (Shalaby & Agyapong, 2020).

Georgia is documented as the first U.S. state to include mental health peer support as a Medicaid billable behavioral health service in 1999 (Chapman et al., 2018). Georgia's state Medicaid office collaborated with the state's Mental Health Authority to design a Medicaid-funded mental health peer support services plan. This began by implementing mental health peer support services as a Medicaid-funded recovery and rehabilitation practice (Georgia Department of Behavioral Health and Developmental Disabilities, n.d.). Since 1999, Georgia has trained and certified over 3000 Certified Peer Specialists. It provides over $20 million in Medicaid-funded mental health peer support services annually (Georgia Department of Behavioral Health and

Developmental Disabilities, n.d.). Since Georgia implemented mental health peer support services in 1999, almost all 50 states have incorporated a form of mental health peer support services. The nation recognizes the cost-savings and unique benefits of mental health peer support over traditional care (Burke et al., 2018; Stratford et al., 2019).

A common concern found in current literature is that there is a lack of nationwide-industry standardization detailing the title, role, expectations, and job tasks of mental health peer support workers (Asad & Chreim, 2016; Cronise et al., 2016). Policy, procedure, and service expectations of mental health peer support services differ throughout the country and worldwide, creating difficulty in defining the roles and expectations of mental health peer support work (Cronise et al., 2016). These inconsistencies make it difficult to generalize the findings of the limited research studies currently available; additional research is needed to understand the specific mechanisms of peer support that correlate with identified outcomes changes and effects of peer support (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020). Although it is noted that the foundational principles and interpretations of mental health peer support vary across countries, states, and individual providers, there are shared themes found in current peer support literature (Murphy & Higgins, 2018).

Certified Peer Specialists

The Substance Abuse and Mental Health Administration (SAMHSA) supports and encourages the use of individuals with lived experience of mental health recovery as a non-traditional recovery-oriented service for mental health support (SAMHSA, 2021). These individuals are frequently labeled peer support workers or certified peer specialists; they are the direct-care staff providing mental health peer support services in various settings. These certified

peer specialists or mental health peer support workers have lived their struggle with mental illness and use their own lived experiences to offer support, encouragement, and hope to others in situations like their own (Asad & Chreim, 2016; SAMHSA, 2020; Shalaby & Agyapong, 2020; Walker & Bryant, 2013). They are individuals who have experienced the struggles of a mental health diagnosis and have shifted from the role of "patient" to the role of "mentor" (Loumpa, 2012).

The United States Substance Abuse and Mental Health Service Administration (2021) defined peer support workers as "people who have been successful in the recovery process who help others experiencing similar situations" (para. 1). For this study, Pennsylvania's definition of certified peer specialist is defined as "a self-identified individual who currently or previously received behavioral health services, who is trained and certified to offer support and assistance in helping others in their recovery and community-integration process" (Pennsylvania Department of Human Services, 2016, p. 2). In general, certified peer specialists provide hope and a wide range of services, including but not limited to crisis support, advocacy, community development, relationship building, skill building, goal setting, and more (SAMHSA, 2015).

To provide peer support services, certified peer specialists must receive training that focuses on mental health recovery, specifically training geared towards using one's own story of mental health recovery to guide. Furthermore, support others through practical help and hope (Charles et al., 2021; Collins et al., 2016; Copeland Center for Wellness, Inc., 2020b). It is suggested that additional training on maintaining ethical boundaries while engaging in personal disclosure is imperative to the success of the peer support relationship (Charles et al., 2021; Copeland Center for Wellness, 2020b; Davidson et al., 2006; Pennsylvania Certification Board, 2018). Although training guidelines exist for peer specialists, training requirements and curricula

vary across states and among specialists, leaving inconsistencies in the formal training and certification process of certified peer specialists (Asad & Chreim, 2016; Copeland Center for Wellness, Inc., 2020b).

Table 1

Peer Support Training Hour Requirements for Medicaid-funded Peer Support Providers

Peer Support Training Hour Requirements for Medicaid-funded Peer Support Providers (As compiled by the Copeland Center for Wellness, Inc., 2020b)	
Training hours required to provide peer support services	**State(s)**
No state-endorsed training available as of 2020	Alaska, California, New Hampshire, South Dakota, Vermont
Various trainings approved with various hours	Arizona, Hawaii, Kansas, New York, Ohio
45-minute webinar	West Virginia
24 hours (Specific Curriculum: The Appalachian Model of Peer Specialist Training)	Arkansas
30-39 hours (state-specific approved trainings)	Kentucky (30 hours OR a training waiver) Mississippi (30 hours) Missouri (30 hours) Wyoming (36 hours)
40-49 hours (state-specific approved trainings)	Alabama (40 hours), Florida (40 hours), Idaho (40 hours), Indiana (40 hours), Iowa (40), Montana (40), New Mexico (40), North Dakota (40 hours), Oklahoma (40 hours), Tennessee (40 hours), Texas (40 hours), Utah (40 hours), Washington (40 hours), Delaware (46-50 hours), Maryland (46 hours), Nevada (46 hours), Rhode Islands (46 hours), Wisconsin (48 hours)
50-59 hours (state-specific approved trainings)	Massachusetts (50 hours), South Carolina (52 hours), Michigan (56 hours),
60 hours (state-specific approved trainings)	Colorado, Nebraska, North Carolina (40 hours of peer support training + 20 additional mental health related trainings),
70-79 hours (state-approved training)	Georgia (72 hours), Virginia (72 hours), Pennsylvania (75 hours), Louisiana (76 hours)
80 hours (state-approved training)	Connecticut (80 hours), Minnesota (80 hours), Oregon (80 hours)

90 hours (state-approved training)	District of Columbia (90 hours + field practicum)
100 hours (No specific curriculum required)	Illinois
100 + hours (state-approved training)	Maine (80 hours + homework +72 hours field practicum) New Jersey (126 hours)

A lack of industry standardization in training protocol of peer specialists adds to the concern that available peer support research may not be generalizable. To further illustrate the concern that variations in training protocol have also led to inconsistent peer support outcomes and inconsistent peer support research findings, it is important to highlight the multiple variations in peer support training across the United States. Peer specialist training and certification procedures are determined at the state level and vary in curricula, competencies, and testing requirements (Daniels et al, 2013; Copeland Center for Wellness, Inc., 2020b). Most states (as illustrated above) identify a required number of training hours acquired through state-approved trainings. However, these trainings are often developed by various vendors who develop the content at their own discretion and interpretation based off state-developed topic guidelines. A 2020 audit of training requirements conducted by the Copeland Center for Wellness Inc, identified that only four states (Arkansas, New Jersey, New York, and Virginia) require a specific training curriculum that is used unanimously throughout each specific state.

A qualitative study on the peer workforce in the United States found that in 2016 prerequisite training programs used to certify peer specialist workers ranged from a 45-minute webinar in West Virginia to 126 required hours of training in New Jersey (Cronise et al, 2016; The Copeland Center for Wellness, Inc., 2020b). In addition, Cronise et al.'s (2016) study identified inconsistencies in training topics throughout the United States. This study identified 86 different training topics which ranged from relationship skill building, direct support work

skill building, peer counseling, peer advocacy, dealing with difficult situations, cultural competency, person-centered planning, government policy, recovery concepts, self-care, and traditional mental health and rehabilitation services. The authors categorized the 86 training topics into eight themes: Peer relationship, direct peer support, policy/legislation, recovery concepts, traditional mental health services, administrative/supervision, alternative healing and wellness, and pre-crisis/crisis support. However, as noted, their qualitative evaluation of the peer workforce was unable to identify standardization across peer support training platforms or providers (Cronise et al, 2016). Crane et al (2016) also suggest that training inconsistencies have led to role ambiguity between peer support workers and other supportive roles such as case management services. These inconsistencies are reiterated in current studies conducted by White et al (2020), Storm et al, (2020), Shalaby & Agyapong (2020), and Mutschler et al, 2021). In addition, peer-support role confusion and lack of formalized job descriptions for peer workers often leads to misuse of peer services, peer worker burn-out, and a lack of service benefit to clients (Ryan et al, 2019). Ryan et al (2019) report that inconsistencies in peer worker training and job duties impacts the generalizability of available research findings and suggests that future research on the effects of peer support should consider and describe the training quality of the peer workers involved and the specific role/support they provide to clients.

Mental Health Peer Support as an Alternative Treatment for Serious Mental Illness

Serious mental illness (SMI) is a term often used to identify individuals diagnosed with a mental health condition that are also experiencing high levels of impairment and disability due to their mental health symptoms (National Institute of Mental Health, 2021). A diagnosis of SMI is often accompanied by disruptions in an individual's thoughts, feelings, and behaviors that often create barriers to the overall quality of life (Ewens et al., 2021; Hawthorne & Williams-

Wengerd, 2019; Lamb & Weinberger, 2017; Lester & Tritter, 2005). SMI is a recurring theme in mental health peer support literature as individuals with SMI are often the target population of mental health peer support services.

Mental health peer support services are a non-clinical approach to supporting the functional impairments experienced by individuals with SMI. The National Institute of Mental Health (2021) suggests that SMI encompasses a specific group of mental health or behavioral diagnoses that cause serious functional impairment in one or more of life's major activities. Diagnoses often viewed as causing SMI includes major depressive disorder, bipolar disorder, schizophrenia, schizoaffective disorder, and various personality disorders (Murdoch et al., 2017). SMI often impacts life domains, including occupational, educational, social, and activities of daily living (Murdoch et al., 2017).

Previous research suggests that living with SMI causes impairment in these domains that are hard to ignore and is often frightening for both the individual experiencing them and their natural supporters (Lester & Tritter, 2005; Murdoch et al., 2017). Authors Lester and Tritter (2005) reported that individuals living with SMI also believe that their illness negatively impacts their identity and personal relationships. In addition, individuals reported experiencing low confidence, low self-esteem, poor self-image, and higher levels of fear and discomfort in social and community settings (Lester & Tritter, 2005; Myers et al., 2016). Similarly, overall poorer health outcomes (psychiatric, emotional, and physical disability), higher unemployment rates, and impaired social skills with limited social contact are all associated with a diagnosis of SMI (Dobbins et al., 2020; Frost et al., 2017).

Available research recognizes that many individuals with SMI experience barriers to receiving formal mental health treatment to address the concerns noted. These barriers include

fear associated with stigma, confidentiality concerns, distrust of health services, and discomfort in sharing their symptoms, thoughts, and struggles with others (Cheesmond et al., 2020). The use of mental health peer support services attempts to address these barriers through support provided by individuals with shared experiences of mental health struggles and services (SAMHSA, 2015). Additional barriers also exist concerning the functional impairment often experienced by individuals struggling with a SMI.

Functional impairments may impact an individual's executive functioning skills and transportation accessibility, making it difficult to manage and attend scheduled appointments. Mental health peer support workers often assist individuals in learning to manage schedules, connecting to transportation, and building comfort using other mental health and social services (Crane et al., 2016). The service path typically focuses on symptom remission when individuals can receive, attend, and engage in treatment. However, many patients with SMI have reported that they desire connection and accessibility to social resources over clinical mental health goals related to symptom change or remission (Hawthorne & Williams-Wengerd, 2019). The recovery movement has driven a shift in treatment towards community integration and, more recently, has focused on implementing adult living skills (Dobbins et al., 2020). This shift in service delivery has fueled the interest in utilizing mental health peer support services to guide and mentor the recovery journey for individuals struggling with a SMI diagnosis.

Although still relatively new to the mental health treatment and support field, peer support services continue to gain interest and growth in serving individuals struggling with severe mental health symptoms. The lived experience of peer workers is thought to build a level of trust and acceptance that may not be obtained in the traditional treatment relationship (Oborn et al., 2019). Peer workers bring a level of understanding, empathy, and genuineness that many

consumers report as welcoming and safe (Myrick & del Vecchio 2016). In addition, peer workers are often permitted to provide greater hours of support than traditional mental health services. They often work with clients in home and community environments, supporting them in their own reality.

Compared to limited treatment hours available through traditional outpatient services of psychiatry and therapy, mental health peer support services are often available during non-traditional times in non-traditional settings such as meeting in an individual's home or community. In the state of Pennsylvania, certified peer specialists provide services billable through Medicaid, which permits individuals to work up to 17 hours each week based on the client's needs (Pennsylvania Department of Human Services, 2019). Certified peer specialists meet their clients, also called "peers," in an environment comfortable to them, often within their home or community, including parks, libraries, community centers, and cafes. Pennsylvania Medicaid-funded mental health peer support regulations allow the certified peer specialist and peer to work on recovery-oriented goals, including developing wellness plans and practicing them in their natural environment (Pennsylvania Department of Human Services, 2019). This can include brainstorming wellness tools that the certified peer specialist has used to maintain their wellness, modeling wellness tools, practicing wellness tools in different environments, and creating accountability schedules for using wellness tools. Peer specialists are also approved to support peers in building positive personal and social relationships through connecting them to available resources and practicing social situations as they naturally occur (Pennsylvania Department of Human Services, 2019). This can include a certified peer specialist supporting a peer at a community event where the certified peer specialist models communication skills and encourages positive interactions with others. Pennsylvania Medicaid-funded mental health peer

support services also authorize certified peer specialists to support peers in developing self-help and problem-solving skills (Pennsylvania Department of Human Services, 2019).

Certified peer specialists use their experience of overcoming barriers to brainstorm difficulties the peer may be experiencing and challenges they would like to overcome. Together the certified peer specialist and peer work to overcome these challenges through modeling, practice, and encouragement in the peer's natural environment. Individuals provide these non-clinical and non-traditional support approaches with lived experience of mental health recovery as an intentional strategy to support individuals with SMI. These approaches assist in overcoming common barriers reported in existing qualitative research studies (Hawthorne & Williams-Wengerd, 2019; Kukla et al., 2021; Myers et al., 2016). Mental health peer support services are being utilized to support individuals with SMI as they work to overcome functional impairments, manage psychological distress, develop social connections, and build hope in their natural environment as their struggles naturally occur (Ewens et al., 2021; Kukla et al, 2021). However, future research on the effects of peer support is needed to identify if these support strategies are impacting the overall wellness and recovery of individuals with SMI (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020). This study can add to the existing research through an outcome analysis to identify if there are measurable changes in recovery outcomes of individuals with SMI engaged in mental health peer support services.

Theoretical Framework

Mental health treatment has historically experienced fluctuations in models and theories of best-practice techniques for treating and supporting individuals struggling with mental health diagnoses (Adame & Leitner, 2008). However, since 2002 in the United States, a recovery-

oriented model of mental health care has been a common approach used within mental health systems of care throughout the country (Field & Reed, 2016; Lloyd-Evans et al., 2014; Myrick & del Vecchio, 2016). This recovery model is the foundation of mental health peer support services.

The Recovery Model

Mental health peer support services are the product of a recovery model of mental illness, a model often viewed as the pioneer model for recognizing mental health recovery as a holistic and individualized experience rather than a medically driven healing outcome (Field & Reed, 2016). The recovery model was developed to encourage collaboration between medical treatment and recovery-oriented support practices while also addressing concerns of stigma, discrimination, and institutionalization experienced by consumers of mental health services (Chapman et al., 2018; Mulvale et al., 2019). In addition, this model emphasizes the importance of supporting individuals with non-medical factors of psychological distress; factors such as oppression, family dysfunction, interpersonal struggles, chronic stress, social difficulties, spiritual wellness, and environmental wellness often provided by mental health peer specialists (Adame & Leitner, 2008; Jacob, 2015; SAMHSA, 2020).

The concept of recovery continues to evolve, striving to empower individuals towards a positive journey of psychological well-being rather than the past concept of recovery as an experience plagued by brokenness, helplessness, and despair (Dell et al., 2021). Within this strengths-based recovery model are identified principles to recovery to enable mental health care-seekers to direct their care. This model assists with identifying strengths, formulating treatment goals, and actively participating in all aspects of their mental health treatment while also experiencing physical and emotional health (Dell et al., 2021; Myers et al., 2016). These principles help guide the delivery of mental health peer support services and shape certified peer

specialist trainings (SAMHSA, 2020). Paramount to the recovery model and mental health peer support services are the values and beliefs that recovery from mental illness does not simply mean a complete remission of symptoms but rather that recovery is an improvement in well-being and role-functioning. This is achieved through self-determination and independence, even in the presence of mental health symptoms (Frost et al, 2017; Jacob, 2015; Loumpa, 2012; SAMHSA, 2020). Current models of mental health recovery and mental health peer support services focus on goal-directed behavior aimed at helping individuals identify meaningful life directions, meaningful purpose, and connections (Crowe & Deane, 2018; Myers et al., 2016). Recovery-oriented services such as mental health peer support focus on social determinants of health, developing independence, taking personal responsibility, gaining a sense of belonging with others, and learning positive coping skills to manage psychiatric symptoms and not just eliminate them (Dell et al., 2021). These models of recovery have theoretical underpinnings related to social learning theory, experiential knowledge, social comparison theory, and social support (Proudfoot et al., 2012; Watson, 2019).

Social Learning Theory

The first theoretical underpinning, social learning theory, focuses on how psychosocial influences affect behavior, a concept mirrored in the mentorship aspect of mental health peer support services (Proudfoot et al., 2012). Mental health peer support services are often built upon social learning concepts, recognizing that multiple factors can impact an individual's overall success in changing behaviors and working towards recovery. More specifically, social learning concepts often found in developing and delivering mental health peer support services include awareness of the environmental impact, situational impact, observational learning, reinforcement, relationships, and self-efficacy (Klein et al., 1994; SAMHSA, 2020).

Experiential Knowledge

According to Proudfoot et al. (2012), experiential knowledge is the second theoretical peer support mechanism. Experiential knowledge is the concept that knowledge can be gained through personal experience, not just clinical or educational study. Knowledge and wisdom are derived through the participation of an experience and the competence built from handling the experience (Borkman, 1976). Recovery support services, specifically mental health peer support services, utilize individuals with experiential knowledge of mental health recovery to help others. This experiential knowledge helps to develop trusting relationships built on shared experience and understanding and provides support through mental, social, and practical care (Castro et al., 2019; Klee et al., 2019).

Social Comparison Theory

Social comparison theory is the third theoretical mechanism underpinning recovery-oriented services and peer support. Social comparison theory suggests that individuals often compare themselves to others to determine their attitudes and beliefs about their worth, opinions, and performance (Mares, 2008). Past research suggests that social comparison can improve psychological outcomes as long as the comparison is an upward comparison, which is what peer support services are designed to do (Legg et al., 2011). In mental health peer support, peer support specialists have overcome the struggles of mental health symptoms and have learned to live well with them. Help-seekers can compare their own trials and tribulations to their peer mentor with the hope that they will one day be able to work towards and manage their own recovery.

Social Support Theory

The fourth and final mechanism suggested to influence recovery-oriented peer support services is that of social support theory (Addo et al., 2022; Winsper et al., 2020). The theoretical and operational definitions of the concept of social support are often disagreed upon (Hupcey, 1998). The concept of social support was once thought to encompass a concrete interaction, person, or relationship (Hupcey, 1998). However, social support has become a more abstract concept that includes various aspects of the concrete concepts of an interaction, a person, or a relationship. More specifically, social support has been thought to encompass the perceptions, quality of support, number of interactions, and even personal characteristics of those engaged in interaction (Addo et al., 2021; Hupcey, 1998; Winsper et al., 2020). Social support is thought to influence recovery through alleviating stress while increasing acceptance and connection (Addo et al., 2022). Peer support clients have regularly been identified as having limited to no natural support and report a desire and need for individuals they can rely on (Addo et al., 2022; Castro et al., 2019). Peer support services have been built on the concept that social connection and social support can improve health outcomes and overall recovery goals. This particular service is growing as a community service that helps build social connectedness among clients (Osborn & Stein, 2017).

Lastly, recovery-oriented models of mental health treatment and support recognize that there are principles to recovery and dimensions of wellness that an individual can look to when working towards living a life of wellness when living with a mental health disorder (American Psychological Association, 2012; Davidson et al., 2021). The SAMHSA presented these 10 recovery principles at the National Consensus Conference on Mental Health Recovery and Mental Health Systems Transformation in 2004 and continues to encourage their use nationally

(American Psychological Association, 2012; Davidson et al, 2021; Glynn & Janson, 2022). It is important to recognize that although both the American Psychological Association and SAMHSA have identified and defined these recovery principles as the foundation of mental health peer support services, many practitioners struggle to initiate and practice recovery-oriented treatment strategies. They struggle even when employed by practices involved in recovery-oriented systems of care (Egeland et al., 2021). This inconsistency in implementing the recovery principles into peer support training and practice impacts the overall effectiveness of mental health peer support services and makes it difficult to generalize previous research findings (Charles et al., 2021; Cheesmond et al., 2020; Cronise et al., 2016; Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020).

Related Literature

In preparation for this study, this researcher evaluated 150 peer-reviewed journal articles to gain an understanding of available research on mental health peer support. This review concluded that current mental health peer support research conducted within the past three years is limited, consistent with the literature review conducted by Mutschler et al. (2021). This conclusion was also confirmed by a systematic review of peer support literature where authors White et al. (2020) searched MEDLINE, PsychINFO, Embase, CINAHL, and Cochrane databases for peer support articles published from the inception of each database through June 2019. The authors identified that most of the available research was conducted before 2010 (White et al., 2020). The studies conducted between 2019 and 2021 shared similar concerns regarding available mental health peer support research, specifically highlighting a lack of quantitative studies focused on the effects of mental health peer support (Fortuna et al., 2020;

Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). These studies recognized that most mental health peer support literature focuses on implementing peer support services, integrating peer support workers into traditional mental health services, attitudes towards peer support workers, challenges of peer support work, or the role of peer support services. However, studies must also verify a need for research on the effects of peer support. As a result, this study will fill a gap in the literature. (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020).

Older research, conducted before 2019, also identifies the need for quantitative data evaluating the effects of mental health peer support services as well as a need for additional studies aimed at evaluating the effectiveness of mental health peer support services. These studies suggest that future research should include descriptive explanations of the specific peer support programs being evaluated, with an aim of clarifying the attributes of the program and services being measured to help identify the mechanisms of peer support being evaluated (Cronise et al., 2016; Lloyd-Evans et al., 2014; Murphy & Higgins, 2018; Ryan et al, 2019; Walsh et al, 2018). Available research also highlights the concern that the effectiveness of mental health peer support may not be generalizable or accurate due to the variations in mental health peer support training, program implementation, activities, and interventions (Cronise et al., 2016; Lloyd-Evans et al., 2014; Murphy & Higgins, 2018; Ryan et al., 2019; Walsh et al., 2018).

The review of 150 current and past research articles provided two primary themes surrounding gaps in mental health peer support literature. There is a need for quantitative outcomes measuring the effectiveness of mental health peer support services and for those

studies to provide clarification of the specific mental health peer support attributes and activities of programs being evaluated.

The Effects of Mental Health Peer Support

The majority of mental health peer support outcomes reported in available research include qualitative surveys recognizing the personal experiences of individuals who have received mental health peer support services as well as the experiences of peer support workers providing the service (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020).

These qualitative studies reported findings related to satisfaction receiving mental health peer support services, job satisfaction when working within mental health peer support services, and narratives evaluating recovery outcomes. However, limited studies include measurable changes experienced while receiving mental health peer support services. Research conducted by Cabral et al. (2014), Walsh et al. (2018), Shalaby & Agyapong (2020), and White et al. (2020) suggested that the lack of quantitative data harms mental health peer support services highlighting concerns such as:

- Decreasing the credibility of the service.
- Decreasing the use of the service.
- Stunting the development of new mental health peer support programs.
- Halting program implementation.

A Need for Quantitative Outcome Research

This study is based on a gap in research found after the review of over 150 peer-reviewed journal articles. This review included 53 qualitative studies on mental health peer support services, four quantitative studies focused on mental health peer support services, and more than

100 additional mental health peer support or SMI articles and resources. The uneven representation of quantitative research studies identified is consistent with the concerns identified in current systematic literature reviews conducted by Fortuna et al. (2020), Shalaby & Agyapong (2020), Storm et al. (2020), White et al. (2020), Gillard et al. (2021), and Mutschler et al. (2021).

These systematic reviews highlighted three primary limitations found in existing research. Most available peer support research provides qualitative descriptions of the successes and challenges of implementing and providing mental health peer support. However, reported outcomes are either incomplete or inconsistent across studies, and the generalizability of research findings is minimal (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). Another concern is that many peer support research studies have utilized small sample sizes (Lloyd-Evans, 2014; White et al., 2020).

These limitations illustrate a need for additional research to evaluate measurable outcomes of mental health peer support services. Fortuna et al. (2020), Shalaby & Agyapong (2020), Storm et al. (2020), White et al. (2020), Gillard et al. (2021), and Mutschler et al. (2021) suggested that a primary limitation of available research is the focus on qualitative outcomes surrounding the implementation of peer support services. More specific peer support implementation topics that have received qualitative research include evaluating the roles of peer support workers, medical professionals' attitudes towards peer support workers, and challenges experienced by paid peer providers (Cronise et al., 2016; Collins et al., 2016; Moran et al., 2012; Muralidharan et al., 2017; Oborn et al., 2019). In contrast, little research has been dedicated to measurable quantitative outcomes on the effects of mental health peer support. Many of those studies have been found to use varying outcome measures, according to research conducted by

White et al. (2020), Lloyd-Evans et al. (2014), Storm et al. (2020), and Shalaby and Agyapong (2020).

Inconsistencies in outcome measures used in the limited number of studies focused on the effects of peer support are one of the most common concerns identified in available mental health peer support literature. Common outcomes of mental health peer support services are quality of life, recovery, hope, empowerment, mental health symptoms, employment, hospitalization, and satisfaction. Although these are common outcomes, they are inconsistent across mental health peer support literature. For example, a systematic review conducted by White et al. (2020) identified 18 different outcome measures across 23 studies, the two most common being psychiatric hospitalization data and quality of life. However, a different systematic review conducted by Lloyd-Evans et al. (2014) identified only 10 outcome measures across 18 studies analyzed. In that analysis, the two most common measures were quality of life and hope. Storm et al. (2020) conducted a third study focused specifically on outcomes related to peer support services connecting individuals to other physical and mental health care services. These outcomes were not reviewed in the White et al. (2020) or Lloyd-Evans et al. (2014) studies. However, varying the outcomes evaluated in each review emphasized concerns that presented inconsistent outcomes across the studies analyzed and reduced the ability to generalize findings or inform future peer support services (Lloyd-Evans et al., 2014; White et al., 2020).

Additional inconsistencies are also recognized across types of peer support services, illuminating a variety of contexts that peer support is provided. Research shows that peer support services may be provided to special populations such as older adults, families, criminal-justice-involved individuals, individuals with a dual intellectual disability and an SMI, and individuals with a co-occurring diagnosis of SMI and substance use disorder. A literature review conducted

by Shalaby and Agyapong (2020) emphasized that peer support is delivered to different populations with varying goals and interventions based on the population served and the individual mental health peer support provider. Shalaby and Agyapong (2020) also identified that the effectiveness of peer support varied across the different types of populations served, adding to the inconsistencies found in available research.

Overall, available research consistently recognizes a gap in the literature on the effectiveness of mental health peer support services. Researchers acknowledged that increasing the literature on mental health peer support effectiveness is needed. Specifically, quantitative outcomes that illustrate the measurable change can help build the credibility of the service while also improving the implementation and service delivery of mental health peer support services (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). In addition, adding to the existing literature with an evaluation of quantitative outcomes can help to identify best practices for mental health peer support in the future (White et al., 2020). White et al. (2020) identified that future research on mental health peer support should use a complete report of outcome measurement. It should consider the specific mechanism of action of the peer support services being described, emphasizing the importance of conducting a study where an assessment tool reflects the mental health peer support interventions provided. This body of research aims to fill this gap by analyzing measurable data collected by a mental health peer support organization that utilizes an assessment tool integrated into the specific peer support activities provided to clients and reported outcomes. The historical data was collected through a consistent and standardized assessment method utilizing the same standardized assessment tool and intake protocol for all participants. Assessment facilitators completed the same standardized testing and certification

procedure before administering the assessment tool. This standardized procedure provides the necessary consistency to complete an accurate data analysis identified as lacking in previous research studies.

Mental Health Peer Support Role/Service Clarification and Definition

It is important to reiterate that most available mental health peer support literature focuses on describing the implementation of mental health peer support services and providing qualitative feedback on the experience of providing or receiving mental health peer support services (Shalaby & Agyapong, 2020). However, as previously presented, available research on peer support services consistently identifies concerns regarding the variation in mental health peer support services across the United States. The concept of role ambiguity among certified peer specialists, service delivery protocol variations, and mental health peer support interventions and activities are regularly referenced in existing research. This discussion of role and service ambiguity is included to illuminate the present state of inconsistencies and role ambiguity in the framework for paid-peer support work throughout the United States. However, mental health peer support services are often a required behavioral health service billable through Medicaid funds (Daniels et al., 2013; Walsh et al., 2018).

Role definitions of mental health peer support specialists are missing from the majority of mental health peer support literature (Asad & Chriem, 2016). Literature examining the various tasks of peer support workers has struggled to define the role of the peer workers they interview, often because the peer workers involved in the research are unsure of their job descriptions (Moran et al., 2012; Storm et al., 2020).

Peer workers often express confusion with their specific roles; reporting unclear job descriptions, varying titles, inconsistent job duties, and discrepancies in responsibilities and

expectations (Asad & Chriem, 2016; Cabral et al., 2014; Moran et al., 2012). Peer support workers have reported that unclear job descriptions have led to variations in interventions and support strategies provided to clients using the same provider or organization (Moran et al., 2012). Many peer workers are unclear about how their job role differs from the roles of other mental health professionals and direct care providers. This ambiguity causes discord between peer workers and other mental health treatment services while also interfering with the peer workers' ability to provide proper mental health support to the individuals they serve (Fortuna et al., 2020; Moran et al., 2012; Shalaby & Agyapong, 2020; Storm et al., 2020). Cabral et al. (2014) suggested that formal definitions and descriptions of the mental health peer specialist's role are needed to maximize the effectiveness of their services. The ambiguity of the mental health peer worker's role and the lack of clearly defined responsibilities and expectations impact the ability to generalize any research findings if peer support roles are not consistent across studies (Chinman et al., 2010; Chinman et al., 2012; Chinman et al., 2014; Moran et al., 2012). Available research also suggests that improving mental health peer support worker role definition and job descriptions can help guide training and job development for future mental health workers (Chinman et al., 2010; Chinman et al., 2012; Chinman et al., 2014; Moran et al., 2012). Although the primary goal of this study is to evaluate the effectiveness of peer support services provided by a specific peer support provider, the study also clarifies the role, tasks, and expectations of the peer specialists that provided the peer support services being evaluated. This additional clarification eliminates confusion and inconsistencies found in previous studies, offering additional information and guidance on the mechanisms of peer support that resulted in the analyzed outcomes.

Another common concern found in available literature related to the role and clarification of peer support services is the variation of service delivery protocols, interventions, and activities (Fortuna et al., 2020; Gillard et al, 2021; Lloyd-Evans, 2014; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). Peer support services are often provided in various settings, with various populations, and under varying regulations (Shalaby & Agyapong, 2020). The service delivery protocols often differ from state to state, from organization to organization, and from worker to worker, making it difficult to generalize any research findings (Gillard, 2021).

The federal Substance Abuse and Mental Health Service Administration (SAMHSA) has developed core principles, values, and competencies for mental health peer support services and providers to aid mental health peer support providers in developing mental health peer support programs. SAMHSA suggested that identifying these principles, values, and competencies can guide the delivery of peer support services as well as promote best practices in peer support (SAMHSA, 2015).

However, they are not required for current peer support training programs or curricula (The Copeland Center, 2020b). SAMHSA (2015) suggested that understanding these guidelines and suggestions is essential in helping peer specialists develop, manage, and maintain their role as professional support and carry out appropriate peer support activities. These guidelines are a framework for maintaining the role-integrity of peer specialists while also recognizing the need for creativity and flexibility within a peer specialist's job duties and tasks (Stratford et al., 2019). They are intended to guide peer workers as they enter the peer support workforce and focus on continuing their skill development. However, it is unknown if previous research studies evaluated peer support services that utilized these suggested principles, values, and competencies (SAMHSA, 2015).

This study evaluates the outcomes of a mental health peer support program that has implemented the SAMHSA suggested principles, values, and competencies, which can help clarify service-delivery practices. SAMHSA defines its principles and values as foundational elements that fall into five specific categories: recovery-oriented, person-centered, voluntary, relationship-focused, and trauma-informed (SAMHSA, 2015). SAMHSA's (2015) peer support principles and values are defined below (see Table 2).

Table 2

SAMHSA Peer Support Principles and Values

SAMHSA Peer Support Principles and Values	
Recovery-oriented	SAMHSA has identified the need to foster and encourage hope, as well as recognize the individual strengths and needs of the individuals seeking support.
Person-Centered	This foundational idea suggests that peer services must incorporate language, concepts, and ideas that are person-centered.
Voluntary	SAMHSA suggests that peer support should be "peer driven", recognizing that the individual seeking support is the true expert on their own wellness and recovery. In addition, peer support services should not be mandated or required, and recipients should voluntarily choose to participate in them.
Relationship-Focused	Building relationships and appropriate boundaries between peer workers and service-seekers are essential to positive and effective peer support services.
Trauma-Informed	Individuals with serious mental illness have higher risk of exposure to traumatic events. Peer support services should implement a trauma-informed approach to recover support as a best-practice.

SAMHSA (2015) also identified the following knowledge, skills, and attitudes as the core competencies needed by peer workers to perform in the role of peer specialist. They should be able to collaborate, provide support, share lived experience of recovery, personalize their peer support services to the needs of the individual receiving support, and encourage and support

recovery planning. Moreover, connect the individual to needed resources, share holistic wellness tips and information, support individuals in crisis planning, recognize the importance of communication, emphasize leadership, promote advocacy, and encourage personal growth and development.

Twenty-five "Pillars of Peer Support Services" (see Table 3) were developed by peer professionals to provide additional guidance for best practices. These pillars assisted with developing and implementing peer support services at the state level. However, they were not mandatory regulations and were unknown if they were included in outcomes or services evaluated in previous research (Copeland Center, 2020b; Daniels et al., 2010; Daniels et al., 2012; Daniels et al., 2013). Daniels et al. (2010) identified these 25 "Pillars of Peer Support Services" as an attempt to provide standardized guidelines for implementing and strengthening peer support services across the country. However, a decade later, current literature emphasizes inconsistencies in job descriptions, role specifications, and trainings. See Appendix A for complete definitions of the 25 Pillars of Peer Support Services.

Table 2

Twenty-Five Pillars of Peer Support Services

Twenty-Five Pillars of Peer Support Services		
Training	**Role Clarification**	**Government/organizational Support**
• Use skills-based recovery and whole health training programs • Utilize competencies-based testing process • Ongoing continuing education requirements	• Have clear job and service descriptions • Utilize job-related competencies • Develop a code of ethics	• Develop a peer specialist certification • Provide opportunities for professional advancement • Provide employment opportunities that expand the peer specialist role

• Offer support in accessing/using technology • Develop a stakeholders training program • Provide routine certification trainings • Develop a train-the-trainer program for current peer specialists • Encourage diversity • Provide competency-based trainings for supervisors of peer support programs • Provide training in peer support whole health services	• Implement strategies for workforce development • Identify or develop consumer-run organizations	• Engage a consumer movement • Develop celebration strategies to empower peer workers • Provide opportunities for peer specialists to network with others • Create a state-level program-support team • Conduct routine research and evaluation of peer support services • Ensure sustainable funding of peer support services • Create multi-level governmental support

The federal government provided the above-mentioned principle, values, core competencies, and pillars of peer support as a guide to developing and providing peer services. It is important to reiterate that these guidelines are not a standard requirement of peer support specialist trainings or mental health peer support program development across the country. These additional inconsistencies reiterate that available peer support research is difficult to generalize and is limited in its ability to implement findings into future peer support services.

Available research emphasizes a lack of standardization in service delivery and program development (Cabral et al., 2014; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020). Available research consistently reiterates that extreme variations in peer support, service delivery, practices, goals, settings, approaches, and interventions have led to inconsistent research results and limit the opportunity for mental health peer support evidence to be generalized (Cabral et al., 2014; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020).

Future studies investigating the effects of mental health peer support should consider providing descriptions of the roles, responsibilities, and service activities of the mental health peer support providers being examined (Fortuna et al., 2020; Gillard et al., 2021). Research studies that evaluate the effectiveness of mental health peer support programs while simultaneously clarifying and describing specific aspects of the mental health peer support program and interventions being utilized in the study may increase the studies' ability to be generalized. This can also guide the future development of mental health peer support programs and practices (Fortuna et al., 2020; Gillard et al., 2021). This body of research evaluates the effects of Medicaid-funded mental health peer support services through the analysis of recovery outcome measures. In response to limitations illustrated by Fortuna et al. (2020) and Gillard et al. (2021), this study also provides clarification of the roles, service delivery requirements, goals, and activities associated with the mental health peer support outcomes beings analyzed.

Summary

Mental health peer support services are being utilized across the country as a non-traditional method of offering mental health support to individuals with SMI. However, most research on mental health peer support is over 10 years old (White et al., 2020). Research limitations such as incomplete outcomes and small sample sizes combined with peer specialist role confusion, peer support service ambiguity, and variations in the rules and regulations have made it difficult for researchers to generalize the effects found in outdated studies (Charles et al., 2021; Cheesmond et al., 2020; Cronise et al., 2016; Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). Limited outcome evaluations of other recovery-oriented services exist, and additional quantitative outcome evaluations are needed to drive the future effectiveness of recovery-

oriented mental health peer support services (Cruwys et al., 2020). The existing evidence of the effectiveness of mental health peer support services is primarily qualitative and deficient in providing quantitative outcomes that can offer additional credibility to the service of mental health peer support (Charles et al., 2021; Cheesmond et al., 2020; Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020).

More specifically, quantitative research is lacking in the mental health peer support field, suggesting a need for additional service-user outcomes research (Burke et al., 2018; Gray et al., 2017; Hutchinson et al., 2017; Walsh et al., 2018). Previous research studies have primarily focused on qualitative case-study design methods with a small sample size (Burke et al., 2018; Landers & Zhou, 2011; Lloyd-Evans et al., 2014; Watson, 2019). Quantitative studies are needed to verify the effectiveness of mental health peer support services on recovery outcomes (Burke et al., 2018; Chapman et al., 2018; Cronise et al., 2016; Davidson et al., 2012; Landers & Zhou, 2011; Lloyd-Evans et al., 2014).

Current research also suggests the need for additional studies on mental health peer support services that are independent of traditional mental health clinics and agencies (Gillard, 2019). Little research exists on independent mental health agencies and organizations that follow the recovery model of care without the influence of the traditional foundations of medical-model mental health treatment (Gillard, 2019). Future research should also incorporate and describe the type of training provided to mental health peer support workers, the guidelines and parameters of service delivery, and the foundational principles the specific service is built upon (Cronise et al., 2016).

Overall, mental health peer support services continue to gain momentum and support as reputable, cost-saving, and effective support services for individuals struggling with an SMI diagnosis. Medicaid funds continue to be directed towards implementing and supporting mental health peer support services throughout the country, with little quantitative evidence of these services' impact on recovery and wellness outcomes. Additional quantitative outcome research is needed to illustrate the effect of mental health peer support services on intended outcomes and the client's individual recovery goals to improve the implementation and service delivery through best practice guidelines. (Charles et al, 2021; Cheesmond et al, 2020; Fortuna et al., 2020; Gillard et al, 2021; Mutschler et al, 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020).

Chapter Three: Methods

Overview

This research study provided a non-experimental analysis of archival data collected from a Pennsylvania-based mental health peer support provider. This study aimed to evaluate quantitative outcome data of a Medicaid-funded peer support program to investigate if there was a measurable change in recovery outcomes over one year of peer support services. The data collected included participants' gender, age, and repeated assessment scores utilizing the Adult Needs and Strengths Assessment to track mental health symptoms, risk behaviors, life domain functioning, and strengths development. Peerstar, LLC, a Pennsylvania-based peer support organization, provides Medicaid-funded mental health peer support services exclusively and does not offer any additional behavioral health services. This chapter provides an overview of the non-experimental design used to collect and analyze the archival outcomes of the identified peer support provider, including research questions, participants' demographics, sample selection, instrumentation, data collection, and data analysis.

Design

Outcome research has increased demand among health systems and payers seeking evidence and support that a specific intervention or treatment program is effective for specific conditions and populations (Hays, 2010). Although current research on mental health peer support services continues to grow, most of the current research is of qualitative design, providing personal accounts of peer support services (Burke et al., 2018; Gray et al., 2017; Hutchinson et al., 2017; Landers & Zhou, 2011; Walsh et al., 2018). The need for quantitative research with measurable service-outcomes data assessment is regularly identified in present literature (Burke et al., 2018; Charles et al., 2021; Cheesmond et al., 2020; Cronise et al., 2016;

Fortuna et al., 2020; Gillard et al., 2021; Gray et al., 2017; Hutchinson et al., 2017; Landers & Zhou, 2011; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; Walsh et al., 2018; White et al., 2020).

This study utilized a non-experimental, correlational design to analyze the effects of Medicaid-funded mental health peer support services on the recovery outcomes of individuals' strengths, mental health needs/symptoms, risk behaviors, and life domain functioning. The primary purpose of this study was to identify if a significant measurable change in recovery outcomes was noted from initiation of peer support services through one year of receiving services. Archival data collected by Peerstar, LLC over the two most recent complete years were analyzed, eliminating the need for a manipulated treatment variable and participant recruitment. A non-experimental, correlational, pretest/posttest study was appropriate for this outcome evaluation because it allowed the researcher to use statistical calculations to measure the degree and direction of any relationships identified between the independent variable, mental health peer support service, and the dependent variables, the captured recovery outcomes (Knight & Tetrault, 2017; Warner, 2013). A pretest/posttest outcome evaluation was also appropriate because this study examined multiple variables among a single population to determine if the collected outcomes match the intended outcomes of Medicaid-funded mental health peer support services in Pennsylvania (Knight & Tetrault, 2017).

Research Question(s)

RQ1: Does participation in Medicaid-funded mental health peer support services increase the individual strengths of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

RQ2: Does participation in Medicaid-funded mental health peer support services decrease the mental health needs of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment (ANSA)?

RQ3: Does participation in Medicaid-funded mental health peer support services decrease the risk behaviors of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

RQ4: Does participation in Medicaid-funded mental health peer support services increase the life domain functioning of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

Hypotheses

H1: Mental health peer support participants will report improvement in individual strengths, evidenced by statistically significant differences between pretest and posttest scores, as measured by the ANSA.

H_o1: There will be no significant difference between mental health peer support participants' pretest and posttest individual strengths scores as measured by the ANSA.

H2: Mental health peer support participants will report improvement in mental health needs, evidenced by statistically significant differences between pretest and posttest scores, as measured by the ANSA.

H_o2: There will be no significant difference between mental health peer support participants' pretest and posttest mental health needs scores as measured by the ANSA.

H3: Mental health peer support participants will report improvement in risk behaviors, evidenced by statistically significant differences between pretest and posttest scores, as measured by the ANSA.

H_o3: There will be no significant difference between mental health peer support participants' pretest and posttest risk behaviors scores as measured by the ANSA.

H4: Mental health peer support participants will report improvement in life domain functioning, evidenced by statistically significant differences between pretest and posttest scores, as measured by the ANSA.

H_o4: There will be no significant difference between mental health peer support participants' pretest and posttest life domain functioning scores as measured by the ANSA.

Participants and Setting

Because of the archival nature of this study, no participants were recruited, and a study setting was not needed. Archival data were collected by Peerstar, LLC, a Pennsylvania-based Medicaid-funded mental health peer support program, from individuals receiving mental health peer support services. Study participants' data included adults 18 years or older of varying genders, ethnic groups, and education levels who participated in Peerstar's mental health peer support services. By Pennsylvania regulation, all participants have received a diagnosis of an SMI or severe emotional disturbance and receive state-funded Medicaid benefits. A licensed health practitioner referred them to receive services due to functional impairment and mental illness diagnosis. This study's participants were selected from a convenience sample of archival data provided by the peer support organization. The convenience sample included adult clients from 27 counties in Pennsylvania, including rural and urban areas. Study participants varied in gender, age, and cultural or ethnic backgrounds, although cultural or ethnic background data was

not collected for the study. The archival data used for this study were selected from individuals who began mental health peer support services in 2020 and included data from the onset of services, pretest, to one year after, posttest, the initial peer support session and assessment. The agency provided a sample of 495 participants who began services in 2020. Individuals who did not complete a second assessment or posttest score one year after initiation of services were excluded from the sample. After incorporating this exclusion criterion, the sample size for this study was 188 participants (N = 188), which was large enough to support analyzing variable correlations while limiting extreme outliers that may have a significant impact on analysis.

Instrumentation

All data used for this study was archival and was collected by Peerstar, LLC, a provider of mental health peer support services. Participants' demographic data was also historically collected through Peerstar's organizational records and intake process. This researcher requested the following data from the organization: client's age, gender, cultural background, mental health diagnosis, and ANSA assessment scores, without using personally identifiable information. Information received included the client's age, gender, and ANSA assessment scores. Pretest and posttest scores were previously collected from the Adult Needs and Strengths Assessment by Peerstar in the service delivery of mental health peer support services to monitor strengths, mental health needs, risk behaviors, and life domain functioning. This correlational, within-subjects design utilized two time points that the ANSA has been completed: at the onset of mental health peer support services, pretest, and one year after the onset of services, posttest.

Adult Needs and Strengths Assessment (ANSA)

Peerstar, LLC utilizes the Adult Needs and Strengths Assessment as a pretest/posttest measure of needs and strengths. This assessment is consistently utilized for all participants and is

completed at the beginning of services and at least every six months until an individual is discharged from Peerstar, LLC's mental health peer support services.

The ANSA includes measures in the following six categories: individual strengths (12 items), mental health needs (11 items), risk behaviors (8 items), life-domain functioning (17 items), cultural factors (4 items), and caregiver resources and needs (10 items) if the individual has a caregiver (The John Praed Foundation, 2020). This study evaluated four categories, individual strengths, mental health needs, risk behaviors, and life-domain functioning, based on their use in Peerstar's service delivery procedures and protocols.

The ANSA is facilitated by a trained staff member certified to guide participants through reporting responses based on personal perceptions of defined rankings. All assessment facilitators receive and complete the same standardized training and certification process before they can administer the assessment tool. Each ANSA ranking includes descriptive observation and experience criteria to aid participants in determining their current ranking. In the categories of mental health needs, risk behaviors, and life domain functioning, the rankings are as follows: zero = no evidence of need; one = history, suspicion; two = action needed; and three = disabling, dangerous, immediate action needed. For the category of strengths, participants report if the strength item is a: zero = centerpiece strength, one = useful strength, two = identified strength, or three = no evidence (The John Praed Foundation, 2020). Based on Peerstar's specific use of the ANSA assessment, this study assessed 48 outcomes of individuals receiving Medicaid-funded mental health peer support services in Pennsylvania through Peerstar, LLC. The 48 available outcomes are separated into four recovery-focused categories on the staff-administered Adult Needs and Strengths assessment tool, including those listed in Table 4:

1. Individual Strengths: What strengths does an individual have that can be used to advance healthy development?
2. Mental Health Needs: What behavioral health needs does the individual have?
3. Risk Behaviors: What factors exist in the individual's life that can increase the likelihood of mental health and other difficulties developing? What current behaviors place the individual at risk?
4. Life Domain Functioning: How is the individual functioning in the different social interactions individually, with family, peers, school, and community?

Table 3

Adult Needs and Strengths Assessment (ANSA) Measures

Individual Strengths		**Mental Health Needs**	
Family	Spiritual/Religious	Psychosis	Antisocial Behavior
Social Connectedness	Community-Connection	Impulse Control	Adjustment to-Trauma
Optimism	Natural Supports	Depression	Anger Control
Educational	Resiliency	Anxiety	Substance Abuse
Job History	Resourcefulness	Mania	Eating Disturbances
Talents/Interests	Volunteering	Interpersonal Problems	
Life Domain Functioning		**Risk Behaviors**	
Legal	Food Insecurity	Danger to Self	Danger to Others
Employment	Physical/Medical	Self-Mutilation	Gambling
Family Functioning	Treatment-Involvement	Other Self-Harm	Sexual Aggression
Living Skills		Exploitation	Criminal Behavior

Social Functioning	Self-Care	
Recreational	Sleep	
Intellectual/Developmental	Medication	
Residential Stability	Compliance	
Transportation	Sexuality	
School		

Note: As developed by the John Praed Foundation, 2020.

Instrument Validity

As of 2017, the ANSA was used in at least seven states as a multidimensional tool to identify the needs and strengths of individuals experiencing psychiatric hospitalization or utilizing community behavioral health services (Schmit et al., 2018). It is being used in various treatment settings similar to peer support services to help facilitate a natural connection between the assessment process and the development of individualized treatment/service plans (The John Praed Foundation, 2020). Current literature reported the ANSA as a valid and reliable assessment tool for individuals utilizing behavioral health services, with instrument validity relying on guided ranking criteria and respondent honesty (Schmit et al., 2018; Walton & Kim, 2018). More specifically, the ANSA has been recognized as a valid and reliable assessment tool for engaging clients, planning service delivery, and monitoring the progress of adults experiencing mental health illness and functional impairment. Previous studies also indicated that internal consistency scores on the ANSA ranged from .71 to .92.

Procedures

Before data collection, this researcher completed The Collaborative Institutional Training Initiative training required by The Institutional Review Board of Liberty University. A copy of

the training certificate is located in Appendix B. This researcher also requested permission to conduct this archival research study from Peerstar, LLC, as shown in Appendix C. Approval to complete the study was requested through the Institutional Review Board on April 8, 2022. On April 21, 2022, the Institutional Review Board approved this researcher to begin this research study; a copy of this approval can be found in Appendix D. Consequently, this researcher was able to immediately request data, as an archival outcome evaluation did not require the recruitment of participants or treatment intervention.

Ethical Considerations

Informed Consent

Data provided by Peerstar, LLC was de-identified to ensure the confidentiality of peer support service recipients. In addition, Peerstar, LLC communicated to all service participants that service data may be analyzed and studied to improve peer support services. This process occurred through informed consent practices completed at the initiation of peer support services for each peer support client and ensured confidentiality and protection of personal health information.

Risks and Benefits

The use of archival data that had been de-identified posed no risks to participants because they were not participating in an experiment, and only historical data was utilized. However, completing this study could benefit future peer support services and peer support professionals. This quantifiable data analysis can increase the professionalism and fidelity of mental health peer support policy and practice. This study can also provide quantifiable guidance for improving the capabilities of peer support providers through evidence-informed training and intervention

development, enhancing the overall wellness and life satisfaction of the individuals served and supported.

Role of the Researcher

This researcher works within the peer support field and is interested in identifying relationships between quantitative outcomes. This researcher hopes that neutral and accurate data analysis will provide research to continue to develop and inform mental health peer support services.

In addition, this researcher is employed by the mental health peer support provider providing the historical data, Peerstar, LLC. This researcher conducted recovery and training initiatives and did not personally collect any of the historical data received. In employment with the organization, this researcher was expected to perform research that is accurate, neutral, and objective to ensure the integrity of research findings. To clarify that this researcher did not have a dual-relationship or financial conflict of interest, Peerstar LLC's chief operating officer provided clarification and confirmation that this researcher received no financial or position gains or losses based on the findings of this research study. A copy of the letter can be found in Appendix E.

Data Collection

Peerstar, LLC utilizes an electronic behavioral health medical record software called Credible. Peerstar's library of archival data consists of recovery outcome measures that have been consistently collected through a standardized collection process with a standardized assessment tool over five years. Peerstar collected all eligible participant data consistently, utilizing the same assessment tool measuring the same recovery outcomes at the same six-month

increments for one year. All staff administering the assessment tool completed the same training and certification process to facilitate the assessment.

This researcher contacted Peerstar's director of electronic medical records and requested historical peer support service data consisting of:

- Gender;
- Age;
- Ethnicity;
- Marital status;
- Presence of pets in the home;
- Date service initiated;
- Hospitalization data, the self-reported occurrence of psychiatric hospitalizations before starting peer support services and during services;
- All ANSA scores of participants;
- Number of peer support sessions received;
- Discharge date if applicable;
- Mental health diagnosis;
- History of substance use;
- History of trauma; and
- Program type (dual diagnosis, forensic, or regular).

Peerstar, LLC provided de-identified data, utilizing a generic identification (ID) number rather than the participant's name or client ID number to assist in the data remaining anonymous and without identifiable information. Although Peerstar does collect the requested information, they were only able to provide this researcher with the following historical data:

- Generic ID number, a de-identified number not associated with the client's name or ID number;
- Gender;
- Age;
- Date service initiated; and
- All ANSA scores of participants.

Data Security

De-identified data collected and provided by Peerstar, LLC was in electronic format and stored in an Excel spreadsheet coded by the generic ID number assigned to the participant, with no other identifiable information. The Excel spreadsheet was password protected and stored on a password-protected external flash drive.

Data Analysis

Variables

Independent Variable

For this study, the independent variable was the service of Medicaid-funded mental health peer support over two levels of time, initiation of services, pretest, and one year after services, posttest. The service is available to individuals with serious mental illness or severe emotional disturbances who receive Medicaid as their primary insurance. The service is guided by the regulatory standards of OMHSAS (2019) for Pennsylvania and can be provided for up to 17 hours a week in home and community settings.

Dependent Variables

The dependent variables in this study were the recovery outcomes assessed using the ANSA. The dependent variables included strengths development, mental health needs, risk behaviors, and life-domain functioning.

Control Variables

Control variables are often considered to determine if different relationships exist between the main variables. Control variables in this study were intended to include gender, age, ethnicity, marital status, presence of pets in the home, number of peer support sessions received, mental health diagnosis, history of substance use, and history of trauma. However, the only control variables provided to this researcher were age and gender.

Statistical Procedure

This study employed a non-experimental quantitative correlational research design to evaluate archival data of mental health recovery outcomes by utilizing the archival data collected by Peerstar's routine outcome monitoring. Non-experimental research designs are appropriate for evaluating behavioral health outcomes that cannot be experimentally manipulated (O'Dwyer & Bernauer, 2016). When researching behavioral health treatment outcomes, many clinical researchers recommend analyzing the effect size of pretest/posttest change as the favored data analysis technique (De Beurs et al., 2016). This one-sample design utilized pretest and posttest measures, which were analyzed through repeated measures, including a one-way analysis of variance (ANOVA) to examine any differences between the pretest and posttest recovery outcomes. This design was most appropriate for a single-sample, within-subjects outcome evaluation, where each participant is measured multiple times (Warner, 2013).

Internal and External Validity

Non-experimental research designs are highly susceptible to threats of external and internal validity (O'Dwyer & Bernauer, 2016). Archival studies utilize participants' data that have not been randomly assigned, and extraneous variables cannot be controlled (Rosenstein, 2019). Because of this, causality cannot be concluded, and the study identified correlation only. However, external validity may be in this study because of the community setting of the service provided. The peer support services received were conducted in a real-world setting rather than a laboratory setting, which increased the external validity.

In addition, the ANSA assessment tool was identified as a valid and reliable assessment tool for individuals utilizing behavioral health services with instrument validity relying on both guided ranking criteria and respondent honesty with internal consistency for scores on the ANSA ranging from .71 to .92 (Schmit et al., 2018; Walton & Kim, 2018).

Summary

In response to the illustrated need for additional quantitative outcome research in the field of mental health recovery and, more specifically, mental health peer support services, a quantitative outcome evaluation of Medicaid-funded mental health peer support services was conducted to answer the question: Is peer support an effective intervention for improving mental health recovery?

Through non-experimental evaluation of archival data, recovery outcomes and their relationship to mental health peer support were assessed for adult individuals experiencing SMI who were also consumers of peer support services. Findings of this study may increase the professionalism and fidelity of mental health peer support policy and practice; help inform and develop organizational, local, and state service provisions; and provide quantifiable guidance for improving the capabilities of peer support providers through evidence-informed training and

intervention development. Through guiding peer support service delivery, the findings of this study may improve the overall wellness and life satisfaction of the individuals receiving mental health peer support services.

Chapter Four: Findings

Overview

The purpose of this research was to evaluate the effects of Medicaid-funded mental health peer support services through the analysis of recovery outcome measures. The objective was to determine if there was a significant difference between pretest and posttest assessment scores for peer support recipients in the first year of receiving services. This chapter presents the findings of the completed data analysis, including descriptive statistics, analysis results, and a summary discussion.

Descriptive Statistics

This study utilized a convenience sample derived from archival data, and descriptive statistics revealed a summary of the convenience sample's age and gender. Before filtering for incomplete data, the initial sample was comprised of 188 participants (N =188); 68.4% of the sample was female (N = 128), and 31.6% were male (N = 60). The age range of the 188 participants within the sample was 19 to 72 years old (*mean* = 44.38; *median* = 44).

This study evaluated four categories of recovery outcomes measured using the ANSA, presenting four different research questions with separate dependent variables, individual strengths, mental health needs, risk behaviors, and life domain functioning, analyzed individually. Descriptive statistics provide general information about the archival data utilized for this study and do not include information about statistical significance. Statistical significance is discussed in the results section below.

RQ 1: Individual Strengths

The first category of recovery outcomes captured the participants' individual strengths. Descriptive statistics revealed that 188 participants (N = 188) had complete data scores to

analyze pretest and posttest scores. Scores for the individual strengths category of recovery outcomes decreased from pretest (*M* = 15.75, *SD* = 6.15*)* to posttest (*M* = 14.14, *SD* = 5.36). Based on the ANSA scoring system of zero = strength is a centerpiece, one = strength is useful, two = strength is identified, and three = strength is not yet identified, a decrease in individual strengths scores is reflective of an individual developing or improving personal strengths.

Descriptive Statistics

	Mean	Std. Deviation	N
ST_Pre	15.7553	6.15084	188
ST_Post	14.1436	5.36234	188

RQ 2: Mental Health Needs

The second category of recovery outcomes captured the participants' mental health needs. Descriptive statistics revealed that 188 participants (N = 188) had complete data scores to analyze pretest and posttest scores. Scores for the mental health needs category of recovery outcomes decreased from pretest (*M* = 9.92, *SD* = 3.75) to posttest (*M* = 9.76, *SD* = 3.57). Based on the ANSA scoring system: zero = no evidence of need; one = history of sub-threshold, watch or prevent; two = causing problems, consistent with the diagnosable disorder; and three = causing severe/dangerous problems, a decrease in mental health need scores is reflective of an individual improving their mental health needs.

Descriptive Statistics

	Mean	Std. Deviation	N
MH_Pre	9.9202	3.75578	188
MH_Post	9.7606	3.57220	188

RQ 3: Risk Behaviors

The third category of recovery outcomes noted the participants' risk behaviors. Descriptive statistics revealed that 188 participants (N = 188) had complete data scores to analyze pretest and posttest scores. Scores for the risk behaviors category of recovery outcomes decreased from pretest (*M* = 2.31, *SD* = 1.96) to posttest (*M* = 1.89, *SD* = 1.79). Based on the ANSA scoring system of zero = no evidence of need; one = history of sub-threshold, watch or prevent; two = recent, act; and three = acute, act immediately, a decrease in risk behaviors scores reflected an individual decreasing or improving their risk behaviors.

Descriptive Statistics

	Mean	Std. Deviation	N
RB_Pre	2.3138	1.96831	188
RB_Post	1.8883	1.79222	188

RQ 4: Life Domain Functioning

The fourth category of recovery outcomes captured the participants' life domain functioning. Descriptive statistics revealed that 188 participants (N = 188) had complete data scores to analyze pretest and posttest scores. Scores for the life domain functioning category of recovery outcomes decreased from pretest (*M* = 2.24, *SD* = .42) to posttest (*M* = 2.17, *SD* = .44). Based on the ANSA scoring system of zero = no evidence of problems; one = history, mild impairment; two = moderate impairment; and three = severe impairment, a decrease in life domain functioning scores is reflective of an individual improving their life domain functioning.

Descriptive Statistics

	Mean	Std. Deviation	N
LN_LD_Pre	2.2358	.41595	188
LN_LD_Post	2.1719	.44208	188

Results

Descriptive statistics reflect a decrease in the mean between pretest and posttest scores on the study's four variables. A one-way repeated measures ANOVA was completed for each variable to identify if the noted decrease in mean has statistical significance.

A one-way repeated measures ANOVA requires screening for violations of five assumptions of data (Laerd Statistics, 2021). The first two assumptions are based on the study's design and include having one dependent variable measured at the continuous level and one within-subjects factor with three or more categorical levels. The dependent variables of individual strengths, mental health needs, risk behaviors, and life domain functioning were continuous and met the first assumption. The study's design called for three categorical levels of each variable, pretest, midtest, and posttest, to meet the second assumption. However, data screening determined that only pretest and posttest measures would be utilized due to missing midtest data. Although a paired-samples t-test is more commonly utilized when a within-subjects factor has two levels, a one-way repeated measures ANOVA is still appropriate. The other three assumptions for a one-way repeated measures ANOVA are specific to the data collected. The final three assumptions are included below with the results of the one-way repeated measures ANOVA conducted on the individual variables of individual strengths, mental health needs, risk behaviors, and life domain functioning.

RQ 1: Individual Strengths

Before completing the one-way repeated measure ANOVA on the variable of individual strengths, three violations of assumptions were screened for in addition to the first two assumptions noted above. The third assumption states that there should be no significant outliers, which the researcher screened by utilizing stem and leaf plots. The fourth assumption requires

that data is distributed approximately normally. This assumption was screened by utilizing the Shapiro-Wilk test, which showed that for both the pretest and posttest levels, data was not normally distributed ($p < .05$). Although the assumption of normality was violated, data analysis was still completed because the one-way repeated measures ANOVA is considered a robust analysis to violations of normality (Laerd Statistics, 2021). The fifth violation of assumption screened for was the assumption of sphericity. The final data analysis only included two levels of the within-subjects factor, pretest and posttest; therefore, screening for sphericity was unnecessary and assumed.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ST_Pre	.075	188	.012	.984	188	.034
ST_Post	.082	188	.004	.985	188	.048

a. Lilliefors Significance Correction

A one-way repeated measures ANOVA was conducted to compare pretest and posttest individual strengths scores for 188 mental health peer support services recipients. The analysis illustrated that there was a statistically significant decrease between pretest (mean = 15.76) and posttest (mean = 14.14) scores (Wilks' Lambda = .93, F (1,187) = 15.07, p = <.001). These results suggest that receiving mental health peer support services positively correlates with developing or improving an individual's strengths identified in the ANSA assessment tool.

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
ST_Time	Pillai's Trace	.075	15.073[b]	1.000	187.000	<.001	.075
	Wilks' Lambda	.925	15.073[b]	1.000	187.000	<.001	.075
	Hotelling's Trace	.081	15.073[b]	1.000	187.000	<.001	.075
	Roy's Largest Root	.081	15.073[b]	1.000	187.000	<.001	.075

a. Design: Intercept
Within Subjects Design: ST_Time
b. Exact statistic

RQ 2: Mental Health Needs

The second variable, mental health needs, was also screened for violations of the three remaining assumptions. Stem and leaf plots confirmed that there were no outliers, and the Shapiro-Wilk test determined that the data were not distributed normally (p = < .05). Although the assumption of normality was violated, the one-way repeated measures ANOVA is a robust analysis to violations of normality and was still completed. Only two levels of the mental health needs variable allowed sphericity to be assumed.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MH_Pre	.109	188	<.001	.961	188	<.001
MH_Post	.111	188	<.001	.978	188	.005

a. Lilliefors Significance Correction

A one-way repeated measures ANOVA was conducted to compare pretest and posttest mental health needs scores for 188 mental health peer support services recipients. The analysis illustrated that the decrease between pretest (mean = 9.92) and posttest scores (mean = 9.76) was not statistically significant (Wilks' Lambda = .99, F (1,187) = .26, p = .61). These results suggest that receiving mental health peer support services is not associated with an improvement in the mental health needs of peer support recipients identified in the ANSA assessment tool.

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
MH_Time	Pillai's Trace	.001	.263[b]	1.000	187.000	.609	.001
	Wilks' Lambda	.999	.263[b]	1.000	187.000	.609	.001
	Hotelling's Trace	.001	.263[b]	1.000	187.000	.609	.001
	Roy's Largest Root	.001	.263[b]	1.000	187.000	.609	.001

a. Design: Intercept
Within Subjects Design: MH_Time
b. Exact statistic

RQ 3: Risk Behaviors

Risk behaviors was the third variable analyzed using a one-way repeated measures ANOVA and screened for violations of outliers, normality, and sphericity assumptions. Stem and leaf plots confirmed no outliers, and the Shapiro-Wilk test determined that the data were not distributed normally (p = < .05). The one-way repeated measures ANOVA was still completed as it is a robust analysis to violations of normality. There were only two levels of the risk behaviors variable, which allowed sphericity to be assumed.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
RB_Pre	.186	188	<.001	.900	188	<.001
RB_Post	.174	188	<.001	.858	188	<.001

a. Lilliefors Significance Correction

A one-way repeated measures ANOVA was conducted to compare pretest and posttest risk behaviors scores for 188 mental health peer support services recipients. The analysis illustrated that decrease between pretest (mean = 2.31) and posttest scores (mean = 1.89) was statistically significant (Wilks' Lambda = .96, F (1,187) = 7.82, p = .006). These results suggest that receiving mental health peer support services correlates with a decrease or improvement in risk behaviors of peer support recipients identified in the ANSA assessment tool.

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
RB_Time	Pillai's Trace	.040	7.821[b]	1.000	187.000	.006	.040
	Wilks' Lambda	.960	7.821[b]	1.000	187.000	.006	.040
	Hotelling's Trace	.042	7.821[b]	1.000	187.000	.006	.040
	Roy's Largest Root	.042	7.821[b]	1.000	187.000	.006	.040

a. Design: Intercept
Within Subjects Design: RB_Time
b. Exact statistic

RQ 4: Life Domain Functioning

The final variable, life domain functioning, was also screened for violations of the three remaining assumptions. Stem and leaf plots confirmed no outliers, and the Shapiro-Wilk test

determined that the data were not distributed normally (p = < .05). There were only two levels of the life domain functioning variable, which allowed sphericity to be assumed.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LD_Pre	.116	188	<.001	.974	188	.001
LD_Post	.088	188	.001	.985	188	.048

a. Lilliefors Significance Correction

A one-way repeated measures ANOVA was conducted to compare pretest and posttest life domain functioning scores for 188 mental health peer support services recipients. The analysis illustrated that the decrease between pretest (mean = 10.13) and posttest scores (mean = 9.56) was not statistically significant (Wilks' Lambda = .98, F (1,187) = 2.95, p = .09). These results suggest that receiving mental health peer support services is not associated with a decrease or improvement in life domain functioning of peer support recipients identified in the ANSA assessment tool.

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
LD_Time	Pillai's Trace	.016	2.950[b]	1.000	187.000	.088	.016
	Wilks' Lambda	.984	2.950[b]	1.000	187.000	.088	.016
	Hotelling's Trace	.016	2.950[b]	1.000	187.000	.088	.016
	Roy's Largest Root	.016	2.950[b]	1.000	187.000	.088	.016

a. Design: Intercept
Within Subjects Design: LD_Time
b. Exact statistic

Hypotheses

This section provides the null and alternative hypotheses for each research question included in the study. The one-way repeated measures ANOVA results for each research question are provided, identifying if the null hypothesis could or could not be rejected.

RQ 1: Individual Strengths

Does participation in Medicaid-funded mental health peer support services increase the individual strengths of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

H1: Mental health peer support participants will report improvement in individual strengths, evidenced by statistically significant differences between pretest and posttest scores, as measured by the ANSA.

H_o1: There will be no significant difference between mental health peer support participants' pretest and posttest individual strengths scores as measured by the ANSA.

Result: The one-way repeated measures ANOVA analysis identified that there was a statistically significant decrease between pretest (mean = 15.76) and posttest (mean = 14.14) scores (Wilks' Lambda = .93, F (1,187) = 15.07, p = <.001). Therefore, the researcher rejected the null hypothesis and accepted the alternative hypothesis that mental health peer support participants report improvement in individual strengths, as defined by the ANSA assessment tool.

RQ 2: Mental Health Needs

Does participation in Medicaid-funded mental health peer support services decrease the mental health needs of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

H2: Mental health peer support participants will report improvement in mental health needs, evidenced by statistically significant differences between pretest and posttest scores measured by the ANSA.

H_o2: There will be no significant difference between mental health peer support participants' pretest and posttest mental health needs scores as measured by the ANSA.

Result: The one-way repeated measures ANOVA analysis identified that the decrease between pretest (mean = 9.92) and posttest scores (mean = 9.76) was not statistically significant (Wilks' Lambda = .99, F (1,187) = .26, p = .61). Therefore, the researcher cannot reject the null hypothesis and cannot accept the alternative hypothesis.

RQ 3: Risk Behaviors

Does participation in Medicaid-funded mental health peer support services decrease the risk behaviors of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

H3: Mental health peer support participants will report improvement in risk behaviors, evidenced by statistically significant differences between pretest and posttest scores, as measured by the ANSA.

H_o3: There will be no significant difference between mental health peer support participants' pretest and posttest risk behaviors scores as measured by the ANSA.

Result: The one-way repeated measures ANOVA analysis identified that a decrease between pretest (mean = 2.31) and posttest scores (mean = 1.89) was statistically significant (Wilks' Lambda = .96, F (1,187) = 7.82, p = .006). Therefore, the researcher could reject the null hypothesis and accept the alternative hypothesis that mental health peer support participants report improved risk behaviors, as defined by the ANSA assessment tool.

RQ 4: Life Domain Functioning

Does participation in Medicaid-funded mental health peer support services increase the life domain functioning of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

H4: Mental health peer support participants will report improvement in life domain functioning, evidenced by statistically significant differences between pretest and posttest scores, as measured by the ANSA.

H_o4: There will be no significant difference between mental health peer support participants' pretest and posttest life domain functioning scores as measured by the ANSA.

Result: The one-way repeated measures ANOVA analysis identified that a decrease between pretest (mean = 10.13) and posttest scores (mean = 9.56) was not statistically significant (Wilks' Lambda = .98, F (1,187) = 2.95, p = .09). Therefore, the researcher cannot reject the null hypothesis and cannot accept the alternative hypothesis.

Summary

The use of mental health peer support continues to grow throughout the United States; however, research limitations partnered with service delivery variations have made it difficult for researchers to get an accurate and consistent picture of the effects of mental health peer support services on mental health recovery outcomes (Charles et al., 2021; Cheesmond et al., 2020; Cronise et al., 2016; Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). The purpose of this study was to evaluate quantitative outcome data of a Medicaid-funded peer support program to investigate if there is a measurable change in recovery outcomes over one year of receiving peer support services. The independent variable in this study was the service of mental health peer support.

Archival data were collected from mental health peer support data and analyzed based upon the ANSA assessment tool, which was utilized to collect recovery outcome scores of participants in their first year of receiving peer support recovery services.

The dependent variables of individual strengths, mental health needs, risk behaviors, and life domain functioning were identified as four specific recovery outcomes categories based on the ANSA assessment tool. Data analysis was run separately on each dependent variable, using a one-way repeated measures ANOVA to determine if there were statistically significant differences between pretest and posttest means of ANSA scores.

This study identified that all four dependent variables had a decrease in means from pretest to posttest; however, there was only a statistically significant difference between pretest and posttest means for two dependent variables, individual strengths and risk behaviors. Data analysis identified that the decreases between pretest and posttest means of the dependent variables, mental health needs and life domain functioning, were not statistically significant.

Chapter Five

Overview

This final chapter intends to connect the purpose and findings of this study to the findings of previous studies and to identify research gaps. Previous research suggested that future peer support studies should provide information about the peer support services utilized to clarify the mechanisms of peer support behind the data. This chapter begins with a detailed description of the evaluated peer support services, an examination of the study's findings, and implications and limitations. The chapter concludes with suggestions for future research.

Discussion

The purpose of this study was to evaluate the quantitative outcome data of a Medicaid-funded peer support program to investigate if there is a measurable change in recovery outcomes over one year of receiving peer support services. There is limited research available on the impact and effectiveness of mental health peer support services and even less research on quantitative design (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Walsh et al., 2018; White et al., 2020). The most common gap discovered in available research was the lack of quantitative outcomes evaluating the effectiveness of peer support services (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). In addition, the generalizability of available research is problematic due to inconsistencies and variability of previously studied peer support programs, which make it difficult to compare and contrast the findings of this quantitative study of measurable outcomes with the findings of previous qualitative studies of service implementation and delivery.

Peer Support Clarification

Previous studies repeatedly acknowledged that variations in peer support roles and programs impact the ability for research findings to be generalized across peer support services (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). A literature review conducted by White et al. (2020) suggested that future research on peer support should consider the specific mechanism of action of the peer support services being evaluated, emphasizing the importance of using an assessment tool that was integrated into the peer support interventions utilized.

Because of the existing variability in mental health peer support service delivery and role confusion of peer support workers across the country, this section includes clarification of the state-specific peer support requirements and regulations as well as performance standards for Medicaid-funded peer support services in the state of Pennsylvania. In addition, clarification on the specific role of the peer specialist at the agency is illustrated. This clarification included with this study's findings can help generalize the findings to other peer support programs in Pennsylvania and inform the development and implementation of future peer support programs across the country (38

; White et al., 2020).

Peer Support Services in Pennsylvania

The Substance Abuse and Mental Health Service Administration suggested guiding values and principles of peer support. However, nationwide industry standards for the delivery of peer support services, the certification of peer specialists, or the training curriculum do not exist. Each state is responsible for developing its state-wide standards for providing Medicaid-funded peer support services. This state-specific approach has made it challenging to gather outcomes on

peer support services that can be generalized across the United States because each state has its requirements for service delivery and peer specialist training.

Peer support services began in Pennsylvania in 2004 and were officially added to Pennsylvania's Medicaid State Plan in 2007, requiring that every county in the state offer the availability of peer support services to qualified Medicaid recipients (Pennsylvania Peer Support Coalition, 2021). Qualified recipients, historically referred to as clients, are intentionally referred to as peers within peer support services. They are individuals 18 years or older with a qualifying mental illness diagnosis who also experience functional impairment due to their mental illness (OMHSAS, 2019). In the state of Pennsylvania, guidelines for peer support services have been developed by Pennsylvania's Office of Mental Health and Substance Use Services. OMHSAS guides acceptable service delivery of Medicaid-funded peer support services but allows individual counties and managed care organizations to develop stricter rules and regulations on peer support service delivery and documentation.

Training

> OMHSAS (2019) defined certified peer specialists in the state of Pennsylvania as:
>
> Self-identified individuals who currently receive, or previously received, behavioral health services, who have a high school diploma or general equivalency diploma, have completed a Certified Peer Specialist (CPS) training curriculum, and complete 18 hours of continued education training per year. (p. 2)

The prerequisite 75-hour CPS training curriculum is provided through three OMHSAS-approved and appointed training vendors; each vendor provides its proprietary training curriculum (The Pennsylvania Certification Board [PCB], n.d.). Although varying in specific training objectives,

the three approved curricula share common themes with training content based on SAMHSA's peer support core competencies and including subjects such as:

- Theoretical principles of recovery and peer support,
- Developing peer support skills,
- The recovery principles,
- Exploring and developing personal recovery and recovery skills,
- Strength-based support strategies,
- Wellness Recovery Action Planning,
- Trauma-informed care,
- Motivational Interviewing,
- Professional ethics and boundaries,
- Documentation, and
- Mandated reporting (Copeland Center for Wellness and Recovery, 2020a; Mental Health Partnership, n.d.; RI International, n.d.).

Certification

As of January 2021, Pennsylvania has 2,490 certified peer specialists (Pennsylvania Peer Support Coalition, 2021). Pennsylvania also utilizes PCB as its governing body to provide official certification to individuals wishing to be employed as a Certified Peer Specialist. The PCB (n.d.) in collaboration with OMHSAS has established a certification exam that must be completed by any trained peer specialist who wishes to provide Medicaid-funded peer support services within Pennsylvania. In addition, the Certification Board has developed a peer support code of ethics establishing rules of conduct that must be acknowledged and signed by all

certified peer specialist applicants before official certification can be awarded, as noted in Table 5. Appendix F contains an expanded definition of each ethical guideline (PCB, 2018):

Table 4

Pennsylvania Certification Board's Peer Support Code of Ethics

Pennsylvania Certification Board's Peer Support Code of Ethics
1. **Practice and role model recovery**,
2. **Practice a dependable service approach**,
3. **Practice confidentiality**,
4. **Practice services that are non-discriminatory**,
5. **Practice** i**ntegrity**,
6. **Practice within the scope of the** certified peer specialist role, and
7. **Practice** c**ooperation with all other** s**tate and** f**ederal agencies when appropriate**

Performance Standards

OMHSAS (2019) outlined the type of services and support peer specialists should provide to their peers, offering peer support provider agencies with the list of approved Medicaid-compensable peer support services noted in Table 6.

Table 5

OMHSAS Approved Peer Support Service Activities

OMHSAS Approved Peer Support Service Activities
Assisting in developing individualized service plans,
Assisting in developing mental health advanced directives,
Supporting individuals in problem-solving related to reintegration into the community,
Crisis support activities,
Assisting individuals in developing **and maintain**ing **positive personal and social support networks**,
Assisting individuals to develop self-help skills and cultivating the individual's ability to make informed, independent choices, **and**
Planning and facilitating practical activities that increase self-worth and improve self-concept

In addition to the above-referenced OMHSAS and PCB rules and regulations, Pennsylvania-based providers of peer support services must also follow the performance standards set forth by individual Managed Care Organizations (MCOs) overseeing Medicaid funds throughout Pennsylvania. Pennsylvania MCO performance standards recognize certified peer specialists as individuals with lived experience of mental illness and recovery who can assist and support others in finding and managing their recovery via mutual support and community integration (Community Care Behavioral Health Organization, n.d.). Peer support services are recognized as non-clinical support services utilized to improve the effectiveness of clinical treatment through modeling provided by certified peer specialists and intentional connections built between a peer's natural and professional environment, facilitated by peer

support services (Community Care Behavioral Health Organization [CCBHO], n.d.). In addition, these performance standards recognize that all individuals, including peers and certified peer specialists, have their strengths, needs, skills, and goals that can be obtained when individuals are given the opportunities to guide their recovery with the help of support that practices unconditional positive regard. More specifically, these performance standards set forth the expectation that Medicaid-billable peer support services in Pennsylvania provide the following services listed in Table 7; Appendix C contains expanded definitions of Community Care Behavioral Health's standards for Mental Health Peer Support Services

Table 6

Community Care Behavioral Health (CCBH) Performance Standards for Medicaid-funded Peer Support Services

CCBH Performance Standards for Mental Health Peer Support Services
1. **Provide opportunities** for peers to direct their own recovery
2. Certified Peer Specialists teach and support the use of skills
3. **Promote knowledge and understanding of available service options and choices**
4. **Promote the use of natural supports and community resources**
5. **Assist in the development of self-worth and overall wellness**

Note: CCBHO, n.d., p. 5

Additional MCO standards also impact the role and training of certified peer specialists in this study's chosen peer support provider agency. MCO standards emphasize the importance of recovery management and non-clinical support in the role of a certified peer specialist, suggesting that qualified, certified peer specialists inhabit the following additional skills: establishing empathy, working with diverse populations, comfort in and ability to work independently in community settings, the ability to provide strengths-based support, and skilled

in sharing one's recovery experience in a manner that benefits and encourages peers (CCBHO, n.d.).

In addition to the training requirements set forth by OMHSAS, MCO standards elaborate upon these requirements, setting forth guidelines that ensure certified peer specialists receive 18 hours of continuing education annually and routine support from a mental health professional (CCBHO, n.d.). Certified peer specialists are expected to receive ongoing weekly supervision from a trained, certified peer specialist supervisor who supports them in administrative and service-delivery concerns, including but not limited to case consultation, documentation support, self-care, recovery and wellness, mentoring and education, and ethical responsibilities.

Peerstar's Peer Support Program

Archival data for this study was provided by Peerstar, LLC, a stand-alone peer support provider licensed in the state of Pennsylvania. As a licensed behavioral health service provider in Pennsylvania, the organization must follow the rules and regulations presented above. In addition to the rules, regulations, and performance standards set forth by the state and various managed care organizations, the agency has developed internal policies and procedures for delivering peer support services.

Peer Support Specialist Role Clarification

Role definitions of mental health peer support specialists are missing from most mental health peer support literature (Asad & Chriem, 2016). Reviewing the role definition of the state and peer support organization is essential. In the state of Pennsylvania and per Peerstar, LLC, a peer support specialist is defined as "a self-identified individual who currently or previously received behavioral health services, who is trained and certified to offer support and assistance in helping others in their recovery and community-integration process" (Pennsylvania Department

of Human Services, 2016, p. 2). To further clarify their role, the state of Pennsylvania also suggests peer support specialists utilize mentoring and service coordination to "inspire hope and promote empowerment, self-determination, understanding, coping skills, and resiliency" (Pennsylvania Department of Human Services, 2016, p. 2). In addition, Peerstar, LLC identifies the roles and responsibilities listed in Table 8 for employed peer support specialists.

Table 7

Certified Peer Specialist Roles and Responsibilities

Certified Peer Specialist Roles and Responsibilities	
Assist in setting and attaining personal recovery-oriented goals	Assist in revising personal recovery-oriented goals as needed
Provide information on support resources available through groups and organizations	Provide outreach to peers who miss scheduled sessions, appear to need support, or have been discharged from programs
Assist recovering individuals in having their voices heard	Support individuals in identifying their areas of need for treatment/communicating those needs
Assist individuals in identifying barriers to their recovery and develop strategies to overcome them	Provide mental health and recovery education and advocacy within the community
Actively participate in team meetings, discharge planning meetings, and other interventions to provide support and advocacy	Provide crisis support as needed
Identify community supports and help individuals understand how to utilize those resources in their recovery	Assist individuals in utilizing resources to help build independence
Assist individuals in developing and practicing skills needed for them to take an active role in the community	Encourage and support individuals in making and keeping scheduled appointments in the community

Service Delivery

Another common concern found in the literature examined related to the role and clarification of peer support services is the variation of service delivery protocols, interventions, and activities (Fortuna et al., 2020; Gillard et al., 2021; Lloyd-Evans, 2014; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). Peer support services provided by

Peerstar, LLC are guided by the peer's recovery wants and needs, gathered through the development of an individual recovery plan. This initial individual recovery plan occurs during the first peer support session and includes the ANSA and the development of peer support recovery goals that the certified peer specialists will support throughout peer support sessions.

Peerstar's peer support services aim to promote community socialization, recovery, self-advocacy, development of natural supports, and maintenance of community living skills. Peer support services are provided in the home and community settings and are guided by goals and activities approved by the state of Pennsylvania. The goals and activities that Peerstar's peer specialists support peers with include those listed in Table 9.

Table 8

Peerstar's Peer Support Goals

Peerstar's Peer Support Goals		
Crisis Support	**Development of Community Roles and Natural Supports**	**Individual Advocacy**
GOAL • Reduce Frequency/Intensity of a Crisis	**GOALS** • Assume a more active role in the community • Return to school • Obtain employment • Obtain housing or change/improve the housing situation • Obtain job training • Obtain school or work accommodations for a psychiatric disability • Obtain stable transportation	**GOALS** • Discuss concerns about medication/diagnosis with health care professionals • Arrange necessary treatment and take a proactive role in the treatment
Self-Help/Self-Improvement	**Wellness and Recovery**	**Social Networking**
GOALS • Make more informed, independent choices • Develop a network of contacts for information and support • Increase self-worth	**GOALS** • Increase personal wellness • Recover from substance abuse/addiction • Recovery from mental illness • Coordinate/link with other service providers • Increase personal wellness and healthy eating • Increase physical health and sleep habits	**GOALS** • Develop/maintain a positive personal/social network • Start a new relationship • Improve/eliminate unhealthy personal relationships • Improve communication with family members/others

Peerstar, LLC provides its certified peer specialists with a guidebook of approved peer support interventions and strategies to help them support their peers in working towards the

above-listed goals. This guidebook helps ensure that the peer support services follow a standardized process across the company.

Provision of the descriptions of both state regulations and Peerstar's service delivery standards help to avoid the concerns illustrated in previous research, namely that with the extreme variations in peer support delivery, available research does not provide an adequate explanation of the peer support services being evaluated (Asad & Chriem, 2016; Fortuna et al., 2020; Gillard et al., 2021; Lloyd-Evans, 2014; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). These descriptions also confirm that the delivery of Peerstar's peer support services aligns with the four theories associated with peer support highlighted in Chapter Three. Those theories focus on the foundations and implementations of peer support rather than the effects and impact of peer support. Peerstar's peer support services reflect social learning theory, experiential knowledge, social comparison, and social support theory (Proudfoot et al., 2012).

Research Questions

As this study has illustrated, quantitative outcome studies on the effectiveness of peer support services are lacking in available research. Completing an evaluation of quantitative outcomes alone adds to the existing literature because available outcome research is sparse. The majority of mental health peer support literature is of qualitative design. It focuses on implementing peer support services, integrating peer support workers into traditional mental health services, attitudes towards peer support workers, challenges of peer support work, and the role of peer support (Fortuna et al., 2020; Gillard et al., 2021; Mutschler et al., 2021; Shalaby & Agyapong, 2020; Storm et al., 2020; White et al., 2020). Of the few quantitative studies identified, a common theme was that outcomes are not consistent across mental health peer support literature. Previous research identified common outcomes, including quality of life,

recovery, hope, empowerment, mental health symptoms, employment, hospitalization, and satisfaction. Consistent with White et al. (2020), the peer support program evaluated also has its own set of outcomes, the ANSA assessment tool listed in Table 10, which was different from other peer support providers.

Table 9

ANSA Categories

Adult Strengths and Needs Assessment (ANSA)			
Individual Strengths		**Mental Health Needs**	
Family	Spiritual/Religious	Psychosis	Antisocial Behavior
Social Connectedness	Community-Connection	Impulse Control	Adjustment to-Trauma
Optimism	Natural Supports	Depression	Anger Control
Educational	Resiliency	Anxiety	Substance Abuse
Job History	Resourcefulness	Mania	Eating Disturbances
Talents/Interests	Volunteering	Interpersonal Problems	
Life Domain Functioning		**Risk Behaviors**	
Legal	Food Insecurity	Danger to Self	Danger to Others
Employment	Physical/Medical Treatment-Involvement	Self-Mutilation	Gambling
Family Functioning	Self-Care	Other Self-Harm	Sexual Aggression
Living Skills	Sleep	Exploitation	Criminal Behavior
Social Functioning	Medication Compliance		
Recreational	Sexuality		
Intellectual/Developmental			
Residential Stability			
Transportation			
School			

Note: As developed by the John Praed Foundation, 2020.

The four research questions were developed to mirror the recovery outcomes available on the ANSA assessment tool Peerstar, LLC utilized and provided much-needed quantitative research on peer support outcomes. As illustrated in Chapter Three, a review of 150 peer-reviewed journal articles produced only four quantitative peer support studies. This study is an essential addition to the field of peer support, providing much-needed evaluations of measurable

outcomes that can help to build the understanding and credibility of peer support services. In addition, this study's findings can help to improve current peer support programs, highlighting areas for training, assessment, and service delivery improvements.

RQ 1. Does participation in Medicaid-funded mental health peer support services increase individual strengths of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

As identified by the ANSA assessment tool, individual strengths refer to the strengths that an individual has to advance healthy development. The ANSA assessment tool suggests that it is crucial to work on strengths while also supporting someone in managing behavior and emotions to improve overall functioning. Consistent with the recovery model discussed previously, this ANSA category acknowledged that improvement in outcomes was not merely the remission of mental health symptoms but was also based on developing, accessing, and using one's strengths.

This study's findings identified a significant difference between pretest (mean = 15.76) and posttest (mean = 14.14) scores in the individual strengths category of the ANSA assessment tool. The decrease in mean from pretest to posttest suggests that individuals who receive peer support services improve their strengths while engaged in mental health peer support services. Although the effect size is small (< 1%), these results are still meaningful as small effect size is often present in non-experimental designs, such as this one, that could not control for other factors that may have impacted participants' recovery (Brown et al, 2019). These findings are consistent with the few quantitative outcome evaluations available. More specifically, these findings confirm those SAMHSA (2015; 2017) highlighted that individuals receiving peer support report improvements in community engagement and relationship building. Studies

conducted by Kukla et al. (2021) and Ewens et al. (2021) also concluded that peer support services are associated with developing social connections. However, these findings contrast with White et al.'s (2020) systematic review of 19 research trials, noting that peer support services did not have a statistically significant effect on improving social network support.

In addition, the strengths outcomes assessed were consistent with some of the goals of peer support services in Pennsylvania, suggesting that the strengths outcomes captured were relevant to the state-specific service delivery goals of building positive personal and social relationships and connecting to resources (Pennsylvania Department of Human Services, 2019). This suggests that the peer support services evaluated effectively meet these two specific goals of Pennsylvania's Medicaid-funded peer support services.

RQ2. Does participation in Medicaid-funded mental health peer support services decrease the mental health needs of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

Medicaid-funded peer support services in Pennsylvania are provided explicitly to individuals experiencing mental health struggles. This research question was based on the mental health needs category of the ANSA assessment and captured the mental health needs of peer support participants. ANSA recognizes mental health needs as the individual's behavioral health needs, explicitly rating the level of dysfunction or distress the mental health symptoms are causing. The findings of this study identified a slight decrease in pretest (mean = 9.92) and posttest (mean = 9.76) means of mental health needs scores; however, the decrease was not significant.

Previous research studies indicated inconsistent findings in the relationship between peer support services and mental health needs. The findings of this study were consistent with the

literature reviews conducted by Mutschler et al. (2021), Shalaby and Agyapong (2020), and White et al. (2020), who identified that peer support services had no significant effect on psychiatric symptoms. Studies by Ewens et al. (2021) and Kukla et al. (2021) suggested that peer support services were effective in helping individuals manage their psychological distress rather than decreasing their mental health symptoms. Management of psychological distress was not a variable captured by the ANSA assessment tool or evaluated within this study.

This study's findings were also consistent with the foundational values and beliefs of recovery and peer support. The recovery model and the foundations of peer support emphasize that recovery is not complete remission of mental health symptoms but rather an improvement in well-being and role-functioning even in the presence of mental health symptoms (Frost et al., 2017; Jacob, 2015; Loumpa, 2012; SAMHSA, 2020). Pennsylvania peer support services are a non-clinical approach to mental health support and are not designed to decrease mental health symptoms like clinical treatment is designed to do (Oborn et al., 2019; Pennsylvania Department of Human Services, 2019). Peer support providers and organizations can use this study's findings on mental health needs to guide the direction of their peer support training, assessment, and intervention approach, steering their focus on overall wellness and not symptom elimination. More specifically, identifying assessment tools that capture the development of coping skills and illness management strategies rather than tools that measure mental health symptoms would align better with the foundational theories and goals of peer support services.

RQ3. Does participation in Medicaid-funded mental health peer support services decrease the risk behaviors of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

According to the ANSA, risk behaviors are factors existing in the individual's life that can increase the likelihood of developing mental health and other difficulties. This researcher could not identify any risk behaviors discussed in available peer support research, although they are discussed in studies focused on mental health and severe mental illness. The absence of risk behaviors in available peer support research may be due to the foundational beliefs and goals of peer support, which do not identify risk behaviors as a specific target of peer support services.

Although it may not seem like a typical focus area of peer support services, the findings of this study identified a statistically significant decrease from pretest (mean = 2.31) to posttest (mean = 1.89) of the risk behavior variables, suggesting that receiving peer support services decreases the individual's risk behaviors. Although the effect size was also small (<1%), it is still meaningful as discussed previously. The ANSA assessment tool suggests that decreasing risk behaviors can decrease an individual's likelihood of developing mental health and other personal struggles.

Risk behaviors were not discussed in available peer support literature or the approved expectations of Pennsylvania-based Medicaid-funded peer support services. However, this study's findings suggest that peer support services are effective in helping individuals improve areas of their life not regularly evaluated in peer support services. Participants identified decreases in suicide risk, self-injurious behavior, exploitation, and criminal behavior. This information can help expand the goals and activities of peer support services in Pennsylvania and beyond, providing new opportunities for peer support workers and those they support.

RQ4. Does participation in Medicaid-funded mental health peer support services increase the life domain functioning of mental health peer support program participants as measured by pretest and posttest scores on the staff-administered Adult Needs and Strengths Assessment?

Life domain functioning is a common variable found in the available quantitative studies previously conducted. As defined by the ANSA, life domain functioning refers to how the individual functions in different social interactions. This study's results identified a small decrease in pretest (mean = 10.13) and posttest (mean = 9.56) means of life domain variables; however, the decrease was not statistically significant, representing an opportunity for improvement. These findings are inconsistent with research conducted by Cheesmond et al. (2020), Ewens et al. (2021), Kukla et al. (2021), and Shalaby and Agyapong (2020), which suggest that peer support services help individuals overcome functional impairments, improve living skills, become more active in their treatment, and develop social connections. In contrast, research conducted by White et al. (2020) identified that there was not a significant effect of peer support services on general functioning for individuals receiving services, which is consistent with this study's findings.

Life domain functioning was a standard variable found in available peer support research and a common theme in the many descriptions of peer support services. The state of Pennsylvania suggests that peer support services improve numerous areas of life domain functioning, but this study and the systematic review of 19 research trials conducted by White et al. (2020) suggested that peer support services have no significant effect on life domain functioning. The inconsistency in research findings illustrates that some peer support programs are effective in improving life domain functioning while others are not. These findings can provide needed information for organizations to improve training and service delivery strategies to support peers in improving life domain functioning.

Implications

The primary implication of this research study was that necessary quantitative research is missing in the field of peer support and mental health recovery. Consistently illustrated in previous research was the need for quantitative outcomes measuring the effects of peer support services and research studies that clarify the roles and mechanisms of the peer support services being evaluated. The findings of this quantitative outcome evaluation can help improve the credibility of mental health peer support services by providing evidence that measurable change exists between pretest and posttest assessment scores. An evaluation of measurable outcomes can also add professionalism and illustrate practitioners' capabilities and needs.

As mental health peer support services continue to grow, this study illustrates recovery outcomes that could guide and improve future delivery of peer support services for Peerstar, LLC and other providers in Pennsylvania. For example, although the ANSA assessment tool may help to develop peer support goals for participants initially, the variables do not align with the goals outlined in the service description of the organization, the goals set forth by the state of Pennsylvania, or the foundational principles of peer support services. Peer support is regularly presented in the literature as a service that improves wellness, promotes empowerment, and inspires hope (Marshall et al., 2008; SAMHSA, 2017). In addition, the state of Pennsylvania identifies peer support as a service promoting self-determination, coping skills, resiliency, recovery, community inclusion, and problem-solving skills (Pennsylvania Department of Human Services, 2019). However, the ANSA assessment does not capture outcomes for most of those variables. This evaluation of ANSA outcomes for peer support participants can assist Peerstar, LLC in determining if the assessment tool is the best tool to capture outcomes based on the values and goals of peer support services in Pennsylvania.

Additionally, the findings of this study provide the organization with non-biased evidence of areas for improvement and guidance on determining training needs for their staff, recognizing the outcomes that did not see a significant change in means and identifying training and resources to develop skills in those areas. Furthermore, this study identified that the data collected was not normally distributed and consisted of incomplete data. These two findings indicate possible errors in the data collection techniques utilized by Peerstar staff and could illustrate a need for more training. For example, the assessment tool is a standardized tool and is to be completed in its entirety. However, some assessments were incomplete, missing a variety of scores. In addition, pretest and posttest assessment completion were, at times, by different staff members, allowing an opportunity for assessment answers to be scored inconsistently. This outcome evaluation provided non-biased, quantitative outcomes that could identify trends in peer support services, needs for peer support programs, and guidance for future service regulations to continue and improve Medicaid-funded peer support services in Pennsylvania and beyond.

This study can inform future research, policy, and procedures in mental health recovery and peer support. In addition to the benefits of capturing measurable outcomes, this study highlighted inconsistencies and areas of improvement for peer support services across the country.

Limitations

This study has numerous limitations that threaten both internal and external validity. The first limitation is specific to the ANSA assessment tool. Although the ANSA assessment tool was valid and reliable for behavioral health services, its variables do not align with the goals outlined in the peer support service description provided by Peerstar, LLC or the foundational principles of peer support illustrated in Chapter Three. This implies that the assessment tool may

not capture the actual effects of the peer support services. In addition, although the ANSA test is only administered by staff trained and certified to do so. It provides specific definitions of the scoring options, and an aspect of the assessment is still open to subjective interpretation by both the assessment facilitator and the respondent. This interpretation could impact the accuracy of the assessment scores.

Another threat to this study's internal validity was how the ANSA assessment was completed. The assessment was completed at the initial peer support appointment between a peer, certified peer specialist, and certified peer specialist supervisor. The individuals have not met before and may not have a relationship that is trusting or safe enough for accurate scoring. In addition, the pretest and posttest scores may have been collected by different assessors with different interpretations of the questions or scores. Furthermore, two variables within this study did not have a normal data distribution, suggesting that errors may occur in the assessment scoring process.

A third limitation of this study is the unknown information about the peer support participants. The archival data did not include all of the variables requested by the researcher and did not provide information about other mental health services or supports that the individuals utilized. It is essential to recognize that changes between pretest and posttest scores could be impacted by other factors beyond receiving peer support services. Two important variables that were unavailable for the study were mental health diagnosis and current mental health treatment. Other factors, such as relationship status, housing situation, chronic illness, poverty, environmental stressors, and medication management, could impact an individual’s recovery and wellness improvement.

A fourth limitation involved the quality of the certified peer specialists providing the services. The participants in this study were provided peer support services by different certified peer specialists. As noted previously, there are three different certification trainings in the state of Pennsylvania, which indicates that certified peer specialists do not begin working with the same information or training experience. Although Peerstar, LLC has provided guidelines and tools to help standardize the delivery of peer support services, each certified peer specialist has different levels of training and experience as well as different knowledge and skill sets.

The final implication involved the number of times participants received peer support services. Every participant received one year of peer support services; however, it is unknown how many sessions a week or how many total hours of peer support services each participant received in their first year of services. In Pennsylvania, peer support services can be received up to 17 hours weekly based on the participant's needs. This researcher requested data that included the number of peer support sessions received but could not acquire it. Study participants could have utilized peer support services for as much as 17 hours or as little as 15 minutes a week. Participants may have also skipped weeks throughout the year.

Recommendations for Future Research

Additional quantitative studies are still needed to report on peer support services' effects. More specifically, outcome measurements that reflect the goals of the services and interventions provided have been requested by White et al. (2020). Outcome studies that include additional control variables can also improve the study's validity. Although this body of research provides outcome measurements, improvements in the research design and data collection are needed for a more accurate picture of the effects of mental health peer support services.

Additional research is also needed to tie the effects of peer support to the theoretical foundations of peer support services. This researcher could not locate quantitative research studies that connected the impact of peer support services to its theoretical underpinnings and could not connect this study's results due to variations in outcome measures. More specifically, future research evaluating the theoretical principles of peer support could inform the development, implementation, and maintenance of future peer support services.

The variations in peer support services across the country impacted the availability of quantitative studies evaluating the effects of peer support services. Future studies are needed to help guide and implement the standardization of peer support services across the country. Future studies that evaluate the effect of peer support services based on variables, such as training curriculum, role definition, service provisions, goals, and interventions, could help inform future rules, regulations, and service standards that improve health and wellness outcomes for individuals with SMI.

Summary

The purpose of this study was to evaluate quantitative outcome data of a Medicaid-funded peer support program to investigate if there is a measurable change in recovery outcomes over one year of receiving peer support services. This study was completed as the result of a literature review of approximately 150 peer-reviewed articles consistently suggesting a need for quantitative outcome studies on the effects of peer support services. The deficiency in available quantitative peer support research impacts the credibility, professionalism, and future of mental health peer support services which could drastically impact the overall health and wellness of the individuals in need of mental health support, guidance, and mentorship. This chapter illustrated specific aspects of the peer support services evaluated in this study and confirmed the importance

of completing this outcome evaluation. It also offers suggestions for future research that continues to improve the knowledge, skills, and delivery of peer support services.

This researcher hopes that providing evidence of the impact of peer support services will build credibility and support that help to provide additional opportunities for mental health and recovery support for those in need. It is also this researcher's hope that this study will provide opportunities for guiding and improving peer support services, which will create additional mental health recovery supports in our communities.

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Appendix A

25 Pillars of Peer Support Services

Daniels et al. (2010) identified the following twenty-five pillars of peer support services in an attempt to provide standardized guidelines for implementing peer support services:

1. Have clear job and service descriptions: specific duties must be described and adhered to avoid role confusion and ambiguity.

2. Recognize the importance of job-related competencies: Peer specialists should have knowledge and skills that aid them in recognizing the impact of trauma on the individuals served.

3. Utilize skills-based recovery and whole health training programs: Peer specialist training programs should review the values, principles, and ethics of peer specialist duties, including trauma-informed care and cultural competencies.

4. Utilize competencies-based testing process: Peer Specialist trainees should master the competencies outlined in the peer specialist job description, measured by a competencies-based testing procedure.

5. Include a peer specialist-related certification: A necessary certification procedure that leads to peer specialist employment aids in improving the fidelity and integrity of the peer support services being provided within the state.

6. Require ongoing continuing education: All certified peer specialists should be required to continue their education to maintain certification status.

7. Provide opportunities for professional advancement: Certified peer specialist should be provided opportunities to gain employment in the behavioral health system beyond their entry-level position.

8. Provide employment opportunities that expand the peer specialist's role: Peer specialists' strengths and goals should be incorporated into employment opportunities beyond their role as direct support personnel.

9. Engage a consumer movement: Peer support services should advocate for mental health consumers by providing state-level opportunities to mental health consumers to receive training, networking, and advocacy.

10. Develop celebration strategies to empower peer workers: The work of peer specialists is significant to behavioral health care and mental health treatment and must be recognized.

11. Provide opportunities for peer specialists to network with others: Peer specialists should be provided opportunities to attend recovery events and networking opportunities to connect with other peer specialists.

12. Offer support in accessing technology: Peer specialists should be provided with the education needed to use technology effectively in their work supporting others.

13. Implement a team at the state level to oversee peer support services: A team of recovery-oriented professionals should oversee training, certification, and continuing education requirements.

14. Conduct systematic research and evaluation of peer support services: The state should monitor the effectiveness of their peer support program through systematic research and evaluation that identify strengths and opportunities for improvement.

15. Implement strategies for peer workforce development: Applicants interested in becoming peer specialists should be provided opportunities to learn about the training and certification process.

16. Develop a stakeholders training program: States should develop a comprehensive training program that provides education on the recovery principles and the role of peer specialists to traditional, non-peer staff.

17. Identify or develop consumer-run organizations: States should use consumer-run organizations that provide opportunities for consumers of mental health services to advocate for and implement peer support service delivery strategies.

18. Provide routine certification trainings: States should ensure regular certified peer specialist training opportunities are available.

19. Develop a train-the-trainer program for current peer specialists: States should provide opportunities for currently certified peer specialists to become trainers of the certification training.

20. Ensure sustainable funding of peer support services: States should commit to funding peer support services.

21. Create multi-level governmental support: The value of peer support services should be regularly communicated through multiple levels of governmental representatives.

22. Develop a code of ethics: Peer support services should have an established code of ethics and conduct that provides expectations of peer support services within the state.

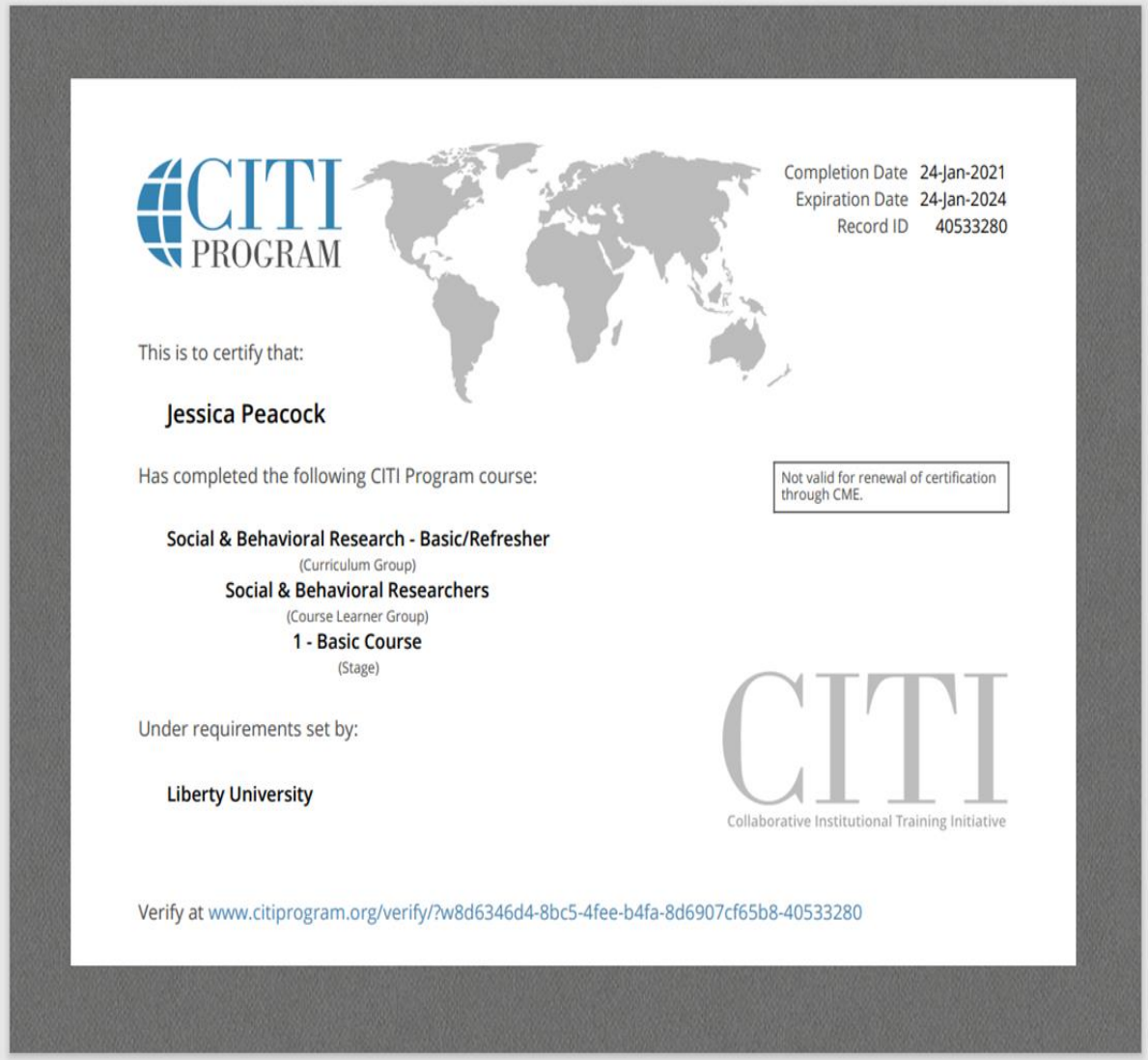
23. Encourage diversity: Peer support is an individualized service recognized by the state through a diverse population of peer specialist staff and representatives of the communities they serve.

24. Provide competency-based training for supervisors of peer support programs: Individuals who supervise peer specialists should also receive training based on the values, principles, and competencies of peer specialists.

25. Peer support whole health services are implemented: Peer specialists should be trained in providing peer support whole health services as an effective tool for promoting recovery and resiliency in the peers they serve.

Appendix B

Collaborative Institutional Training Initiative Training Certificate



Appendix C

Permission Response Letter

PEERSTAR LLC[SM]

December 7, 2021

Jessica A. Peacock
Doctoral Candidate
Liberty University

Dear Jessica Peacock:

After careful review of your research proposal entitled "Evaluating the effects of a Pennsylvania-based Medicaid-Funded mental health peer support program, I have decided to grant you permission to receive and utilize our service-related client/staff service data/records/etc., (including demographic information as well as assessment and goal-related outcomes) for your research study.

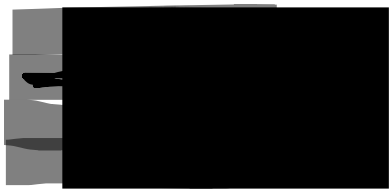
Check the following boxes, as applicable:

☒ The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

☐ [The requested data WILL NOT BE STRIPPED of identifying information before it is provided to the researcher.]

☒ [[I/We] are requesting a copy of the results upon study completion and/or publication.]

Sincerely,



Appendix D

Institutional Review Board Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

April 21, 2022

Jessica Peacock
Jeff Doyle

Re: IRB Application - IRB-FY21-22-885 Evaluating the Effects of a Pennsylvania-based Medicaid-funded Mental Health Peer Support Program

Dear Jessica Peacock and Jeff Doyle,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study does not classify as human subjects research. This means you may begin your project with the data safeguarding methods mentioned in your IRB application.

Decision: No Human Subjects Research

Explanation: Your study is not considered human subjects research for the following reason: It will not involve the collection of identifiable, private information from or about living individuals (45 CFR 46.102).

Please note that this decision only applies to your current application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued non-human subjects research status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this determination or need assistance in determining whether possible modifications to your protocol would change your application's status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix E

Conflict of Interest Clarification Letter

[redacted]

March 4, 2022

The Research Ethics Office
Institutional Review Board
Liberty University

RE: Research Request of Jessica A. Peacock "Evaluating the effects of a Pennsylvania-based Medicaid-funded mental health peer support program.

To whom it may concern:

Please accept this letter as a safeguard against any perceived dual relationship conflict of interest in the proposed research study reference above.

Jessica A. Peacock, an employee at [redacted] has my permission to receive and utilize our service-related client/staff service data/records/etc as previously granted in a response letter dated December 7, 2021. This archival data will be provided through electronic medical records and stripped of all identifying information before it is provided to Jessica.

Furthermore, I would like to clarify and confirm that in her employment with [redacted] Jessica A. Peacock is expected to remain objective in her research study and will not receive any financial or employment gains or losses based upon the results of her study. It is the expectation that the research findings will be an accurate portrayal of the effects of mental health peer support services and the findings will only be used to inform the future delivery of our services, not as an employment or payment condition of the researcher.

Sincerely,

[redacted]

Appendix F

Pennsylvania Certification Board Peer Support Code of Ethics

• Practice and role model recovery: Certified peer specialists are expected to manage and maintain their wellness and recovery, recognizing how their impairment can negatively impact the individuals they are supporting. Certified peer specialists are expected to seek support and treatment if they begin to struggle with their wellness and recovery.

• Practice a dependable service approach: Certified peer specialists must provide consistent and dependable support and shall not abandon or discontinue their professional services without proper transfer or closure.

• Practice confidentiality: Certified peer specialists are expected to maintain the confidentiality of information obtained through their professional relationship as certified peer specialists. Confidentiality expectations include protected health information, services received, and photographs.

• Practice services that are non-discriminatory: Certified peer specialists are not permitted to discriminate against any individual receiving or seeking peer support services. Certified peer specialists must respect all state and federal non-discrimination regulations and statutes.

• Practice integrity: Certified peer specialists are expected and agree that they will not act in a manner unbecoming of a certified professional. This includes but is not limited to specific criminal offenses, engaging in romantic or sexual conduct with clients and their families, misrepresentation of their certification status or role, providing false or misleading information, falsifying records or reports, maintaining personal friendships with previous clients, property or financial exchanges among clients and their families, and accepting games.

• Practice within the scope of the certified peer specialist role: Certified peer specialists are expected to practice and comply with all expectations associated with their designated certificate and should not perform services outside the scope of their training and certification. Certified peer specialists are expected to seek and obtain consultation or a referral for additional services when client needs exceed the peer support scope of practice.

• Practice cooperation with all other state and federal agencies when appropriate: Certified peer specialists will adhere to and follow the guidance provided by other entities regarding reporting abuse, Medicaid fraud, waste, and abuse; or when they are part of an investigation related to their professional role of certified peer specialist.

Appendix G

Community Care Behavioral Health Performance Standards

• Provide opportunities for peers to direct their recovery: Peer support services support individuals in developing individualized recovery plans with recovery goals directed by the peer's wants and needs.

• Certified peer specialists teach and support the use of skills: Certified peer specialists use their own recovery in combination with the peer's goals to model and encourage the skills needed to work towards recovery.

• Promote knowledge and understanding of available service options and choices: Certified peer specialists assist peers in identifying and learning about available treatment options and service types.

• Promote the use of natural supports and community resources: Certified peer specialists assist peers in connecting to natural and professional supports available in their community or online.

• Assist in developing self-worth and overall wellness: Certified peer specialists will implement strategies that build the self-worth and self-value of individuals receiving services.