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Research Paper

Use of Evidence-Based Practices in Recreational Therapy for Schizophrenia Spectrum Disorder Recovery: A Descriptive Study of Current Practices

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Abstract

Schizophrenia spectrum disorder (SSD) represents a group of complex and chronic psychotic disorders affecting approximately 10.7% of the global population. Even though there is no cure for SSD, most symptoms can improve with active treatment. Effective interventions include pharmaceuticals and psychosocial treatments such as recreational therapy (RT). RT can provide effective and efficient care to individuals with SSD by grounding interventions in evidence-based practices indicated in the Mental Health Recovery Model (MHRM), as well as utilizing recommendations by the Schizophrenia Patient Outcome Research Team (PORT). A cross-sectional survey was used to identify awareness and utilization of MHRM principles and PORT recommendations in RT services for individuals with SSD. Data from 126 surveys completed by recreational therapists who currently or have previously provided treatment for individuals with SSD indicated discrepancies in awareness and utilization of MHRM principles and PORT recommendations. Implications for RT practice are discussed.

Keywords

Evidence-based practice, mental health, recovery, recreational therapy, schizophrenia spectrum disorder

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Introduction

In 2017, an estimated 10.7% of the global population, or 792 million people, were diagnosed with a mental illness (Ritchie & Roser, 2020). Severe mental illnesses such as psychosis and schizophrenia spectrum disorder (SSD) often lead to serious functional impairments that have the capability of limiting life activities (National Institute of Mental Health, 2015). According to the *DSM V*, the diagnostic criteria for psychotic disorders and SSD requires having at least one of the following symptoms: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, and negative symptoms. Further, the DSM requires that presenting symptoms must interfere with the occupational and social domains of an individual's life for a formal diagnosis (American Psychiatric Association [APA], 2013). However, SSD symptoms tend to impact an individual's physical, psychological, and environmental domains of life as well (Mohandoss, 2017), and therefore treatment for SSD requires a recovery-oriented approach consisting of pharmaceutical and psychosocial services, such as Recreational Therapy (RT).

RT is a therapeutic modality within healthcare that provides services to various populations diagnosed with physical or mental illnesses. The goal of RT is to improve the overall quality of life of a person with an illness or disability and to reduce or mitigate the illness' effects through goal-driven participation in recreational and leisure activities (Sorensen, 1999). Participating in RT activities has the potential to improve social skills, cognitive skills, and life satisfaction for people diagnosed with mental illnesses by developing independence, and increasing the level of functioning while reducing limitations (American Therapeutic Recreation Association [ATRA], 2017; Snethen, McCormick, & Van Puymbroeck, 2012).

Though RT is applied to meet the needs of the individual receiving the services, there is a lack of set guidelines for recreational therapists to follow when providing services to individuals with SSD. Therefore, there is a need for evidence-based practices for recreational therapists to provide efficient and beneficial treatment for the recovery process of SSD. This study was designed to identify if recreational therapists were utilizing evidence-based practice in treatment for SSD and, if so, how was it being implemented in RT practice. Specifically, this study focused on the use of the Mental Health Recovery Model (MHRM) and the Schizophrenia Patient Outcomes Research Team (PORT) recommendations in practice. The MHRM and Schizophrenia PORT recommendations are designed to provide a recovery guideline for mental illnesses, and respectively, SSD. The importance of providing a guideline for SSD recovery within RT is to promote standardized, evidence-based services that are supported to best benefit the individual, and to improve their quality of life through an efficient and supported recovery process.

Literature Review

Approaches to Care for SSD

Standard care for individuals with SSD has historically included pharmaceuticals mixed with psychological treatment (Kreyenbuhl et al., 2010), while another model of care has emerged referred to as mental health recovery. According to the Substance Abuse and Mental Health Services Administration ([SAMHSA], 2019), recovery, in terms of mental disorders and/or substance abuse, is defined as "a process of change

through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential" (para. 2).

Currently, the most effective form of treatment for SSD consists of a combination of pharmaceutical, psychological, and psychosocial treatments (Adams et al., 2000). Psychological treatment and pharmaceutical treatment are most effective when provided simultaneously (Bustillo et al., 2001). For example, Lenroot et al. (2003) found that 14% to 40% of patients who were treated exclusively with medication experienced relapses within one year and continued to have impairments in social and cognitive functioning. Psychological and psychosocial treatment involved in recovery can help to prevent relapse, improve social and cognitive functioning, and manage the remaining residual symptoms, (Bustillo et al., 2001; Hogarty & Ulrich, 1998), such as blunted affect or conceptual disorganization (Schennach et al., 2015).

The psychological and psychosocial treatment options for SSD include family therapy, community reintegration, social skills training, vocational rehabilitation, cognitive behavior therapy, and individual therapy (Bustillo et al., 2001). These treatment services are commonly provided in inpatient facilities, outpatient programs, or community-based settings. Inpatient hospitalization for mental illness focuses on symptom management with the hope of preparing individuals for reintegration back into the community (Sharfstein, 2009). Outpatient programs provide services that work on improving social functioning, prevent relapse, incorporate an individual's needs and interests, and focus on employment opportunities and social skills training (American Psychiatric Association [APA], 2004). Community-based programs focus on providing services in the community that increase reintegration and ongoing support for the individual (APA).

While many of these settings focus on the treatment of mental illness and SSD, a paradigm shift has occurred that focuses on mental health recovery (Jacob, 2015; Slade et al., 2014). Recovery-oriented approaches place less emphasis on mental health diagnoses and symptomology and focus more on the individual's strengths and their immediate and extended environments, thus empowering them to live a meaningful life in the environment of their choice (Jacob, 2015). Therefore, the recovery approach is more focused on an individual's ability to live autonomously, without their symptoms being at the forefront of their lives and the treatment services they receive. The accessibility and use of recreation-based services and programs fit well within the recovery-oriented approach (Fenton, 2016), as well as the more traditional treatment approaches. An example of the use of recreation to promote mental health recovery is RT. Two evidence-based approaches to care that can guide RT practice are the mental health recovery model (MHRM) and the schizophrenia patient outcomes research team (PORT) recommendations.

Mental Health Recovery Model (MHRM)

The MHRM describes recovery as maintaining control of one's life by highlighting belief, hope, and optimism concerning outcomes following psychosis, and promotes the idea that despite the symptoms, an individual diagnosed with a mental illness can find purpose in life (Jacob, 2015; Warner, 2010). A central tenet of this approach is the effort to empower users of mental health services, who are often disempowered through involuntary confinement, stigmas associated with mental illness, and their own acceptance of those stereotypes (Warner, 2010). Efforts to empower individuals

using recovery-oriented approaches may include education about their illness and supporting the development of self-management and decision making strategies (Davidson, 2005; Warner, 2010); offering peer support services (Resnick & Rosenheck, 2008); assisting in the development of good relationships, financial security, and satisfying work (Bonney & Stickley, 2008; Davidson, 2005; Ramon, Healy, & Renouf, 2007); and helping them develop an active living lifestyle that includes enjoyable and meaningful leisure pursuits (Iwasaki, Coyle, & Shank, 2010).

This model is the foundation for the process of recovery from mental illness and has guided the development of treatment options and services used in practice today (Jacobson & Greenley, 2001). In fact, recent research identified a positive correlation between the use of the MHRM in SSD treatment and the quality of life of the individual receiving treatment (Chiu et al., 2010). According to the APA (2012) and the National Alliance on Mental Illness (National Alliance on Mental Illness, 2020), there are 10 evidence-based, core principles, developed by the SAMHSA (2019) that correspond with the recovery approach and are intended to promote and guide mental health treatment services. A combination of these principles and treatment services aim to increase the overall quality of life of individuals with mental illnesses, such as SSD (Jacob, 2015). For example, the recovery-oriented principle of being strengths-based has been reflected in practice by Iwasaki et al. (2010) conceptualization of active living, specifically meaningful leisure, as supportive of mental health recovery. Leisure provides the opportunity within recovery for mental health to promote identity, positive emotions, social connections, and development of skills for coping with symptoms by encouraging a mind-body-spirit connection through various activities, such as tai-chi (Iwasaki et al., 2010). By incorporating leisure in the recovery process, individuals diagnosed with mental illnesses have the potential to have a more meaningful and enriched quality of life (Iwasaki et al., 2010). Refer to Table 1 to review the definitions in the MHRM to consider as leisure is incorporated into this model.

Table 1
Mental Health Recovery Model Principle Definitions

Principle	Definition
Self- direction	The patient assists in deciding the recovery process.
Individualized and Person-Centered	Treatment is shaped by the patient's strengths, needs, and experiences.
Empowerment	Individual has a say in all treatment options.
Holistic	Recovery is designed to encompass all aspects of the individual.

Table 1 (cont.)

Nonlinear	Recovery process is gradual with ups and downs, not step-by-step.
Strengths-based	Treatment is centered on working on the strengths of the individual.
Peer Support	Family/friends/caretakers are involved in the recovery process.
Respect	The community/caretakers accept and appreciate the individual.
Responsibility	The individual has responsibility of their recovery process.
Hope	Individual has optimism that their quality of life will improve.

Schizophrenia Patient Outcomes Research Team (PORT) Recommendations

In addition to the implications from the MHRM, the schizophrenia PORT has also recommended principles for SSD recovery. The PORT recommendations were a result of a project funded by the Agency Care Policy and Research and the National Institute of Mental Health (Lehman & Steinwachs, 1998) to improve the quality of medical care provided for SSD (Kreyenbuhl et al., 2010). The recommendations were a result of systematic reviews of literature that met expert opinions based on substantial scientific evidence of SSD treatments (Kreyenbuhl et al., 2010). The PORT recommendations were developed to provide a basis for moving toward evidence-based practice for SSD recovery by summarizing the most up-to-date empirical data of SSD treatment and treatment outcomes (Lehman & Steinwachs, 1998). Due to evolving treatment and recovery data, the recommendations have been updated three times, most recently in 2009 by an expert panel which included 39 researchers, clinicians, and consumers (Kreyenbuhl et al., 2010). This study utilizes the recommendations based off these current PORT guidelines.

PORT has encouraged inpatient treatment to include initial pharmaceutical treatment, with the addition of psychosocial treatment once the patient's mental state is stabilized (Kreyenbuhl et al., 2010). The schizophrenia PORT's recommendations for psychosocial treatment, all supported by empirical effectiveness evidence, include: community reintegration after discharge, support for obtaining and upholding employment, skills training for daily activities and independent living, cognitive behavioral therapy (CBT) for managing and reducing symptoms, token economy interventions to learn acceptable behavioral skills, and family-based services to improve social support (Kreyenbuhl et al., 2010). Collectively, PORT and the MHRM provide a holistic approach to care that can be applied across the spectrum of services and communities available to individuals with SSD.

RT in Mental Health Care and SSD

As mentioned, RT has the potential to assist individuals diagnosed with a mental illness to improve social and cognitive skills, and life satisfaction by developing independence and increasing one's level of functioning (ATRA, 2017; Snethen et al., 2012). When applied in a more traditional treatment model of mental health care, recreational therapists might assess and target the reduction of symptoms experienced by an individual with SSD, help with coping with symptoms, increase social connections, and improve functional and recreation skills. In addition, recreational therapists implement leisure activities to teach skill sets that can be utilized to assist the individual with increasing independence in their life (e.g., physical skills, problem-solving skills, social skills, community access skills) (Snethen et al., 2011; Snethen, McCormick, & Van Puymbroeck, 2011). These outcomes could depend on the level of care in which they are working (e.g., inpatient, outpatient, community-based program).

When practicing on the recovery end of the paradigm, recreational therapists focus on helping the individual with SSD learn coping strategies to manage stress generally, help them find and use appropriate, supportive, and personally meaningful community recreation resources, and build an overall supportive social and community network. Recreational therapists also attempt to encourage individuals with SSD to maintain a healthy lifestyle to continuously manage residual symptoms (e.g., anxiety) and increase socialization within society through promoting engagement in healthy leisure activities, such as sports or outdoor recreation (Snethen et al., 2011; Snethen et al., 2012; Snethen, McCormick, &Van Puymbroeck, 2011). RT focuses recovery for SSD, with a holistic approach, where services aim to not only assist in the diagnostic aspect of SSD, but to also improve the overall quality of life of the individual in order to continue to function within society throughout the recovery process. Again, the application of these recovery approaches and outcomes may depend on the level of care and the practice limitations of the setting (e.g., limited ability to access the community in an inpatient program). Although RT fits within the recovery approach broadly, there are no practice guidelines for serving individuals with SSD within the RT profession. However, RT practitioners can inform their practices using the Mental Health Recovery Model (MHRM) and the evidence-based Schizophrenia Patient Outcomes Research Team (PORT) recommendations.

Alignment of RT Research with MHRM and PORT

Conceptually, RT fits well within MHRM principles and PORT recommendations. The recovery process for mental health and SSD, as described through the MHRM, is shaped by the individual undergoing the recovery with support from practitioners and other individuals within their life (Jacob, 2015). Recovery is designed to continue with skill development and promote setting goals within all areas of their life (Jacob, 2015), which is also incorporated in the schizophrenia PORT recommendations. Leisure and recreation provide the opportunities to allow an individual in the recovery process to continue managing symptoms, along with overcoming stigma, engaging in activities meaningful to the individual, and increasing social circles and support (Fenton et al., 2016). Picking up a new hobby or vocation exemplifies the PORT recommendations. By doing so, a person in the recovery process for SSD has the opportunity to find further purpose in life, while increasing supports and skill sets through involvement

in that hobby or vocation.A recreational therapist assisting individuals with SSD in the recovery process provides connections to resources regarding leisure interests and involvement, and aids in the ease of breaking down barriers that may inhibit the individual from pursuing new goals (e.g., vocations or jobs) and leisure interests.

Unfortunately, there is limited research pertaining to RT services for individuals with SSD. However, some evidence suggests that recreation-based interventions used in inpatient psychiatric rehabilitation help develop social skills, build relationships, prepare for community reintegration, and reduce social isolation (Biancosino et al., 2010), which fulfills PORT's recommendations to some degree (Kreyenbuhl et al., 2010). Currently, the research suggests that RT can align with PORT recommendations through community reintegration (Crosse, 2003; Hodges, Luken, & Zook, 2001; Smith et al., 1996; Snethen et al., 2012), vocational training (Cook & Razzano, 2000; Lehman, 1995), skills training (Hood & Carruthers, 2002; Kopelowicz, Liberman, & Zarate, 2006), CBT (Carruthers & Hood, 2004), and family-based services (Heyne & Anderson, 2012; Pitschel-Walz et al., 2015).

Although MHRM and PORT fit within the RT scope of practice, it is unknown if recreational therapists are using these MHRM principles and PORT recommendations in their RT practices with individuals with SSD. Furthermore, how these principles and recommendations are being translated and practiced in the context of RT is also unknown. By providing evidence-based guidelines for RT services for individuals with SSD, the RT field can implement effective and supported services that have been shown to improve the quality of life for individuals diagnosed with SSD. In addition, RT programs for individuals with SSD can be developed utilizing the MHRM and PORT recommendations, which would provide a standard baseline of services that the RT profession can implement with individuals with SSD recovery. The objective of this study was to identify if recreational therapists are incorporating the principles of the MHRM and the recommendations made by PORT in RT services for adults with SSD; and if so, how they are including these components in practice.

Methods

This descriptive research study utilized a convergent mixed methods design using the questionnaire variant (Creswell & Plano Clark, 2018). This type of mixed-methods design includes open-ended questions in addition to closed-ended questions as a means to confirm, validate, or embellish the results of the quantitative data yielded from the closed-ended questions (Creswell & Plano Clark, 2018). Following this design, a cross-sectional survey explored if recreational therapists incorporated the MHRM principles and PORT recommendations into treatment services for adults with SSD: Open-ended questions asked recreational therapists to explain how they integrated these elements into their services. These two data sources were compiled and compared to answer the overarching objective of the study: The identification of the extent to which recreational therapists apply recovery-oriented services and PORT recommendations in practice.

Selection of Participants

Participants for this study were recreational therapists who currently or had previously provided treatment for adults with SSD. Recruitment for participants began following research ethics board approval. Recreational therapists were recruited through the (ATRA) Behavioral Health Section, and from various RT Facebook pages. The be-

havioral health section of ATRA consists of recreational therapists who work in the behavioral health settings, such as inpatient psychiatric hospitals, partial hospitalization programs, community mental health centers, veteran's hospitals, and other related settings (ATRA, 2017). Emails were attained through the member directory on the ATRA website. There were approximately 250 ATRA members in this section who received a link to the survey via email and had the opportunity to participate in the study on a volunteer basis. In addition, recreational therapists known to the research team for this study were contacted directly via email to encourage snowball sampling with other recreational therapists who satisfied the inclusion criteria.

In addition, the survey was posted on the following RT Facebook pagese: RT Foundation Page (1,500 followers), RT-Acute Psych In-Patient Setting (500 followers), Therapeutic Recreation (7,600 followers), and the ATRA pages (6,100 followers). A snowball sampling technique was used so that individuals could share the information about the study with other recreational therapists who satisfied the inclusion criteria. Not all of the followers of these Facebook pages are active on the sites, therefore, calculating a response rate was not feasible.

Instrumentation

The instrument used for this study was an online survey developed by the primary investigator and implemented via the Qualtrics survey platform. The survey included closed and open-ended questions designed to explore the use of the MHRM principles and the aspects of treatment advised by PORT in RT services for adults with SSD. The survey listed the 16 domains associated with the MHRM: self-direction, individualized and person-centered, empowerment, holistic, nonlinear, strengths-based, peer support, respect, responsibility, and hope; as well as the PORT recommendations for SSD treatment: community reintegration training, vocational training, skills training, cognitive behavioral therapy, token economy intervention, and family-based services. For each of the principles and recommendations, a reference definition was provided.

For each of the 16 domains, three questions were asked with three-point Likert-type response options. The first question asked "Is this principle/recommendation used in your practice?" (yes, no, I don't know). The next question asked, "If yes, to what extent do you use it?" (a lot, sometimes, rarely, and not at all). Participants were then asked to provide an open-ended response to the statement, "Please describe how this principle/recommendation is used in your practice". Demographic data were also collected including: years of experience working with individuals with SSD; current status of RT credentials (e.g., certification); highest educational degree overall; educational degree(s) in RT; setting of employment; and, familiarity with MHRM and PORT overall. To establish face validity prior to survey implementation, the instrument was reviewed by three recreational therapists, who serve individuals with SSD to ensure that the questions were understandable and pertained to the purpose of the study.

Data Collection and Analysis

The survey link was distributed via email and social media postings. Participants received a description and purpose of the study, criteria for participation, instructions for how to complete the survey, and a link to the survey. Surveys were open from January 1, 2018 to January 26, 2018. A modified Dillman technique was used to encourage participation in the survey (Babbie, 2013). Ten days after sending the initial email,

the researcher provided a follow-up email to participants who had not completed the survey, or a thank you to participants who had completed the survey. A final contact to participants was sent when the survey closed, including a final thank you to all participants, whether they completed the survey or not, and a notice that the study had been concluded. The modified Dillman technique was utilized for email contact only; due to the expansive number of followers on the Facebook pages where the link was posted, the technique was not used to follow up with participants who completed the survey via social media.

Data from the surveys were analyzed through descriptive statistics and Pearson's correlation analyses using IBM's Statistical Package for the Social Sciences, version 24 and Microsoft Excel. A mean score for each principle and recommendation was calculated for comparison purposes. The mean was formulated from the range of *not at all, rarely, sometimes*, to *a lot*; each response corresponded with a numerical value from one to four, respectively. The other three item Likert-type scales were scored similarly.

For the qualitative data, a deductive content analysis process was used to analyze the data. First, all the principles and recommendations were separated with their corresponding responses from the survey in a Word Document. Next, an unconstrained categorization matrix was developed based on reoccurring phrases supporting the specific MHRM and PORT domain (Elo & Kyngäs, 2008). Each response was reviewed and grouped with other similar responses (i.e., codes) that corresponded with the domains. Responses that did not support the domain were removed from the analysis. Last, codes were organized and counted to identify which domain was most prevalently used in the participants' RT practices. These codes helped researchers to identify how their practices corresponded with the PORT and MHRM domains, thus building upon the quantitative data that identified if and how often they used them in practice.

Results

Sample Description

A total of 208 surveys were completed; however, approximately 80 responses were removed from the overall data prior to analysis due to incomplete responses following the demographic questions. Complete responses, especially for the Likert-style questions, were necessary for an accurate analysis to observe if the MHRM principles and PORT recommendations were used in treatment services for SSD. The incomplete responses were deemed unusable due to the large amount of information missing for these cases, and the inability of partial data to capture the sum of the practices that may have or have not aligned with the MHRM and PORT guidelines. The final sample size for the study was 126 responses. Table 2 presents the demographic information of the sample in detail. From the 126 responses, the majority of participants currently provide (80.2% of 126 participants) or have previously provided (94.5% of 126 participants) RT services to individuals with SSD. In regard to time working with individuals with SSD, 38.8% had greater than 5 years of experience followed by one to three years (30.2%). A majority of respondents had a Bachelor's degree in RT or therapeutic recreation (82.5%) and worked in inpatient settings (76.4%).

Table 2
Demographics of Participants

Currently provide RT services to individuals with SSD		
Yes	101/126	80.2%
No	25/126	19.8%
Years of experience working with individuals with SSD		
Less than 1 year	11/126	8.7%
1 to 3 years	38/126	30.2%
3 to 5 years	28/126	22.2%
5 to 10 years	24/126	19%
More than 10 years	25/126	19.8%
Have a certification (CTRS) to practice RT		
Yes	121/125	96.8%
No	4/125	3.2%
Have a license (LRT) to practice RT		
Yes	20/126	15.9%
No	106/126	84.1%
Highest level of education completed.		
Bachelor's Degree	88/126	69.8%
Master's Degree	36/126	28.6%
Doctoral Degree	2/126	1.6%
Other	0/126	0%
Degree obtained in RT/TR (selected all that applied)		
Bachelor's Degree	104/126	82.5%
Master's Degree	14/126	11.1%
Doctoral Degree	6/126	4.8%
Master's Degree/ None of the above	1/126	<1%
None of the above	1/126	<1%
RT work setting (selected all that applied)		
Inpatient facility	94/123	76.4%
Outpatient facility	7/123	5.6%
Community based	9/123	7.3%
Inpatient/outpatient	8/123	6.5%
Inpatient/outpatient/community based	3/123	2.4%

Quantitative Survey Results

Results indicated that 83.3% of participants were somewhat or very familiar with the MHRM, and 73% used at least one of the principles of this model in practice. However, only 30% of the participants were somewhat or very familiar with the PORT recommendations, and 33% used at least one recommendation in practice. In addition, there was a moderately positive correlation coefficient (r = .408, p = .000) indicating that participants who were familiar with the MHRM were also familiar with the PORT recommendations.

MHRM Principles and PORT Recommendations

Table 3 provides the percentages, mean scores, and standard deviations for all MHRM principles and PORT recommendations. The mean for each of the MHRM principles was between a score of 3.0 and 4.0, indicating that each principle is used sometimes or a lot in practice. The top three most often used principles were individualized/person-centered (3.61), responsibility (3.56), and strengths-based (3.55). Regarding PORT, the three most commonly used recommendations were cognitive behavioral training (3.61), skills training (3.40), and community reintegration training (3.01). Other principles (e.g., empowerment, peer support, self-direction) and recommendations (e.g., family-based services, token economy) scored a lower average, indicating less use in practice.

Table 3
Quantitative Results for the Mental Health Recovery Model principles and PORT Recommendations

Principle/ Recommendation	Is the principle/recommendation used in practice?			If yes, to what extent is it used? mean score–not at all (1) to a lot (4)
Self- Direction	Yes	75.2%	94/125	3.37
	No	16.8%	21/125	
	I don't know	8%	10/125	
Individualized/ Person Centered	Yes	92.8%	116/125	3.62
	No	6.4%	8/125	
	I don't know	.8%	1/125	
Empowerment	Yes	79.8%	99/124	3.33
	No	15.3%	19/124	
	I don't know	4.8%	6/124	
Holistic	Yes	84.7%	105/124	3.48
	No	11.3%	14/124	
	I don't know	4%	5/124	
Nonlinear	Yes	73%	89/122	3.39
	No	13.1%	16/122	
	I don't know	13.9%	17/122	
Strengths Based	Yes	86.2%	106/123	3.55
	No	10.6%	13/123	
	I don't know	3.3%	4/123	

Table 3 (cont.)

Principle/ Recommendation	Is the principle/recommendation used in practice?			If yes, to what extent is it used? mean score–not at all (1) to a lot (4)
Peer Support	Yes	74%	91/123	3.04
	No	22%	27/123	
	I don't know	4.1%	5/123	
Respect	Yes	81.3%	100/123	3.49
	No	8.9%	11/123	
	I don't know	9.8%	12/123	
Responsibility	Yes	94.4%	117/124	3.56
	No	4%	5/124	
	I don't know	1.6%	2/124	
Hope	Yes	85.4%	105/123	3.44
	No	8.1%	10/123	
	I don't know	6.5%	8/123	
Community Reintegration Training	Yes	58.1%	68/117	3.01
	No	37.6%	44/117	
	I don't know	4.3%	5/117	
Vocational Training	Yes	33.3%	39/117	2.38
	No	59.8%	70/117	
	I don't know	6.8%	8/117	
Skills Training	Yes	72.6%	85/117	3.40
	No	22.2%	26/117	
	I don't know	5.1%	6/117	
Cognitive Behavioral Training (CBT)	Yes	89%	105/118	3.61
	No	7.6%	9/118	
	I don't know	3.4%	4/118	
Token Economy	Yes	47.4%	55/116	2.53
	No	48.3%	56/116	
	I don't know	4.3%	5/116	
Family Based Services	Yes	63.2%	74/117	2.91
	No	32.5%	38/117	
	I don't know	4.3%	5/117	

Qualitative Results

The deductive content analysis yielded various codes that were categorized according to the responses associated with the MHRM principles and PORT recommendations. Refer to Tables 4 and 5 for full details on the number of code occurrences and supporting quotes describing how the principle or recommendation was used in the participant's RT practice.

Table 4
Content Analysis for the Mental Health Recovery Model Principles

Principle	Codes (# of code occurrences)	Supporting Quotes
Self-Direction	• Input on treatment plan: treatment, discharge, safety (15) • Autonomy in choosing leisure activities/ interests (14) • Goal setting (10) • Participation in treatment groups (7) • Part of assessment process (5) • Utilizing skills at the facility (4) • Decide type of medications (3) • Patients advocating for themselves (1)	"They are part of the assessment and treatment planning process. They have a say in everything including medications, length of stay, etc. While they may not always get a chance to 'choose,' they can at least voice their opinions."
Individualized and Person-centered	• Assessment results identify individual information used for treatment (10) • Personalized treatment plans (8) • Group activities planned based off patient needs and interests (7) • Treatment groups based on individuals' strengths (5) • Participation in developing individualized treatment plan (5) • Goal setting specific to individuals' needs (5) • Patient has a choice of groups (3) • 1:1 treatment sessions (3) • Progress evaluations for patient (2)	"Assessments administered pinpoints individuals' strengths, needs, and experiences. This helps to better match individuals with appropriate interventions."
Empowerment	• Patient has the right to choose, refuse, voice opinions (20) • Patient assists in deciding treatment plans and discharge plans (11) • Patient participates in treatment team meetings (5) • Patient can decide medications (2) • Patients give feedback on groups (1)	"Though participation in treatment is strongly encouraged, patients have say in what they choose to participate in."

Table 4 (cont.)

Holistic	• Groups designed to improve overall well-being of the person (13) • Teach healthy lifestyles, leisure activities, and coping skills-focus not only on symptoms (6) • Various integrative therapies; interdisciplinary approach (5) • Treatment and discharge plans (3) • Education about holistic approach to patient; further education (3) • Family group events/outings (2) • Holistic models used (1)	"The Rec therapy department is instrumental in offering programs based on social, emotional, physical, creative, intellectual, and spiritual needs of patients."
Nonlinear	• Meet patients at their level of functioning (8) • Addressing patient progress and areas for improvement (6) • Patient cycles on progress (4) • Educate patients on nonlinear treatment (2)	"Treatment is always based on where a patient is at in their process today."
Strengths-based	• Building on positives, increasing self-esteem, confidence, and skills (9) • Groups and interventions designed around strengths (8) • Discuss strengths with patient; address strengths in assessment to use for treatment plan (5) • Encourage patients to use coping skills and talents (3) • Programming is strengths based (2)	"Attempt to provide groups that focus on patient's strengths to provide encouragement and opportunities for success."
Peer Support	• Family involved in various family based services (treatment team meetings, family therapy, family consultations, family education groups) (16) • Patient community passes with family; family calls, luncheons, and visitations (6) • Other disciplines address peer support (6) • Promote and/or encourage peer support daily for patients (4) • Peer support specialists and support groups (3)	"It's a team approach. We include as many people as they want in the treatment process, so they will have support upon discharge. This improves the level of understanding and knowledge of loved ones so that they fully understand how to help, not enable, the client."

Table 4 (cont.)

Respect	• Facility's actions of respect toward patients (7) • Supportive atmosphere (4) • Recommendations and providing choices for patients (3) • Interactions with patients (3) • Patient councils, community meetings, and suggestion boxes (2) • RTs are advocates for patients (2)	"The Rec Therapy department advocates for each and every patient regardless of their circumstance."
Responsibility	• Patients choose to go to group and their level of participation (8) • Patient autonomy in treatment process (6) • Patient sets and designs goals (3) • Participants in treatment planning; review progress at treatment team meetings (3) • Responsibility included in group discussions and therapy sessions (2) • Encouragement by RTs to be responsible (2) • Take patients on outings to teach responsibility and life skills (1) • Use of models that include responsibility in RT program (1) • Taking medications (1) • Patient rights (1)	"Group discussion often focus on accepting responsibility instead of blaming."
Hope	• Support patients by nurturing growth (5) • Positive attitudes (5) • Interventions focused on hope and positive emotions (4) • Peer support (4) • Focus on goals and successes (4) • Identifying skills and techniques to adapt to living with a mental illness (3) • Provided rewards for progress (1) • Philosophy of hope in RT department (1)	"Providing examples of successful recovery, plentiful peer support, and messages of hope helped create a vision of full rehabilitation and recovery, or as close to it as possible."

Table 5
Content Analysis for the PORT Recommendations

Recommendation	Code (# of code occurrences)	Supporting Quotes
Community Reintegration Training	• Education and guidance for community resources; community supports (8) • Community outings, passes, therapeutic home visits with family; facility tours (8) • Community re-entry and leisure education groups (7) • Other disciplines address community reintegration (1) • Off-grounds privilege (1) • Volunteers come in from the community (1)	"Through Leisure Education groups, offer patients information of community resources that may be accessed upon discharge."
Vocational Training	• Vocational Training Program (10) • Employment resources (3) • Life skills and leisure groups (3) • Exploration of values, beliefs, and ideals to find employment (1)	"Referral to vocational rehabilitation and provide information on programs that work with people with mental illnesses."
Skills Training	• Groups designed to develop various skills (18) • Education and resources (3) • Co-treatments to develop skills (2) • Community outings (1)	"RT provided social skills training, stress reduction techniques, and leisure skills training, and physical fitness."
Cognitive Behavioral Therapy (CBT)	• Groups focus on CBT (22) • Education (5) • Co-treat with other disciples for CBT (4) • 1:1 sessions (1)	"RT worked in conjunction with the psychology department and individual therapist to teach and reinforce CBT principles, and practice using principles in social situations, or situations with higher amount of stimuli."

Table 5 (cont.)

Token Economy	• Reinforcements (15) • Prizes for group activities (2) • Privileges for appropriate behaviors (2) • Peer and professional support available for verbal rewards, feedback, and reassurance (1)	"We use a token system to encourage group participation, ADLs, and meetings."
Family-Based Services	• Family sessions and therapy (7) • Informed about treatment and participation in treatment team meetings (6) • Visitations (2) • Support gatherings (1)	"Family is encouraged to be an active participant in the recovery of each individual."

The results of the qualitative analysis found that many of the MHRM principles and PORT recommendations were followed according to their intended descriptions by the respective authors. These approaches included self-direction, individual and person-centered, empowerment, strengths-based, respect, responsibility, skills training, and token economy. However, other recommendations and principles were applied with restrictions, or limitations that inhibited the use of it in practice, within the RT treatment context. These items are described in the following narrative.

Participants indicated that a heavy focus on pharmacological interventions, lack of staffing and resources, setting of treatment (inpatient, outpatient, or community setting), and client approval of allowing a holistic treatment approach prevented the use of the MHRM principle, *holistic*, in treatment services for SSD. In addition, the MHRM principle, *nonlinear treatment*, was difficult to implement in RT due to the step-by-step process their treatment programs follow. Responses further indicated that the incorporation of the MHRM principle, *hope*, in treatment is strongly dependent on the person receiving treatment, diagnosis, and treatment setting, since it is identified as a subjective ideal. The MHRM principle, *peer support*, and PORT recommendation, *family-based services*, were restricted in treatment due to lack of support from family and loved ones for individuals with SSD, or programs do not offer services that incorporate family or support. Restrictions to the MHRM recommendation, *community reintegration training*, arose in acute settings or short hospitalization programs that limit the amount of time the individual can have in treatment, limited staffing, and/or limited trainings due to the individual's mental state. In addition, *vocational training* is also restricted by treatment settings that inhibit the time or resources to focus on developing skills for employment. Lastly, responses identified that lack of training and responsibilities of other disciplines to implement *CBT*, such as psychology, restrict recreational therapists' ability to incorporate CBT into treatment for SSD.

Discussion

The goal of RT is to improve the quality of life of an individual (Sorenson, 1999), and the MHRM is designed to assist an individual in regaining control of their life (Jacob, 2015). From the examples provided in the surveys, recreational therapists pro-

vided treatment aligned with MHRM to help individuals with SSD obtain skills necessary to live independently. Similar to the MHRM, the PORT recommendations aim to stabilize the mental state and control symptoms (Kreyenbuhl et al., 2010). The majority of recreational therapists in this sample were familiar with and used the MHRM principles in their practice; however, only one third of the sample was familiar with and had practices that align with the PORT recommendations. While both the MHRM and PORT guidelines were used in practice, their application to practice varied greatly from practitioner to practitioner, as indicated by the descriptions from the participants in the qualitative portion of the study and the variation of mean scores for each specific recommendation and principle addressed in the quantitative results. Based on the mean score ranges from the survey results, it was identified that the MHRM principles were used sometimes or a lot in practice, whereas the PORT recommendations were rarely or sometimes used in practice. Furthermore, responses from the participants indicated that the MHRM is more familiar in the RT field than are the PORT recommendations.

Various restrictions were identified through the qualitative results explaining why aspects of the MHRM and PORT recommendations were not implemented in practice. Overall themes of these restrictions included lack of knowledge of the MHRM and PORT recommendations, facility restrictions in regard to staffing and resources, limitations involved in family involvement in recovery, and implementing components of MHRM and PORT recommendations while staying within the appropriate boundaries of the RT field with respect to other disciplines. Applying the MHRM and PORT recommendations as a foundation for RT practices can provide a standard of care to support a recovery-oriented lifestyle and supports for individuals with SSD. This inconsistency in application within RT practice highlights a need for a better integration of these guidelines into RT practice. Further professional education among recreational therapists is necessary to encourage integration of these guidelines into practice.

Implications for Education and Practice

Results from this study indicate a need for more knowledge of and the reduction of restrictions in applying evidence-based practices such as the MHRM and PORT recommendations. A lack of awareness regarding contemporary behavioral health research might contribute to the recreational therapist's unfamiliarity with PORT. Inclusion of evidence-based models and studies can assist moving the RT field toward better utilization of evidence-based practices and can provide stronger foundations for RT interventions. Integrating MHRM and PORT approaches into continuing education opportunities, such as educational conferences, online education offerings, and in-service trainings, could help improve the frequency and consistency in the use of these practice guidelines. Although RT presents a clear opportunity to support mental health recovery in both inpatient and community-based settings, this study identified a need for policy makers and administrators to provide additional support for RT programs. In particular, additional resources for implementing trainings and education to build RT services in accordance with evidence-based models, such as MHRM or PORT, would be beneficial to educate the recreational therapists who are not familiar with or do not know how to implement services that follow these guidelines and recommendations.

With incorporation of MHRM and the PORT recommendations in RT practice, changes or adaptations would need to be addressed to allow the opportunity to provide

all components of the model and recommendations. For instance, inpatient services for SSD recovery are time restricted depending on the length of stay. For example, an acute stabilization unit is a short-term treatment service in which RT services may only be offered for a few days or weeks. This limited length of stay can inhibit the use of incorporating all components of the PORT recommendations, such as vocational training and community reintegration. Therefore, there is a need to identify an alternative solution of RT treatment options for time-restricted settings, such as an acute stabilization unit, so the models are implemented with all components. Also, there is a need for additional recreational therapists to work in the community-based mental health programs to ensure the recovery process is being continued after discharge from inpatient treatment facilities. This increase in RTs could assist in the continuation of utilizing the MHRM and PORT recommendations throughout the recovery process for SSD across settings.

Lastly, participants in this study identified that implementation of certain principles or recommendations were restricted within their practice. Additional training on CBT can improve RT practitioners' competence in using CBT and their ability to advocate for the use of CBT in RT practice. Co-treatments between RTs and other treatment providers, such as music therapists, social workers, or psychiatrists, may enhance RT awareness and holistic utilization of the principles and recommendations, congruent with literature supporting their benefits in promoting SSD recovery. Co-treatments provide the opportunity to expand the scope of recovery. For example, a psychiatrist can implement the clinical components of CBT through individual sessions to assist in cognitive restructuring with the recreational therapists providing additional interventions to apply CBT during recreation and leisure activity to assist the individual with integrating the activities as coping mechanisms to help maintain or prevent symptoms experienced during recovery.

Study Limitations

One limiting factor of this study was the overrepresentation of participants who worked in inpatient settings. Also, the sample was limited to recreational therapists who were engaged or connected in the RT profession through ATRA and RT-related social media. These individuals may be more likely to seek out information to improve their practices, which may not be true for individuals not connected in these manners. In addition, the survey instrument had limited pilot testing and was not tested for validity and reliability beyond face validity. A larger sample size that is more representative of the RT profession would have aided in more generalizable results. As such, results and conclusions from this study are not representative of all RT services for individuals with SSD.

Conclusion

This study demonstrated whether and how recreational therapists incorporated the MHRM principles and PORT recommendations into their RT practices for individuals with SSD. Overall, a majority of participants included various elements of the MHRM principles and PORT recommendations into practice, but it is unclear if programs were developed around the model or recommendations. Overall, the MHRM was more prominently known and implemented in RT practices than were the PORT recommendations. Responses indicated that restrictions seemed to influence their integration in RT treatment with individuals with SSD. By increasing the education and

competence of recreational therapists in applying these recommendations, it is likely that RTs can improve the quality of life and mental health recovery for individuals diagnosed with SSD. Additional research needs to be conducted to identify why all recreational therapists are not utilizing the principles from the MHRM and/or PORT recommendations, as well as assessment of outcomes when the MHRM and PORT approaches are incorporated fully into RT practice.

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