

Mental Health Research

TRO Research Hub: TR-Related Literature

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Leisure-spiritual coping: A model for therapeutic recreation and leisure services

Heintzman, P. (2008). Leisure-spiritual coping: A model for therapeutic recreation and leisure services. *Therapeutic Recreation Journal*, 42(1), 56-73.

This paper synthesizes theory and research findings on leisure, stress, and spiritual coping into a conceptual model of leisure-spiritual coping. Spiritual coping refers to the ways that people receive help from spiritual resources (e.g., higher power, spiritual practices, faith community) during periods of life stress, whereas leisure-spiritual coping is spiritual coping that takes place within the context of an individual's leisure. The model takes into account spiritual appraisals (e.g., attribution), person factors (e.g., religious doctrines, religious orientation), leisure-spiritual coping behaviours (e.g., sacralisation, grounding, contemplative leisure, time and space, being away), leisure-spiritual coping resources (e.g., connections with nature, others, and transcendent other), and meaning making (e.g., life purpose, transformation, growth). The model, illustrated by a case study, will be of benefit to therapeutic recreation practitioners as they work with people experiencing stress, as well as to research as it can guide hypothesis development and provide framework for the investigation of specific pathways that link the various spiritual and leisure constructs.

Keywords: leisure, spiritual coping, stress, leisure-spiritual coping behaviours, leisure-spiritual coping resources, meaning-making, transformation

The effects of guided imagery on comfort, depression, anxiety, and stress of psychiatric inpatients with depressive disorders

Apóstolo, J. L. A., & Kolcaba, K. (2009). The effects of guided imagery on comfort, depression, anxiety, and stress of psychiatric inpatients with depressive disorders. *Archives of Psychiatric Nursing*, 23(6), 403-411. doi:10.1016/j.apnu.2008.12.003

This article describes the efficacy of a guided imagery intervention for decreasing depression, anxiety, and stress and increasing comfort in psychiatric inpatients with depressive disorders. A quasi-experimental design sampled 60 short-term hospitalized depressive patients selected consecutively. The experimental group listened to a guided imagery compact disk once a day for 10 days. The Psychiatric Inpatients Comfort Scale and the Depression, Anxiety, and Stress Scales (DASS-21) were self-administered at two time points: prior to the intervention (T1) and 10 days later (T2). Comfort and DASS-21 were also assessed in the usual care group at T1 and T2. Repeated measures revealed that the treatment group had significantly improved comfort and decreased depression, anxiety, and stress over time.

Keywords: guided imagery, anxiety, depression, mental illness, inpatient treatment, depressive disorders

Emerging treatments for PTSD

Cukor, J., Spitalnick, J., Difede, J., Rizzo, A., & Rothbaum, B. O. (2009). Emerging treatments for PTSD. *Clinical Psychology Review*, 29(8), 715-726. doi:10.1016/j.cpr.2009.09.001

Recent innovations in posttraumatic stress disorder (PTSD) research have identified new treatments with significant potential, as well as novel enhancements to empirically-validated treatments. This paper reviews emerging psychotherapeutic and pharmacologic interventions for the treatment of PTSD. It examines the evidence for a range of interventions, from social and family-based treatments to technological-based treatments. It describes recent findings regarding novel pharmacologic approaches including propranolol, ketamine, prazosin, and methylenedioxymethamphetamine. Special emphasis is given to the description of virtual reality and D-cycloserine as enhancements to prolonged exposure therapy.

Keywords: post-traumatic stress disorder, review, novel treatments, emerging treatments, virtual reality

Leisure as a context for active living, recovery, health and life quality for persons with mental illness in a global context

Iwasaki, Y., Coyle, C. P., & Shank, J. W. (2010). Leisure as a context for active living, recovery, health and life quality for persons with mental illness in a global context. *Health Promotion International*, 25(4), 483-494. doi:10.1093/heapro/daq037

Globally, the mental health system is being transformed into a strengths-based, recovery-oriented system of care, to which the concept of active living is central. Based on an integrative review of the literature, this paper presents a heuristic conceptual framework of the potential contribution that enjoyable and meaningful leisure experiences can have in active living, recovery, health and life quality among persons with mental illness. This framework is holistic and reflects the humanistic approach to mental illness endorsed by the United Nations and the World Health Organization. It also includes ecological factors such as health care systems and environmental factors as well as cultural influences that can facilitate and/or hamper recovery, active living and health/life quality. Unique to this framework is our conceptualization of active living from a broad-based and meaning-oriented perspective rather than the traditional, narrower conceptualization which focuses on physical activity and exercise. Conceptualizing active living in this manner suggests a unique and culturally sensitive potential for leisure experiences to contribute to recovery, health and life quality. In particular, this paper highlights the potential of leisure engagements as a positive, strengths-based and potentially cost-effective means for helping people better deal with the challenges of living with mental illness.

Keywords: culture, recreation, mental health, quality of life

The promise of river running as a therapeutic medium for veterans coping with post-traumatic stress disorder

Dustin, D., Bricker, N., Arave, J., Wall, W., & Wendt, G. (2011). The promise of river running as a therapeutic medium for veterans coping with post-traumatic stress disorder. *Therapeutic Recreation Journal*, 45(4), 326-340.

Among the many costs of war, Post-Traumatic Stress Disorder (PTSD) is one of the most insidious. Having volunteered to serve their country in combat, all too many soldiers return home dramatically changed for the worse by the horrors of war. Unlike physical wounds that are readily identifiable and treatable, PTSD is less visible and more resistant to conventional therapies. In this article, we discuss therapeutic recreation's role in improving the lives of

veterans coping with PTSD. More specifically, we focus on the promise of river running as a therapeutic medium for treating PTSD. Based on a collaborative pilot project conducted in the summer of 2010 between the Veterans Administration, the University of Utah's Department of Parks, Recreation, and Tourism, and the O.A.R.S. (a river rafting company), we identify several areas where therapeutic recreation shows considerable promise in contributing to the healing process. We conclude with a call for an ambitious research agenda to better define the contributory potential of therapeutic recreation in serving combat veterans.

Keywords: combat, ecotherapy, nature, post-traumatic stress disorder, river running, therapeutic recreation, veterans

The effect of mindfulness-based therapy on symptoms of anxiety and depression in adult cancer patients and survivors: A systematic review and meta-analysis

Piet, J., Würtzen, H., Zachariae, R., Piet, J., Würtzen, H., & Zachariae, R. (2012). The effect of mindfulness-based therapy on symptoms of anxiety and depression in adult cancer patients and survivors: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology*, 80(6), 1007-1020. doi:10.1037/a0028329

The use of mindfulness-based therapy (MBT) in oncology settings has become increasingly popular, and research in the field has rapidly expanded. The objective was by means of a systematic review and meta-analysis to evaluate the current evidence for the effect of MBT on symptoms of anxiety and depression in adult cancer patients and survivors. Electronic databases were searched, and researchers were contacted for further relevant studies. Twenty-two independent studies with a total of 1,403 participants were included. Studies were coded for quality (range: 0–4), and overall effect size analyses were performed separately for nonrandomized studies ($K = 13$, $n = 448$) and randomized controlled trials (RCTs; $K = 9$, $n = 955$). Effect sizes were combined using the random-effects model. In the aggregated sample of nonrandomized studies (average quality score: 0.5), MBT was associated with significantly reduced symptoms of anxiety and depression from pre- to posttreatment corresponding to moderate effect sizes (Hedges's g) of 0.60 and 0.42, respectively. The pooled controlled effect sizes (Hedges's g) of RCTs (average quality score: 2.9) were 0.37 for anxiety symptoms ($p < .001$) and 0.44 for symptoms of depression ($p < .001$). These effect sizes appeared robust. Furthermore, in RCTs, MBT significantly improved mindfulness skills (Hedges's $g = 0.39$). While the overall quality of existing clinical trials varies considerably, there appears to be some positive evidence from relatively high-quality RCTs to support the use of MBT for cancer

patients and survivors with symptoms of anxiety and depression. (PsycINFO Database Record (c) 2016 APA, all rights reserved)

Keywords: mindfulness, cancer, anxiety, depression, meta-analysis

Psychosocial therapeutic interventions for volatile substance use: A systematic review

Maclean, S., Cameron, J., Harney, A., & Lee, N. K. (2012). Psychosocial therapeutic interventions for volatile substance use: A systematic review. *Addiction*, 107(2), 278-288. doi:10.1111/j.1360-0443.2011.03650.x

Volatile substance use (VSU) is associated with a range of adverse outcomes, including cognitive impairment and death. It occurs disproportionately within young and marginalized populations. A previous international systematic review of VSU treatment identified no relevant studies. This paper reports on a systematic review of a range of study types concerning psychosocial interventions for VSU. Search parameters were developed using the Population, Intervention, Professionals, Outcomes, Health care setting and Contexts (PIPOH) tool with input from an expert committee. Included were randomized controlled trials (RCTs), comparative studies with or without concurrent controls, case series studies and grey literature, published in English during 1980–2010. The initial search identified 2344 references. After two screening phases, 23 studies of VSU therapeutic interventions remained. Of these, 19 concerned psychosocial interventions, which we discuss as: case management; counselling; recreation and engagement programmes; and residential treatment. Studies were conducted in Australia, Canada, the United States, United Kingdom and Brazil. No RCTs were identified and studies were generally of low evidentiary levels. Even when a range of study types are included, clear conclusions for volatile substance use psychological treatment are not supported, but three intervention types merit further examination: family therapy, activity-based programmes and Indigenous-led residential approaches. Future volatile substance use research could be enhanced by developing and validating outcome measurement tools. Robust multi-site studies are also required.

Keywords: case management, cognitive therapy, inhalant, family therapy, psychosocial, recreation therapy, residential treatment, solvent, treatment, volatile substance

The relationship between outdoor recreation and depression among individuals with disabilities

Christensen, K. M., & Wilson, J. F. (2012). The relationship between outdoor recreation and depression among individuals with disabilities. *Journal of Leisure Research*, 44(4), 486-506.

The purpose of this study is to identify the relationship between outdoor recreation participation and depressive symptoms among individuals with disabilities. The current paper compares three outdoor recreation predictors (dichotomized participation, participation index score, and participation frequencies) to two depression dependents (dichotomized current major depression and raw depression index score). Results reveal a negative relationship between outdoor recreation participation and depression, outdoor recreation participants had lower overall depression scores than nonparticipants, and lower depression scores were related to more frequent outdoor recreation participation. Future experimental studies are needed in order to fully understand the causal relationship between outdoor recreation and depression among different subgroups of individuals with disabilities.

Keywords: outdoor recreation, disability, depression, accessibility

The relationship between outdoor recreation and depression among older adults

Christensen, K. M., Holt, J. M., & Wilson, J. F. (2013). The relationship between outdoor recreation and depression among older adults. *World Leisure Journal*, 55(1), 72-82.
doi:10.1080/04419057.2012.759143

Depression in older adults contributes to decreased health, increased mortality and lower quality of life. As participation in outdoor recreation has been correlated with decreased depression levels among other populations, it is hypothesised that higher participation in outdoor recreation will be correlated with lower depression levels among older adults. In particular this study examined whether participation in outdoor recreation was associated with reported symptoms of depression among adults aged 65 years and older. To do so, regression, ANOVA and t-tests were used to examine an existing statewide survey of 1216 Montana, USA residents aged 65 years and older. The findings indicate a correlation between outdoor recreation participation and lower depression levels. Current major depression was more prevalent among individuals over 65 years of age who had not participated in outdoor recreation during the past year. The strongest negative correlation existed among individuals over 65 years of age who participated in outdoor

recreation four or more times per week. Further study examining the causality of this relationship is suggested, given the significant potential to improve older adults' quality of life.

Keywords: outdoor recreation, depression, older adults, research methods

The playful advantage: How playfulness enhances coping with stress

Magnuson, C. D., & Barnett, L. A. (2013). The playful advantage: How playfulness enhances coping with stress. *Leisure Sciences*, 35(2), 129-144. doi:10.1080/01490400.2013.761905

Research on playfulness has long focused on children, while the study of its expression in adulthood has only recently been undertaken. This cross-sectional study investigated the interrelationship between playfulness in young adults, perceived stress, and styles of coping with 898 students from three universities. Findings revealed that playful individuals reported lower levels of perceived stress than their less playful counterparts, and more frequently utilized adaptive, stressor-focused coping strategies and were less likely to employ negative, avoidant, and escape-oriented strategies. The results suggested that playfulness serves a strong adaptive function with university students, providing them with specific cognitive resources from which they can manifest effective coping behaviors in the face of stressful situations. Speculation as to the role of playfulness in fostering resilience is encouraged, and further empirical research on the therapeutic benefits of playfulness should be undertaken from a causal perspective.

Keywords: coping style, playfulness, resilience, stress

Therapeutic horseback riding for ACT patients with schizophrenia

Corring, D., Lundberg, E., & Rudnick, A. (2013). Therapeutic horseback riding for ACT patients with schizophrenia. *Community Mental Health Journal*, 49(1), 121-126. doi:10.1007/s10597-011-9457-y

One form of psychiatric leisure rehabilitation which has only recently been explored for individuals with schizophrenia is Therapeutic Horseback Riding (THBR). This study is the first to examine THBR for Assertive Community Treatment (ACT) patients with schizophrenia. A sample of 6 ACT patients with schizophrenia or schizoaffective disorder who reside in the community and 6 mental health care staff participated in 10 weeks of weekly horseback riding

sessions with an experienced THBR instructor. Participating patients, staff and the THBR instructor were qualitatively interviewed at the start, during and at the end of the THBR program and these semi-structured interviews were analyzed for recurrent themes. We found that THBR benefitted this group of patients. In spite of our study's limitations, such as its exploratory nature and the small sample size, it demonstrates that THBR has promise and should be further developed and studied for individuals with schizophrenia.

Keywords: Schizophrenia, schizoaffective disorder, therapeutic horseback riding, horseback riding, ACT teams, psychiatric leisure rehabilitation

Dialectical behaviour therapy (DBT) in the treatment of borderline personality disorder

O'Connell, B., & Dowling, M. (2014). Dialectical behaviour therapy (DBT) in the treatment of borderline personality disorder. *Journal of Psychiatric and Mental Health Nursing*, 21(6), 518-525. doi:10.1111/jpm.12116

Borderline personality disorder (BPD) is a complex disorder that is difficult to treat. However, dialectical behaviour therapy (DBT), developed by Dr. Marsha Linehan in the early 1990s, has emerged as a promising treatment option for those diagnosed with BPD. DBT is a multi-pronged treatment approach delivered normally in outpatient settings over 12 months and requires highly skilled and trained therapists. Many trials have provided evidence to support the use of DBT in the treatment of BPD. However, outcome measures vary and are mostly limited to measurable behavioural outcomes such as incidences of deliberate self-harm or suicidal thoughts. Two recent Cochrane reviews conclude that DBT does benefit those with BPD, but more robust evidence is needed. DBT training for health care professionals also has the potential to shift health care professionals' attitudes from one of therapeutic pessimism to one of optimism.

Keywords: borderline personality disorder, dialectical behavioral therapy, psychotherapeutic

Mindfulness-oriented recovery enhancement ameliorates the impact of pain on self-reported psychological and physical function among opioid-using chronic pain patients

Garland, E. L., Thomas, E., & Howard, M. O. (2014). Mindfulness-oriented recovery enhancement ameliorates the impact of pain on self-reported psychological and physical function

among opioid-using chronic pain patients. *Journal of Pain and Symptom Management*, 48(6), 1091-1099. doi:10.1016/j.jpainsymman.2014.03.006

Chronic pain impacts one-third of the U.S. population, and its effects are debilitating for individuals and costly to the medical system. Although opioids are commonly prescribed to address chronic pain, they confer risk for misuse and addiction in some patients and may not fully restore life function—particularly with regard to psychosocial factors. Because of the multiplicity of impacts that chronic pain may have on daily functioning, broad-spectrum behavioral interventions are needed. The purpose of this study was to conduct follow-up analyses from a pilot randomized controlled trial of Mindfulness-Oriented Recovery Enhancement (MORE) to assess specific effects of MORE on various biopsychosocial aspects of pain-related impairment. Chronic pain patients (N = 115; mean age, 48 ± 14 years; 68% female) were randomly assigned to either eight weeks of MORE or a support group. Domains of pain-related functional interference were measured with the Brief Pain Inventory at pre- and post-treatment and at a three-month follow-up. Treatment effects were analyzed with multivariate intention-to-treat models. MORE participants reported significantly greater reductions in functional interference than support group participants at post-treatment across all domains, including general activity, mood, walking ability, normal work, relationships, sleep, and enjoyment of life. These effects were largely maintained by the three-month follow-up; however, general activity level and walking ability were no longer significant, indicating differential long-term effects between physiological and psychological functioning. Findings demonstrate preliminary efficacy of MORE as a treatment for pain-related functional impairments and suggest that effects may be more pronounced and durable for aspects of psychological function.

Keywords: mindfulness, chronic pain, function, impairment, opioid, quality of life

Successful aging among LGBT older adults: Physical and mental health-related quality of life by age group

Fredriksen-Goldsen, K. I., Kim, H., Shiu, C., Goldsen, J., & Emlet, C. A. (2014). Successful aging among LGBT older adults: Physical and mental health-related quality of life by age group. *The Gerontologist*, 55(1), 154-168. doi:10.1093/geront/gnu081

Lesbian, gay, bisexual, and transgender (LGBT) people are a health disparate population as identified in Healthy People 2020. Yet, there has been limited attention to how LGBT older adults maintain successful aging despite the adversity they face. Utilizing a Resilience Framework, this study investigates the relationship between physical and mental health-related

quality of life (QOL) and covariates by age group. A cross-sectional survey of LGBT adults aged 50 and older (N = 2,560) was conducted by Caring and Aging with Pride: The National Health, Aging, and Sexuality Study via collaborations with 11 sites across the U.S. Linear regression analyses tested specified relationships and moderating effects of age groups (aged 50–64; 65–79; 80 and older). Physical and mental health QOL were negatively associated with discrimination and chronic conditions and positively with social support, social network size, physical and leisure activities, substance nonuse, employment, income, and being male when controlling for age and other covariates. Mental health QOL was also positively associated with positive sense of sexual identity and negatively with sexual identity disclosure. Important differences by age group emerged and for the old–old age group the influence of discrimination was particularly salient. This is the first study to examine physical and mental health QOL, as an indicator of successful aging, among LGBT older adults. An understanding of the configuration of resources and risks by age group is important for the development of aging and health initiatives tailored for this growing population.

Keywords: lesbian, gay, bisexual, transgender, (LGBT) aging, health, diversity, healthy aging, successful aging, life course

Therapeutic recreation practitioners’ insights into the efficacy of physical activity for clients with mental illness across a continuum of care

Hopper, T., & Ferries, L. (2014). Therapeutic recreation practitioners’ insights into the efficacy of physical activity for clients with mental illness across a continuum of care. *Therapeutic Recreation: Practice & Research Journal of Therapeutic Recreation Ontario*. 9, 23-31.

The use of physical activity as a modality is on the rise within supports for individuals who experience mental illness. This study explores Therapeutic Recreation practitioners’ insights into the efficacy of physical activity across a continuum of care with clients who had a mental illness. The study was based in a community in Canada. Participants of the study were affiliated with organizations, which represented a continuum of care. One practitioner was employed as Recreation Therapist on mental health inpatient unit, one worked in a mental health day hospital, and one was employed as a community Recreation Therapist. Looking across a continuum of supports—from clinical to community—provided further insight into the efficacy of physical activity with varying client groups within mental health. Practitioners described the use of physical activity as a modality that supports client success, engages skills that were easily transferred to other life domains, helps to reduce secondary health issues related to mental illness, and they also described some of the difficulties practitioners experienced using physical

activity as a modality in their specific mental health setting. Barriers to participation experienced by clients included financial barriers, motivational barriers, and symptoms related to the clients' illness. We suggest that physical activity plays an important role in the lives' and treatment of individuals who experience mental illness.

Keywords: efficacy, physical activity, mental illness, continuum of care, Therapeutic Recreation practice

Curling without ice: A case study of men's leisure

Crealock, J., Hopper, T. D., & Singleton, J. F. (2015). Curling without ice: A case study of men's leisure. *Therapeutic Recreation: Practice & Research Journal of Therapeutic Recreation Ontario*. 10, 13-24.

As part of the aging process, many people experience functional decline and require full-time supportive living. As a result, people move into a long-term care facility to receive support services. The transition to long-term care can be difficult and often results in sadness and depression, which negatively affects one's quality of life. Conversely, engagement in meaningful activity through therapeutic recreation contributes positively to quality of life. Non-pharmacological treatments for depression, such as engaging in therapeutic recreation programs, holds promise as they have been shown to positively affect mood without the side effects of medication. The experience of men in long-term care is not a well-researched area. Discovering activities that are meaningful and preferred by men will influence therapeutic recreation service delivery in the long-term care setting by diversifying the selection of meaningful activities for both genders of the population. This article highlights the experience of a therapeutic recreation intervention, Curling without Ice, for a man who is a 92-year-old WWII veteran living in a long-term care facility.

Keywords: activity selection, depression, leisure, long-term care, men's leisure, therapeutic recreation

**Role of leisure in meaning-making for community-dwelling adults with mental illness:
Inspiration for engaged life**

Iwasaki, Y., Messina, E., Shank, J., & Coyle, C. (2015). Role of leisure in meaning-making for community-dwelling adults with mental illness: Inspiration for engaged life. *Journal of Leisure Research*, 47(5). doi:10.18666/jlr-2015-v47-i5-5305

This qualitative study intensively examined the role of leisure in meaning-making with 33 community-dwelling adults (18 females, 15 males; aged 24 to 78) from diverse cultural backgrounds (10 African Americans, 10 Caucasians, 9 Latinos, and 4 Asian Americans) with mental illness. Analyses of the interview data identified several key themes of meaning-making through leisure including the role of leisure in promoting (a) a joyful life, (b) a composed life, (c) a connected life (e.g., socially, spiritually), (d) a discovered life, and (e) a hopeful and empowered life. Supported and contextualized by these specific themes, an overarching leisure meaning-making theme, which emerged from this study, is inspiration for an engaged life. The findings based on the participants' voices/insights suggest that leisure gives strength, peace of mind, inspiration, and more depth and color to one's life and makes it more well rounded in the journey to recovery.

Keywords: disability, meaning of life, purpose of life, mental health

Sit and fit: seated exercise program for mental health populations

McCartney, K., & Sage, A. (2015). Sit and fit: seated exercise program for mental health populations. *Therapeutic Recreation: Research & Practice Journal of Therapeutic Recreation Ontario*. 10, 63-75.

Sit & Fit, a chair-based seated exercise program, was designed and offered for patients of a general forensic in-patient unit. The program was initiated due to the identification of three types of patients: (1) reluctant exercisers, (2) frail adults, and (3) adults at risk of frailty, if lifestyle changes did not occur. Participants were of a mixed population for medical and mental health, with most having co-morbidities. Female and male adults of young, middle, and older age were included in the program. The program was facilitated using an interdisciplinary approach, with roles performed by a nurse, physiotherapy assistant, occupational therapist, and a recreation therapist. Using a standard chair, the program was offered in a class format, two times weekly for 40 minutes, for three months. Challenges to implementation included time constraints, competing priorities, staffing support, risk management, environment, and participant attitudes

and behaviours. Evaluation measures included participant feedback through an evaluation form, outcome measures tracked each session, and pre- and post-testing of strength, balance, mobility, and vital signs prior to the start of the program and 12 weeks following the start of the program. Due to the short time frame (12 weeks) of the program and low participation in pre- and post-test assessments, analysis of changes in functional fitness cannot be determined for the group at this point. Sessional outcome measures indicate the program has low attendance, with most participants performing with independence and a moderate to high level of engagement. Participant feedback indicates the program is well liked and valued by the group.

Keywords: seated exercise, chair-based exercise, mental health, functioning, evaluation, frailty

Subjective mental health and leisure time engagement: A scoping study

Hopper, T. D., & Singleton, J.F. (2015). Subjective mental health and leisure time engagement: A scoping study. *Therapeutic Recreation: Research & Practice Journal of Therapeutic Recreation Ontario*. 10, 76-88.

Mental health has traditionally been understood as the presence or absence of disease – however, research shows it is much more than that. Mental health is a complete state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make contributions to her or his community (WHO, 2007). As an aspect of health, the study of subjective mental health and time use is emerging in the literature. This scoping study explores the concept of subjective mental health and how this associates with the use of leisure time among various age cohorts. The articles were reviewed using the following criteria: rationale and purpose of paper; presence or absence of theory; methodology including sampling procedures; results; discussion and conclusion. The literature demonstrated that researchers are using a variety of rationale and purposes, theories, methods and sample populations. The results of the current study emphasize that the study of subjective mental health and its association with time use has not been addressed within the literature. It is suggested by the authors that as the level of subjective mental health continues to decline in society, the study of subjective mental health and leisure time engagement may increase importance. Further, this study has direct transferability to TR practitioners' evidence-based practice by providing the steps required to conduct their own scoping study.

Keywords: subjective mental health, leisure time, leisure engagement, leisure, scoping study

Barriers to involvement in physical activities of persons with mental illness

Shor, R., & Shalev, A. (2016). Barriers to involvement in physical activities of persons with mental illness. *Health Promotion International*, 31(1), 116-123. doi:10.1093/heapro/dau078

Participating in physical activities could be essential for reducing the multiple risk factors for health problems that persons with severe mental illness (SMI) may suffer. However, people with SMI are significantly less active than the general population. To develop knowledge about factors related to the perceived barriers hindering this population's participation in physical activities and the benefits this participation would have, a study was conducted in Israel with 86 people with mental illness living in community mental health facilities prior to their participation in a health promotion program. A mixed method was implemented and included: a scale designed to measure participants' perceptions of the barriers to and benefits of involvement in physical activities; instruments focusing on bio-psycho-social factors that may affect the level of barriers experienced; and personal interviews. The findings revealed high ranking for accessibility barriers hindering the participation in physical activities. Bio-psycho-social factors stemming from the participants' mental health, such as level of depression, were correlated with higher ranking of accessibility barriers. Bio-psycho-social factors reflecting positive mental health and health, such as positive appraisal of body weight, were correlated with lower ranking of accessibility barriers. Other barriers may include organizational and broader systemic barriers in the mental health facilities where the participants reside. These findings illuminate the need to consider the unique challenges that persons with mental illness may face in any attempt to advance their involvement in physical activity.

Keywords: barriers, physical activity, mental illness, health promotion

Cool running: An interdisciplinary approach to mental health and wellness programming in the forensic setting

Alderson, J., Bulley, K., Leblanc, J., & Vizniowski, S. (2016). Cool running: An interdisciplinary approach to mental health and wellness programming in the forensic setting. *Therapeutic Recreation: Research & Practice Journal of Therapeutic Recreation Ontario*. 11, 1-19.

A program was developed within the forensic psychiatry program at St. Joseph's Healthcare Hamilton called Cool Running. We engaged in an evaluation project to assess how Cool Running would affect patient's physical health, quality of life/mood, motivation, and risk of

violence by increasing patients' endurance with the ultimate goal of completing a five kilometre run/walk community event. Our findings to date suggests that within a forensic setting, when patients have access to programming that activates them physically, there is a positive link to their recovery, a decrease in their length of stay, and a decline in violent behaviours. The method of program evaluation includes attendance, health outcomes, physical evaluation, level of risk, and patient feedback and satisfaction. After review of four completed sessions of Cool Running, results of data collected showed improvement in areas of patient motivation, weight loss, and overall quality of life/mood. Incidences of aggression and risk of violence were reduced for some patients over the duration of the program. As this evaluation project evolves an increase in the variety of research areas should be further explored, such as links to employee wellness and job satisfaction, and community partnerships to contribute to the proof of efficacy of offering this type of therapeutic programming. Positive outcomes of Cool Running imply that further exploration of a variety of therapeutic recreation programming across all domains of health warrant further evaluation to determine their impact on the recovery process of both those in the mental health and/or forensic systems.

Keywords: mental health, forensic psychiatry, therapeutic recreation, physical health, evaluation

Recreation for mental health recovery

Fenton, L., White, C., Gallant, K., Hutchinson, S., & Hamilton-Hinch, B. (2016). Recreation for mental health recovery. *Leisure/Loisir*, 40(3), 345-365. doi:10.1080/14927713.2016.1252940

The purpose of this paper is to articulate a rationale for increased collaboration between the mental health system and recreation system by embracing recovery-oriented practice. We provide practical examples of the potential for this collaboration from our current 'Recreation for Mental Health' project. For example, recreation programs intended for individuals with mental health problems should be informed by individuals in the recreation sector, mental health sector and individuals with mental illnesses. As such, programming should reflect current understandings of recovery-oriented care, the benefits of recreation for mental health and consider the perspectives of those living with mental health problems. Additionally, opportunities for recreation engagement can be supported in 'community arenas': recreation spaces where individuals with mental health problems are not thought of or identified as mental health consumers and where they can fully participate in safe and supportive recreation environments. Finally, we outline suggestions for next steps including a number of intersectoral activities such as information sharing, asset mapping, knowledge translation, research and program evaluation.

Keywords: Intersectoral collaboration, mental health, recovery-oriented care, recreation

What can leisure offer those with a mental illness; diversion, experience or something much richer?

Alford, S., Perlman, D., Sumskis, S., Moxham, L., Patterson, C., Brighton, R., Taylor, E., & Heffernan, T. (2017). What can leisure offer those with a mental illness; diversion, experience or something much richer?. *World Leisure Journal*, 59(3), 218-226.
doi:10.1080/16078055.2017.1345486

Leisure, risk and safety are for most leisure practitioners across the globe, thoughts that arise in quick succession to determine the viability of a leisure intervention. However, in a risk aware world so focused on safety, is Leisure too safely structured to be truly beneficial to the individual? Rarely are leisure seekers given the opportunity to fail and to learn from that experience. Lack of opportunity to face adversity in a supported way hinders the individual's ability to learn and grow, and to develop personal resilience as a result. This paper will discuss Recovery Camp, a Therapeutic Recreation initiative developed in Australia which utilizes experiential leisure to facilitate resilience in individuals with a mental illness. This paper aims to discuss Leisure Boredom data obtained from volunteer consumers attending recovery camp in 2014 and its relationship to an individual's personal resilience in the context of living in recovery from mental illness. Importantly Therapeutic Recreation interventions such as Recovery Camp should be seen as a valuable experiential alternative to assist in the personal growth and development of those from a vulnerable population.

Keywords: resilience, recovery, recreation, leisure, therapeutic recreation