Physical Activity, Recreation, Leisure, and Sport:

Essential Pieces of the Mental Health and Well-being Puzzle

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"Well-being cannot exist just in your own head. Well-being is a combination of feeling good as well as actually having meaning, good relationships and accomplishment"
Dr. Martin Seligman, founder of positive psychology movement

Introduction

The evidence is compelling. Physical activity, recreation, leisure and sport are not only essential resources for promoting optimal mental health and well-being, but they are critical components of efforts to recover from and stay well when living with a mental illness or addiction. A recent Chronicle Herald article (Tierney, May 21, 2011) describes the research of Dr. Martin Seligman and identifies factors he views as critical to well-being: positive emotion, engagement, relationships, meaning, and accomplishment. People of all ages and abilities can experience these elements of well-being from involvement in personally meaningful and enjoyable physical activity, recreation, leisure and sport. Making these opportunities more available to more people more often has the potential to make a significant difference to the mental health and well-being of citizens, families and communities in Nova Scotia.

In this document we provide a "broad-strokes" review of current evidence (i.e., research published in peer-reviewed academic journals) about the relationships between physical activity, recreation, leisure and sport and mental health and well-being for the following groups:

- children and youth
- families and communities
- adults and older adults, and
- persons living with mental illness or addictions.

While the benefits of participation are abundant there are also risks associated with some forms of free time activities that can negatively impact people's mental health and well-being. In addition to reviewing evidence of mental health-related benefits and risks are some examples of programs or interventions that have been designed to promote (or reduce the risks to) good mental health and to treat mental illness and addictions. Understanding these risks and developing programs and supports to address them is essential to a mental health and addictions strategy for Nova Scotia.

Key Terms

For the purposes of this document the acronyms "PARLS" will be used to refer to free time activity engagement associated with physical activity, recreation, leisure, or sport. When evidence is related to a particular form of activity participation then this will be specified. The following are key terms used within the document:

- *Free time context:* Term used primarily in the leisure sciences literature to refer to unobligated time, outside of work, school, or self-care activities. Typically we think of this as "free time", such as after school or work, in the evenings and weekends.

- *Discretionary time:* Term used in the developmental psychology literature to refer to free time. Like the term "free time," this includes the afterschool context as well as evenings and weekends. The term "extracurricular activities" is often used in conjunction with studies of adolescents' discretionary time.
- *Leisure:* Refers to enjoyable and personally meaningful activity in the free time context. Leisure is often associated with a sense of freedom and intrinsic motivation (doing something because you want to, not because you have to). Categories of leisure typically include: social (e.g., spending time with friends), creative or expressive (e.g., artistic pursuits), cognitive (e.g., reading), spiritual (e.g., meditation) or physical (e.g., walking, gardening).
- *Structured Leisure Activities:* Refers to leisure or recreation activities that occur in the free time context that are typically deeply engaging (e.g., require an investment of attention and effort) and support personal expression. Examples include volunteering, sports or club activities. This is sometimes also referred to as "active leisure."
- *Unstructured Leisure Activities:* Unstructured leisure typically refers to "doing nothing" or passive forms of activity that require low levels of engagement and often occur outside of organized recreation or leisure contexts (e.g., hanging out, watching television, listening to music in room, going to the mall, going to the movies). This term is most often used in relation to adolescent or adult leisure. See below for a definition of unstructured play.
- *Physical Activity:* Is often associated with various forms of exercise, but can include vigorous leisure or recreation activities. Examples include: walking, swimming, tennis, bicycling, golf, gardening, etc.
- *Recreation:* Typically associated with structured or organized group activities which are intentionally designed to benefit individuals, groups or communities. Camaraderie, skill development, fitness and enjoyment tend to be primary motivations for recreation participation. Depending on the degree of specialization, participation with sports, creative arts, or service groups are considered forms of structured recreation participation.
- *Sport:* Typically defined as an organized, competitive activity, requiring adherence to rules and/or customs and specific skills to play; the objective is often associated with winning or losing. We typically think of sports as being athletic competitions, but competitive games requiring intellectual skills and challenges (e.g., chess) are also considered "sport."
- *Play:* Although there are many different definitions and theories of play—and adults also play—here we view play as spontaneous, unstructured, *child-directed* activity which is fun, freely chosen, actively engaging, and intrinsically motivated (e.g., done for its own sake as opposed to having to or for some external reward or achievement motive); it typically involves children interacting with others and/or their environment and may involve the suspension of reality and/or "rules" of play.

Methods

Given the potential scope of this review a selective review strategy was employed. Three academic databases[1] were used for all searches: PsycINFO, Cinahl and SportDiscus. The search was narrowed to include only periodicals (peer reviewed academic journals) published between1995-2011. Key words were used to conduct the searches within the three databases; Searches were conducted separately for evidence of the relationships between PARLS and mental health and well-being outcomes for each of the following populations: children and youth, families and community, adults, older adults, and persons with mental illness or addictions. In addition, books and books chapters which describe evidence of the developmental benefits of play were reviewed.

Within each of these broad population groups, searches focused on identifying evidence related to mental health benefits, developmental benefits, risks, barriers, and "best practice" examples. Further, these same categories were used to examine evidence related to different types of free time activity participation (e.g., physical activity). A list of potentially relevant articles was generated for each combination of search words (e.g., children, recreation, mental health development). Abstracts for each potential article were reviewed; from this, lists of references were generated and articles which appeared to be most relevant for this report were obtained. Appendix A provides an overview of the search words used and numbers of relevant articles identified within each search. Evidence from key articles reviewed is summarized in the report that follows. The priority articles are included in numbered reference lists generated for each search and are included in appendices. Each of the following sections provides a brief summary of the evidence gathered; the articles cited within the summaries are identified (**) within the reference lists.

[1] PsycINFO covers relevant materials from related disciplines such as medicine, psychiatry, education, social work, law, criminology, social science, and organizational behaviour. CINAHL is a core resource for nursing and allied health professionals, students, educators and researchers. SportDiscus indexes literature on sport, physical fitness, sports medicine, biomechanics, coaching, and physical education.

Children and Youth

"A complete picture of successful adolescent psychosocial development entails both the absence of negative behavioural and psychological indicators (e.g., delinquency, risk behaviours, depression, school dropout) as well as the presence of positive indicators (e.g., self-confidence, optimism, purpose in life, school success); that is, our kids should not merely be surviving, they should be thriving."

(Bundick, 2011, p. 57)

"I like nonsense, it wakes up the brain cells. Fantasy is a necessary ingredient in living. It's a way of looking at life through the wrong end of a telescope. Which is what I do, and that enables you to laugh at life's realities."

(Dr. Seuss, 1901-1999)

The benefits of physical activity and physically active recreation are well documented for reducing the risk of physical health problems (e.g., obesity) and improving cognitive functions (e.g., concentration) in children and youth. But what are the mental health benefits? What evidence is there that leisure, recreation, sport, physical activity and play can promote good mental health and psychological well-being and reduce risks of internalizing problems that may put youth further at risk for addictions and problem behaviour? We begin by reviewing evidence of the mental health and developmental benefits of play, leisure, recreation and physical activity. Following this is a summary of evidence of risks and barriers to participating in leisure activities and evidence from programs specifically targeting mental health promotion. References for this section are found in Appendix B.

Mental Health and Developmental Benefits of PARLS

Unstructured play is the foundation for optimal development in childhood. Unlike chores, eating, cleaning up or bedtime, play is within children's control. It is in and through play that children learn, as Dr. Seuss said, to laugh at life's realities; in other words to develop the emotional, social and cognitive capacity to withstand challenges in later life. Play advocates argue that there is no division between play and learning—learning cannot happen without play and play leads to learning (Pramling-Samuelsson & Johansson, 2006). Unstructured play or free-play affords not only physical development (e.g., gross and fine motor skills) but cognitive (problem-solving and creative thinking), moral ("right and wrong"), social (e.g., cooperation skills) and emotional development (self-regulation) (Erickson, 1963).

Within a safe and secure environment (e.g., limits and guidelines) in which children are able to exercise free choice and independence, play enables children to develop trust, autonomy, initiative and self-expressiveness and a sense of control over their environment(Erickson, 1963), all of which are cornerstones of mental health. Kleiber (1999) explained that when children have optimal play experiences in childhood this can contribute positively to developing skills needed to interact with

the broader world in later life, including planning and initiating social activities, the initiative to create one's own opportunities for enjoyment and a desire for relatedness. However, when play is directed or over-structured by adults then children can become fearful, insecure or lack important self-regulatory skills such as initiative and persistence (Kleiber, 1999).

> *"When adults organize and structure children's free time, such skills and inclinations are not tested and extended. And if children become accustomed to having their free time structured, they are more likely to feel bored and helpless on the rare occasions when they are unsupervised"* (p. 44).

A further problem for child development is the increasing over-structuring of children's time and play environments (e.g., with toys that have specific adult-defined purposes). For example, when children have access to loose rather than fixed play equipment they are more likely to participate in vigorous physical activity (e.g., tag; Willenberg et al., 2010). As a result of over-structuring and over-commercialization of play, Elkind (2007) suggests children are experiencing time stress due to over-scheduling of sport activities.

Although play is most associated with childhood, as Henle (2007) commented, "surely it makes sense that the benefits associated with play are education beyond the primary grades" (p. 20). Interestingly, by early adolescence, when asked how they like to spend their free time, youth are less likely to talk about play or playing, except in the context of playing video games or sports (Nippold, Duthie, & Larson, 2005). Nonetheless, while the developmental benefits of active unstructured free time associated with play in childhood extend into to adolescence, the risks of unstructured passive free time become more apparent.

Looking at adolescence (e.g., ages 11-12 and above) there seems to be little distinction between indicators of positive youth development and positive mental health when it comes to free time activities. In other words, the same factors that contribute to youth's overall development in free time activity contexts can also serve to protect them from risks, and strengthen and enhance their personal resiliency. Developmental assets, such as positive self-regard, coping and conflict resolution skills, will enable youth to face challenges in other life domains, such as school or work. As Fraser-Thomas, Coté and Deakin (2005) commented:

> *Developmental assets play a protective role because the more assets youth have, the less likely they are to engage in high-risk behaviours such as alcohol, tobacco, and drug use. Youth high in developmental assets are also less likely to demonstrate antisocial behaviours, violence and school problems. Second, developmental assets play an enhancement role, as youth who demonstrate more developmental assets are also more likely to 'thrive'....Third, youth high in developmental assets demonstrate more resilience in difficult situations.* (pp. 24-25)

Overall, the substantial body of research related to positive youth development has highlighted the strong connections between participation in structured leisure activities and positive psychosocial adjustment (e.g., psychological resilience; Barber, Abbott, Blomfield, & Eccles, 2009; Bartko & Eccles, 2003) and subjective well-being (Palen & Coatsworth, 2007). Structured activities are considered to be developmentally beneficial because they provide adolescents with opportunities to:

- acquire and practice specific social, physical and intellectual skills that may be useful in a variety of settings, including school;
- contribute to the well-being of their community and to develop a sense of personal responsibility as a member of that community;
- belong to a socially recognized and valued social group;
- establish supportive social networks of both peers and adults that can help in the present as well as the future; and
- experience and deal with challenges (Eccles & Templeton, 2002, p. 121).

Structured activity settings in the community also provide opportunities to have exposure to conventional social values, form relationships with non-deviant peers and increase skills and competence (Eccles & Barber, 1999).

Beyond its developmental benefits, involvement in structured "active" free time or school-based extracurricular activities is associated with better overall mental health, lower levels of depressed mood, and higher levels of positive affect (Bohnert, Richards, Kohl, & Randall, 2009; Frederick & Eccles, 2006; Mahoney, Schweder, & Stattin, 2002; Passmore & French, 2000). Unstructured or passive leisure—what Passmore and French called "time-out leisure" (e.g., solitary activities such as lying on one's bed and reflecting, or watching television)—is also negatively associated with mental health in adolescence. Adolescents who are involved primarily in passive unstructured activities experience higher levels of depressive symptoms and behaviour problems than those involved in structured recreation activities (Bartko & Eccles, 2003; Mahoney & Stattin, 2000). Youth involved in structured leisure activities also exhibit less substance use (Darling, 2005) and less delinquency and aggression (Wong, 2005) whereas youth who take part in substance abuse tend to seek out unsupervised unstructured leisure contexts where this can occur (Trainor, Delfabbro, Anderson & Winefield, 2010). What is not clearly known is whether participation in unstructured passive free time activities is a precursor to depression or an indicator of higher levels of depression. In one study with adolescents in grade 10 (n = 947) better psychological well-being predicted youths' participation in more structured free time activities, whereas "doing nothing" was associated with negative mood, poor self-esteem and low life satisfaction (Trainor et al., 2010). Trainor and colleagues speculated that "it is likely that adolescents who have poor psychological health are less motivated to participate in activities that require challenge, concentration and effort" (p. 181).

Leisure or recreation participation can also be a resource for adolescents to cope with stress in their lives. For example, in a study of middle school adolescents (aged 11-15) structured leisure activities were associated with a more proactive approach to coping with stress. While more passive unstructured activities (watching television and listening to music in their rooms) were associated with avoidance coping (Hutchinson, Baldwin & Oh, 2006) there was a positive association between three unstructured activities (hanging out, going to the mall and going to the movies) and proactive approaches to coping with stress. Hutchinson et al. suggested that adolescents may still derive important meanings from these unstructured activities (e.g., perceived control, autonomy) and

experience positive affect by having the opportunity to distance themselves from immediate pressures and to engage in something enjoyable.

Most forms of physical activity may offer protective effects for mental health and addictions among youth (Wharf Higgins, Gaul, Gibbons, & Van Gyn, 2003, p. 49). Participation in physical activity has been associated with decreased anxiety and depression, improved self-esteem, decreased psychological stress and reduced drug use. Conversely, lack of physical activity has been associated with anxious and depressed symptoms, social isolation, social problems, withdrawal, stress and anxiety (Kantomaa, Tammelin, Ebeling & Taanila, 2008). In a Canadian study of the relationships between physical activity and mental health, Wharf Higgins et al. (2003) noted:

> *An absence of depression was the significant predisposing factor influencing physical activity among females. Physical activity may offer protective, buffering effects on mental health for youth prior to the onset of emotional problems independent of many other risk factors by raising levels of self-esteem, body image and self-concept. The goal-setting orientation to physical activity can offer a feeling of accomplishment and together with the development of new physical, social and mental skills may reduce the sense of loss of control frequently linked to depression. Indeed, regular exercise participation has been found to be associated with decreases in state and trait anxiety, depression and stress.* (pp. 48-49)

Although many health professionals may not advocate for the mental health benefits of free time activities there is some evidence that youth may intuitively understand its benefits for maintaining good mental health. In an Australian study, Jorm et al. (2010) provided youth (ages 12-25) with a vignette about a young person with a mental health problem (depression, depression with alcohol misuse, social phobia, early psychosis) and asked participants to identify things that this person could do to reduce his/her risk of developing the problems. They found that over 80% of the young people endorsed the following for all disorders: keeping physically active, keeping regular contact with family and friends, avoiding substances and making time for relaxing activities as most likely to be helpful. Jorm et al. suggested that the findings show that "the public are open to the possibility of prevention, including at an age when there is a high risk of first onset. These findings encourage the development of health promotion programs about what young people can do to reduce their risk. Messages promoted at this age are potentially relevant across the lifespan" (p. 280).

Risks and Barriers

Social exclusion is a risk factor for many mental health problems, whereas being socially included has protective effects (Davies, Davis, Cook & Waters, 2007); Young people who report poor social connectedness are 2-3 times more likely to experience depressive symptoms than youth who report stronger social networks (Davies et al.). A combination of greater depression and delinquency is especially true for youth who perceive themselves to be alienated from their peers, families and/or community and who primarily engage in unstructured free time activities (Bohnert et al., 2009).

As noted earlier, underlying the development of depression and anxiety may be disengagement from recreation activities and social relationships (Mahoney et al., 2002). While youth with emotional-behavioural problems could benefit from recreation participation, they often disengage from recreation activities and social relationships that could ameliorate problems. Mahoney et al. noted that girls who show high levels of depressed mood are the least likely to participate in organized recreation activities. Despite this they recommend increasing opportunities for participation in structured after-school activities and suggested that "the provision of structured after-school activities for this subset of adolescents may be critically important" (p. 81).

Youth with mental health and/or behavioural problems may experience additional barriers to recreation participation not experienced by "mainstream" peers, including low self-esteem, reluctance to explore new activities and settings (often due to lack of prior success), below-average competence and skills, and lack of parental and peer support to participate in recreation. In recreation and camp programs, barriers to social inclusion experienced by youth from poor families include: bullying, being left out, time and transportation constraints, and financial constraints (Davies et al., 2007). Davies et al. concluded that their results "highlight the need to develop and implement social inclusion promotion programs for children living in low SES communities... in order to overcome the substantial barriers that reduce opportunities for participation" (p. 20).

Finally, despite the many benefits afforded children and youth from sport participation, some youth in team sports experience excessive pressure to win, perceive themselves to have poor abilities, feel unattached to their team, and feel vulnerable to pressure from teammates (Wankel & Mummery, 1990), which can further lead to low self-confidence and self-esteem (Martens, 1993) and athletic burnout (Coakley, 1992). In early studies, Orlick (1974) found that 50% of youth (age 7-19) who were interviewed about their sports participation indicated that programs were too serious, focused only on winning and lacked enjoyment. Coté (2004) suggested that when specialization occurs at a developmental inappropriate age benefits (e.g., skills development) are outweighed by the psychological (as well as physical) costs (e.g., depression, decreased self-esteem, increased sensitivity to stress, sense of failure, etc.). Conversely when children and adolescents are experiencing fun and enjoyment they are much more likely to persevere with a challenging activity (Allender et al., 2006). "Children see enjoyment and social interaction with peers as reasons to be physically active" (Allender et al., p. 832). Efforts to support skill development and fostering fun as part of participation are keys to the mental health benefits available from sport participation.

Best Practice Examples

Today, therapeutic recreation and the field of leisure studies in general are branching out to not only promote the positive benefits that accrue through leisure participation, but also prevent negative leisure from occurring. In the United States, the "Benefits Based Movement" (e.g., Hurtes, Allen, Stevens, & Lee, 2000) has emphasized the development of programs in recreation settings intentionally designed to foster youth's developmental assets (as opposed to traditional programming, which is often designed to keep kids busy and off the streets and which do not

typically offer the challenge necessary to promote development in participants). Larson (2000) argued that youth develop positively when they are involved in activity that is intrinsically motivating and requires effort and participation over a period of time. The following are considered to be essential features of developmental contexts that promote positive youth development:

- safe and health promoting facilities;
- clear and consistent rules and expectations;
- warm, supportive relationships;
- opportunities for meaningful inclusion and belonging;
- positive social norms;
- support for self-efficacy and autonomy;
- opportunities for skill building; and
- coordination among family, school and community efforts

(National Research Council's Committee on Community-level Programs for Youth, 2002).

Caldwell (2000) has named this the "Beyond Fun and Games 2" approach to youth programming and suggested that developmental benefits are more likely to be produced from programs that are specifically designed to build competence, interests and deepen skills. "The goals of programming should include a deliberately educative approach to actively help youth navigate development tasks, like learn living skills (decision-making and conflict resolution), learn personally meaningful leisure interests, academic skills, and/or how to deal with stress (Caldwell, p. 3). Caldwell and colleagues built on these premises to develop a school-based primary prevention program named *TimeWise* for youth in middle school (grade 7). The *TimeWise* program involves six leisure education modules, including exploring interests and motivation, beating boredom and developing interests, making action plans, and managing daily leisure. They found that the program increased leisure planning skills and reduced boredom and that, in follow-up evaluations, compared with a matched control group the boys (but not girls) were less likely to initiate smoking and use marijuana (Caldwell, Smith, Ridenour & Maldonado-Molina, 2004).

Afterschool programs designed as prevention programs for youth-at-risk have been found to have positive developmental benefits, although not directly related to mental health. For example, Scott et al. (1996) found that positive role models helped the youth feel accepted and increased their abilities to resolve conflicts and work with others. Youth involved in a prevention recreation program with the Boys and Girls Club reported increased perceptions of self-esteem and competence that came from assuming leadership roles and feeling more connected to the Club (Carruthers & Busser, 2000). Recreation programs intentionally designed to address specific risk behaviours (e.g., substance abuse) are most effective when planned collaboratively (e.g., in partnership with local addictions prevention groups) and when education about risk and protective factors is incorporated. "Without providing knowledge and skills to enhance protective factors and counter the risk factors that are so pervasive in these adolescents' lives, the full benefit of the recreation program may not be realized" (King, Valerius & Collins, 1998, p. 93.)

Advocates for summer day and residential camp programs have also provided evidence of the developmental benefits of camp participation for enhancing positive identity, social skills and development of values of children and youth. Like afterschool programs designed as prevention interventions, well-designed camps can foster positive youth development by combining challenging opportunities with supportive relationships, along with the opportunity to develop and demonstrate agency (e.g., responsibility to chose, plan and implement a challenging activity) over time (Anderson-Butcher, Cash, Saltzburg, Midle & Pace, 2004; Larson, 2000). Thurber, Scanlin, Scheuler and Henderson (2007) argued that camps are ideal for promoting positive youth development because "they are intrinsically motivating, 'structured voluntary activities' with ample opportunity to take initiative, take risks, and develop mastery...." (p. 243). In their study of children who participated in 80 camps in the USA (n = 3395) there were significant differences in self-esteem, independence, leadership, and friendship skills, all of which are important developmental assets for positive mental health. Thurber and colleagues further noted that beyond these developmental benefits, "camp is an immersive experience that allows for the sustained resetting of negative attitudes and behaviours and the reinforcement of positive attitudes and behaviours" (p. 251). Marsh (1999) emphasized that programs and activities need to intentionally target developmental or mental health outcomes in order for camp programs to effect change.

Fraser-Thomas, Coté and Deakin (2005) applied similar principles to the development of an applied sport-programming model. The model advocates for the role of policy makers in ensuring accessibility to youth sport programs (e.g., to reduce barriers to access due to gender, race, culture, ethnicity, socio-economic status) and focuses on "designing programs that develop better people, rather than simply skilled individuals" (p. 20). Their model emphasizes a progression from sampling to investment through recreation participation, with an emphasis on developing competence, confidence, connection, compassion and character.

In order to prepare children and youth to be emotionally resilient, to cope with individual stressful events, and to avoid risk-taking behaviours, recommendations are that primary prevention programs should focus on developing skills needed for good mental health (e.g., generic coping skills and stress management, and social skills and self-esteem; Licence, 2004). For example, the Fun FRIENDS program is a school-based, universal preventative intervention program for preschool children (Pahl & Barrett, 2010). The Fun FRIENDS program was designed to teach children cognitive-behavioural strategies in a play-based manner to prevent anxiety and to increase social and emotional strength. The program was evaluated with children aged four to six years attending preschool in Brisbane, Australia (n = 263). While there were no immediate significant differences between the intervention and control groups on anxiety, behavioural inhibition and social-emotional strength at post-intervention, at 12-month follow-up improvements were found on anxiety, behavioural inhibition and social-emotional competence for children in the intervention group. The COPE (Creating Opportunities for Personal Empowerment) Healthy Lifestyles TEEN (Thinking, Emotions, Exercise, and Nutrition) is a cognitive behavioural skills-building program developed to

both improve adolescents' mental health outcomes and healthy lifestyle choices. The program was found to be effective in increasing healthy lifestyle choices and reducing depression and anxiety (Melnyk et al., 2009). In another program for preadolescent girls that combined sport/physical activity and mentoring for healthy lifestyle choices the girls experienced an increased sense of self-responsibility, connections to the community and a sense of belonging, along with developing planning and leadership skills (Bruening, Dover & Clark, 2009). Incorporating leisure education within these programs would enable youth to see how everyday enjoyable activities could both help them feel better and could help part of living a healthy life.

Summary

In summary, there is strong evidence of the important benefits of structured leisure, recreation, sport and physical activities in the free time context for children and youth. For the most part, youth who exhibit positive mental health may recognize these benefits naturally and may seek out opportunities to engage in structured activities that are challenging and personally expressive. Ensuring youth have continued access to supportive environments in which they can develop skills and competence and express their talents is key to developing their competence, confidence and resilience. However, youth who are disengaged from structured recreation activities are more likely to experience mental health problems and engage in more risky behaviours, including substance abuse. Mental health promotion efforts are needed to educate these youth about the mental health benefits available to them from enjoyable and personally meaningful free time activities. Moreover, ensuring that trained staff (e.g., who understand about youth mental health and their role in promoting positive youth development) are available and that programs are intentionally designed to target positive youth development or mental health outcomes are key to recreation programs being contexts for mental health promotion or risk prevention.

Family and Community

A healthy community is one that "continuously creates and improves both its physical and social environments, helping people to support one another in aspects of daily life and to develop to their fullest potential"

(Centers for Disease Control and Prevention)

It is clear that mental health and well-being is a "family (and community) affair." Here, we focus on family and community factors that influence the leisure participation and mental health of children, youth and families. Healthy development is influenced by interpersonal relationships formed with significant others, including family, friends and unrelated adults (e.g., teachers and coaches). At the community level such relationships contribute to social cohesion and sense of belonging, both of which are important components of mental health and well-being. Moreover neighbourhoods and physical environments have the potential to positively and negatively influence the lives of children, youth and families. This section begins by examining interpersonal influences on children's and youth leisure participation and mental health and wellbeing. Following this, evidence of neighbourhood level factors influencing PARLS participation and mental health are reviewed and recommendations for community-level recreation interventions are described. References for this section are included in Appendix C.

Interpersonal Factors Influencing Activity Participation and Mental Health

As it relates to youth's participation in social/recreational contexts, peers may be important sources of support and friendship, but they can also negatively influence risk-taking and delinquent behaviours. Moreover, there is some evidence that boys who "over-identify" with peers experience greater depression symptoms, along with greater problem behaviours, even though they perceive themselves as socially integrated within their peer groups (Denault & Poulin, 2008). In contrast, Denault and Poulin found that the more youths with higher levels of depressive symptoms perceived support from the activity leader, the less their depressive symptoms were the following year. These authors suggested that boys who are "over-involved with peers" in activity peer groups may be peer-oriented and willing to sacrifice other things to be popular with friends.

As noted previously, the presence of a nonrelated adult activity leader, from whom the youth perceive high levels of support, seems to be a key moderator of the relationships between youth activity participation and internalizing and externalizing problems; in other words it is a protective factor against depressive symptoms for high-risk adolescents. Mahoney et al. (2002) concluded that "the psychological and emotional well-being of adolescents may be improved through participation in after-school activities—particularly when a supportive relationship with the activity leader is perceived" (p. 80). They also suggested that participation may have a further benefit of facilitating connectedness between parents and adolescents by providing a "bridge for increased communication and involvement" (p. 81; see also Mahoney & Magnusson, 2001).

In dual-parent families there is evidence that family leisure pursuits can be important vehicles for communicating and reinforcing family values and for promoting family cohesion and adaptability (e.g., Zabriskie & McCormick, 2001). Although single-parent families report less shared family time together, the times that are spent together still contribute to family cohesion and adaptability (Hornberger, Zabriskie & Freeman, 2010). For families who experienced divorce, shared family leisure was important as a positive source of distraction from immediate stressors, provided a sense of "normalcy" in the midst of changes in family structure, gave families something to look forward to, and helped create new family rituals which in turn created a sense of belonging and identity as a family; taken together shared leisure was an important resource for coping with stress and an essential component of family resilience (Hutchinson, Afifi & Krause, 2007). Unfortunately, in families with youth receiving mental health treatment, there are often lower levels of participation in leisure activities that may support adaptation to stress (Townsend & Zabriskie, 2010).

Parental attitudes, expectations and encouragement can influence whether or not children engage in physical activity or sedentary lifestyles. Positive attitudes toward PARLS are cultivated when parents promote independence and active recreation pursuits and are diminished when parents emphasize achievement over enjoyment. Not being forced to compete and win and support from parents are most critical to children's sustained participation in sport and physical activity whereas excessive competition is a barrier (Allender, Cowburn & Foster, 2006). Parents also have a powerful influence as "role models" on their children's health behaviours including what they do to take care of their mental health (Soubhi, Potvin & Paradis, 2004). Cassidy (2005) recommended that in order to change the health behaviours of adults "it is important to target the development of health-enhancing leisure attitudes and engagement in childhood" (p. 64). This recognizes that health behaviours are developed within the social context of the family and that it is important to think of health behaviours as "family health promotion projects" (Soubhi et al., 2004). Finally, although the emphasis is often on the positive benefits of leisure for children, youth and families overall, leisure can also be a source of stress in families (Artazcoz, Cortes, Escriba-Aguir, Cascant & Villegas, 2009; Shaw & Dawson, 2003). Many parents experience significant pressure and stress to involve their children in positive activities, which further increases time stress and financial burden.

For children and youth, living in a poor family is one of the greatest barriers to recreation participation and risk for developing mental health problems (Sletten, 2010). Teens who live in poor families are less likely to socialize with peers in leisure/recreation contexts or participate in structured recreation or home-based activities. Sletten suggested that it is not just lack of opportunities or costs that serve as barriers to participation by children and youth from poor families, but feelings of shame and stigmatization that affect their feelings of social isolation. Adolescents are more likely to have detached relationships with their parents and experience mental health problems when there is a lack of parental knowledge and interest in the adolescent's daily activities, and a lack of shared time and activities. Adolescents who have detached relationships with their parents are at increased risk for developing depressive symptoms (Mahoney et al., 2002).

Mahoney et al. found that youth who are highly detached from their parents and who choose to participate in structured free time activities demonstrate better adjustment than youth in unstructured recreation settings (Roth & Brooks-Gunn, 2003).

Neighbourhood-Level Factors Influencing Activity Participation and Mental Health

A recent systematic review of 23 articles examining the relationships with health identified the importance of the built environment for components of mental health and well-being. In particular, higher reported social capital and lower reported depression and alcohol abuse were associated with more walkable "leisure-oriented" neighbourhoods (Renalds, Smith, & Hale, 2010). Renalds et al. concluded that "the presence of a higher degree of social capital among neighbours (i.e., a greater degree of community investment, connection, and feelings of safety) fosters a greater sense of well-being and thus perceptions of better mental health" (p. 75). Relatedly, access to natural environments, outdoor and shared community spaces has also been associated with lower levels of distress and more positive affect. Participants in community gardens have noted how this provides them with an "escape" from the stresses of everyday life, and serves as a source of support as well as giving a sense of worth and accomplishment (Kingsley, Townsend & Henderson-Wilson, 2009).

In contrast, higher levels of alcohol consumption and depression are associated with poor urban environments (Bernstein, Galea, Ahern, Tracy & Vlahov, 2007; Galea, Ahern, Rudenstine, Wallace & Vlahov, 2005); in fact Galea et al. reported that persons living in poorly maintained neighbourhoods were 36% to 64% more likely to report depression than others living in better neighbourhoods. Renalds and colleagues (2010) suggested that it may be that unsafe neighbourhoods contribute to high levels of self-reported stress and that adults are turning to drugs and alcohol as coping mechanisms. In a study of economically disadvantaged youth (n = 1583) 77% did not participate in any structured free time activities; instead the majority of their time was spent watching television and hanging out with friends (Shann, 2001). Shann suggested that a key factor in this may be lack of opportunities (e.g., no programs) or fields and playgrounds being in disrepair. Perceiving one's neighbourhood to be dangerous has significant impact on the extent to which parents allow their children to play in their neighbourhoods (Autry & Anderson, 2007). Despondence within low resource neighbourhoods also affects both the willingness of community groups to offer structured programs for youth and youth's participation; although residents viewed recreation opportunities as a way to combat hopelessness, Autry and Anderson noted that parents' concerns about dangers and mistrust of government groups and services led to disengagement.

Rural and remote resource-based communities are especially vulnerable to higher levels of poor mental health and substance abuse (Sharma, 2009). Partners (often wives) who have moved to a new resource-based community for jobs often experience a sense of isolation. In contrast the long hours men spend working together creates strong bonds which continue into leisure time: "most of their leisure time is spent drinking with these friends, while the family suffers from their long absences" (p. 265). Further, community restructuring that accompanies the loss of natural resource-based industries (e.g., forestry or fishing) also affects the mental health of community members

whose lives are changed as a result. Jackson, Tirone, Donovan and Hood (2007) examined these impacts on youth's social and emotional health and found that, as families and peers have had to leave communities, youth experienced the loss of friendships as well as loss of youth-centred leisure and recreation opportunities (due to loss of youth participants and adult volunteer organizers). However, aspects of the community that remained untouched were important to youth's sense of well-being, including believing that their communities remained "healthy" places to live because of greater access to the natural environment, being away from some threats of urban environments, as well as experiencing a sense of emotional comfort that came from most people knowing each other. Jackson et al. recommended that greater attention be given to the role of leisure and recreation opportunities as prevention strategies.

Best Practice Examples

There were limited examples available of programs or interventions designed for families as a whole, although several of the above-referenced authors did provide recommendations for interventions based on their research. For example, Denault and Poulin (2008) recommended that community-based organizations "get parents involved in their children's activities, to provide training for the activity leaders—given the positive role they are likely to play in youths' lives—and to stay alert to interactions within the activity peer group, in order to ensure that participation remains a positive context for youth development" (p. 499). Autry and Anderson (2007) also noted that parental involvement is the key to development of sustainable programs in poor, at-risk neighbourhoods. "The key ingredient to addressing institutional anomie and building hope, trust and social capital... was the parents of the youth that lived there. They had to be involved with other community members in all phases of recreation programming if it was to be successful. They cannot be organized by outsiders from a community organization effort and cannot be left out" (p. 281).

In terms of programs designed specifically for families, challenging recreation can improve their collective efficacy for families with at-risk youth, or beliefs in their abilities to handle things as a family (Wells et al., 2004), and outdoor recreation was found to improve parent-adolescent communication (Huff, Widmer, McCoy & Hill, 2003).

Summary

Peers, families, neighbourhoods and communities have the potential to have significant positive or negative influences on recreation and leisure participation and on mental health and substance abuse. While changes in family and community environments may increase the stresses that children, youth and families experience, there is also evidence that leisure and shared family time are important to maintaining a sense of continuity and resilience. For "at-risk" youth, families and communities interventions, programs and supports are needed to ensure that parents, activity leaders, and community leaders and officials: (a) recognize the mental health and well-being benefits of structured leisure and recreation participation, (b) are sufficiently trained and aware of how to identify risks for mental health or behavioural problems, and (c) are supported in creating social and

physical environments that afford opportunities for active engagement, collaboration, accomplishment and mutual support.

Adults and Older Adults

> *"Existing literature on leisure and health can be roughly organised into three classes of research: prevention of, coping with, and transcending negative life events. It is in these ways that leisure has become to be known as therapeutic. That is, leisure may be restorative and beneficial, and move one toward health"* (Caldwell, 2005, p. 8).

The mental health and well-being benefits of leisure, recreation and physical activity seen in childhood and adolescence continue to be available throughout the life course. Physical and social leisure activities are important elements of subjective well-being in adulthood and are recognized as predictors of mental health in later life. Caldwell (2005) suggested that leisure is "therapeutic" (i.e., provides mental health benefits) when people have opportunities to experience: (a) social support, friendships, and social acceptance; (b) a sense of competence and self-efficacy from their leisure participation; (c) being self-determined and in control in their leisure; (d) feeling relaxed and disengaged from stress; and (e) a sense of continuity or normalcy in the face of life changes associated with illness, loss or disability. The following sections review the relationships between mental health and subjective well-being and physical and leisure activity participation in adulthood and later life. References for articles included in this section are available in Appendix D.

Mental Health and Well-being Benefits of PARLS

A large body of evidence is now available about the mental health and well-being benefits of physical activity—either exercise or physically active leisure, such as walking, gardening, swimming, tai chi, golf, yoga and dance—for adults of all ages. Lower levels of depression are associated with various forms of moderate to vigorous exercise and strength training (Adams, Moore & Dye, 2007; Strawbridge, Deleger, Roberts & Kaplan, 2002), as well as other forms of physical activity such as yoga (Netz & Lidor, 2003) and dance (Hui, Chui, & Woo, 2009). Reduced anxiety is also associated with physical activities (e.g., yoga) and strength training exercises (Adams et al.). Conversely, adults with poor mental health are less active, both in terms of physical activity as well as other leisure pursuits, than those with better mental health (Breslin, Franche, Mustard, & Lin, 2006; Lawlor & Hopker, 2001; Phillips, Kiernan, & King, 2003; Winjaele et al., 2007). Leisure-time physical activity has also been associated with reduced job strain; Yang et al. (2010) found that participants who reported persistent physical inactivity over nine years had a higher risk of job strain and lower sense of control over their jobs than those who reported participation in leisure-time physical activity.

Positive mental health and subjective well-being is associated with other active forms of leisure pursuits, such as hobbies, crafts, reading and music, whereas television watching is associated with higher levels of depression and poorer mental health (Dupuis & Smale, 2005) although Hutchinson and Kleiber (2005) have highlighted the health-related benefits of more momentary or casual forms of leisure. Caltabiano (1995) found that outdoor physical activity had the strongest

effect on mental health, but that hobbies and social leisure were also stress buffers. For women living in poverty conditions, a variety of leisure activities were found to be "protective" (i.e., associated with lower levels of depression and anxiety) when the women experienced low job satisfaction and low family income (Ponde´ & Santana, 2000). Arai et al. (2007) found that, for their sample of Japanese participants, culturally specific leisure activities were associated with lower depressed mood; in their study the men preferred physically active forms of leisure whereas the women preferred socializing with friends.

Much of the research on leisure's relationship with mental health has focused on its benefits for coping with stress. Iwasaki (2003) suggested that, "stress-coping and health benefits of leisure are likely evident not only when individuals deal with minor stressors, but also when they experience high stress levels" (p. 202). Leisure has been found to buffer the effects of stress on physical and mental health primarily by providing access to supportive companions (social support networks) and by serving as a positive distraction from stress (Iwasaki & Mannell, 2000). Effective distracting activities are engaging (physical, psychologically, cognitively), enjoyable, and have a high probability of providing opportunities for positive reinforcement (e.g., achieve goals, receive recognition from others). Leisure pursuits contribute to stress-coping by enhancing positive affect and reducing negative affect, increasing perceived coping efficacy, and enabling people to experience renewal and perceive themselves as better able to manage ongoing stressors (Hutchinson & Kleiber, 2005).

There is also evidence that leisure can be a resource for coping and adaptation for persons experiencing severe or chronic stress (e.g., Hutchinson, Loy, Kleiber & Dattilo, 2003; Iwasaki, Mactavish & Mackay, 2005; Kleiber, Hutchinson & Williams, 2002; Klitzing, 2004). For adults living with a chronic illness or acquired disability leisure participation was found to offer hope or optimism, provide structure or a sense of purpose, provide a sense of belonging or acceptance, and preserve a sense of competence or independence (Hutchinson et al., 2003). Leisure activities can also provide opportunities to connect with friends and family as well as with others who might be experiencing similar life experiences (Hutchinson et al.; Kleiber et al., 2002). In a Canadian study with people who experienced marginalization due to disabilities, ethnicity or sexual orientation (Aboriginal individuals with diabetes, individuals with physical disabilities, older adults with arthritis, and persons who are gay or lesbian) Iwasaki et al. found that leisure was a "palliative coping" strategy, serving as positive diversion or 'time-out' from stress-inducing situations and thoughts, and a context for rejuvenation and renewal. They also found that leisure provided opportunities for "promoting life balance, whereby the intentional creation of a leisure space became an oasis for personal renewal (physical, psychological, emotional) that facilitated resilience and the capacity to proactively cope with or counteract stress" (p. 81).

Whereas peer relationships in the free time context can be problematic at times for youth, there is strong evidence of the protective role that social supports and leisure-based companionships play in maintaining physical and leisure activity participation and better mental health in adulthood. For example, Payne, Mowen and Montoro-Rodriguez (2006) found that adults with arthritis who

reported socializing with friends once a week or more had the highest perceived mental health scores, whereas respondents who got together with friends less than once a month had the lowest mental health scores. Many forms of leisure, including physical activities, provide opportunities to receive and give support, connect with friends and to experience a sense of belonging. Interestingly, Bailey and McLaren (2005) concluded that "simply performing activities with others was not associated with a sense of belonging or mental health. Rather, a sense of belonging may need to be facilitated in order for mental health to be enhanced" (p. 82). Social activity participation, as well as satisfaction with these activities, is linked to higher quality of life in later life (Stobert, Dosman & Keating 2006). Pevalin & Rose (2003) found that people who participated in at least one social organization in the community were less likely to report mental health problems. Social groups (even in the context of physical activities) can provide group identification, commitment, approval, companionship, and sense of purpose (Stathi, Fox & McKenna, 2002) all of which contribute to enhancing a sense of social belonging. "Individuals who do not have a sense of fit, or who do not feel valued within an interpersonal relationship, or integrated within their environment, are significantly more likely to experience depressive symptoms" (Bailey & McLaren, p. 88). This finding is consistent with research that emphasizes the role of social support in maintaining well-being.

> *"Frequently, friendships are developed and maintained in the context of leisure activities such as going out for lunch, hanging out at a friend's house, talking on the phone, walking, cultural events, etc. Thus the nature and frequency of social contact with friends may provide more opportunities to develop interpersonal relationship that offer not only social companionship, but also instrumental, emotional, and guidance/advice support."* (Payne et al., 2006, p. 41)

While interventions have been developed to help older adults learn strategies to rebuild friendships (Stevens & VanTilberg, 2000) there is also merit in ensuring that the social environments where older adults are more likely to congregate (e.g., seniors centres) are intentionally designed to foster social connections and a sense of belonging.

Risks, Barriers and Facilitators of PARLS Participation

Many of the barriers to participation in physical activity and recreation in adolescence are the same for adults, although time constraint is an additional barrier. For adults who live in low income communities, lack of access to facilities and costs are frequently mentioned as barriers to exercise, along with personal health and the social or physical environment of the facilities (e.g., feeling judged, or facilities in disrepair). Additional barriers include negative experiences as children, lack of role models, anxiety in unfamiliar environments, and lack of a social network to support participation (Allender, Cowburn, & Foster, 2006). Conversely a sense of achievement, "sanctioning" of participation by medical professionals, seeking health benefits, and access to social supports for participation are motivating factors for adults (Allender et al.). Self-efficacy for participation and social supports were significant predictors of leisure time physical activity participation in a sample of African-American women (Sharma, Sargent & Stacey, 2005).

Language barriers, being in an exercise group with others from a different ethnic background, and peer non-acceptance due to cultural beliefs are all barriers to physical activity that

are unique to women from diverse racial or ethnic backgrounds (Eyler et al., 1998). In a study with minority populations, lower educational levels, older age and being nonwhite were consistently associated with lower levels of physical activity (Eyler et al., 2002); however "social support" seemed to be an overwhelmingly positive determinant of physical activity for women of all racial and ethnic backgrounds. Interventions that enhance and maintain these social support networks may be an integral part of effective physical activity programs for minority women (p. 249).

Best Practice Examples

Advocates for physical activity argue that physical activity or exercise can be considered a potent alternative therapy because it is: (1) relatively inexpensive, (2) has demonstrated a similar effect to pharmacotherapy, (3) has no pharmacological side effects, and (4) is causally associated with the prevention of a number of co-morbid chronic diseases (Adams et al., 2007; Phillips et al., 2003). "If physical activity has a reasonable probability of buffering mental health while "doing no harm," then exercise recommendations by mental health professionals might be more universally indicated" (Adams et al., p. 83). In order to promote the mental health-related benefits of active leisure pursuits it is important to address barriers to adults' participation, including anxiety and lack of confidence, not knowing other people, poor body image, and not fitting in a "gym culture" (Allender et al., 2006). Partnering with health professionals to advocate for participation and providing age (and ethnicity) appropriate leaders as role models may be important ways to address these intra- and interpersonal barriers to participation.

As an example of efforts to address some of these barriers to leisure-time physical activity, two fitness centres were opened in two poor urban neighbourhoods (Choitz, Johnson, Berhane & Lefever, 2010). This removed a primary barrier (access to facilities), reduced time constraints (less commuting time) and created a social and physical environment that was viewed as safe and supportive. Choitz and colleagues suggested that:

> *Culturally sensitive employees are vital to success: they foster a friendly, non-judgmental environment.... This could be especially important to individuals who do not have a history of exercise, or who feel self-conscious or nervous (such as the obese and the elderly). Most of our exercisers learned of the sites by word-of-mouth, suggesting a powerful social marketing tool and underlining the need to include social components in design and activities. By keeping fees affordable, even for low-income individuals and seniors on fixed incomes, the sites were opened to people who might otherwise have seen fitness as a luxury.* (pp. 224-225)

Providing access to individualized or group education about the benefits of leisure for coping with stress has been recommended as an important prevention strategy both for those who struggle with achieving work-life balance and to support those who are unemployed or underemployed to engage in meaningful and productive nonwork activities (Haworth & Lewis, 2005). As Caldwell (2005) noted, "Many people need leisure guidance, education, and counselling to help them reap the beneficial outcomes of leisure and avoid the negative outcomes that are possible" (p. 23). Payne et al. (2006) have suggested that there would be merit in health and medical

professionals encouraging individuals with arthritis (and other chronic conditions) to identify and engage in leisure activities within their repertoire of interests that will serve a stress-coping function. Part of the education can be to assist people to identify interests and abilities and then match these with available community resources, as well as to develop skills and confidence to overcome barriers to participation.

Finally, one way to promote positive mental health in older adulthood may be to advocate for participation in informal and structured community leisure-based social groups. These social groups become powerful resources for maintaining well-being in later life. For example, women who are members of the Red Hat Society (RHS, an all-women's social leisure organization) reported that participation helped them to manage life stressors by providing opportunities for receiving social support, to feel better and less "stressed," to sustain coping efforts ("having something to look forward to"), and as a catalyst for self-affirmation, re-appraisal and renewal (Hutchinson, Yarnal, Stafford Son, & Kerstetter, 2008). "In addition to experiencing high levels of enjoyment, participation not only enabled the women to feel they were taking good care of themselves (and others), but also generated feelings of accomplishment, satisfaction, competence and control" (pp. 993-994). Son, Yarnal and Kerstetter (2010) noted that participation in the RHS provided social support and a sense of "sisterhood" and civic engagement which contributed to the development of social capital and to individual and community well-being.

Summary

The evidence summarized in this section demonstrates that the mental health and well-being benefits of leisure and physical activity participation are numerous; moreover enjoyable and personally meaningful leisure pursuits are readily available to most adults, regardless of their age or physical health. Focusing on developing community-based supports for recreation participation as a core component of risk prevention and mental health promotion efforts makes good sense. It does seem that a majority of adults and older adults in Nova Scotia could benefit from programs and services that will support them in getting and staying involved in personally meaningful and enjoyable leisure and physical activity pursuits in their own communities. Despite the high rates of depression and other mental health problems experienced by adults and older adults, the majority of their time is spent on their own, in their own homes and communities. Community-based mental health and recreation professionals can help people to have the knowledge, skills, and confidence to live their lives as fully as possible *outside* the health system. As a result community-based options to promote positive mental health not only make sense financially, but in terms of having the greatest reach to adults who may most benefit. While physical and social activity participation are both essential, the full benefits of participation for mental health and well-being will not be realized unless attention is given to creating social and physical environments that enable people to experience success, and to feel a sense of belonging with others. Opportunities to give and receive emotional and instrumental supports and enjoyable companionship are important parts of this.

Persons with Mental Illness and Addictions

"Meaningful leisure involvement can contribute positively to the experience of community reintegration. Given the reported association between leisure and feelings of independence, control, and a sense of belonging, leisure can play a unique role in the lives of individuals with mental health issues." (Hebblewaite & Pedlar, 2005, p. 265)

Introduction

The field of therapeutic recreation has as its mandate the treatment of illness or disability, with the goal of reducing the effects of an illness or impairment on persons' everyday lives and increasing persons' abilities to engage in leisure-based activities that will enable them to optimize health and well-being. Substantial evidence is available, therefore, of the use of various forms of physical and leisure activities as therapeutic tools in recovery or psychosocial rehabilitation processes. For the purposes of this review, however, we are focusing on the ways that leisure may be part of a repertoire of "self-management strategies" in which persons may engage in efforts to recover from mental illness disorders or addictions, to achieve optimal well-being, and to live their lives as fully as possible in their communities.

Mayers (2000) found that the key problems affecting the quality of life of persons living with enduring mental health problems are lack of personal achievement, difficulty in forming and maintaining relationships, loneliness, health problems (both mental and physical), lack of leisure activities, concerns about personal safety and difficulties looking after one's self. Engagement in purposeful and personally meaningful leisure can be a "solution" to many of these problems, both as an important component of recovery and of quality of life. However, leisure activities are often both a source of opportunity and pain for many people with mental illness and addictions. On the one hand, they can provide the mental health and well-being benefits described earlier. On the other, many people with mental illness experience significant barriers to participation in previously enjoyed leisure pursuits which may exacerbate feelings of depression and anxiety. Moreover, some leisure contexts can promote risk behaviours—like excessive drinking or gambling—and can be sources of stigmatization and stress.

Interestingly, there is limited research available on the role of recreation and sport in treating mental health and addictions. Most of the research has focused on physical activity participation—particularly exercise—and leisure participation more generally. We begin by reviewing the benefits associated with physical activity/exercise and leisure participation available to persons living with mental health and recovering from addictions. Following is a review of community-based programs designed to help support people with mental health in getting and staying well in their communities. References for this section are included in Appendix E.

Mental Health and Well-being Benefits of Physical and Leisure Activity Participation

Given the significant preventative mental health benefits of physical activity, unsurprisingly there is substantial evidence that exercise is effective in alleviating symptoms of depression, that exercise is as effective as most traditional treatments, and that exercise is effective across genders (Craft & Landers, 1998). Moreover, the type, frequency, and intensity of exercise do not appear to moderate the effect; in other words any efforts to get people who are depressed more physically active will help them combat their depression. In order to understand the "antidepressant" effects of exercise, Craft (2005) examined the effects of exercise (moderate intensity exercise program three times a week) on coping self-efficacy and depression. She found that exercise contributed to increased perceptions of coping self-efficacy (beliefs in one's abilities to cope with stress) and this in turn was associated with lower depression. Craft noted that "in light of the fact that the women in this study had been taking antidepressant medications for a mean of 47.3 months… such response to an exercise intervention is a notable result" (p. 167). She further suggested that, by involving goal setting and skills development in a supportive social environment, the program contributed to enhancing participants' beliefs they could use exercise to cope with depression: "Participation may have led to the belief that they could do something that would impact their symptoms and that they weren't simply "victims" of depression" (p. 167).

A notable exception to the benefits of exercise for mental health is the connections between over-exercising and eating disorders, wherein excessive exercising is associated with the development and prolongation of eating disorders (Abraham, 2003). Axelson (2009), a leisure researcher recovering from anorexia, suggested an alternate view however. She described excessively exercising as her illness developed and noted that she experienced no enjoyment at that point, as the goal was to burn as many calories as possible. However, it was when she decided to train for a triathlon—and eventually came to join a triathlon training club—that she began to take pride in her achievements, received coaching about properly caring for her body (not from a medical professional, but from the team coach) and experienced a sense of camaraderie that helped her to shift from seeing herself as someone who was eating disordered to someone who was a triathlete:

> *My triathlete peers, however, did not know about my illness and saw me in more positive terms as an athlete. Through their expectations, as well as through how they treated and defined me, this group offered me a renewed sense of purpose and a new label. They offered me a new self-concept. This new self-concept was not defined by my illness but by both my involvement in triathlon and my acceptance into the group.* (p. 341)

Fullagar (2008) interviewed 48 women recovering from depression. In a similar fashion to Axelson these women talked about leisure practices that were part of their recovery process. Fullagar noted that the women she interviewed experienced social pressures to be "superwomen" in caring for their families. Feeling entitled to leisure, recovering a "playful" sense of self, and access to supportive networks were key factors in the women seeing leisure practices as important to their recovery in ways not available through traditional treatment. For these women, recovering was an

ongoing process of finding ways to understand and manage the emotions that emerged from societal (role) expectations (e.g., guilt, obligation) and to begin to experience a different range of emotions, including joy, pleasure and courage:

> *One common thread running through the women's recovery stories was the desire to become more assertive in their life decisions. Women talked about how they engaged in leisure "for" themselves (e.g., alone or with others) to deal with multiple pressures and to experience a different sense of self in ways including creative (e.g., art/craft, gardening, writing, reading, music, community theatre, do-it-yourself, self-education), actively embodied (e.g., martial arts, walking, bowls, dance, yoga, tai chi, strength training, swimming, meditation, circus), and social activities (e.g., cafes, friend's houses, dance courses, support groups, films, pets, church, helping others). Few women identified organized sport (bowls for older women was an exception) or outdoor recreation pursuits (walking was an exception) as part of their recovery, which reflected the pervasive gender differences that shaped these women's leisure choices often in relation to the lifelong effects of depression.* (p. 42)

The desire to take better care of one's self through leisure is important to persons recovering from alcoholism as well (Hood, 2003). Hood interviewed three women over a six month period who had formed an informal support network for themselves as they were in recovery. Hood reported that these women found leisure involvement to be critical to their moving beyond just "not drinking" toward true recovery. However, learning how to experience leisure without the mediation of alcohol was extremely difficult. In spite of this difficulty, they began to recognize its benefits in rebuilding a nonalcoholic identity and a meaningful life. Leisure participation enabled them to: (a) learn about themselves, (b) learn how to accept and appreciate their abilities and limitations, and (c) take risks as another means of developing self-awareness (p. 51). Reflecting on these experiences together reinforced learning and behaviour change.

There is also compelling evidence of leisure's role in the lives of people recovering from or living with enduring mental illness and addictions, including people with dual diagnoses (e.g., mental illness and substance abuse; Hodgson, Lloyd & Schmid, 2001). Moreover, leisure or recreation activities are increasingly viewed as an important component of healthy lifestyle behaviours; Together with coping/spiritual and substance recovery activities these behaviours can prevent or reduce relapse rates (LePage & Garcia-Rea, 2008). LePage and Garcia-Rea recommended that for those in addictions recovery, "it is strongly encouraged that programs treating… individuals in early remission have a strong emphasis on developing HLBs [healthy lifestyle behaviours]. It is believed the development of these behaviors will increase success more than focus on recovery behaviors alone" (p. 175). This recommendation is consistent with findings from a recent study by Shank and colleagues (2011), who examined the "active living" behaviours of persons with persistent mental illness living in the community. Most of their study participants (40 persons of Hispanic, Asian, Caucasian and African-American decent) were also recovering from addictions. Active living was tied to recovery—"getting better"—which often meant trying to stay clean and away from drugs. "Being active was perceived as essential to health and recovery, and free time/leisure activities were integral to both" (p. 2). Walking, watching TV, reading, listening to music, playing with pets and

grand children, talking on the phone were reported most frequently as valued activities for maintaining recovery, leading a meaningful life, and experiencing well-being. More traditional forms of active recreation (crafts, bowling, trips) were more likely experienced only if participants went to community mental health programs. Shank and colleagues noted that active leisure was health-enhancing because it: was a source of enjoyment, supported connections and relationships with others, reaffirmed people's sense of self-worth, and provided opportunities to help others and be needed. They cautioned that, for persons with mental illness and addictions:

> *"active living requires on-going support and guidance. Therefore, recovery programs need to recognize the important role active leisure can play in the recovery process, and recreation therapists ought to design and promote a focused role for leisure education and counselling within the recovery movement. Adults in recovery can be assisted to understand and use active leisure for stress reduction, coping, and meaning-making."* (p. 4)

Recovery is facilitated by participation in activities that provide meaning and purpose. In the absence of paid employment meaningful leisure pursuits are a central component of well-being for adults with persistent mental health problems (Craik & Pieris, 2006). As well, leisure participation can be a major source of enjoyment as well as mental and physical well-being (Lloyd, King, McCarthy & Scanlon, 2007). However, many of the activity opportunities available to persons with persistent mental illness through community mental health programs lack challenge and, as a result, lead to boredom and lack of motivation (McCormick, Funderburk, Lee, & Hale-Fought, 2005).

Mee, Sumsion and Craik (2004) found that for persons living with enduring mental health problems, leisure pursuits (including volunteering and participation in learning activities) provided opportunities to experience a sense of achievement, have a sense of purpose or structure to their days, build skills, be productive, socialize with others and develop self-identities separate from mental illness. Mee et al. noted that the availability of a safe and flexible (e.g., clubhouse or sheltered workshop) environment allowed the participants to exercise a sense of control and self-determination. Craik and Pieris (2006) recommended that persons living with mental illness be provided with supportive education to learn strategies to overcome internal barriers to participation (e.g., anxieties and lack of confidence in abilities).

These same motivations exist for older adults with mental illness as well. Hebblewaite and Pedlar (2005) found that the desire to be independent (in control of their own lives) was key to their perceptions that they were healthy. Factors they attributed to remaining independent included their abilities to manage stress and maintain supportive relationships; leisure activities provided ways to both manage stress, to keep occupied, and to be meaningfully involved in their communities. Hebblewaite and Pedlar noted that "many of the leisure pursuits the participants sought out were of a solitary nature. They used the activities to help maintain their mental well-being. They enjoyed watching television, reading books and newspapers, and going for walks. They enjoyed the time that they had for themselves and the freedom that accompanied it" (p. 271). Participants also believed that a gradual and supported transition from hospital to community was important to provide a "bridge to live in the community" (p. 269), particularly in bridging to leisure and recreation

opportunities in their homes and communities. Persons are most motivated to return to previously enjoyed activities and to socialize and do things within a network of people.

Barriers to and Facilitators of PARLS by Persons with Mental Illness and Addictions

Although leisure may be viewed as part of their recovery process, adults living with mental health issues in the community frequently report feelings of loneliness, boredom, and social isolation (Dugan & Kivett, 1994; Hodgson et al., 2001) and significant barriers to community participation, including lack of money, limited resources (e.g., transportation), lack of physical abilities, stigma and lack of supportive others (Pieris & Craik, 2004). Conversely having access to external supports, such as other people to do activities with, is a key factor in getting and remaining involved in community-based leisure pursuits while lack of confidence in one's abilities and fears about personal safety are interpersonal barriers to participation (Pieris & Craik). Recidivism—or relapse—is often a major challenge for persons with mental health issues and this is often attributed to inadequate community resources or social supports.

Best Practice Examples

In light of the challenge of remaining out of the hospital setting it is important to examine interventions and supportive environments that will enhance community integration and a sense of self-determination for those living with persistent mental illness. Hebblewaite and Pedlar (2005) recommended that efforts should be made to take a more individualized approach to understand persons' interests and to investigate leisure opportunities that will promote feelings of self-determination and self-worth, such as home-based and life-long learning opportunities. They noted that "traditional activity-based leisure, such as crafts and games" (p. 274) were not appealing to the older adults they interviewed.

There are several good examples of community-based programs designed to support persons with enduring mental illness in the community. Although they may vary in duration (ongoing versus time-limited), approaches (lay-led versus professional led) and philosophies (integrated versus segregated) social recreation programs typically focus on building skills (social, leisure, planning, problem-solving, and coping) and social bonds. Petryshen, Hawkins and Fronchak (2001) evaluated the mental health outcomes associated with a social recreation program offered as part of a community mental health program to individuals with severe and persistent mental illness in Ontario. The program serves individuals 18-65 who are socially isolated and live with a serious and persistent mental illness. Approximately 200 group programs are offered per year. They found that participation was associated with significant improvements in self-ratings of loneliness, self-esteem, social functioning, satisfaction with social relations and leisure activities, as well as general life satisfaction. We were unable to find examples of community-based recreation programs designed specifically to promote mental health and well-being of those who are recovering from depression or additions. However there is a long history of adventure programming in youth-oriented therapeutic settings and overall they are associated with improved confidence,

independence, self-efficacy, self-understanding, assertiveness, internal locus of control and decision-making (Hattie, Marsh, Neill & Richards, 1997).

Finally, for youth with mental health problems, recreation involvement is developmentally appropriate, normalizing and nonstigmatizing; evidence is available that recreation-based programs that have been designed specifically for youth with mental health concerns can be effective in promoting self-confidence and reducing depression and anxiety. For example, the "Recreation Mentoring Program" (RMP) is a community-wide program designed to target children exhibiting impairments at home, school or community (Anderson et al., 2006). The program pairs the child with a trained young adult volunteer mentor. The trained volunteers are matched with at-risk children and meet regularly at a community recreation centre near the child's residence. The program is designed to overcome barriers vulnerable youth typically experience (e.g., facility fees, lack of family or peer support and reluctance to try new activities due to past failures). The mentor's role is to stimulate participation in recreation programs by supporting interest and skill development and to promote the child's continued participation after the mentorship ends. The RMP is a partnership between many youth-serving organizations in Ontario, including the McMaster Children's Hospital, Big Brothers/Big Sisters, The YM/YWCA, Boys and Girls Club, municipal department of recreation and culture and two school boards. To date, program evaluation has primarily been limited to determining program feasibility although some pre-post program evaluation measures revealed improvements in emotional-behavioural functioning at program completion, with mixed results in follow-up surveys. Anderson et al. concluded that the "RMP has proven to be an excellent platform for inter-agency collaboration where "everybody wins"" (p. 63).

Summary

The evidence reviewed here only touches the surface in identifying the protective mental health benefits of physical activity, recreation and leisure in the lives of persons with a continuum of mental health problems, including addictions. Leisure activities and contexts provide a myriad of opportunities for taking better care of one's self, coping with and managing challenging life circumstances, affirming one's value, (re)discovering strengths and abilities, and having a sense of purpose and meaning in life. These outcomes parallel the benefits of leisure for persons who experience the normal "ups and downs" of everyday living described in the previous section. Moreover, because of the freedom to be self-determined in leisure and the opportunities it affords to experience positive emotions—such pleasure, joy, meaning, purpose—leisure may be a powerful resource for recovering from and self-managing mental health problems and addictions. In the absence of other valued social roles leisure may also be one context where people can experience themselves as more than their illness and can live a life of meaning. Creating supportive environments for meaningful engagement and connections, and assisting people to develop skills and knowledge to overcome barriers to participation, to develop skills and self-confidence and to experience success, positive emotions and sense of belonging are important to incorporating leisure and recreation as a part of a continuum of mental health promotion, prevention and treatment services.

Appendix A:
Search Words and Numbers of Relevant Articles (minus duplicates)

Search Engines	Search Engines: Psycinfo, Cinahl, SportDiscus Periodicals only from 1995-2011 Search Words:
Children and Youth	children, leisure, mental health- 80 results children, leisure, coping- 54 results children, play, mental health development- 54 results youth, leisure, health promotion- 58 results youth, leisure, depression- 10 results youth, recreation, risk prevention- 8 results youth, recreation, barriers- 43 results youth, leisure, developmental outcomes- 3 results youth, recreation, mental health programs- 7 results youth, leisure, resilience- 6 results
Families and Community	family, mental health, recreation/leisure- 10 results family, coping, recreation/leisure- 2 results family, wellness, recreation/leisure- 22 results community, coping, recreation/leisure- 4 results community, leisure, wellbeing- 386 results community, wellness, recreation/leisure- 35 results community, mental health, recreation/leisure- 14 results community, health promotion, recreation/leisure- 14 results community, risks, recreation/leisure- 24 results community, barriers, recreation/leisure- 22 results community, psychological wellness, leisure- 16 results family, social isolation, recreation/leisure- 1 result
Adults	Adult, leisure, mental health benefits- 3 results adult, leisure, risk prevention- 4 results adults, leisure, coping- 52 results adults, resilience, leisure- 9 results adults, self regulation, leisure- 13 results adults, barriers, leisure- 83 results adults, interventions, leisure- 295 results adults, health promotion, leisure- 203 results adults, boredom, recreation- 12 results adults, boredom, leisure- 14 results
Older Adults	older adults, leisure, benefits: 76 results older adults, leisure, risks: 56 results older adults, leisure, boredom- 4 results

	older adults, leisure, barriers- 24 results elderly, activity, mental health benefits- 5 results older adults, activity, isolation- 70 results older adults, recreation programs, benefits
Search Engines	**Search Engines: Psycinfo, Cinahl, SportDiscus** **Periodicals only from 1995-2011** **Search Words:**
Persons living with mental illness or addictions	Addictions, leisure, risk: 65 results addiction, leisure, benefits- 16 results addiction, recreation, barriers- 3 results addiction, leisure, interventions- 25 results addiction, prevention, recreation- 39 results addiction, resilience, leisure- 1 result mental illness, leisure, interventions- 26 results mental illness, recreation, benefits- 9 results Mental health, recreation, barriers- 23 results mental health, leisure, barriers- 22 results mental health, coping, leisure- 63 results addictions, coping, leisure- 7 results addictions, leisure, well-being- 17 results

Appendix B
Reference List: Children/Youth

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Appendix C
Reference list: Families and Communities

****: Refers to articles referenced within the summary report**

Interpersonal Factors Influencing Activity Participation and Mental Health

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Appendix D
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Appendix E
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