

RUNNING FOR YOUR LIFE: THE IMPACT OF A RUNNING GROUP AT THE BPD TREATMENT PROGRAM

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DISCLOSURES

- No financial disclosures
- Mental Health Foundation NSMHA grant
- Deb loves running and exercise generally
- Marie-Eve is new to running

LEARNING OBJECTIVES

- Review the existing literature on effects of aerobic exercise for patients suffering from mental illness.
- Identify barriers to exercise for mental illness.
- Describe the run/walk program at the BPDTP
- Review the effects of the program on the patients and staff.
- Explore future directions and lessons learned

WHY EXERCISE FOR MENTAL HEALTH?

- Large body of research suggesting exercise is inversely linked to depressive and anxiety disorder symptoms, including meta-analyses and reviews (e.g. Stathopoulou et al, 2006)
- Exercise as treatment for depression (e.g. Babyak et al., 2000) and as an augmentation to TAU (e.g., Trivedi et al., 2006)
- Exercise as interoceptive exposure component of CBT for anxiety disorders (e.g., Sabourin et al., 2008).

WHY EXERCISE FOR MENTAL HEALTH?



Run Group

Run Group is a new addition to the Laing House program portfolio and has been a valuable part of our Health & Wellness initiatives – it provides a peer support based fitness challenge where members can train and build confidence together. By exploring the physical and mental health benefits of an active lifestyle, program staff and members work together to achieve their wellness goals while fostering new friendships and passion for fitness.

WHY EXERCISE FOR MENTAL HEALTH?

THE GLOBE AND MAIL*

Outrunning depression: Exploring the link between body and mind

[Alex Hutchinson](#)

Special to The Globe and Mail
Published Sunday, Oct. 26, 2014 12:05PM EDT
Last updated Monday, Oct. 27, 2014 8:20AM EDT

For the teens in Dan McGinn's twice-a-week running group, exercise is therapy. That's not a metaphor: They've all been referred to the group by their doctors after being diagnosed with depression or other mental illness. McGinn, a therapist, has been leading the program at Trillium Health Partners Credit Valley Hospital in Mississauga since 2006.

• [Twitter](#)
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"Running is one of the biggest reasons I'm still standing on this earth today," says Josh Copperthwaite, a 17-year-old who first joined the group two years ago. "When you run you can leave all the bad things in your life behind you – it's just you and the road. For a few minutes out of the day, you feel free from the weight of depression that clings to your shoulders."

EXERCISE FOR BPD

- Exercise and Personality disorders
 - No specific studies for BPD
 - Studies on sport for CD and Antisocial Behaviour
 - Lower association between CD and AAB for those in high school sports
- Exercise in PTSD
 - Meta-analyses on physical activity (4 RCTs)
 - Reduced PTSD symptoms
 - Reduced depressive symptoms
 - Pilot study on moderate-intense treadmill exercise (70% max HR) before prolonged exposure
 - Increased BDNF
 - Greater improvement PTSD symptoms

BARRIERS TO EXERCISE

- Do you prescribe exercise to patients?
- What are your barriers to prescribing exercise?
- What do you think barriers to exercise are for patients?

BARRIERS TO EXERCISE

Serious mental illness

- Symptoms of illness
 - Direct
 - Indirect
- Existing comorbidities
- Side effects to psychotropics

Our patients

- Direct sx of disorder
 - Skill deficit
 - Low motivation
 - Anxiety/depression
 - Lack of confidence/low self worth
 - Chronic suicidality
- Indirect
 - Lack of resources
 - No safe space
- Comorbidities
- Side effects to drugs

BARRIERS TO EXERCISE

- Why work on improving physical health if I'm not sure I want to live?

"When your only hope is that you die in your sleep, the last thing you think about is joining a running group. So, in the beginning, the running group had nothing to do with running.

By committing to the running group, I was admitting... giving into... acknowledging... and accepting that I cared about myself. That realization brought a flood of tears and emotions."

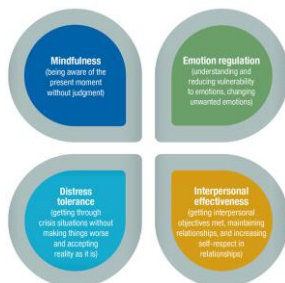
RATIONALE FOR RUNNING PROGRAM

- Address some of the barriers associated with exercise
 - Low cost, transportable method of exercise
 - Familiar, safe setting
 - Group program
- Demonstrate how exercise regulates affect
- Increase confidence to pursue exercise in future
 - Sole Sisters 5 k race
 - Bridge with community resources
- Make exercise fun

WHY RUNNING?

- Easy to do year round
- Doesn't require much equipment
- Social activity as well
 - Emergence of more running clubs/races in HRM
- Sustained aerobic exercise may be better for the brain?

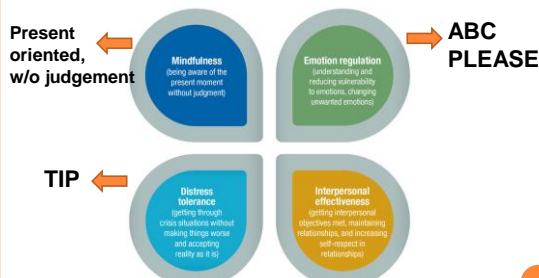
EXERCISE AND DBT



DBT, dialectical behavior therapy.

Harned & Botonov, 2016

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PROGRAM GOALS

- Outcome based (specific race)
 - Focus on time was encouraged for some
- Social support to enhance adherence
- Enhance self efficacy
- Learn to run safely
- Make running fun
- Continue exercising beyond the program

PROGRAM DEVELOPMENT

- Mental Health foundation grant
 - Offset financial costs
- Identify target race (Sole Sisters) and invite race director to speak in BPDTP
- Support for running equipment through Aerobics First
- Expectations/group norms: commit to the program, respect others, confidentiality, leave therapy at therapy
- Waiver of liability agreement
- Weekly guest speakers from running community

PROGRAM DESCRIPTION

- Modified couch to 5 k program
- 3 practices a week
 - Group runs 2x/week
 - Individual run 1x/week
- Guest speakers weekly
 - Local runners (mostly) associated with community running clubs, programs or stores
 - Other speakers
 - Lived experience
 - Sport nutrition
 - Injury prevention
- Voluntary
- Participants contributed nominal fee to participate (offset incidental costs, increase commitment)

MODIFIED COUCH TO 5 K PROGRAM

Week	Workout 1 (Saturday)	Workout 2 (Monday)	Workout 3 (Wednesday)
1	Brisk five-minute warmup walk. Then alternate 60 seconds of jogging and 2-3 minutes of walking for a total of 20 minutes.	Brisk five-minute warmup walk. Then alternate 60 seconds of jogging and 2-3 minutes of walking for a total of 20 minutes.	Brisk five-minute warmup walk. Then alternate 60 seconds of jogging and 2-3 minutes of walking for a total of 20 minutes.
2	Brisk five-minute warmup walk. Then alternate 60 seconds of jogging and 90 seconds of walking for a total of 20 minutes.	Brisk five-minute warmup walk. Then alternate 60 seconds of jogging and 90 seconds of walking for a total of 20 minutes.	Brisk five-minute warmup walk. Then alternate 60 seconds of jogging and 90 seconds of walking for a total of 20 minutes.
4	Brisk five-minute warmup walk, then do two reps of: Jog 90 sec (200m) Walk 90 sec (200m) Jog 3 min (400m) Walk 3min (400m)	Brisk five-minute warmup walk, then do two reps of: Jog 90 sec (200m) Walk 90 sec (200m) Jog 3 min (400m) Walk 3min (400m)	Brisk five-minute warmup walk, then do two reps of: Jog 90 sec (200m) Walk 90 sec (200m) Jog 3 min (400m) Walk 3min (400m)
6	Brisk five-minute warmup walk, then: Jog 5 min (800m) Walk 3 min (400m) Jog 5 min (800m) Walk 3 min (400m) Jog 5 min (800m)	Brisk five-minute warmup walk, then: Jog 8 min (1.2km) Walk 5 min (800m) Jog 8 min (1.2km)	Brisk five-minute warmup walk, then jog 3.2km (or 20 minutes) with no walking.
7	Brisk five-minute warmup walk, then jog 25 min (or 4km).	Brisk five-minute warmup walk, then jog 25 min (or 4 km)	Brisk five-minute warmup walk, then jog 25 min (or 4 km).
8	Brisk five-minute warmup walk, then jog 28 min (or 4.5km)	Brisk five-minute warmup walk, then jog 28 min (or 4.5km)	Brisk five-minute warmup walk, then jog 28 min (or 4.5km)
10	Brisk five-minute warmup walk, then jog 30 min (or 5 km)	Brisk five-minute warmup walk, then jog 30 min (or 5km)	The final workout! Congratulations! Brisk five-minute warmup walk, then jog 30 min (or 5km)

RESULTS

- $N = 15$ (5 staff, 10 patients)
- 20 running occasions, with the group (Wednesdays and Saturdays)
- Includes data from dropouts

	Pre <i>M (SD)</i>	Post <i>M (SD)</i>
Mood (10 is +)	6.03 (1.30)	7.70 (1.18)
Anxiety (10 is -)	3.68 (1.81)	1.44 (1.68)

- Paired samples t-tests
 - Mood: $t(14) = -8.93, p < .001$ (mood increased at post)
 - Anxiety: $t(14) = 6.64, p < .001$ (anxiety decreased at post)

RESULTS – SOCIAL SUPPORT

*“I had never been part of a **team** before but the benefits quickly became obvious. **We were accountable to each other, to show up and to participate.**”*

“I thought it would be strange to engage in something other than therapy with the clinicians. It wasn't. We weren't in session. They weren't clinicians and we weren't their patients. We were a gaggle of girls in sweats, Lycra, tees and sneakers and we all put our sneakers on one foot at a time.”

*“helped me feel like **part of a team**”*

RESULTS – ENHANCED GROUP COHESION

*"It was definitely a unique dynamic. The group of patients spent three days a week together in treatment, sharing intimate details of our lives with each other and the clinicians. We shared even more with our individual therapists. I believe that helped us as a running team. We knew each others' struggles and fears. There was no judgment. We already trusted each other and **running together helped strengthen that trust and understanding and that all flowed over into our treatment.**"*



TARGET RACE

<https://www.youtube.com/embed/rfdBHyTE4o?feature=embed>

RESULTS

"My recovery and well being are the sum of all things, a lot of new skills, a lot of self-reflection and awareness, a lot of acceptance AND change. Being physically active is an important piece.

Accumulating positive experiences leads to positive emotions. Building mastery gives me a sense of accomplishment and pride. The realization that I care about myself enough to participate and improve my physical health still, even now as I write this, brings tears to my eyes. After all these years I am finally hopeful and looking forward to my future."

RESULTS

- Contagious enthusiasm: some participants joined after a few weeks
- Speakers instilled hope
 - Some shared about own mental health concerns
- Anecdotally, some clinicians noticed increased cohesion in group therapy and improved therapeutic alliance
- Some clients and staff registered for additional races and kept running/walking
- Clients started their own spin-off!

LESSONS LEARNED

- Running is fun!
- Running seems to work to improve mental health outcomes! (mood + anxiety; statistically + clinically significant)
- Mental health services can and should offer exercise options BUT they don't have to be long term
- Challenge of the dual role
- Increase commitment before offering incentives (behavioural re-inforcement)

DROPOUTS IN OUR PATIENTS

- 5/15 (or 33.33%) attended < 50% of group runs
- 4/15 (or 26.67%) did not attend the target race
- Possible factors related to drop outs
 - Transportation barriers
 - Scheduling challenges
 - Program intense enough (4 contacts/week)
 - Direct symptoms of BPD
 - Comorbidities
 - Physical
 - Mental
 - Gender ?

DROPOUTS FROM EXERCISE

- Depression studies
 - Prevalence dropouts 15.2%
 - Higher risk if
 - More severe baseline depressive symptoms
 - Mixed exercise programs
 - Outpatient setting
 - No supervision or by less qualified persons
 - Dropouts from control groups were higher

FUTURE DIRECTIONS

- Involve more independent coach or peer coach
- More rigorous data collection
 - Diaries handed in more often
 - More outcome data collected
 - Acute and chronic effects of exercise, longitudinal data
- Look at effects on other outcomes
 - BPD symptoms
 - Quality of life
- Look at outcomes and predictors of completers vs. dropouts
- Keeping the program going given limited resources (time + money)
- Randomized study?

EXERCISE RESOURCES

- Couch to 5 k
 - http://www.coolrunning.com/engine/2/2_3/181.shtml
- Exercise is medicine
 - <http://exerciseismedicine.org/canada/>
 - <http://exerciseismedicine.org>
 - Prescription for health series – anxiety and depression

ACKNOWLEDGMENTS

- Mental Health Foundation
- Aerobics First – Luke MacDonald and Matthias Mueller
- Sole Sisters – Stacy Chestnutt
- All of our guest speakers
- BPDTP staff and patients

QUESTIONS?

