

DANCE FOR PARKINSON'S: TRANSLATING KNOWLEDGE INTO ACTION

PRESENTED BY:

CANADA'S
NATIONAL
BAJLET
SCHOOL

Sharing Dance

**Ryerson
University**

 **UHN** Krembil
Neuroscience
Centre

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**Richard and Heather
Thomson**

IN COLLABORATION WITH:

 Parkinson Canada

DANCE *for* PD

WHAT IS DANCE FOR PEOPLE WITH PARKINSON'S?



Photo by Canada's National Ballet School

Dance classes for people with Parkinson's disease (PD) are designed to be safe, accessible, and beneficial for someone with PD.

Physical and cognitive limitations are not barriers to participation.

Beyond the therapeutic benefits of dance for people with PD, these dance programs provide the community with an opportunity to experience the joy of dancing.

There are many types of dance programs for people with PD.

Examples include:

- Tango
- Irish Set Dancing
- Contact Improvisation
- Dance for PD®
(includes a variety of dance styles)
- Dance Movement Therapy

DANCE INVOLVES...



AND IT'S FUN!

(SO PEOPLE STICK WITH IT!)

DANCE FOR PARKINSON'S: A GROWING AND INTERNATIONAL BODY OF EVIDENCE

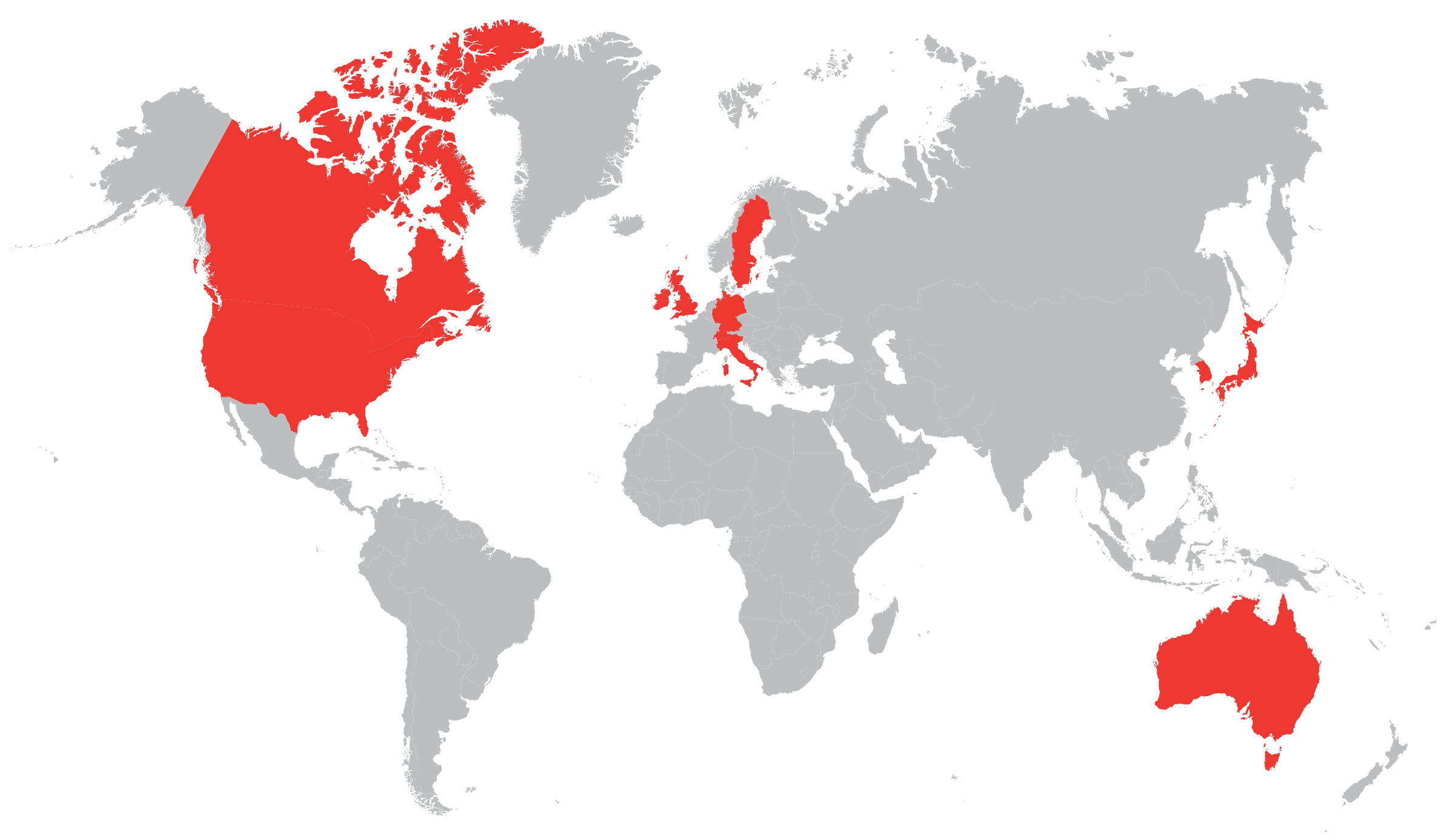
In February 2017, we searched for peer-reviewed research with the words “dance” and “Parkinson’s disease” in the title or abstract.



Photo by Canada's National Ballet School

Published research came from 11 countries:

Australia	Italy	Sweden
Canada	Japan	Switzerland
Germany	Republic of Korea	United Kingdom
Ireland		United States



Here's what we found:

37 Primary research studies investigating the effects of dance for people with PD.

- 15 studies were pilot and/or feasibility studies
- 5 studies included qualitative data (i.e. interviews with participants)
- 14 studies compared dance to a non-dance control group (e.g. exercise, physiotherapy or treatment as usual)
 - 8 of these were randomized controlled trials
- The largest study included 75 participants, but most studies used fewer participants

8 Review papers summarizing this body of research

DANCE FOR PARKINSON'S: PHYSICAL BENEFITS

Numerous studies suggest that dance may be physically beneficial for people with PD. According to the most recent systematic reviews, dancing has been reported to improve:

- Balance
- Gait
- Endurance
- Motor impairment

as measured by the Unified Parkinson Disease Rating Scale (UPDRS)

*Shanahan et al., 2015; Sharp & Hewitt, 2014



Photos by Canada's National Ballet School



DANCE FOR PARKINSON'S: PSYCHOLOGICAL BENEFITS

**Both cognitive
and mood effects
are beginning to
be studied in
people with PD
who dance
regularly.**

Photo by Amber Star Merkens

Reported cognitive improvements include:

- **Better executive and visuospatial function**
de Natale et al., 2016; Hashimoto et al., 2015; Mckee & Hackney, 2013
- **Reduced fatigue**
Lewis et al., 2014

Reported mood improvements include:

- **Reduced symptoms of depression**
Blandy et al., 2015
- **Less feelings of anger**
Lewis et al., 2014
- **Improved sense of quality of life**
Shanahan et al., 2015

DANCE FOR PARKINSON'S: SOCIAL BENEFITS



Photo by Amber Star Merkens

Participating in dance programs may help people with PD:

- Reduce social isolation
Bognar et al., 2016
- Improve social life
Zafar et al., 2016
- Increase the number of
social activities in which
they participate
Foster et al., 2013

Caregivers of people with PD have also reported benefiting from participation

- For example, caregivers of people with PD
who also participate in the dance classes
have reported improved personal well-being
Heiberger et al., 2011



Photo by Canada's National Ballet School

WHY I DANCE...



Photo by Canada's National Ballet School

“Dancing has a way of freeing the person. Dancing is all consuming and you have the sense of out-of-body rhythm. It's very empowering.” – Loretta

“I dance with Parkinson's because it is the most fun exercise I could have. It also helps me improve my balance, rhythm, and confidence.” – Martha

“To dance with others with the same condition has a sense of familiarity which creates closeness and feelings of security.” – Loretta

“We (would) like people to know how inspiring it is to participate in such a welcoming set-up. In addition, there are health and social benefits that cannot be underestimated.”

– Regina and Ahmed

“Dance has become my renaissance.”

– David

WHAT HEALTH PROFESSIONALS ARE SAYING...



Photo by Canada's National Ballet School

“Dance for Parkinson’s disease is more than a possible therapy or treatment...it’s a dose of meaningfulness for these patients. It’s a small jewel that gets them working on something that helps them feel connected.”

– Jay Baruch, MD, Assistant Professor of Emergency Medicine, Alpert Medical School, Brown University

“Patients with PD can often move more quickly, speak more loudly, and do other things better when their motor systems are activated by cues such as music, rhythm, and dance.”

– Daniel Tarsy, MD, Director of the Parkinson’s Disease Center, Beth Israel Deaconess Medical Center, Boston, MA

“It’s fascinating to see people who may have walked in slowly and sat down slowly and stood up slowly, and then, when the music comes on, they really just get going. You have to learn a complex series of steps...There are pauses. There are turns. There are points where you go backwards. There are points where you mirror what your partner is doing. It has the physical component, but I think it also has the cognitive component...Medicines can’t always do as much as we want, so I’ve been recommending people for years and years to take Dance for PD.”

– Claire Henchcliffe, MD, Neurologist, Director of the Parkinson’s Institute, New York-Presbyterian Hospital/Weill Cornell Medical Center

“In the consultation room, I often get on my soap box and give a little lecture about the importance of physical activity, social interaction, mental stimulation... and Dance for PD gives all three of those.”

– Neil Mahant, MD, Neurologist and Neurophysiologist, Westmead Public Hospital, Westmead Private Hospital, Sydney, Australia

WHERE TO DANCE: CANADIAN CITIES WHERE YOU CAN FIND A DANCE CLASS FOR PEOPLE WITH PD



**Go to www.dancepdnetwork.ca
to find out more about a location near you!**

DANCE FOR PARKINSON'S: NEXT STEPS...



Photo by Canada's National Ballet School

The most recent systematic review of research on dance and PD suggests that 1 hour dance classes done 2 times per week for at least 10 weeks can benefit people with PD*.

BUT more research must be done if dance is to be recognized more generally as an effective therapy for people with PD.

*Shanahan et al., 2015

For researchers to consider:

1. Work together to conduct larger, multicentre, randomized controlled trials to provide higher quality evidence for the positive effects of dance for people with PD.
2. Plan to study the long-term benefits of dance since most of the research to date only examines over a few weeks. What happens to our committed dancers over the years?

For healthcare professionals to consider:

1. Tell your patients about dance.
2. Tell your patients why they should dance.
3. Tell your patients how they can dance (i.e. refer them to the Dance for Parkinson's Network Canada website).
4. Share your learnings from today with your colleagues.

For people with Parkinson's to consider:

1. Find a dance class for people with PD.
2. Start dancing.
3. Try to dance for 1 hour 2 times per week
4. **KEEP DANCING!**

PROJECT TEAM LEADS



Rachel Bar, MA.

Rachel trained in Canada's National Ballet School's (NBS) Professional Ballet Program and went on to dance professionally with English National Ballet, and the Israel Ballet. After retiring from her performance career, Rachel turned to academia, where she has focused her research on dance and health. She completed her BA(Hons) and MA in psychology and is currently completing her PhD in psychology at Ryerson University. Rachel's research focuses on the physical and psycho-social benefits of dance for older adults and on the role of arts-based knowledge translation of health research. Rachel is also the Manager of Health and Research Initiatives at NBS, where she has been instrumental in the development of NBS's older adult programs, including their programs for people with Parkinson's disease, dementia, and active seniors.



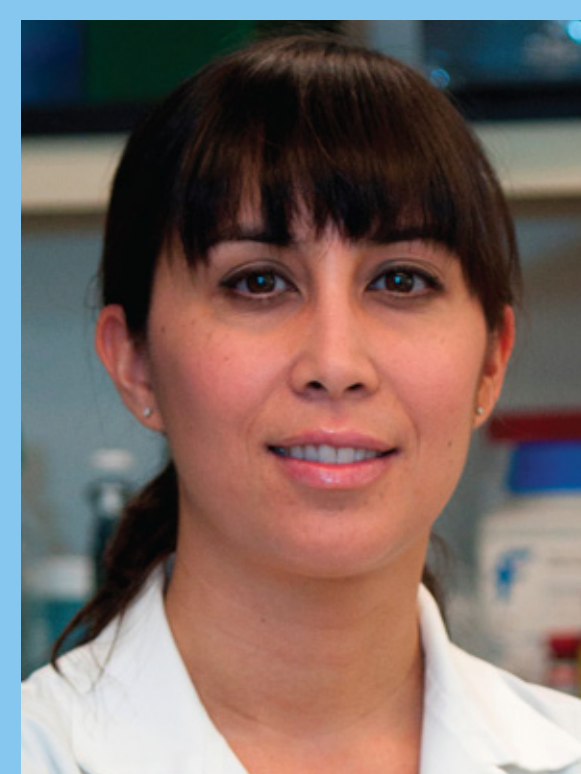
Michelle Dionne, PhD.

Dr. Dionne is an Associate Professor at Ryerson University and Chair of the Department of Psychology. She has an established program of research in the area of health and sport psychology and studies the reciprocal influence of physical activity and self-perceptions of the body.



Jennifer Lapum, PhD, RN.

Dr. Lapum is an Associate Professor at Ryerson University in the Daphne Cockwell School of Nursing. She is an arts-based researcher with expertise in research dissemination and knowledge translation. She is also a registered nurse who has worked with older individuals in acute and chronic settings. Dr. Lapum has a well established arts-based program of research in the health sciences that focuses on advancing capacity for humanistic approaches to health care. As a scientist and artist, she examines and draws upon art forms such as dance, music, poetry, visual imagery, and installation art.



Lorraine Kalia, MD, PhD.

Dr. Kalia is a neurologist in the Morton and Gloria Shulman Movement Disorders Centre and the Edmond J. Safra Program in Parkinson's Disease in the Krembil Neuroscience Centre at Toronto Western Hospital. She is an Assistant Professor in the Department of Medicine (Neurology) at the University of Toronto. Her research program studies the molecular pathways in PD responsible for neurodegeneration to develop novel disease-modifying therapies. Prior to her career in medicine, Dr. Kalia was a professional ballet dancer and therefore also brings a personal understanding of dance to this project.

DANCE FOR PARKINSON'S NETWORK CANADA

Photo by Canada's National Ballet School

Dance for Parkinson's Network Canada (DFPNC) believes that high quality dance programs for people with Parkinson's disease should be easily accessible anywhere in the country. DFPNC is committed to:

1. Improving access to dance programs for people living with PD, regardless of physical mobility or geographic location
2. Increasing specialized training opportunities and professional development resources for dance instructors
3. Expanding program offering and classes in communities across Canada

Dance for Parkinson's Network
C A N A D A

www.dancepdnetwork.ca

CANADA'S
NATIONAL
BALLET
SCHOOL

Sharing Dance

Canada's National Ballet School (NBS), one of the world's foremost training institutions for aspiring young dancers and teachers, believes that everyone should have access to high-quality dance programs, encouraging people to engage artistically, and reap the physical, social, emotional and cultural benefits that dance provides. NBS' Sharing Dance community initiative engages seniors, including those with Parkinson's disease or dementia, with dance activities that contribute to better health and improved quality of life.

DANCE *for* PD

Dance for PD Innovative and internationally-replicated, the Mark Morris Dance Group's Dance for PD® program includes community dance classes, acclaimed teacher training programs, and high quality media resources. Delivered in more than 120 communities in 17 countries around the globe, the program invites people with Parkinson's and their families to experience the joys and benefits of dance while creatively addressing condition-specific concerns related to balance, cognition, motor skills, depression, isolation and confidence.

DANCING WITH
PARKINSON'S



Dancing with Parkinson's (DWP) creates and delivers a dance and movement intervention for those living with Parkinson's disease in Canada. DWP is a revolutionary resource for PD sufferers that has shown to elevate mood, reduce stress, increase social connections and improve the physical wellbeing of its participants since 2008. DWP delivers these specialized dance classes throughout the GTA in 12 separate locations and is consistently working toward fulfilling our cross-country expansion plan.

 Parkinson Canada

Parkinson Canada is a charitable organization that provides services, support and education to individuals and the health care professionals that treat them. Operating since 1965, the organization advocates on issues concerning the Parkinson's community in Canada. It funds innovative research for better treatments and a cure.