

FOSTERING EXERCISE RECOMMENDATIONS FOR PEOPLE WITH BONE METASTASES: A COLLABORATIVE APPROACH TO KNOWLEDGE MOBILIZATION WITH EXPERIENCE-BASED CO-DESIGN

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BACKGROUND

- People with **bone metastases** have historically been **advised to limit exercise** due to potential risks, such as fractures.
- Published exercise recommendations by the International Bone Metastases Exercise Working Group **emphasize regular exercise may benefit people with bone metastases**¹.
 - **Adopting guidelines** into clinical practice **remains challenging**.
- **Study aims:** Use an experience-based co-design (EBCD) approach to collaborate with knowledge users (KUs) to:
 - **develop knowledge mobilization products**
 - **dissemination plan** to promote the adoption of exercise recommendations for people with bone metastases

METHODS

Step 1: Collaborate & Consult

- Three KU groups collaborated using **experience-based co-design (EBCD)**:



Oncology Healthcare Professionals (HCP)
(oncologists, nurses, & occupational therapists)



People with Lived Cancer Experience & their Families



Clinical Exercise Professionals (EP)
(certified exercise physiologists, and physiotherapists)

Through **four** facilitated meetings developed **knowledge mobilization products** were **co-created** and dissemination strategy, followed by survey to international stakeholder organizations

Step 2: Professional development needs

- Survey to international exercise professionals to collect further information on **professional development (PD) needs and preferences**.

FUNDING & CORRESPONDENCE



Canadian Cancer Society
Société canadienne du cancer



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RESULTS

Step 1 & 2 : Finalize content of knowledge mobilization products

- **29 KUs** from five Canadian provinces participated in design; 10 patient/family partners, 9 HCP and 10 EP from across Canada
- **69 additional KUs** provided feedback; 25 patient/family partners, 7 HCP, 37 EP

"I have bone mets ... I know the idea is to get ppl more physically active, I don't know what is safe or not safe and what I should be thinking about"

"from PT perspective, would hope adverse events would be listed"

[Lay Title] Example: Exercise for People with Bone Metastases

1. Purpose of Tool

[Part A: Purpose] This handout is for people living with bone metastases who want to learn more about how to safely take part in physical activity.

Physical activity includes structured exercise training, such as aerobic exercise (e.g., walking), muscle strengthening exercises and balance training.

2. Evidence

[Part B: Evidence] Why is physical activity important?

Current scientific evidence indicates that physical activity:

- Improves physical function, quality of life and fatigue in people living with cancer.
- Leads to few serious adverse events in people with bone metastases.

[Part C: Important Considerations]

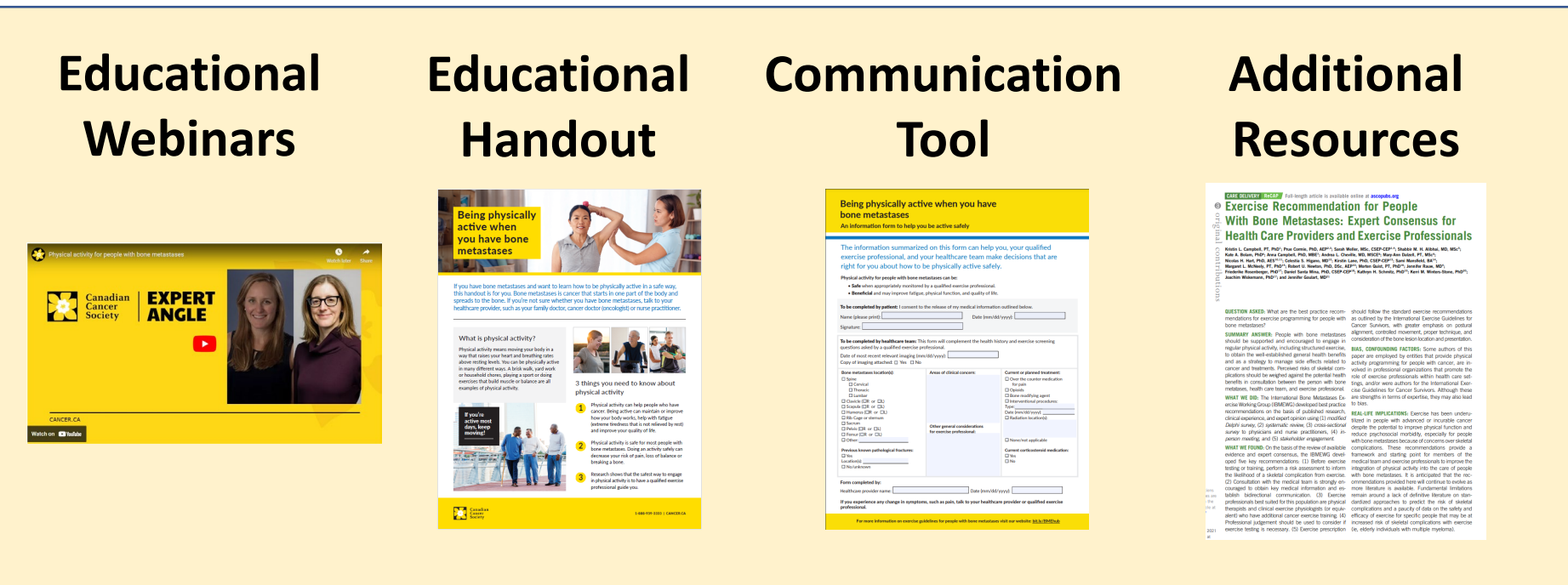
How to get started:

- Avoid inactivity. Moving more and sitting less benefits most people!
- If you are new to exercise, start low intensity, progress slow (for example, walking).
- Prevent slipping and tripping! Wear comfortable shoes that fit well and have good traction.
- Consider talking to your healthcare provider before you take part in certain activities that are:
 - High impact (for example, jumping or running)
 - Involve twisting (for example, golf or tennis)
 - Increase chance of falls (for example, roller blading or downhill skiing)
- Avoid movements that increase pain.
- Work with a trained exercise professional. Research shows that there are fewer adverse events when physical activity includes some supervision with a university-trained exercise professional.

"are these listed in order of priority? Are they going to think these are the steps in order that I should follow them?"

3. Exercise Considerations (i.e., "How to Get Started")

the second bullet, not sure that is helpful, almost opens a bunch of questions, what serious adverse effects and what is a few and am I at greater risk"



BME Hub

Bone Metastases and Exercise Hub



- The **dissemination plan** involves **partnerships** with **Canadian** and **international organizations**.

Step 2: Survey on Professional Development Needs

- **183 international exercise professionals** completed the PD survey
- **80% indicated that more PD resources** were needed focusing on:
 - **Evidence for exercise safety & feasibility**
 - **Exercise Prescription considerations**
 - **Pre-participation screening**
- Top preference for online live webinars; following by pre-recorded video lectures

CONCLUSIONS & FUTURE DIRECTIONS

- Collaborating with KUs through EBCD may enhance KM product development and maximize utility and acceptability compared to researcher-designed products.
- Knowledge mobilization products, tailored to support people with bone metastases to exercise safely, aim to increase healthcare providers' and exercise professionals' satisfaction by improving the quality of information they can offer patients.
- An evaluation is planned to assess the reach, use, and partnership indicators of the knowledge mobilization products and dissemination plan.
- **If you are interested in translating the knowledge mobilization products into another language, please contact:** exercise.research@ubc.ca

Figure 1: Figure 1: Co-creation example of the development process of a patient information handout for the project.