Adaptation of a Digital Health Intervention to Enhance Recovery and **Prevent Relapse in Adults Diagnosed with Psychotic Disorders:** Phase 1 of the Horyzons-Canada Research Program

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What is Horyzons-Canada?

HorvzonsCa is a web-based mental health intervention to enhance recovery in young adults that have experienced First Episode **Psychosis** (FEP).



It was originally developed and tested in Australia and is powered by the Moderated Web-Based Social Therapy (MOST) system, which consists of interactive strengths-based psychosocial interventions, social networking (kind of like Facebook), and clinical and peer support.

The content in MOST can be adapted for a variety of populations in need of mental healthcare!

2) How did we do it?

First, we created an adaptation framework to help quide data collection.

You can check out the details of the framework on the next page or by clicking this link: https://www.researc hprotocols.org/2018/ 4/e100/

Next, we recruited 11 patients with FEP (ages 19-37) and 15 clinicians (ages 26-56) from 1 urban and 1 urban-rural setting:

Stage 1: Orientation, Exploration, Group Discussions, Feedback Forms on Horyzons (beta version) (90-120 mins)

Stage 2: Extended Exploration and Feedback Forms on Horyzons (up to 120 min over 2-4 weeks)

Stage 3: Individual Consultations and **Reviews** to complete adaptations

1) What were our objectives?

Based on positive results from preliminary research on Horyzons in Australia, we wanted to evaluate the intervention in Canada (vs. recreating the wheel...). However, we first wanted to see if this service was acceptable and relevant for Canadians! We also wanted to

know what types of adaptations would be needed before implementin it in Canada.

Our main objective for Phase 1 was to assess initial perceptions of Horyzons and adapt the platform to a Canadian context to prepare it for Phase 2 (live 24/7 pilot testing!).



3) What did we learn?

1) Participants appreciated the therapeutic approach and relatability of Horyzons

2) Participants had diverging opinions on design, layout and ease of navigation

3) Participants (especially clinicians) were concerned about implementation capacity (e.g., crisis management)

4) Participants provided a range of suggestions for changing content and features (e.g., community resources, volume of text, mobile accessibility).



4) What did we adapt?

We made changes to content that addressed: employment, study and volunteer opportunities; and post-discharge (e.g., finding a family doctor). We also adapted safety and moderation protocols and features for local context (e.g., adapting terms of use; adding problem words; tailoring clinical notes and supervision structure).



A new version of Horyzons with our adaptations was created: HoryzonsCa!

This study provides insights into factors to consider when adapting digital health innovations to optimize their use in localized settings including: stakeholder representation; universal accessibility; opportunities for engagement; workforce capacity and training; and infrastructure. The next step consists of pilot-testing a live 24/7 version of HoryzonsCa with 20 participants. Data collection is completed; analysis in process. Stay tuned for results from Phase 2! Phase 3 (100 participants, 4 cohorts) will be launched this month)!

5) What's next?



To learn more about our study results use this link: https://formative.jmir.org/2020/10/e19887/ **Thank you** to all the patients and clinicians who participated and to our funder: NARSAD Young Investigator Grant from the Brain and Behaviour Research Foundation Visit www.ymhtech.com for more information on our research in technology and mental health!



The development of our adaptation framework was informed by a literature review on research pertaining to adapting interventions across cultural and contextual settings. We identified several models on adaptation from different fields. We also considered frameworks for evaluating webbased tools, implementation research models, and technology and innovation models. The framework consists of three stages described below:

	Stage 1	Stage 2	Stage 3
UBJECTIVES	Assess initial perceptions following a brief introduction to the intervention (group meeting)	Assess perceptions after engaging with platform over 2 weeks (feedback forms)	Adapt the platform based on feedback, while preserving core elements and considering feasibility (individual consultations)
TUPICS	 Likes, dislikes, facilitators, barriers Safety Ease of use Design Therapeutic alignment Organizational context Language and culture 	 Likes, dislikes, facilitators, barriers Safety Ease of use Design Therapeutic alignment Organizational context Language and culture 	Targeted features and content

To learn more about our adaptation methods, use this link to access our protocol: https://www.researchprotocols.org/2018/4/e100/

> Lal S, Gleeson J, Malla A, Rivard L, Joober R, Chandrasena R, Alvarez-Jimenez M Cultural and Contextual Adaptation of an eHealth Intervention for Youth Receiving Services for First-Episode Psychosis: Adaptation Framework and Protocol for Horyzons-Canada Phase 1 JMIR Res Protoc 2018;7(4):e100

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