



# ROLES OF GAMIFICATION IN YOUTH ENGAGEMENT AND EMPOWERMENT

Siu Ming Kwok, Dora Tam, Tara Collins, and Barbara Lee

Presented at the Society for Social Work Research 2024  
Annual Conference in Washington, DC January 12, 2024

# AFFILIATIONS

- Dr. Siu Ming Kwok, Professor and Associate Director, School of Public Policy, University of Calgary
- Dr. Dora Tam, Professor, Faculty of Social Work, University of Calgary
- Dr. Tara Collins, Sessional Instructor, Faculty of Social Work, University of Calgary
- Dr. Barbara Lee, Assistant Professor, School of Social Work, University of British Columbia

# ACKNOWLEDGEMENTS

**Thanks to the Social Sciences and Humanities Research Council of Canada and the University of Calgary for their funding support**

**Gratitude also goes to all CYMH Web App Focus Group participants, project assistants, practicum students, co-facilitators, volunteers, and partner agencies:**

**Diversecities in Calgary**

**Hull Services in Calgary**

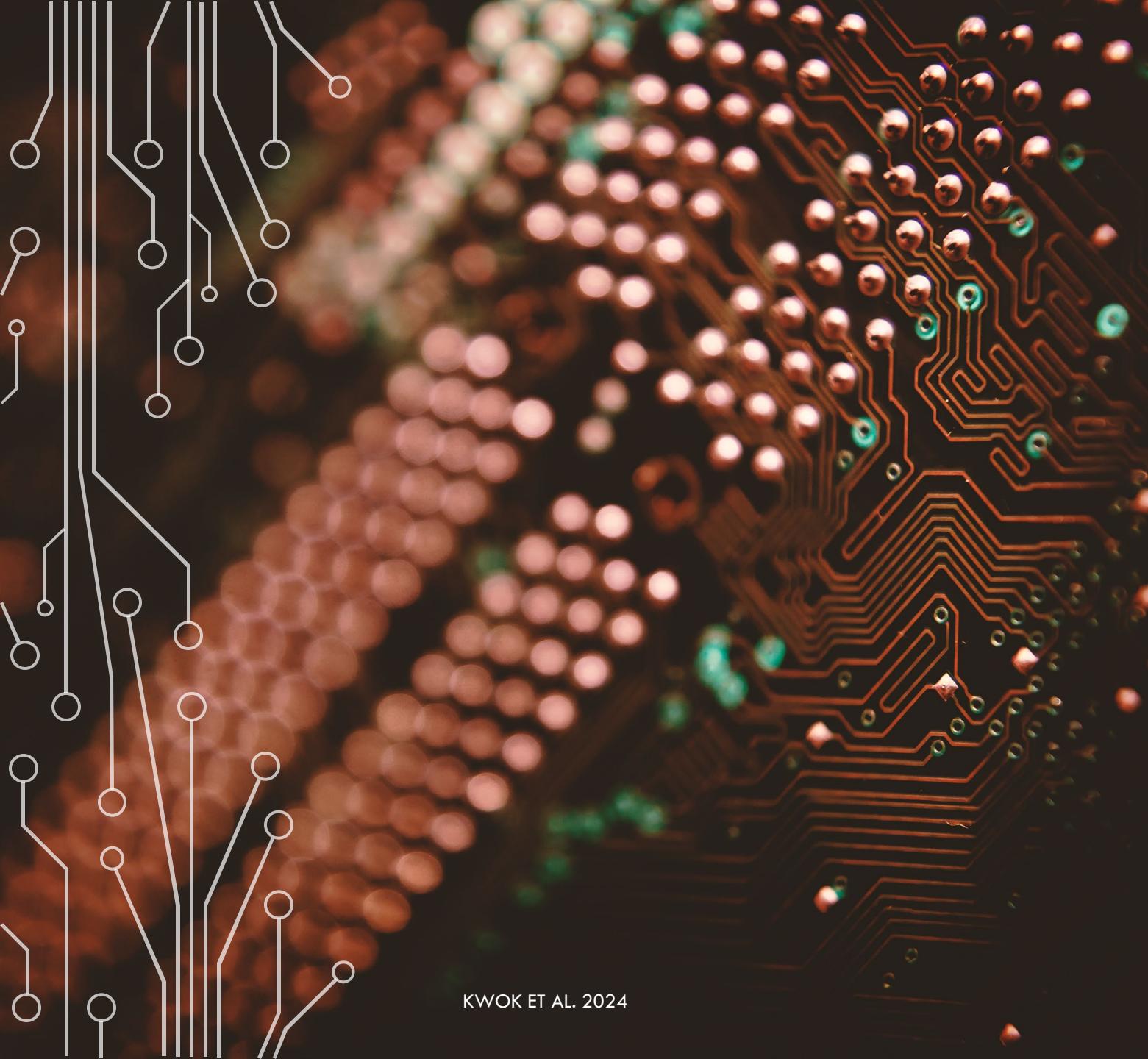
**Wood's Homes in Calgary**

**Center for Young Parents in Grande Prairie**

**Big Brothers Big Sisters of Lethbridge and District**

**McMan Youth, Family and Community Services Lethbridge and areas**

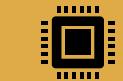
**Dept. of Family and Community Support Services in the County of Grande Prairie**



# OUTLINE



Theoretical  
Framework/ Method



What is Gamification?



Research Design and  
Participants



Findings



Discussion and  
Implications

# THEORETICAL FRAMEWORK AND RESEARCH METHOD

- Self-Determination Theory (SDT) (Ryan & Deci, 2000)
  - Individuals have intrinsic motivation to set goals and have interests, and are able to self-regulate and develop skills with adequate external motivation such as encouragement and recognition
- Participatory Action Research (PAR) (Bozlak & Kelley, 2015; Schneider, 2012).
  - Not only a research approach, but also a methodology that is user-led enabling the co-creation of knowledge to promote change through engagement & collaboration
  - “...the method of choice when youth’s voices need to be heard” (p.72)
  - “involving youth in iterative manner...whereby youth gain more voice, choice, and power with each iteration” (p.72)

# WHAT IS GAMIFICATION?

- Supported by both the SDT and PAR
- This is an intentional use of game elements for a gameful experience of non-game tasks and contexts (Seaborn & Fels, 2015)
  - Fun and purposeful
  - Alignment with social work group work practice
  - Resonates with youth who are born in the technology era

# YOUTH IDEAS X WEB APP

## Promote Mental Wellness

Join our Co-Creation Focus Group to develop a web application to promote child and youth mental wellbeing

Children and youth ages 12-17 who live in Calgary are welcome to join at no cost on either day:

Date & Time:  
Tuesday, July 19, 2022  
5:00pm – 7:00pm

Location:  
Central Library, Meeting Room  
(800 3 ST SE)

Date & Time:  
Wednesday, July 20, 2022  
1:30pm – 3:30pm

Location:  
Village Square Library Meeting Room  
(2623 56 ST NE)

OR

To participate or for more info, contact our Project Coordinator at [CYMH.Coordinator@ucalgary.ca](mailto:CYMH.Coordinator@ucalgary.ca) or text/call 403-667-1216



This CYMH Project has been approved by the University of Calgary Conjoin Faculties Research Ethics Board (REB20-0719\_REN1). This project is supported in part by funding from the Social Sciences and Humanities Research Council of Canada and the University of Calgary.

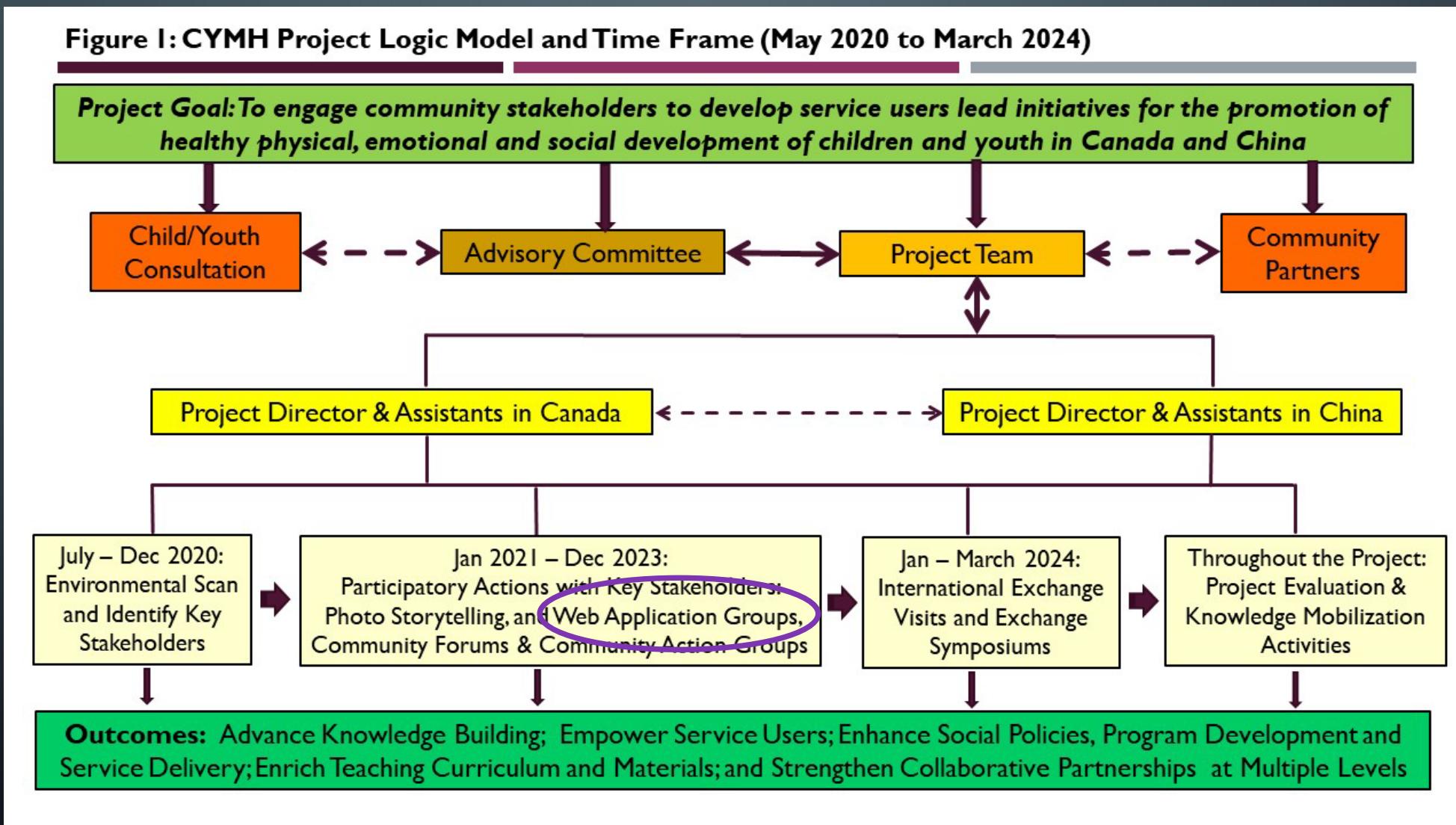
Posted 2022/06/24

# OBJECTIVES

- To co-create a web app with youth for promoting mental wellness and providing early intervention on youth mental health concerns
- To empower youth building a sense of engagement, confidence, autonomy, and well-being

# Web App Co-creation Focus Group is Part 2 of the Children and Youth Mental Health Project

## Figure I: CYMH Project Logic Model and Time Frame (May 2020 to March 2024)



# RESEARCH DESIGN:

- Focus Group: Web Application Co-Creation
- Theme: “Play and Create”
- Meet once for 2 hours
- 8 to 12 participants per group
- 2 facilitators and 1 youth support person per group



# PLAY

- Testing of 2 – 3 existing mobile apps on youth mental health
  1. Healthy Minds
  2. Super Better
  3. Virtual Hop box
  4. Smiling Minds
- Provide feedback:
  - ease of use, visual design, joyfulness, relevance/usefulness on youth mental health, continue to use, and recommendation to others



# CO-CREATE



- Present with CYMH Web App Prototype to improve youth mental health and resilience
- Work in small groups to strengthen the CYMH web app:
  - Contents and features

A screenshot of the CYMH Web App Prototype. The top navigation bar includes 'SignUp' and 'Login' buttons. Below the navigation, there are links for 'Home', 'About', 'Resources', and 'Contact'. A blue button labeled 'SUMMARY' is highlighted. The main content area is titled 'Mood Tracker' with the sub-instruction 'Hi! How are you feeling today?'. Below this are seven yellow smiley faces with different expressions. A question follows: 'On a scale from 1 (lowest) to 5 (highest), how would you say the intensity of such feeling?'. A row of five numbered boxes (1, 2, 3, 4, 5) is shown. Below this is a text input field with the placeholder 'Let your friends know how you are feeling' and a 'SHARE' button. At the bottom, a link 'Not Feeling good? Click below to see the list of resources that may be useful.' leads to a 'RESOURCES' button.

# Sharing with Large Group



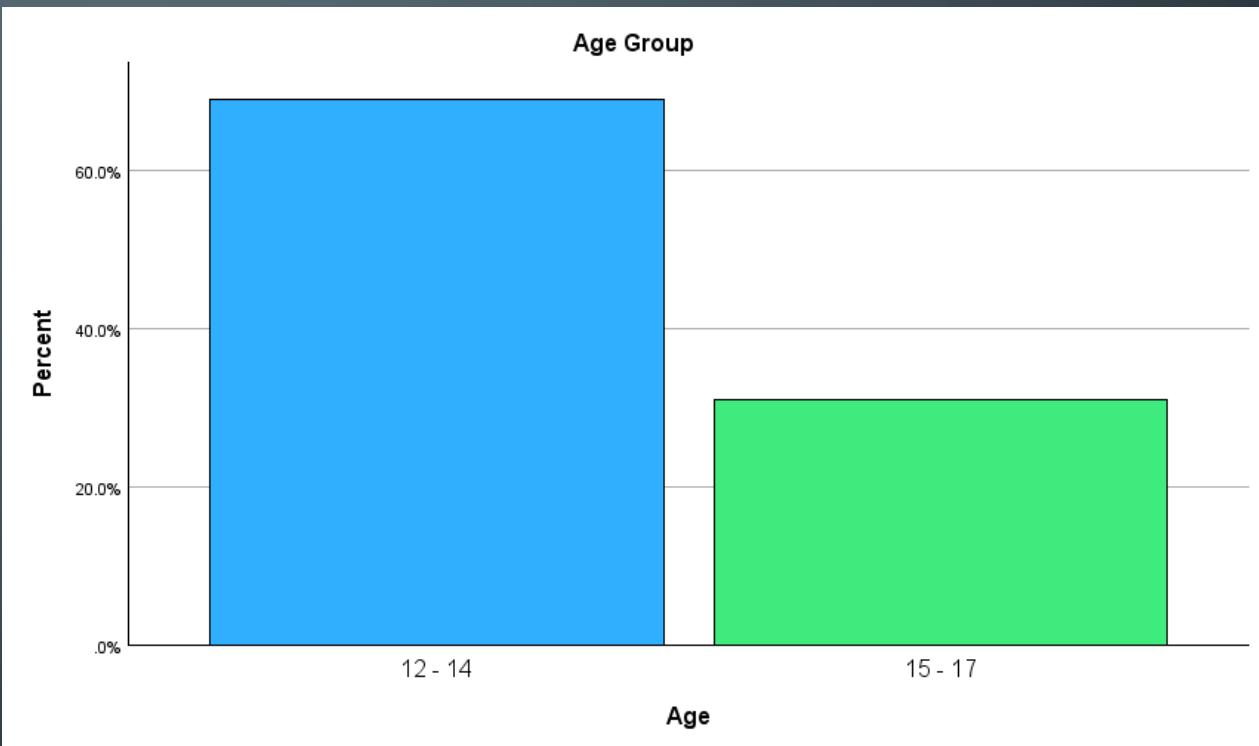
# PROGRAM EVALUATION

- One 10-point scale to rate the joyfulness in the focus group
- Four open-ended questions:
  - Like the most
  - Like the least
  - Meaningfulness
  - Future improvement
- Voluntary participation on program evaluation



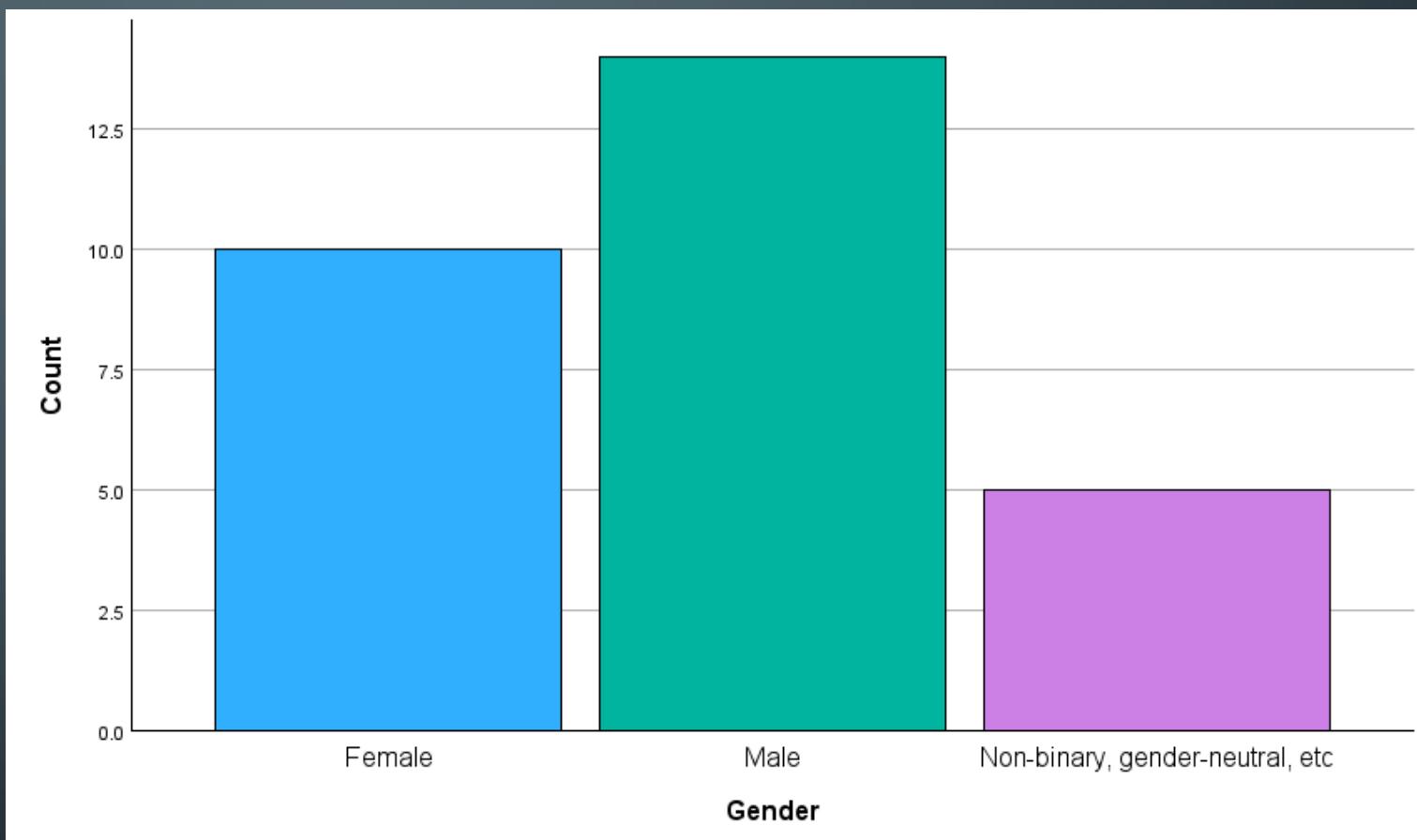
# PARTICIPANTS (1)

- Facilitated 4 groups in 2 cities in Alberta Canada between May and July 2022
- 29 youth participated
- More participants in the younger age group, 12 to 14 than the older age group, 15 to 17



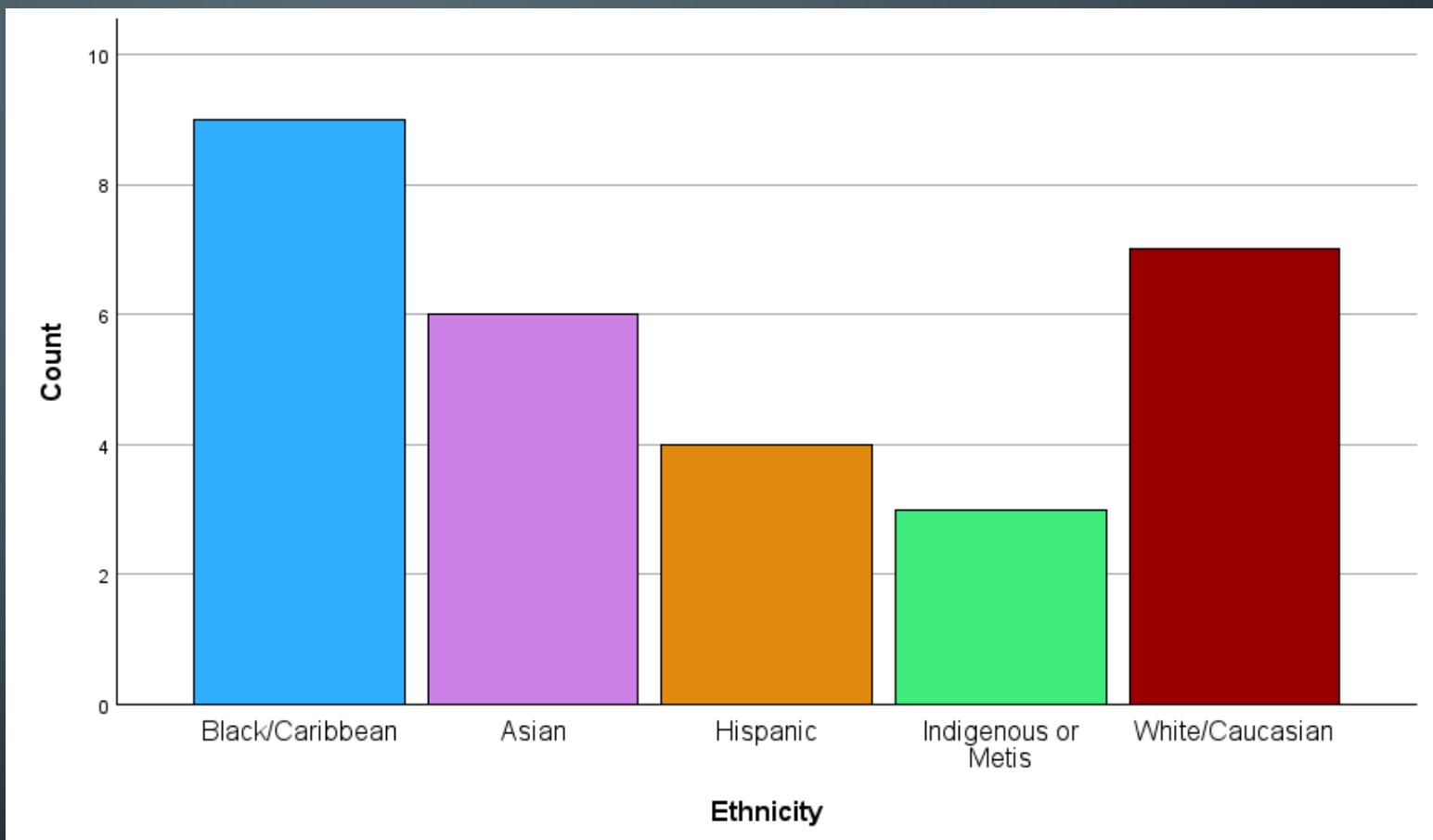
## PARTICIPANTS (2)

- High proportion of male participants



## PARTICIPANTS (3)

- Majority youth from racialized communities



# QUANTITATIVE FINDING

Research Question	Gamification Feature
How enjoyable was the Co-creation group on a scale of 10?	
<ul style="list-style-type: none"><li>■ Ranged between 8 and 10;</li><li>■ Mean = 9.29</li></ul>	<b>Fun, intrinsic motivation</b>

# QUALITATIVE FINDINGS (1)

Research Question	Findings	Group Features
<ul style="list-style-type: none"> <li>Things participants liked the most about the Web App co-creation focus group</li> </ul>	<ul style="list-style-type: none"> <li>Creating the App together</li> <li>Make the poster together</li> <li>Work with favorite people</li> <li>Gift card</li> <li>Conversation</li> <li>Sharing of Ideas</li> <li>Work together</li> <li>Meet new friends</li> </ul>	<ul style="list-style-type: none"> <li>Set goal, purposeful</li> <li>Gameful experience</li> <li>Extrinsic motivation</li> <li>Extrinsic Motivation</li> <li>↑ Voices head</li> <li>↑ Confidence</li> <li>↑ Sense of engagement</li> <li>↑ Well-being</li> </ul>

# QUALITATIVE FINDINGS (2)

Research Question	Findings	Group Features
<ul style="list-style-type: none"><li>Things participants liked the least</li></ul>	<p>Majority loved everything</p> <p>That we were not able to write down the specifics of what might have improved the apps more, although I understand that may take a really long time to read through ahah. (C016)</p>	Youth-focused, Fun, Purposeful, Engaging  <i>Counter to the objective of empowerment</i>

# QUALITATIVE FINDINGS (3)

Research Question	Findings	Group Features
<ul style="list-style-type: none"> <li>■ How meaningful for creating this Web App for youth?</li> </ul>	<p>(Experience) is meaningful because you get to use that when you go into university (C014)</p>	<p>Individual set goals</p>
	<p>Reviewed (3 apps) and put them into practice (to create) (C016)</p>	<p>Develop skills</p>
	<p>I think it's very meaningful and I congratulate the CYMH (Project) for doing so because there are many children struggling with this issue and would likely need this sort of help. (C017)</p>	<p>Intrinsic motivation, purposeful,</p>

# QUALITATIVE FINDINGS (4)

Research Question	Findings	Group Features
■ Things to improve for future similar groups	<p>Majority had nothing to add/change</p> <p>I think perhaps allowing us to just write some things down in the feedback form we got about the apps would also be helpful (C016)</p> <p>I wished we had more time to work on our apps (C014)</p>	“Play and Create”

# DISCUSSION/IMPLICATIONS (1)

- Successful in recruiting participants from diverse backgrounds, specifically youth from racialized communities
- The gameful nature of the co-creation group well-suited to the target population – youth who are born in technology era
- The group purpose of creating a Web App to improve youth mental health supports both intrinsic and extrinsic motivation as people were just coming out of the COVID-19 pandemic and the youth has the higher rate of mental health issues reported (Stephenson, 2023)

## DISCUSSION/IMPLICATIONS (2)

- Program evaluation results demonstrated positive outcomes in the use of gamification design to engage and empower youth
- Recruitment and group design have to take age and maturity of youth into consideration
  - Older youth could be involved in more leading role in the group
  - Adjustment of group design/activities may be needed on the spot despite consistency may be at stake when multiple groups are being facilitated; however, the participants and creating the best experience is more important, but this requires skills of the facilitator

# DISCUSSION/IMPLICATIONS

- Program evaluation results support the use of Participatory Action Research
  - *“involving youth in iterative manner...whereby youth gain more voice, choice, and power with each iteration”* (p.72) (Bozlak & Kelley, 2015)
  - We have a number of youth continued through all phases of the CYMH Project and became a champion and took on leadership roles
- Also support future research on the use of digital technology to improve youth mental health and wellness
  - The duration of the co-creation group needs to be proportionally realistic for apps development (e.g., content, coding, & validations)

# SELECT REFERENCES

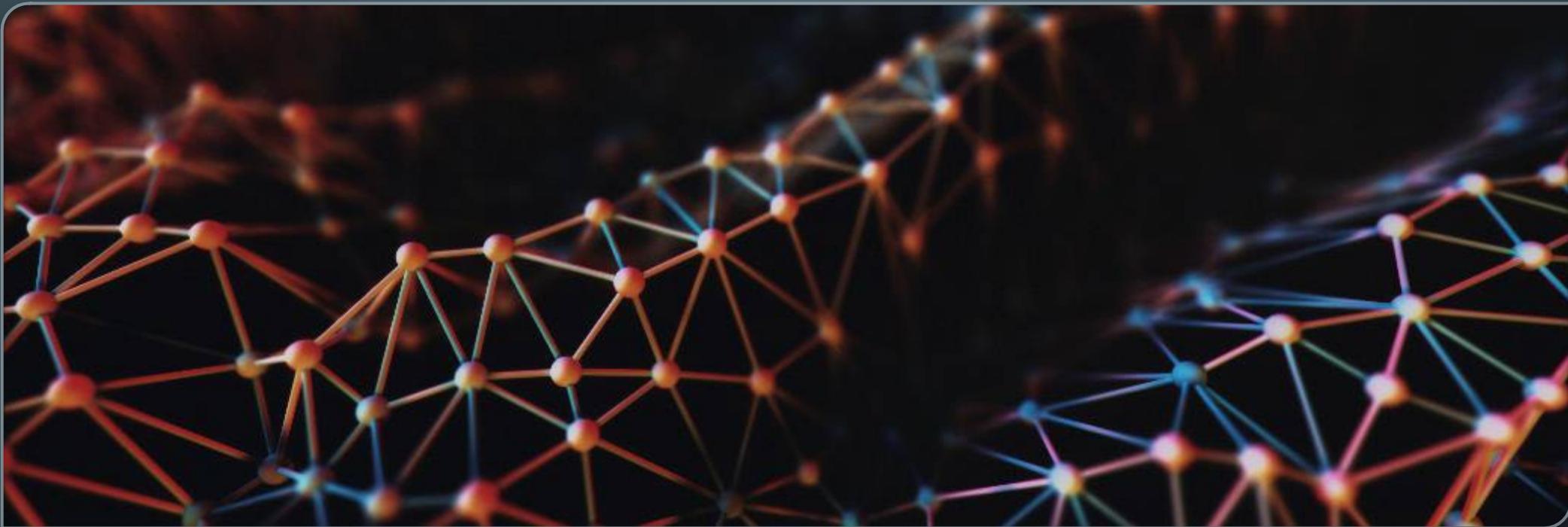
Bozlack, C.T., & Kelley, M.K. (2015). Participatory action research with youth. In H.A. Lawson, J. Caarifi, L. Pyles, J. Jurkowski, & C. Bozlak (Eds), *Participatory Action Research* (pp. 67-89). Oxford University Press

Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, 55(1), 68-78.

Seaborn, K., & Fels, D. (2015). Gamification in theory and action: A survey. *International Journal Human-Computer Studies*, 74, 14-31.

Schneider, B. (2012). Participatory action research, mental health service user research, and the hearing (our) voices projects. *International Journal of Qualitative Methods*, 11(2), 152-165.

Stephenson, E. (2023). *Mental disorders and access to mental health care*. Statistics Canada.



IF YOU ARE INTERESTED TO DISCUSS FURTHER ON THE USING  
DIGITAL TECHNOLOGY TO IMPROVE YOUTH MENTAL HEALTH

For more information or collaboration contact:

Dr. Dora Tam at [dtam@ucalgary.ca](mailto:dtam@ucalgary.ca)