Transitioning Youth Out of Homelessness 2.0: A Pilot Randomized Controlled Trial of a Rent Subsidy and Identity Capital Intervention for Youth Exiting Homelessness

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Abstract

Background: The Transitioning Youth out of Homelessness (TYOH 1.0) study – a two-year portable rent subsidy and mentorship intervention – found that identity capital – a sense of purpose, control, self-efficacy, and self-esteem – played a crucial role in sustaining successful exits from homelessness.

Objectives: The overarching aim of this 12-month pilot randomized controlled trial (RCT) is to explore whether an identity capital intervention holds promise as a way to facilitate socioeconomic inclusion for young people (age 16 – 24 years) exiting homelessness and living in market rent housing. Specifically, the objectives are to:

1. Examine whether targeted economic (rent subsidies) and identity-based (co-designed leadership curriculum + coach) are a feasible and acceptable way to foster socioeconomic inclusion.
2. Assess differences between targeted economic and identity-based supports (intervention group) and economic supports only (control group) at the 12-month primary endpoint with respect to self-reported socioeconomic inclusion measures of: 1) education, employment and training (EET); 2) housing security; and 3) identity capital.
3. Explore whether variables at baseline (e.g., participant demographics such as gender or global assessment of individual needs [GAIN]) suggest the intervention may be more feasible and acceptable for subgroups of young people.

Methods: This study will employ a convergent mixed methods, two-arm parallel RCT, open-label design with 1:1 allocation embedded within a Community Based Participatory Action Research framework. Forty youth from four community partner agencies in Ontario will be enrolled and randomized. To answer *Objective One* (primary objective), we will utilize quantitative measures consisting of recruitment/enrolment/dropout metrics and composite self-report checklists regarding engagement with the intervention, along with focus groups. To answer *Object Two* (secondary objective), we will utilize a self-report composite EET checklist and self-report measures of housing security and identity capital. To answer *Objective Three* (exploratory objective), we will examine select variables from the baseline self-report

demographic and GAIN-Short Screener questionnaires for those in the intervention group. Participants will be followed every four months for 12 months post-randomization.
Significance: This novel co-designed intervention could transform the way we conceptualize how to sustain successful exits from homelessness. Findings from this study will help inform an adequately powered RCT.

1. Background and Rationale

The number of young people in high-income countries experiencing homelessness over the course of a year is challenging to capture and compare accurately given varied definitions of "homelessness" (ranging from couch surfing to sleeping rough) and "youth" (ranging from 13 – 25 years), and most recent dates and methods of data collection; nevertheless, there are similar themes that unite the experience of youth homelessness. Common narratives typically include family dysfunction, growing up in underserved neighborhoods, incomplete secondary education, and/or experiences of "Otherness" (e.g., identifying as non-white or a member of the LGBTQ2S+ [lesbian, gay, bisexual, transgender, queer, and two-spirit] community) (Centrepoint; 2022; Gatez et al. 2016; Gaetz & Redman, 2016; Morton et al., 2017). There is a vast amount of literature describing youths' pathways into homelessness; much less is known about transitions out of homelessness. A common belief is that young people who have experienced homelessness will achieve socioeconomic inclusion – equity in health and well-being (Solar & Irwin, 2010) – through housing stability. In other words, **the provision of relatively stable accommodation is seen as a sort of "springboard" toward socioeconomic inclusion. Unfortunately, this is often not the case, especially when one examines data that follows these young people over time.**

The handful of longitudinal peer-reviewed studies examining the life-trajectories of young people after they have achieved relative housing stability paint a disheartening picture – most remain socially and economically excluded, struggle to shake off identities of homelessness, and are just one misstep away from returning to the streets. Irrespective of the type of housing acquired (subsidized with social services supports vs. market rent with limited or no social service supports), many youth struggle with feelings of meaninglessness, boredom, loneliness, hopelessness, "outsiderness", and a sense of being stuck (Brueckner et al., 2011; Kidd et al.,

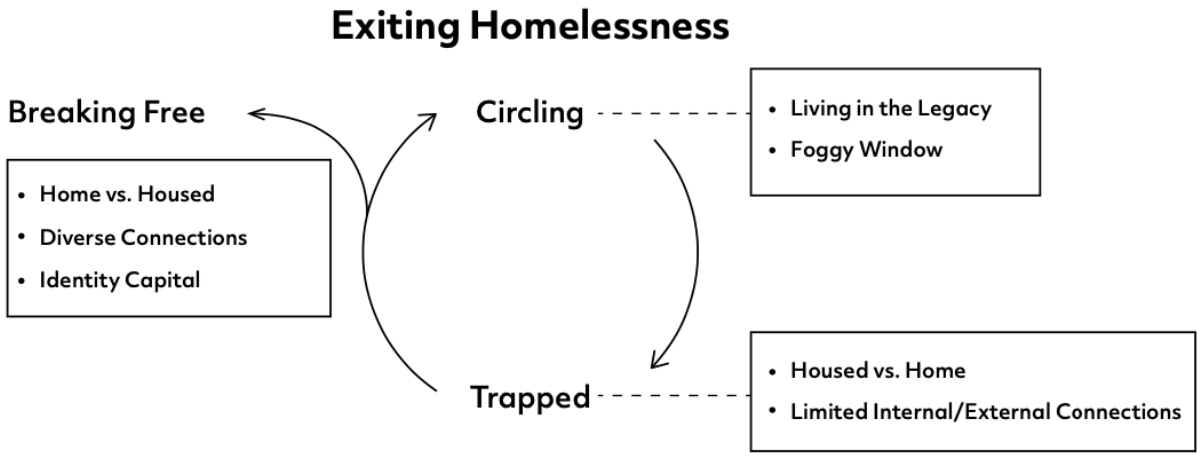
2016; Thulien et al., 2018). **Despite these known challenges, there is a dearth of peer-reviewed literature on interventions – especially strengths-based interventions – targeting socioeconomic inclusion outcomes for youth who have experienced homelessness.**

A 2020 systematic review synthesizing evidence from 53 unique interventions conducted in high-income countries with youth (age 13 – 25 years) who were experiencing or had experienced homelessness – arguably the most comprehensive review to date – highlights the urgent need to move beyond describing to intervening on challenges associated with transitions out of homelessness (Morton et al., 2020). Only 42% of the studies reviewed involved some form of randomized evaluation; of those, 64% reported mixed, negative, or null findings. The authors concluded, **"The field lacks rigorous evaluative evidence of many of the program models on which communities and governments rely to address youth homelessness" (Morton et al., pg. 11).**

Many of the community collaborators and researchers involved in this study have been working together for the past four years to try and sustain successful exits from homelessness and improve socioeconomic inclusion outcomes for youth who have experienced homelessness. In March 2019 (after several months of pre-study collaboration), we began the **"Transitioning Youth Out of Homelessness" (TYOH) study** – a 2.5-year pilot community-based mixed method randomized controlled trial (RCT) with 24 youth from three cities (Toronto, St. Catharines, and Hamilton) in the province of Ontario (Unity Health Toronto Research Ethics Board [REB] #18-251) (Thulien et al., 2019). **All participants received portable rent subsidies (i.e., subsidy not tied to a specific location) for two years; half were randomly assigned an adult mentor.** The aim of the TYOH study (TYOH 1.0) was to understand whether young people who received rent subsidies and mentorship achieved better socioeconomic inclusion outcomes relative to the group that only received rent subsidies. Quantitative data revealed that as a cohort, participants had stable or non-significant improvements in all study outcomes at the primary endpoint of 18 months compared to baseline; however, **there were no statistically significant improvements in proxy indicators of socioeconomic inclusion in the intervention group relative to the control group 18 months post-randomization** (Thulien et al., 2022).

While our team was somewhat disappointed with the quantitative findings, we gleaned crucial analytic insights – particularly from the qualitative data – that helped guide the development of TYOH 2.0. Analysis of 71 in-depth interviews conducted by Dr. Naomi Thulien over a 2.5-year period revealed that **an *important mediator* of equitable socioeconomic inclusion was having strong identity capital – a sense of purpose, control, self-efficacy, and self-esteem** (under peer review). These qualitative findings alongside our quantitative data led to the development of the conceptual framework (Figure One) that will inform TYOH 2.0 (for more on TYOH 1.0, please watch this five-minute animation of study findings: https://vimeo.com/680123327/cf2f292c84).

Figure 1. TYOH 2.0 Conceptual Framework: Sustaining Exits from Homelessness



Young people in the TYOH 1.0 study who were able to gain clarity and break free from the "fog" of socioeconomic exclusion utilized identity capital as "currency" to push forward despite persistent structural inequities. Moreover, there was a reciprocal relationship between identity capital, a sense of being "home" (vs. housed), and diverse internal (self-understanding) and external (informal mentors) connections. In short: young people with strong identity capital had a sense of belonging to themselves – a feeling of being home – and reached inward and outward for guidance toward a clear destination. Crucially, this important internal resource of identity capital was underdeveloped in most of our study participants and minimally impacted through study-assigned mentorship or relative housing stability. Hence, **the aim of TYOH 2.0 is to incorporate a strengths-based approach to intervene on the inequitable distribution of**

identity-based resources – fundamental assets provided to most young people from childhood – rarely discussed in the homelessness intervention literature.

Interventions designed to mediate socioeconomic inclusion by bolstering some or all components of identity capital is an undeveloped area of research but there are some promising transferrable findings from interventions with youth from low socioeconomic backgrounds and with youth who have experienced homelessness (Browman et al., 2019; Cumming et al., 2022; Destin et al., 2021; Krabbenborg et al., 2017; Quinton et al., 2021; Slesnick et al., 2017). In 2018, Dr. Thulien led "The Identity Project" – a pilot non-randomized identity capital intervention with youth (n = 19) who had experienced homelessness (Unity Health Toronto REB #18-002) (Thulien et al., 2021). The results were promising; even nine months after the six-week six-session intervention (leadership curriculum + group coaching) concluded, there were statistically significant improvements in hopelessness and self-esteem compared to baseline (Thulien et al., 2021).

Our team of community and academic partners intend to build on what we learned from our previous work to conduct TYOH 2.0 – a one-year mixed method RCT with youth exiting homelessness. **Similar to the TYOH 1.0 study, all participants will be offered portable (young people can live in a location of their choice) rent subsidies; however, this time the intervention group will receive an identity capital intervention (co-designed leadership curriculum + coach).** It is our intention to utilize learning from this pilot study to inform an adequately powered definitive RCT.

1.1. Objectives

The **overarching aim** of this pilot RCT is to explore whether a strengths-based intervention focused on identity capital holds promise as a way to facilitate socioeconomic inclusion for young people (age 16 – 24 years) exiting homelessness and living in market rent housing.

Specifically, the **objectives** of this mixed method pilot study are to:

1. Examine whether targeted economic (rent subsidies) and identity-based (co-designed leadership curriculum + coach) are a feasible and acceptable way to foster socioeconomic inclusion.

2. Assess differences between targeted economic and identity-based supports (intervention group) and economic supports only (control group) at the 12-month primary endpoint with respect to self-reported socioeconomic inclusion measures of: 1) education, employment and training (EET); 2) housing security; and 3) identity capital.
3. Explore whether variables at baseline (e.g., participant demographics such as gender or global assessment of individual needs [GAIN]) suggest the intervention may be more feasible and acceptable for subgroups of young people.

2. Methods

This work is grounded in commitment to centering voices of youth with lived expertise as well as responding to priorities defined by community partners. The epistemology underpinning TYOH 2.0 is based on our commitment to key principles of **critical social theory and community-based participatory action research (CBPAR) methodology** from study inception to dissemination (Israel et al., 2018; Moosa-Mitha, 2015; Strega, 2015).

- Research participants viewed as experts in their own lives.
- Enhanced emphasis on highlighting social and structural inequities, including the intersection of factors such as race, class, and gender.
- Concerted effort to reduce power imbalances between researchers and the community.
- Equal value placed on academic knowledge and experiential knowledge.
- Commitment to producing practical, actionable data to build community capacity and improve the lives of research participants.
- Duty to remain invested with the community beyond the life of the research project.

2.1. Trial design

This pilot study will employ a convergent mixed methods (quantitative and qualitative data collected concurrently and the findings combined), two-arm parallel RCT (participants randomly assigned to either one intervention or control group), open-label (participants and research team aware of random assignment) design with 1:1 allocation (roughly equal number of participants in each study arm) embedded within a CBPAR framework. We will prospectively register this trial on Clinicaltrials.gov once we receive Unity Health Toronto REB approval.

The study will be conducted collaboratively with four community partners who serve youth who are experiencing or have experienced homelessness: 1) Covenant House Toronto (Toronto, ON); 2) Living Rock (Hamilton, ON); 3) The RAFT (St. Catharines, ON); and 4) StepStones for Youth (Toronto, ON). **In keeping with the CBPAR principle of remaining committed to the community over the long-term, we are collaborating with the same community-based organizations we have worked with since 2018** on the recently completed TYOH study (Covenant House Toronto, Living Rock, and The RAFT) as well as collaborating with a new organization (StepStones for Youth).

2.2. Participants

Eligible young people **ages 16 – 24 years** who have **left homelessness within the past 12 months and are** currently living or planning to live **in market rent housing** will be identified by our community partners. This age mandate was chosen because this is the age group served by our community partners. We have chosen to target the first year of exiting homelessness because our collective experience has shown that is this is a particularly precarious time for youth in terms of mental health challenges and risk of returning to homelessness.

In addition to the above age and housing **inclusion** criteria, study participants must:

- Be able to provide free and informed consent.
- Be able to understand English (intervention and data collection will be conducted in English).
- Have experienced homelessness (e.g., all non-parental and unstable housing arrangements including shelter stays, couch surfing, and time-limited housing) in the past 12 months.
- Be willing to actively participate in the intervention (co-designed leadership program + coach) if randomized to this arm.

Young people will be **excluded** from the study if they are:

- In imminent danger of losing their housing and not able to utilize the rent subsidy to sustain market rent housing (e.g., facing jail time).
- Currently receiving rent subsidies.

- Enrolled in a program or study with similar features to the TYOH 2.0 intervention.

2.2.1. Identification and Consent

Study participants will be recruited from the cities in which our community partners are located: Toronto, ON (Greater Toronto Area population 6.7 million); Hamilton, ON (population 785,000); and St. Catharines, ON (St. Catharines-Niagara population 416,000). We will follow a similar recruitment and enrollment procedure that we successfully used in TYOH 1.0. Our aim is to enroll 10 participants from each community partner for a total of 40 enrolled participants. We will again ask community partners to consider factors such as gender and race/ethnicity when recruiting youth for the study, so these variables are roughly represented evenly (e.g., gender) and characteristic of youth they typically serve (e.g., racialized youth).

Initial introduction to the study will be facilitated by our community partners, and interested participants directed to email the study lead research coordinator. Community partners will utilize the *Study Poster* and *Information and Consent Form* to help guide their initial discussions with potential participants. It is important to note that, as in TYOH 1.0, community partners will be involved in planning the study with the research team months before recruitment begins, and thus will be well versed with the study protocol, including inclusion/exclusion criteria. All potential participants referred to the lead research coordinator will be provided with a printed and/or electronic copy of the *Information and Consent Form* by the referring community partner.

Once potential participants have emailed the lead research coordinator, the coordinator will ask permission to forward their contact information (email or phone) to a member of the research team so the team member can set up a time with the potential participant for a phone eligibility screening interview. The research coordinator will also ensure potential participants have a printed and/or electronic copy of the consent form. **To build rapport with community partners and study participants, we will assign one dedicated research team member to each partner site**. **This worked well for TYOH 1.0, where we had excellent partner-team communication and a 96% participant follow-up rate at 2.5 years post-randomization.**

Screening for eligibility will be done over the phone by a member of the research team. As noted previously, there will be one research team member assigned to each of the four partner sites. Each potential participant will be screened using the inclusion and exclusion criteria noted above (also see Table 1). In particular, the research team member will ensure that young people understand what the intervention entails and have the capacity to make a one-year commitment to a leadership + coaching program if randomized to the intervention.

Table 1. Eligibility Screening

	Yes	**No**
16 – 24 years of age (at baseline)		
Left homelessness within the past 12 months		
Currently living or planning to live in market rent housing		
Able to provide free and informed consent		
Able to speak and read English well enough to give consent and participate in the intervention and data collection		
Have experienced homelessness (e.g., all non-parental and unstable housing arrangements including shelter stays, couch surfing, and time-limited housing) in the past 12 months		
Be willing to actively participate in the intervention (co-designed leadership program + coach) if randomized to this arm		
NOT in imminent danger of losing their housing and not able to utilize the rent subsidy to sustain market rent housing (e.g., facing jail time)		
NOT currently receiving rent subsidies		
NOT enrolled in a program or study with similar features to the TYOH 2.0 intervention		
MUST SAY "YES" TO ALL TO BE ELIGIBLE FOR ENROLLMENT		

After eligibility screening, participants will be informed immediately over the phone whether they are eligible or ineligible for the study. If there is any confusion regarding eligibility and/or capacity to consent, the team member will reach out to Dr. Thulien for guidance. In addition to being the study principal investigator, Dr. Thulien is a nurse practitioner with over a decade of experience working exclusively with young people who are experiencing or have experienced

homelessness. Study co-investigator and psychiatrist Dr. Nicole Kozloff will also be available for consultation re: capacity if needed. That said, in our experience with TYOH 1.0, we found community partners were excellent at assessing capacity to consent prior to suggesting youth for the study, and the team member conducting eligibility screening did not need to reach out for clarification regarding this aspect of eligibility. Any written or electronic notes pertaining to eligibility will be destroyed/deleted after screening (see 4.2 Privacy and Confidentiality).

Free and informed <u>verbal</u> consent will first be obtained during eligibility screening if a participant is deemed eligible for the study. As noted previously, participants will have a printed and/or electronic version of the *Information and Consent Form* provided to them by the community partner recruiting them for the study. The research team member will carefully review the form with eligible participants to ensure they have a solid understanding of the study, with particular attention to: 1) overall study aim; 2) study length; 3) data collection; 4) data security; and 5) dissemination. A concerted effort has been made to ensure the consent form is in plain language. Highlighted throughout the document is the fact that informed consent is an ongoing process and can be negotiated at any time.

Free and informed <u>electronic</u> consent will be obtained after verbal consent once the research team member emails participants the secure baseline data collection weblink, which will happen during the same phone call. The baseline data collection questionnaire will be programed by the MAP Survey Research Unit (SRU) so that participants will be unable to proceed until they have selected "Yes" for consent (*Quantitative Data Collection Instruments*). As noted below (2.6 Randomization and Allocation), the research team member will remain on the call during this process. Please see 4.2 Privacy and Confidentiality for more information on our collaboration with the SRU and data storage on the SRU Snap server located inside the Unity Health Toronto's secure network at St. Michael's Hospital (SMH).

2.3. Intervention

Young people in *both* arms (n = 40) will be provided a monthly rent subsidy of $700.00-$800.00/month ($700.00/month Hamilton and St. Catharines; $800.00/month Toronto) for 12 months, which will be paid to landlords and facilitated by our community partners. Youth who

participated in TYOH 1.0 suggested participants in TYOH 2.0 be offered the option of delegating a portion (amount chosen by TYOH 2.0 participants) of the money they would have spent in rent toward a savings account, which they would be able to access at the end of the study. This option received unanimous support from our community partners, and will be offered to all participants, facilitated by our research team.

The **control group** will be offered 12 months of: portable rent subsidies, an optional savings program, as well as connection to a housing worker. This group will also be given access to the co-designed leadership curriculum at the end of the study. As in TYOH 1.0, we will establish a Clinical Service Agreement with each community partner before transferring the rent subsidy funds. Young people randomized to the **intervention group** will receive 12 months of: portable rent subsidies (along with an optional savings program and housing worker), engage in a co-designed leadership curriculum, and be assigned a coach (one coach/10 youth).

2.3.1. Co-Designed Leadership Curriculum

The strengths-based *Leadership Curriculum* was **co-designed with youth who have experienced homelessness** – including youth who participated in TYOH 1.0 – and members of the TYOH 2.0 research team. Dr. Thulien drafted the original version of the curriculum, drawing on learnings from TYOH 1.0 and The Identity Project, and then hosted a full-day co-design workshop with 12 young people who had experienced homelessness. The co-design workshop was facilitated by Dr. Thulien and Mardi Daley. Mardi is a research coordinator on the TYOH 2.0 study and a peer engagement specialist who draws on her lived expertise of homelessness to collaborate with researchers and young people who have experienced homelessness. Workshop participants were very engaged throughout the full-day co-design process, and significant enhancements were made to the curriculum based on participant feedback.

The *Leadership Curriculum* contains 12 chapters with the overarching aim of enhancing identity capital along with providing strategies to achieve participant-identified goals. Each chapter contains four activities (e.g., self-reflection exercise or listening to a podcast). Ideally, youth will complete one chapter every month. The curriculum is meant as a "living document" which will evolve during and after the study based on feedback from participants and coaches. Curriculum

copies will be available in paper and electronic formats. While the curriculum is designed for individual study, the curriculum is meant to serve as a reference point for individual and group discussions with the study coaches.

2.3.2. Coaches

We will hire two part-time (0.5 FTE) coaches in collaboration with our community partners and young people with lived expertise. The coaches will be hired through The RAFT. We have established a Clinical Service Agreement between Unity Health Toronto and The RAFT to facilitate the transfer of funds to support the hiring of two part-time coaches.

All applicants will have a minimum of a Bachelor's degree in social work or other health-related disciplines (e.g., occupational therapy or nursing). **Interested applicants will be interviewed by a panel that includes two people from our community partner organizations, two research team members (one will be Dr. Thulien), and two young people from the original TYOH study who participated in the leadership curriculum co-design workshop.** All applicants will be screened per The RAFT Human Resource policies, including reference and criminal record checks. Once hired, the coaches will take the TCPS 2: Core-2022 online training.

Each coach will devote 2.5 days/week to the intervention and be responsible for 10 youth. **The coach will meet individually with each young person in their group every two weeks and meet with their group of 10 youth every month.** We incorporated monthly group coaching sessions into this intervention as our previous experience has shown that youth exiting homelessness value meeting with and learning from other young people in similar circumstances. All meetings will take place in-person or virtually depending on public health regulations and participant preference. The coaches will meet with Dr. Thulien and the lead research coordinator monthly.

Coaches will receive intensive training from the Canadian Centre for Brief Coaching (CCBC) – an internationally recognized and accredited institution for Solution Focused Brief Coaching. The CCBC is led by Dr. Haesun Moon, a Harvard faculty member at the Institute of Coaching (McLean Hospital Affiliate, Harvard Medical School). In addition to work centred at the CCBC,

Dr. Moon and her team collaborate with the Ontario Institute for Studies in Education (OISE) at the University of Toronto to offer a three-course, 72-hour (24 hours/course) Brief Coaching Certificate:

1. **Foundations of Brief Coaching** (Solution-Focused theory and Brief Coaching framework; solution-building vs. problem solving)
2. **Applications of Brief Coaching** (strategies to co-construct a preferred future with clients)
3. **Coaching Masterclass** (coaching dialogue analysis; provide and receive peer feedback)

The CCBC will work closely with the study coaches starting two months before the intervention begins and deliver a customized on-line coaching certificate program very similar to the one the CCBC offers through OISE. They will also conduct regular bi-weekly mentorship sessions with the coaches throughout the 12-month intervention.

2.3.3. Post-Study Transition Plan

Our team of community partners and researchers are committed to ensuring study participants' housing needs are properly supported once the study is over. To assist with this, the following measures will be in place:

- Research team members will discuss post-study housing plans with the young people on their caseload at baseline and during bi-monthly (every two months) check-ins.
- Post-study housing concerns will be brought forward at our quarterly Community Partner and Researcher Advisory Board meetings, where post-study housing will be a standing agenda item (three community partners have access to rent subsidies through philanthropic and grant funding, and all have access to rent subsidies through the Canada-Ontario Housing Benefit).
- Coaches will discuss post-study housing goals with young people in the intervention group at least monthly.
- As noted previously (2.3. Intervention), participants will be offered the option of putting a portion of the money they would have spent in rent into a savings account which can be accessed at the end of the study.

2.4. Study Outcomes

The **primary outcomes** for this pilot study are feasibility and acceptability (Table 2). **Secondary outcomes** include proxy indicators of socioeconomic inclusion based on our clinical expertise and research with this population: 1) EET; 2) housing security; and 3) identity capital (Table 2). **Exploratory outcomes** include examining intervention feasibility and acceptability among subgroups based on selected variables at baseline (Table 2).

Table 2. TYOH 2.0 Key Outcome Variables and Instruments

Key Outcome Variables	Instruments	Collection Timepoints*
Primary Outcomes		
Feasibility and Acceptability	› Recruitment and enrollment metrics › Composite checklist re: coaching session attendance (intervention group) › Composite checklist re: leadership manual engagement (intervention group) › Dropout metrics › Focus groups (intervention group)	› T1 › T2, T3, and T4 › T2, T3, and T4 › T2, T3, and T4 › T2, T3, and T4
Secondary Outcomes and Domains (proxy indicators of socioeconomic inclusion)		
Employment, Education, and Training (EET)	Composite checklist	T1 and T4
Housing security o housing need o subjective stability o safety net o threats to stability	Housing Security Scale (HSS) – V.3	T1, T2, T3, and T4
Identity capital o self-esteem o purpose in life o internal locus of control	Multi-Measure Agentic Personal Scale (MAPS20)	T1, T2, T3, and T4

○ self-efficacy		
Exploratory Outcomes		
Subgroup feasibility and acceptability	› Baseline Demographic Questionnaire › GAIN Short Screener (GAIN-SS)	› T1 › T1
*Baseline = T1; Month Four = T2; Month Eight = T3; Month Twelve = T4		

The decision to proceed to an adequately powered definitive trial will be based on feasibility and acceptability. Given we are providing rent subsidies to all participants, we anticipate minimal recruitment and enrollment challenges; thus, our primary focus will be on quantitative metrics pertaining to coaching session attendance, leadership manual engagement and intervention dropout rates, as well as qualitative data from the focus groups. We will not proceed to a definitive trial if we find intervention attendance/engagement is less than 50%, more than 30% of participants drop out of the intervention, and/or qualitative feedback from intervention participants is overwhelmingly negative.

2.5. Sample Size

This pilot feasibility and acceptability study was designed with the intention of generating data and hypotheses to inform a full-scale study. The sample size was pragmatic, based on the financial resources available to provide rent subsidies and coaching over a 12-month period; thus, no formal sample size calculation was performed.

2.5.1. Interim Analysis

As is common in pilot and feasibility studies, there is no interim quantitative analysis planned to guide a decision to stop the study early (Eldridge et al., 2016). That said, we will consider either stopping the intervention early or making adjustments to the intervention if feedback from participants during the qualitative focus group sessions is overwhelmingly negative and/or the majority of young people stop participating in the intervention.

2.6. Randomization and Allocation

Participants at each of the four study sites will be randomized (stratified by site) to either the intervention (rent subsidies and leadership curriculum + coach) or control (rent subsidies only) group using block randomization (random block sizes of two and four). Dr. Rosane Nisenbaum –

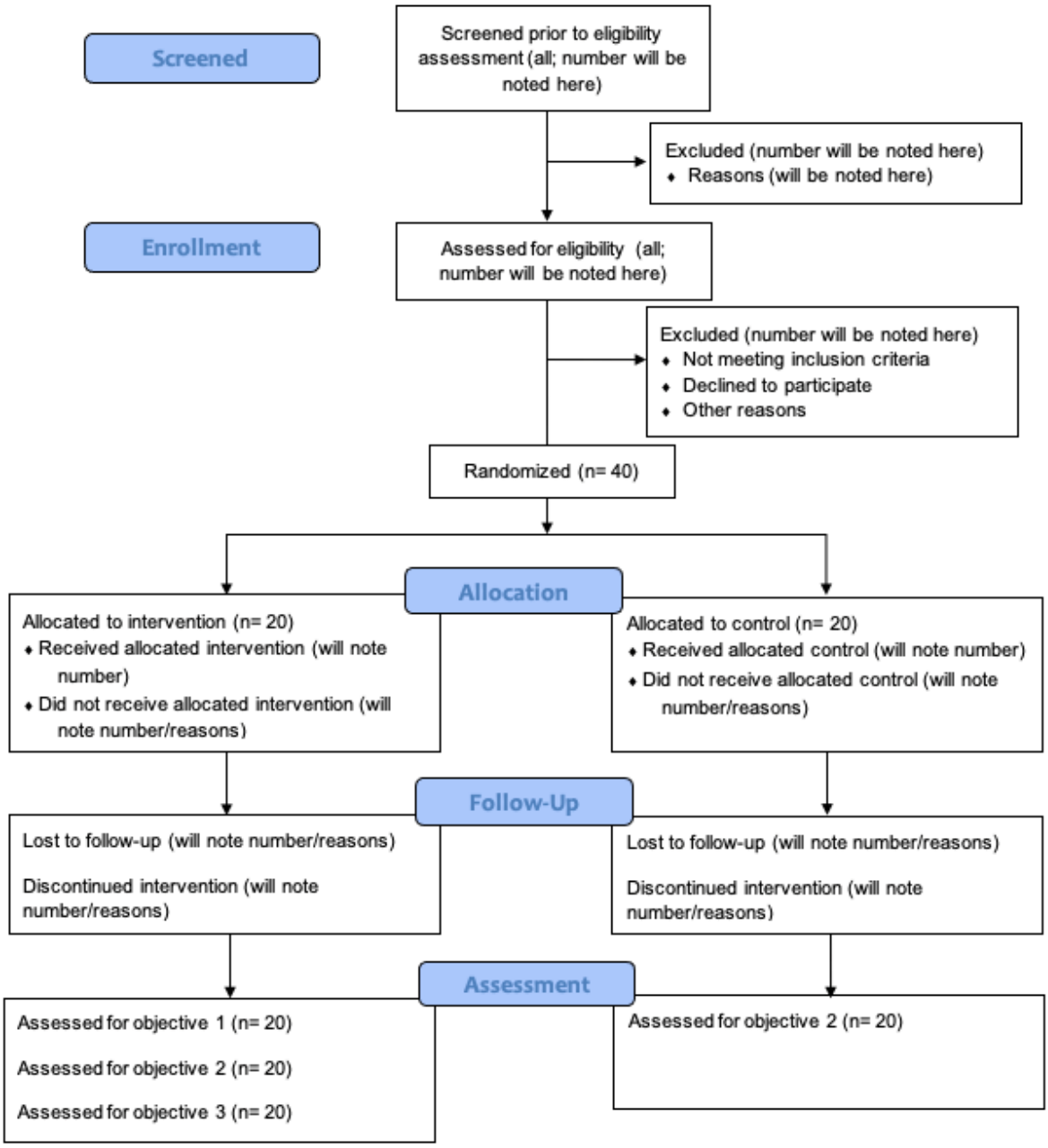
a study co-investigator and biostatistician not involved in recruitment or enrollment – will generate a unique randomization schedule for each site using Statistical Analysis System (SAS) (SAS Institute Inc., Cary, NC, USA), which she will share with the SRU. The randomization process will be almost identical to the one used successfully in TYOH 1.0, except it will be done virtually.

The SRU will use an online version of the sealed envelope method utilized in TYOH 1.0 where electronic folders housed on the Unity Health Toronto secure network will contain randomization assignments. Each folder will be labelled with a participant identification number (one folder per participant) and will be opened following the baseline interview; thus, interviewers and study team members will be blinded to the folder contents prior to opening it. Each folder will contain a randomization insert, which will list the study name, principal investigator, randomization number, participant identification number, and group assignment.

Immediately after participants have provided consent, they will participate in a baseline quantitative interview accessed via secure weblink (sent by research team member on the phone call after verbal consent obtained) prior to randomization. The research team member will stay on the call while participants complete the baseline interview. Once participants have participated in baseline data collection, the research team member will select a sequentially ordered randomization folder from the electronic randomization file to obtain the participant's group assignment. The participant's group allocation will be noted, and participants will be informed immediately if they have been allocated to the intervention or control group (Figure 1).

All opened electronic randomization folders will be reviewed by the study lead research coordinator, who will not be participating in enrollment, to check for consistency in participant allocation. The lead research coordinator will be responsible for creating and updating a *Master Random Assignment List and Linking Log* which will be stored on the SMH secure server. In keeping with typical community-based RCTs with psychosocial interventions, blinding of participants, community partners, and research staff to allocation group would not be pragmatic due to the nature of the intervention (Solomon et. al., 2009).

Figure 1. CONSORT (CONsolidation of the Standards Of Reporting Trials) Diagram for Pilot and Feasibility Studies of Anticipated Flow of Participants Through the Study



2.7. Statistical Methods

This study will utilize a convergent mixed methods design where quantitative and qualitative methods are collected concurrently, and the findings merged to provide a more nuanced understanding of the data (Creswell & Creswell, 2018). For example, quantitative analysis of

coaching session attendance and leadership manual engagement may demonstrate that the intervention is feasible and acceptable, while qualitative analysis will help us provide context – conceptualize the *why and how* – for what we see in the quantitative date.

To answer **Objective One** (examining intervention feasibility and acceptability) – our primary objective – we will utilize quantitative measures consisting of recruitment/enrolment/dropout metrics and composite self-report checklists regarding engagement with the intervention, along with focus groups (Table 2 and Table 3). To answer **Object Two** (assessing differences between socioeconomic inclusion outcomes in the intervention group compared to control group at 12 months) we will utilize a self-report composite EET checklist and self-report measures of housing security and identity capital (Table 2 and Table 3). To answer **Objective Three** (exploring intervention feasibility and acceptability among subgroups) we will examine select variables from the baseline self-report demographic and GAIN-SS questionnaires for those in the intervention group (Table 3).

Table 3. Quantitative Instruments

Instrument	**Psychometric Properties**
Baseline Demographic Questionnaire	This 17-item self-report measure was developed for this study and explores domains related to: age; gender; race/ethnicity; sexual orientation; immigration status; child welfare involvement; homelessness entrenchment; education; social support; financial support; physical health support; mental health support; food security.
EET Questionnaire	This five-item self-report measure was developed for this study and explores engagement in education (secondary or post-secondary), employment (full- or part-time; formal and informal), and training (paid or unpaid apprenticeship).
GAIN-SS V.3.0.2 (Dennis et al., 2006; Dennis, Feeney, & Titus, 2013)	This 23-item validated self-report measure explores: internalizing disorders (e.g.,

	anxiety/depression); externalizing disorders (e.g., impulsivity/disruptive conduct; substance disorders (e.g., illicit drug/alcohol abuse); and crime and violence (e.g., illegal activities/fighting). Score range: 0-23; higher scores (symptoms) indicate higher probability of a mental health diagnosis and likely benefit of further assessment/intervention (internal consistency α = .96).
HSS V.3 (Frederick et al., 2021)	This 20-item self-report measure explores domains related to: housing need; subjective stability; safety net; threats to stability. Score range: 20-120; higher scores indicate more housing security (internal consistency for subjective stability sub-scale α = 0.71; other sub-scales have not been validated).
Intervention Engagement Questionnaire	This five-item self-report measure was developed for this study and explores engagement with the co-designed leadership manual and coaching (administered only to intervention participants).
MAPS20 (Cote, 2016)	This 20-item validated self-report measure explores domains related to identity capital: self-esteem; purpose in life; internal locus of control; self-efficacy/ego strength. Score range: 20-120; score of less than 71 indicates risk/vulnerability of being overwhelmed by any adverse circumstances (internal consistency of four sub-scales α = .61-.75).

2.7.1. Quantitative Methods

Quantitative data collection (*Quantitative Data Collection Instruments*) will take place at four points during the study for all participants: T1) baseline; T2) four months post-randomization; T3) eight months post-randomization; and T4) 12 months post-randomization (Table 2). **T1** data

collection will consist of **five questionnaires** and is anticipated to take **20 – 25 minutes** to complete. **T2 – T3** data collection will consist of **three questionnaires for those in the intervention group and two questionnaires for those in the control group** and is anticipated to take **10 – 15 minutes** to complete. **T4** final data collection will consist of **four questionnaires for those in the intervention group and three questionnaires for those in the control group** and is anticipated to take **15 – 20 minutes** to complete.

All questionnaires will be completed online via a secure weblink, which will be emailed to participants (see 4.2 Privacy and Confidentiality). Those unable to access the weblink will be offered the option of using computers at MAP Centre for Urban Health Solutions or at their respective community partner agency. An **honorarium** of $20.00 will be paid via e-transfer within 24 hours of each data collection session.

Quantitative analysis will be performed using the intention-to-treat principle; that is, all participants will be included and analyzed in the groups they were originally randomized.

Baseline characteristics of the intervention and control groups will be summarized using descriptive statistics (i.e., mean, standard deviation, median and interquartile range for continuous variables, and frequencies and proportions for categorical variables).

Primary outcomes will be analyzed by estimating the recruitment rate as the proportion of contacted individuals who express interest in participating in the study. The enrollment rate will be calculated as the proportion of recruited individuals who are eligible and consent to participate in the study. Dropout rates will be separately calculated for intervention and control groups at the end of the study as the 1 – proportion of randomized participants who completed the study at 12 months. Exact (Clopper-Pearson) 95% confidence limits will also be calculated.

Secondary outcomes will be analyzed by calculating descriptive statistics at each study time point and explore differences in trajectories from baseline to 12 months follow-up between intervention and control groups using scatterplots and box-plots. Mean differences with 95% confidence intervals in continuous outcomes at 12 months (housing security and identity capital)

between participants who received rent subsidies and leadership program + coaching and participants who received rent subsidies only will be estimated using analysis of covariance (i.e., linear regression models), including an indicator of intervention group and the baseline value of the outcome. We will perform regression diagnostics and will repeat analyses using the non-parametric Wilcoxon rank-sum test if there are extreme outliers or influential observations. To compare groups with respect to EET, we will derive a composite binary outcome for employment or education or training based on the EET questionnaire and fit generalized estimating equations with the binomial distribution, including an indicator of intervention group, the time factor (12 months vs. baseline), and the interaction between intervention group and time. Odds ratios and 95% confidence intervals will be estimated.

Exploratory outcomes will be analyzed by stratifying the primary outcomes by selected baseline demographics (for example gender) or the GAIN-SS severity levels (0=low [unlikely to have a diagnosis or need services]; 1-2=moderate [a possible diagnosis; the client is likely to benefit from a brief assessment]; 3 or more=high [high probabilities of a diagnosis; the client is likely to need more formal assessment and intervention, either directly or through referral]) and estimating the recruitment, enrollment and drop-out rates.

2.7.2. Qualitative Methods

Qualitative data generation (*Focus Group Questions)* will take place at **three points** during the study for those in the intervention group: T2) four months post-randomization to the intervention; T3) eight months post-randomization to the intervention; and T4) 12 months post-randomization to the intervention. Qualitative data generation will consist of **focus groups conducted by Dr. Thulien and a study research coordinator, and expected to last 60 – 90 minutes.** We anticipate 10 young people in each group, divided by location (one group with Toronto youth and one group with Hamilton and St. Catharines youth).

Focus group questions will primarily centre around intervention acceptability but will also explore the impact of the intervention on identity capital (e.g., sense of purpose and control) and socioeconomic inclusion (e.g., connection to broader social networks). As is common in qualitative research, analysis will begin during and after the first data generation session,

meaning the questions asked will evolve over time based on our preliminary interpretations of the data (Creswell & Creswell, 2018; Luciani et al., 2019; Merriam & Tisdell, 2016). Keeping in mind that data generation context impacts participant responses (Green & Thorogood, 2018), focus groups will be held in a community setting (vs. academic setting) to help minimize researcher-participant power imbalance and increase participant comfort. Our aim is to conduct in-person focus groups; however, we will switch to Zoom virtual platform if pandemic-related concerns make it unsafe for in-person meetings (see 4.2 Privacy and Confidentiality re: Zoom end-to-end encryption). Participants unable to attend in-person focus groups will also be offered virtual attendance (e.g., Zoom).

All focus groups will be audio recorded using the password protected application Voice Record Pro on a password protected device. Audio recordings will be transcribed verbatim by a member of the research team, and the transcripts uploaded to the web-based application Dedoose (SocioCultural Research Consultants, LLC, 2022) for storage and retrieval. One member of the research team will serve as an observer/ note taker at each focus group session to document non-verbal communication (e.g., eagerness or disinterest) as well as preliminary analytic insights based on listening to the discussion. In addition, each focus group facilitator will document field notes as soon as possible after the meeting to capture their own observations and reflections of the sessions (Luciani et al., 2019; Merriam & Tisdell, 2016). Food will be provided at the focus groups and all participants will receive an **honorarium** of $40.00 paid via e-transfer within 24 hours of each focus group session.

Qualitative analysis

As noted above, preliminary qualitative analysis will begin during and after the first focus group session as members of the research team consider their emerging analytic insights. Team members involved in the focus group sessions will attend monthly qualitative analysis sessions led by Dr. Thulien. As in TYOH 1.0, the aim of our analysis will be to go beyond superficial understandings of intervention acceptability. Instead, we will engage in "value-adding" qualitative analysis – interpreting, contextualizing, and adopting a critical (in keeping with our methodological approach) posture – with the intention of operationalizing key conceptual insights in a conceptual framework (Eakin & Gladstone, 2019). As we do this, our team will

embrace the "creative presence of the researcher," drawing on our own knowledge, insights, and experiences (including the experience of homelessness) to help make sense of the data (Eakin & Gladstone, 2019).

Prior to each monthly qualitative data analysis session, two team members will read the most recent focus group transcript multiple times, code ("tag") data relevant to intervention acceptability and our assumption that identity capital is a mitigating factor in socioeconomic inclusion (and look for data that might disprove this assumption), and compare codes to previous transcripts (Bhattacharya, 2017; Creswell & Creswell, 2018; Luciani et al., 2019). At the monthly analysis sessions led by Dr. Thulien, the codes will be discussed (and revised/deleted as needed) and (re)organized in a code book, clustered into categories, and eventually synthesized into key themes. Analysis will primarily be inductive (moving from data to conceptualizing); however, deductive reasoning (moving from conceptualizing to data) will be employed when we want to understand new data through the lens of our emerging conceptual framework. The analysis team will also formulate new focus group questions based on our preliminary analytic insights. Focus group participants will be asked for their perspectives on the emerging interpretations during subsequent focus groups, and these perspectives will play a key role in helping shape the data analysis.

3. Limitations

This study has limitations. First, this is a feasibility and acceptability study and thus not adequately powered to detect a significant difference in quantitative self-report measures; results must be interpreted with caution. Second, all young people will be connected to urban-based social service agencies in the province of Ontario; youth living in rural locations and/or outside of Ontario may not take up the intervention the same way. Third, all of the quantitative instruments are based on self-reports and thus subject to social desirability bias. Finally, we have chosen quantitative measures that we believe signal socioeconomic inclusion; it is plausible that these measures do not adequately capture this complex concept.

4. Ethical Considerations

We have endeavored to weave ethical considerations into all aspects of the study design, including our decision to utilize a CBPAR methodology, ensure all participants receive portable rent subsidies (not just the intervention group), and offer the co-designed leadership curriculum to those in the control group after the study is over.

We will continue conducting regular **Community Partner and Researcher Advisory Board (CPRAB)** meetings as we have been doing since April 2019 (*Community Partner and Researcher Advisory Board Terms of Reference*). CPRAB meetings will take place every three months and include three participants from TYOH 1.0, who will serve as paid ($50.00/meeting) community experts.

Our commitment to **equity, diversity, and inclusion** is evidenced by the composition of our research team. As noted previously, Mardi Daley has lived expertise of homelessness and has been hired as a research coordinator. We have also hired a research assistant – Pukky Famb – through a University of Toronto initiative to support students from Indigenous, Black, and economically disadvantaged backgrounds gain acceptance to medical school. In addition, Dr. Thulien has made a commitment to ensure at least 50% of research staff hired to work on this project identify as Black or Indigenous. Finally, our team of scientists is comprised of researchers who hold dual roles as academic experts and experts by experience with the youth homelessness sector (Dr. Amanda Noble), African, Caribbean, and Black communities (Dr. Ruth Rodney), Indigenous communities (Dr. Bernice Downey), and 2SLGBTQ+ communities (Dr. Alex Abramovich).

4.1. Risks, Benefits, and Safety

Given the nature of the intervention, and our experience with TYOH 1.0, we believe the harms and risks to intervention participants will be minimal. While we have intentionally not chosen deficit-focused questions/scales for the T2-T4 quantitative data collection sessions, some participants could find certain questions distressing. For this reason, the quantitative questionnaires will be programed to allow participants to skip questions if they choose. The focus group questions will also target participant strengths; however, participants will be

reminded at the start of each session that they do not have to answer any questions that make them uncomfortable. They will also be reminded that we cannot guarantee other focus group members will not share discussion topics outside of the focus group sessions.

A standing item at our CPRAB meetings will be a discussion of how participants seem to be "taking up" the intervention, and whether anyone has heard of any intervention-related concerns. In addition, Dr. Thulien and the lead research coordinator will meet monthly with the study coaches; these meetings will provide opportunity to assess/discuss any unintentional harms/risks to intervention participants. If there are, Dr. Thulien and/or the lead research coordinator will follow-up with the appropriate research participant and community partner. As noted in the consent form, participants may withdraw from the study at any time, and this will not impact their monthly rent subsidy.

All participants will likely benefit from receiving rent subsidies for one year. It is plausible that those in the intervention group will benefit from the co-designed leadership program + coaching. The intervention group may also benefit from having the opportunity to contribute their expertise during the focus group sessions; this has been our experience with previous studies.

In the following exceptional circumstances, youth will be provided the option of receiving the rent subsidy directly: (1) youth is at-risk of losing their housing in the unforeseen circumstance of expressed reluctance from the landlord to involve a third party (e.g., community partner) in paying the rent subsidy; (2) youth fears losing their housing if they disclose to the landlord previous experiences of homelessness. Youth who receive rent subsidies directly will have to send monthly e-transfer screenshots to the community partner as proof that the landlord has received the subsidy.

4.2. Privacy and Confidentiality

Privacy and confidentiality considerations have been woven throughout the research process:

1. Recruitment: Interested participants will reach out to the study lead research coordinator rather than community partners sharing contact information with the team.

2. Eligibility screening: No personal health information or personal identifying information will be collected (Table 1).
3. Enrollment: There will be no signed paper consent forms; instead, electronic consent (after verbal consent; see 2.2.1. Identification and Consent) will be required prior to baseline data collection. The consent form indicates that limits to confidentiality apply if a participant discloses that they intended to hurt themselves or others, or if they inform a member of the research team that someone under the age of 16 years is suffering abuse and/or neglect (*Information and Consent Form*).
4. Quantitative data collection: The MAP SRU will program the questionnaires into Snap Professional software and provide a secure weblink for data collection. The electronic data will be kept on the Snap server that is owned and operated by the SRU and is located inside the Unity Health Toronto's secure network at St. Michael's Hospital. Data will be downloaded directly to the SMH secure server.
5. Qualitative data collection: As noted above (2.7.2. Qualitative Methods), focus groups will be audio recorded on a password-protected application and on a password-protected device. The audio recorded files will be securely sent to a research team member via Unity Health email with a link that expires in 24 hours. After the team member has transcribed the audio file, they will delete the file. If focus groups have to pivot to virtual because of pandemic-related concerns, we will utilize a Zoom platform, enable end-to-end encryption, and only record the audio (not video). All transcripts will be stored on a SMH secure server and uploaded to Dedoose (SocioCultural Research Consultants, LLC, 2022). Pseudonyms (created by participants) will be used in focus group transcripts in place of their real names. All notes pertaining to the focus groups (e.g., participant observation and field notes) will be stored on an encrypted USB key and the files transferred to the SMH secure server as soon as possible.
6. Linking log: A key that links each participant's name with their participant identification number and pseudonym will be created by the lead research coordinator and stored as a separate electronic file on the SMH secure server (*Master Random Assignment List and Linking Log).*
7. Data access: Only authorized members of the research team will have access to quantitative and qualitative study data, and an access log will be maintained by the lead

research coordinator. De-identified raw data will be made available upon reasonable request (e.g., request comes from a researcher affiliated with an academic institution).

8. Data retention: All data will be destroyed after 10 years. Dr. Thulien will be responsible for ensuring the data is destroyed.

5. Dissemination

Working alongside community partners to disseminate findings with the aim of highlighting sociostructural inequities, building community capacity, and improving the lives of the young people we serve is fundamental to this work. We anticipate disseminating our findings broadly to community-based and academic audiences in a variety of formats ranging from oral presentations to scientific journal papers. We are also committed to novel forms of dissemination and will produce and widely disseminate a short animation of our study findings as we did for TYOH 1.0 (www.searchingforhome.com).

6. Significance

This novel intervention could transform the way we conceptualize how to sustain successful exits from homelessness. Importantly, the intervention has been co-designed with young people who have experienced homelessness, and their voices will continue to inform this clinical trial. Findings from this study will be utilized to design an adequately powered RCT, which we hope to scale up across Canada.

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