7 ADDRESSING THE VOCATIONAL NEEDS OF LGBTQ2S YOUTH EXPERIENCING HOMELESSNESS WITH SUPPORTED EMPLOYMENT[1]

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Introduction

Prior research suggests that unemployment rates among youth experiencing homelessness range from 66–71% (Ferguson & Xie, 2008; Whitbeck, 2009). Low educational levels, combined with histories of diagnosed mental illness and substance use disorder, can hinder their employment success (Cauce et al., 2000; Whitbeck, 2009). The employment outcomes of LGBTQ2S youth experiencing homelessness are considerably poorer than those of their heterosexual and cisgender counterparts, often a result of their higher school drop-out rates due to school-based discrimination regarding sexual orientation, gender identity and gender expression (Mottet, 2004). In addition to experiencing the same employment barriers that heterosexual and cisgender youth experiencing homelessness face (e.g., housing instability, food insecurity and lack of transportation), LGBTQ2S youth experiencing homelessness also encounter discrimination in the workplace due to their sexual orientation, gender identity and gender expression (Mottet, 2004). Transgender and gender nonconforming youth experiencing homelessness may have a particularly difficult time if they lack legal documents and photo identification that matches their gender identity, or if their existing legal identification does not match their chosen name, gender expression and/or gender pronoun. They also encounter additional challenges in the workplace, including difficulty accessing workplace restroom facilities on the basis of their gender identity (Mottet, 2004).

Employment is particularly important to LGBTQ2S youth experiencing homelessness, as it contributes to their identity formation, links them to conventional institutions and provides income that facilitates economic self-sufficiency (Gaetz & O'Grady, 2002). Since many LGBTQ2S youth experiencing homelessness are emancipated from the child welfare system and their biological families, or have been rejected by their families at rates higher than their heterosexual and cisgender counterparts, they need to achieve

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economic self-sufficiency to survive (Cochran, Stewart, Ginzler, & Cauce, 2002; Mallon, 1999). Similarly, since many LGBTQ2S youth experiencing homelessness also have rates of diagnosed mental illness that are much higher than those of their heterosexual and cisgender counterparts (in particular, depression, post-traumatic stress disorder [PTSD] and substance abuse; Tyler, 2008; Van Leeuwen et al., 2006; Whitbeck, Chen, Hoyt, Tyler, & Johnson, 2004), they need integrated employment and clinical services to thrive in competitive employment settings.

Without employment access in combination with mental health support in their transition to adulthood, LGBTQ2S youth experiencing homelessness are disadvantaged in achieving economic self-sufficiency and independent living. Their transition to adulthood thus requires customized, long-term and integrated employment and clinical services. Without these targeted supports, this population remains at risk for economic hardship, labour exclusion, exacerbation of mental illness and chronic homelessness (Cochran et al., 2002).

Theoretical Underpinnings of the Individual Placement and Support Model

The Individual Placement and Support (IPS) model is one example of a customized and long-term evidence-based intervention that assists individuals with severe mental illness to gain and maintain competitive employment (Drake, Bond, & Becker, 2012). The IPS model follows eight principles: 1) *Zero exclusion:* All clients who want to participate are eligible; 2) *Integration of vocational and mental health treatment services:* Vocational and mental health treatment staff are co-located, and frequent communication between them is essential; 3) *Competitive employment:* Clients are assisted to obtain employment in integrated work settings in the open job market at prevailing wages; 4) *Benefits counselling:* People who receive government benefits need personalized benefit planning when considering employment, in order to understand how employment might affect receiving government benefits; 5) *Rapid job search:* The job search process begins within 1 month of the client meeting with an employment specialist and beginning a vocational assessment; 6) *Follow-along supports:* Individualized assistance to working clients is available for as long as needed; 7) *Preferences:* Client preferences influence the type of job sought and the nature and type of support offered; and 8) *Systematic job development:* Employment specialists build an employer network based on clients' interests, developing relationships with local employers by making systematic contacts.

Collectively, these principles draw from theories of psychiatric rehabilitation and recovery in individuals with severe mental illness (Anthony, Cohen, & Farkas, 1990; Deegan, 1988). The basic theory of psychiatric rehabilitation using supported employment is that individuals' functional adjustment can be improved by creating a supportive environment and enhancing their skills or abilities (Anthony et al., 1990). Likewise, the basic theory of recovery is that individuals can see improvement in their symptoms of illness and pursue meaningful life goals, such as employment (Deegan, 1988). Rehabilitation and recovery are achievable for individuals with mental illness and can be promoted by both mental health systems and communities. For instance, mental health systems can stimulate rehabilitation and recovery by integrating services into natural, community-based settings. Similarly, supportive communities can facilitate rehabilitation and recovery by creating opportunities for employment, education, housing and social support. Identifying a job that is a good fit between the individual and the work setting and responsibilities, as well as offering access to ongoing clinical support during job tenure, can be enabling, normalizing and health-promoting for persons with mental illness (Drake et al., 2012).

IPS principles also correspond with the internal developmental assets proposed by Benson (1999), which include positive values, social competencies and positive identity. The assets framework proposes empirically grounded internal and external assets in youth that help protect them from high-risk behaviours and improve positive outcomes in adulthood. This is important for LGBTQ2S youth experiencing homelessness transitioning to adulthood, since their decisions and behaviours in the present can directly affect their future opportunities and experiences (Maughan & Champion, 1990). By strengthening these youths' internal developmental assets in the present, the IPS model aims to protect them from engagement in high-risk behaviours, thus increasing the likelihood of positive outcomes in adulthood. Enhancing internal assets of LGBTQ2S youth experiencing homelessness is crucial, as they have frequently been exposed to multiple, significant and often chronic developmentally adverse traumatic events, both in their biological families and on the streets (Cook et al., 2005; Whitbeck et al., 2004). Due to complex trauma, which can be exacerbated by their homelessness, these youth may have developmental delays, which can lead to lasting impairment across multiple levels of functioning (e.g., affective, cognitive and behavioural; Whitbeck et al., 2004). Researchers and practitioners who work with youth experiencing complex trauma recommend an integrated treatment approach, which demonstrates promise to help these young people recover and thrive (van der Kolk, 2005).

The IPS model described here with LGBTQ2S youth experiencing homelessness addresses issues related to multiple diagnoses and complex trauma by identifying their symptoms early in the treatment relationship and by developing an individualized, integrated and holistic treatment plan. For instance, through the IPS mental health component, IPS mental health clinicians work with youth to exercise *positive values*, such as responsibility and restraint. The clinicians work with the young people to prioritize their areas of need and take personal responsibility for their actions. Similarly, using harm-reduction strategies, LGBTQ2S youth experiencing homelessness practice the positive value of restraint around their high-risk behaviours. The IPS clinicians meet weekly with the youth to identify, assess, prioritize and treat their target areas of need. The clinicians tailor the intensity and focus of the services to the severity of the youths' conditions. The functional support offered by trained clinicians can enhance the youths' self-regulatory and coping skills as well as their resilience, thus increasing their likelihood of achieving positive mental health and behavioural outcomes (Buckner, Mezzacappa, & Beardslee, 2003; Wills, 1991).

The IPS model is also designed to promote *social competencies*, particularly planning, goal-setting and decision-making, by engaging LGBTQ2S youth experiencing homelessness in the decision-making aspects of their job search and mental health treatment. For example, youth establish goals with the IPS employment specialists, case managers, and clinicians related to their employment search and mental health treatment. Planning for supportive relationships, concrete resources, and educational and vocational goals has been shown to enhance employment and educational outcomes for vulnerable transition-aged youth (Pecora et al., 2006).

Finally, the IPS model is designed to promote *positive identity* in LGBTQ2S youth experiencing homelessness by affirming their capacity to obtain and maintain competitive employment, which in turn strengthens their motivation and personal power. Through employment, LGBTQ2S youth gain knowledge and skills, thus strengthening their personal power. Furthermore, by combining employment and clinical services, the IPS model supports LGBTQ2S youth experiencing homelessness in developing motivation to pursue greater housing stability, in order to make better-informed life and employment choices. Integrating clinical and vocational services for people with mental illness to support them to find employment that is fulfilling can help empower and motivate them in their recovery from mental illness (Drake et al., 2012).

IPS Evidence Base

Prior research has examined the IPS model's effectiveness in adults with severe mental illness (Becker et al., 2001; Bond et al., 2007; Drake et al., 1999; Mueser et al., 2004), in homeless adult veterans with psychiatric or addiction disorders (Rosenheck & Mares, 2007), and in housed young adults with first-episode psychosis (Nuechterlein et al., 2008; Rinaldi et al., 2004). Collectively, available evidence suggests that IPS participants report improvements in relationships, self-esteem and life satisfaction, and in income, work hours, and employability (Bond et al., 2001; Gold et al., 2005; Lehman et al., 2002; Mueser et al., 2004). Despite demonstrated effectiveness with housed adults and young adults with mental illness, the IPS model has limited use to date with youth experiencing homelessness who also had diagnosed mental illness.

Thus, from 2009–2010, the author collaborated with two agencies serving homeless youth in a large, west-coast city in the United States to adapt and implement the IPS intervention with LGBTQ2S youth experiencing homelessness and diagnosed mental illness. This pilot study used a pre-post self-comparison quasi-experimental design with 36 young people experiencing homelessness and diagnosed mental illness. All youth were between the ages of 18 and 24 and had a variety of identities, including LGBTQ2S, heterosexual, and cisgender. Two research questions guided the study: 1) How do the existing IPS components designed for adults apply to LGBTQ2S youth experiencing homelessness and diagnosed mental illness? That is, which IPS components require adaptation for working with this population (e.g., pursuing education and/or technical training prior to working; adopting a community development approach to prevent occurrences of discrimination based on sexual orientation and gender identity), and 2) How do the IPS and control groups differ at follow up on five employment outcomes (i.e., ever-worked rate, working-at-follow-up rate, monthly work rate, weekly work hours and weekly income)? With respect to the latter question, in comparison to the control group, after receiving the 10-month IPS intervention, the five study hypotheses were: that the IPS group would be expected to have a significantly greater improvement in their: 1) ever-worked rate, 2) working-at-follow-up rate, 3) monthly work rate, 4) weekly work hours and 5) weekly income.

Methods

Research Settings and Participant Eligibility

The two host agencies consisted of nonprofit multi-service organizations that offer LGBTQ2S, heterosexual and cisgender homeless, runaway and at-risk young people a comprehensive system of care, including health care, mental health counselling, educational and employment services, and basic subsistence items. The agency hosting the intervention group was a mission-specific organization serving LGBTQ2S youth experiencing homelessness with both a drop-in centre and short- and long-term housing services. The control-group agency offered integrated services to LGBTQ2S, heterosexual and cisgender youth experiencing homelessness exclusively through drop-in centre services. Youth requesting shelter services at the control-group agency were referred to local housing resources by agency clinicians.

Young adults experiencing homelessness who were clients of either agency were eligible to participate if they met four criteria: 1) Aged 18-24 years; 2) English-speaking; 3) Met the criteria for diagnosis in the past year using the Mini International Neuropsychiatric Interview (MINI) for one of six mental illnesses (Generalized Anxiety Disorder, PTSD, Major Depressive Episode, Mania/Hypomania, Antisocial Personality Disorder, and Alcohol/Substance Use Disorders); and 4) Currently working or wanting to work. For those working at baseline, IPS services were offered to help them maintain their current employment, transition from one job to another, or terminate employment in a professional manner.

Sampling Procedures

Participant recruitment took place from March–April 2009 in each agency. Using convenience sampling, 36 youth experiencing homelessness (ages 18–24) were recruited using flyers and materials developed for this study. The principal investigator (PI) and trained research assistants conducted a 30-minute diagnostic screening interview for mental illness with youth at each host agency using the MINI, a structured interview that generates diagnoses based on DSM-IV criteria (Sheehan et al., 1998). Prospective participants who gave affirmative answers to screening questions and enough positive responses to symptom questions were considered to have met the criteria for diagnosis. Participants were compensated $10 for the screening interview. Ethical approval was received from the PI's university's human subjects review board.

Sample Size

At the agency hosting the IPS intervention, program staff approached and screened 22 youth, two of whom did not meet the diagnostic requirements. All 20 eligible participants self-identified as LGBTQ2S. At the agency hosting the control condition, clinicians conducted pre-screening based on their clinical work with the youth, referring eligible youth for screening. During the two month screening period, clinicians were able to locate only 16 young people who met the screening criteria and were interested in study participation. All 16 who were screened for inclusion were eligible. Six of the 16 participants (37.5%) self-identified as LGBTQ2S.

IPS Intervention

The eight IPS principles for supported employment were adapted for LGBTQ2S youth experiencing homelessness in a nonprofit homeless youth agency (Drake et al., 2012). For the principle of *zero exclusion*, all youth who met the screening criteria were eligible.

For the principle of *integration of vocational and mental health treatment services*, the host agency employment specialist, case managers and clinicians began meeting weekly with the PI, using a case-conference format to openly discuss active client cases. To facilitate more frequent internal communication among agency IPS staff, the employment specialist developed a spreadsheet of IPS client case notes and hosted the document on the agency's shared computer drive. Each staff member who met individually with the study participants updated the case notes following their meetings.

For the principle of *competitive employment*, the IPS employment specialist worked with study participants to find community-based jobs at competitive wages. Supported education and employment models were combined to assist participants who wanted to complete degree programs or training certificates before working, or for those who wanted to work and study. Previous studies have demonstrated that combining supported education and employment for housed youth with first-episode psychosis has shown success (Nuechterlein et al., 2008; Rinaldi et al., 2004).

For the principle of *benefits counselling*, the IPS case managers worked closely with the Department of Public Social Services and the Department of Rehabilitation to educate IPS participants on the impact of paid employment on their governmental assistance, including Social Security Disability Insurance (SSDI), Supplemental Security Income (SSI), and

Food Stamp benefits. Additionally, for undocumented youth, case managers also worked with the United States Citizenship and Immigration Services (USCIS) to help eligible youth obtain citizenship, green cards and asylum.

For the principle of *rapid job search*, the IPS employment specialist worked with participants to begin the job-search process within one month of the youths' initial vocational assessment. For the principle of *follow-along supports*, the host agency IPS staff continued to provide individualized assistance to participants who were working throughout the study. For the principle of *preferences*, the IPS employment specialist used the participants' vocational assessment to guide the type of job sought and nature of support needed.

Lastly, for the principle of *systematic job development*, the employment specialist spent 40% of his time each week in the community, developing relationships with local employers and connecting youth to employers based on the youths' identified interests. The employment specialist also developed and strengthened relationships with local LGBTQ2S-allied employers and establishments. For instance, the employment specialist used LGBTQ2S business networks and trade publications to recruit employers who were sensitive to LGBTQ2S issues (e.g., offering diversity training to employees, enacting workplace non-discrimination policies and hiring transgender youth whose legal documents did not match their gender).

The IPS mental health treatment components were developed in this study for work with LGBTQ2S youth experiencing homelessness who also had diagnosed mental illness. First, for those experiencing depression, mania/hypomania, or anxiety disorders, the clinicians on the IPS team used cognitive behavioural therapy, coupled with referrals to collaborating psychiatrists for medication. For those experiencing trauma and/or PTSD symptoms, the clinicians provided individual and group trauma intervention services (e.g., cognitive behavioural therapy and referrals for medication). To address high-risk sexual and substance-use behaviours, the clinicians used motivational interviewing to identify high-risk behaviours and help the youth move toward change. The clinicians also used various harm reduction strategies (e.g., safe-sex practices, STD prevention, HIV testing/counselling, and substance abuse referrals) to reduce the youths' harmful behaviours.

In this study, we used host agency staff, who were already known and trusted by the study participants, to implement the IPS model. One host agency employment specialist, three case managers and two clinicians were assigned 20 cases among them for this pilot study. Agency staff handled these pilot cases in addition to their regular (non-IPS) caseloads. All study participants met individually and at least weekly with the employment specialist, one case manager and one clinician. The IPS clinicians and case managers held their meetings at the host agency's location, whereas the employment specialist held meetings at both the host agency and in the community. Regarding job development in the community, the IPS employment specialist also spent about 40% of each week in the community, building relationships with new and existing employers.

Staff were trained in the IPS model over two days by an experienced IPS trainer. Creative job-search strategies by the host agency were incorporated into the training, such as publicizing the IPS in the monthly newsletter mailed to donors, approaching donor companies and the agency's board of directors for job leads, scheduling field trips to donor companies for IPS job-seekers and partnering with the local chamber of commerce. The IPS trainer also held biweekly conference calls with staff during the 10-month study to ensure the intervention was being managed at a consistently high level. IPS study participants had access to all other agency services throughout the study. We utilized a rolling-start procedure over the two month recruitment; that is, once participants were deemed eligible and had provided consent, they completed the baseline interview and began IPS.

Control Condition

A control group of 16 youth experiencing homelessness was followed at a separate agency. An attempt was made to match these youth with the IPS participants on age, sex, and ethnicity. During the 10-month study, the control group received usual-care services, consisting of basic needs services, case management and therapy, health education, academic services, employment services and creative arts services. To ensure consistency of staff contacts with the IPS intervention participants, the control group also met individually and at least weekly with agency staff (i.e., employment specialist, clinical case managers and dayroom staff).

Data Collection and Measures

Data collection consisted of the diagnostic screening interview and pre- and post-intervention interviews. Once the youth were screened into the study, the PI and trained research assistants conducted a 1-hour semi-structured, retrospective, baseline interview. The follow-up assessment occurred after 10 months. All interviews were conducted at the host agencies' premises in private rooms. Participants were compensated $15 for the baseline and $25 for the follow-up interviews.

Employment outcomes were adopted from existing IPS studies (Bond et al., 2001, 2007; Gold et al., 2005; Mueser et al., 2004; Lehman et al., 2002). To determine the youths' *ever-worked rate*, employment specialists reported during the final study month whether the youth had worked in any type of paid employment during the 10 months. Youth were considered to be "working at some point" if they had shown a pay stub to the employment specialists during the 10 months (0=never held paid employment and 1=held paid employment). In prior IPS studies with adults, the average ever-worked rate is 61% (Bond & Drake, 2008).

A second variable, *working-at-follow-up rate*, was used to complement the staff-reported ever-worked rate. Youth were asked at baseline (*work1*) and at the 10-month follow up (*work2*) whether in the past month they had any form of employment, including both competitive and all forms of paid employment (0=no and 1=yes).

Monthly work rate refers to whether the youth were working during a particular month over the 10-month study. Employment specialists were asked each month whether the study participants were working. Youth were considered to be working if they showed the employment specialists a pay stub (0=no and 1=yes). The proportion of monthly work rate was calculated as the total number of months worked over 10 months, divided by 10. In prior IPS studies with adults, the average monthly work rate is 35–45% (Twamley et al., 2003).

Weekly hours worked is a continuous variable measuring the total hours per week worked at follow up as reported by the youth. *Weekly income* is a continuous variable measuring the total income per week reported by youth from all forms of paid employment at follow up.

IPS Pilot Study Findings[2]

Table 1 presents participants' characteristics between the IPS group (N=20) and control group (N=16) at baseline.

TABLE 1: SAMPLE BASELINE CHARACTERISTICS FOR IPS AND CONTROL GROUPS

VARIABLE	INTERVENTION (IPS) YOUTH (N=20)		CONTROL YOUTH (N=16)	
	N	%	N	%
Selected Demographics				
Age	M=20.6	SD=1.5	M=22.4*	SD=1.4
Living on the streets (baseline)	1	5.0	7*	43.8
Foster care history (yes)	10	50	4	25
Self-identify as LGBTQ2S	20*	100	6	37.5
Sex				
Male	14	70	11	68.8
Female	6	30	5	31.2
Race/Ethnicity				
African American	5	25	7	43.8
Hispanic	9	45	7	43.8
Caucasian	3	15	1	6.2
Other/mixed	3	15	1	6.2
Educational Status				
Currently in school (yes)	9	45	6	37.5
Less than high school	6	30	6	37.5
High school diploma/GED	10	50	4	25
Some college	4	20	6	37.5

[2] A more extensive reporting of the findings from this pilot study are available in Ferguson, Xie, & Glynn (2012).

VARIABLE	INTERVENTION (IPS) YOUTH (N=20)		CONTROL YOUTH (N=16)	
	N	%	N	%
Employment Status				
Working at baseline	9	45	4	25
Weekly work hours at baseline	M=30.3	SD=11.6	M=14.8	SD=8.8
Weekly income at baseline	M=$347.78	SD=$212.82	M=$275	SD=$106.06
Mental Illness Diagnosis (Per MINI)				
Major depressive episode	19	95	13	81.3
Drug abuse/ dependence	13	65	9	56.3
Antisocial Personality Disorder	11	55	12	75
Manic Disorder	10*	50	2	12.5
Post-Traumatic Stress Disorder	10*	50	2	12.5
Generalized Anxiety Disorder	10	50	8	50
Alcohol abuse/ dependence	6	30	3	18.8

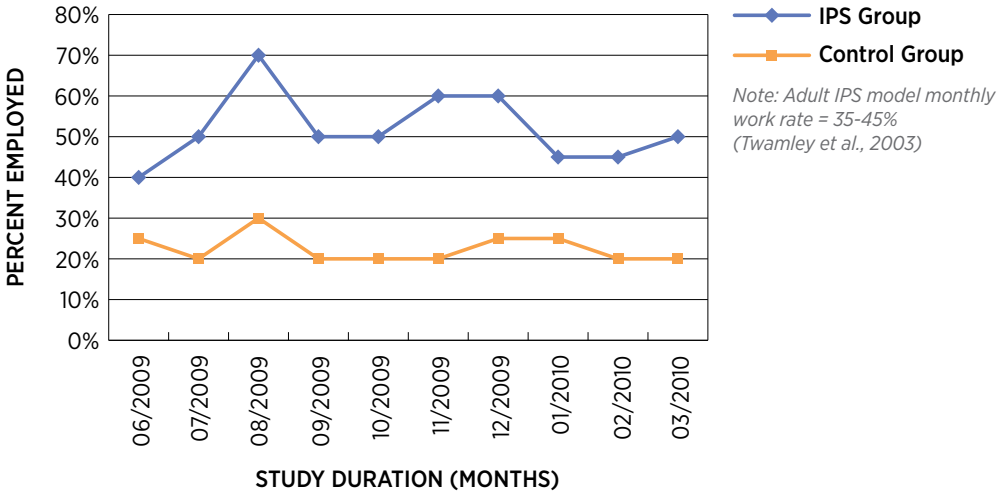
*Note: M=mean; SD=standard deviation; * p<0.05*

Analysis of baseline differences reveals that, compared with the control group, the IPS group was younger (20.6 vs. 22.4 years; t=3.62, p=.001), less likely to live on the streets (5 vs. 43.8%; X^2=7.72, p=.012), and more likely to self-identify as LGBTQ2S (100 vs. 37.5%; X^2=17.31, p=.000). They were also significantly more likely to meet diagnostic criteria for Manic Episode (50 vs. 12.5%; X^2=6.42, p=.024) and PTSD (50 vs. 12.5%; X^2=5.63, p=.032). Attrition analysis, used to understand the possible impact of study drop-out on outcomes, reveals a significant difference between the IPS and control groups on the rate of study drop-out (X^2=7.09, p=.011): 90% of the IPS group (18/20) and 50% of the control group (8/16) were available at follow up.

Chi-square tests, independent t-tests and logistic regression were used to test the five hypotheses. In comparison with the control group, IPS youth were expected to have greater improvement at follow up in their: 1) Ever-worked rate, 2) Working-at-follow-up

rate, 3) Monthly work rate, 4) Weekly work hours, and 5) Weekly income. Regarding the ever-worked rate reported by employment specialists, IPS youth were more likely to have worked at some point during the 10-month study (X^2=8.69, p=.003, OR=9.4): 85% (17/20) of the IPS group and 37.5% (6/16) of the control group worked at some point during the study. For the youth-reported working-at-follow-up rate, while only significant at the p=0.10 level, the odds were 7.83 greater that the IPS group would be working at follow up than the control group (p=0.06, OR=7.83) using logistic regression with adjustment for baseline working status and agency site. Two-thirds (66.7%) of the IPS compared with 25% of the control group reported working at follow up. For the monthly work rate, IPS youth worked significantly more months during the study (t=-2.83, p=.008, d=0.95). The IPS group worked on average 5.20 months (SD=3.33) compared to 2.19 months (SD=2.97) for the control group. Between 45–70% of IPS youth and 19–31% of the control group were working during any one month of the study (see Figure 1).

FIGURE 1: PERCENT OF LGBTQ2S YOUTH EXPERIENCING HOMELESSNESS WHO WERE EMPLOYED BY STUDY MONTH



Since there were no significant differences in weekly working hours or weekly income at baseline between the IPS and control groups, these two outcomes were directly compared at follow up. No significant differences existed between groups. The IPS group averaged 33.43 hours per week (SD=3.95), whereas the control group averaged 32.50 weekly hours at follow up (SD=10.61). The effect size of Cohen's d for weekly work hours was 0.12. Regarding weekly income at follow-up, the IPS group averaged $263.57 (SD=$147.61), whereas the control group averaged $192.50 (SD=$116.67). The effect size of Cohen's d for weekly income was 0.53.

Discussion

This study is among the first to adapt an evidence-based, supported-employment intervention for adults to work with LGBTQ2S youth experiencing homelessness and diagnosed mental illness. Findings provide deeper understanding of the initial feasibility of the IPS model with this population. Youth who participated in the IPS intervention had significantly better work outcomes, in particular for ever-worked and monthly work rates, than the control group, which received standard agency services (including vocational services). The IPS group was significantly more likely to have worked at some point over the 10-month study and to be working in any particular month. While only marginally significant, the IPS group was also more likely to be working at follow up. We found large effect sizes for the ever-worked, working at follow-up, and monthly work rates. These mirror the moderate-to-large effect sizes reported in IPS studies with adults (greater than 0.50, see Bond et al., 2007; Twamley et al., 2003). Small-to-moderate effect sizes were found for weekly work hours and weekly income. The effect size measure is a useful complement to statistical significance and enables practitioners to better interpret the practical importance of intervention effects.

Given the possibility of the positive outcomes found here being attributed to factors other than the IPS intervention, there are at least three possible alternative explanations for the greater employment outcomes among IPS youth. First, the positive employment outcomes achieved by the IPS participants may be attributed to the program's ability to retain these young people in the intervention. As noted, 90% of the IPS group compared with 50% of the control group were available at follow-up. Research indicates that while clients may remain in ineffective programs for other reasons (e.g., social support, incentives), those participating in ineffective services often drop out of those services altogether (Mueser et al., 2004). This suggests that client retention in vocational services is an important focus for practitioners and researchers in improving the employment prospects of youth experiencing homelessness, yet retention rates alone do not suffice as an indicator of employment success. In our study, the IPS intervention was associated with improved retention rates and employment outcomes.

Second, greater employment outcomes among IPS young people may be attributed to baseline differences between groups. In comparison with the IPS group, the control group was significantly older and more likely to reside on the streets than in shelters. Both age and street-living status may have been impediments for gaining and maintaining employment.

It is possible that youth experiencing homelessness who were older encountered greater employment barriers than their younger peers, who may have had access to a larger job pool, including youth-specific employment types (e.g., temporary seasonal positions often filled by youth) and federal-stimulus-funded youth employment programs (e.g., the local city's Youth Summer Employment Program). Likewise, the control group was more likely to live on the streets, which may also have impeded their ability to gain and retain competitive employment. Prior research suggests that the longer youth experiencing homelessness spend on the streets, the more likely they are to engage in criminal activity and drug use, and to experience estrangement from conventional activities such as employment (Baron, 1999). Living on the streets creates daily challenges inherent to homelessness, such as maintaining personal hygiene, securing transportation and getting enough to eat (Dachner & Tarasuk, 2002). Each of these barriers may marginalize youth experiencing homelessness and decrease their chances for competitive employment.

Third, the more favourable employment outcomes among IPS youth may be attributable to the IPS intervention having been tailored specifically for LGBTQ2S youth and administered by an LGBTQ2S mission-specific organization. The adaptations included tailoring several of the IPS principles to the employment needs and challenges of LGBTQ2S youth (e.g., developing relationships with local LGBTQ2S-allied employers and establishments, offering diversity training to employers and employees to address workplace discrimination, and seeking political asylum for transgender youth). Since 100% of the participants in the IPS group self-identified as LGBTQ2S, while only 37.5% of the control group did, it might be that the IPS adaptations provided a better fit and stronger employment outcomes for the IPS group than the regular programming did for the control group, which included LGBTQ2S, heterosexual and cisgender youth.

This study also contributes in several ways to available research about youth experiencing homelessness. For example, researchers and practitioners were successful in engaging and retaining youth experiencing homelessness who also had diagnosed mental illness in both a vocational research study and competitive employment. Most of the IPS participants (90%) remained active in the intervention over 10 months. By implementing the IPS model in an agency that had a drop-in centre, emergency (30-day) shelter, long-term shelter, and supportive apartments, IPS participants were able to move along a continuum of housing options to support their employment needs and goals. For instance, while only one IPS participant reported living on the streets at baseline, others initially reported precarious housing situations (e.g., living with abusive parents, with a

partner's family, or with friends). Still others left shelters for the streets during the study. However, involvement in the IPS intervention for many young people sensitized them to the importance of stable and supportive housing as a prerequisite to accomplishing their work goals. IPS case managers worked alongside the IPS team to provide housing options to the young people as part of their IPS case plan. IPS clinicians worked with the participants on mental health issues (e.g., depression, substance abuse, PTSD) that frequently hinder homeless young people's success in gaining and maintaining employment (Cauce et al., 2000; Whitbeck, 2009).

Limitations

The study's findings and conclusions should be interpreted with caution due to several limitations. First, the sample size was small, leading to limited statistical power. The small sample, which was further reduced by attrition, also limited our ability to conduct multivariate analyses. Similarly, due to our quasi-experimental study design, non-random assignment, and non-equivalence of groups, it is impossible to determine whether our study outcomes can be attributed to the IPS model components or to other factors, including the baseline differences between groups. However, matching the intervention and control groups on age, sex, and ethnicity, as well as adjusting for baseline working status and agency site in the logistic regression analysis, allowed us to strengthen our findings despite the study design.

Additionally, our 12-month funding period prevented us from both focusing more extensively on engaging harder-to-reach youth experiencing homelessness and increasing our sample size. To ensure that we were targeting young people in different stages of street-engagement (versus those living exclusively in shelters or transitional living programs), we purposely chose to develop and conduct the IPS in a multi-service agency that had a drop-in centre, a temporary overnight shelter, and a long-term residential facility. Our IPS intervention sample was drawn from each of these three settings within the host agency. However, as our findings suggest, in the control group, whose members were largely non-sheltered, there was an association between street-living status and attrition. Although there is some evidence to suggest that clients participating in ineffective services often drop out altogether from these services (Mueser et al., 2004), it is impossible to determine, because of our study design, whether clients in the control condition were more likely to drop out for this reason.

Implications of IPS Study for Policy and Practice with LGBTQ2S Youth Experiencing Homelessness

This study has several implications for policy and practice with LGBTQ2S young people experiencing homelessness, as employment must be an integral part of any long-term plan to address homelessness in this population. First, findings from this study demonstrate that existing agency staff can be successfully trained in an evidence-based supported employment intervention (in this study, the IPS) and convert their existing agency employment services to an evidence-based intervention. Over the 10-month study, the host agency restructured its practice by using a case-conference approach among employment, clinical, and case-management staff. IPS staff held weekly meetings with the PI and bi-weekly phone calls with the IPS training consultant to discuss and collaborate on cases. The integration of vocational and clinical services in this study is novel, as existing mental health and employment services for young people experiencing homelessness remain largely separate (Lenz-Rashid, 2006; Rashid, 2004). Based on the success of this pilot, policy-makers and funders should prioritize funding for evidence-based vocational models that integrate employment, clinical and case management services when working with LGBTQ2S youth experiencing homelessness. Policy-makers and funders should also make technical assistance available to agencies that adopt new evidence-based practices (EBPs) and/or convert existing agency services to EBPs. Representatives from agencies that have hosted research studies on the adoption of new EBPs and/or the conversion of existing services to EBPs should be invited and compensated to consult on technical assistance teams for new agencies undergoing these processes.

Second, findings from this pilot underscore the importance of honouring the inherent practice wisdom of host agency staff when converting their existing agency employment program to the IPS. At the host agency, we used a seasoned employment specialist with over two years of experience working with youth experiencing homelessness and diagnosed mental illness. The employment specialist invested considerable effort in helping study participants to attend weekly meetings, since these young people were not regular service users and were not accustomed to weekly meetings with staff. Initially, we used monetary (i.e., gift card) incentives to compensate youth for their time when meeting with the employment specialist. Later in the study, the youth began to value more direct employment-related assistance (e.g., support during a phone interview, video-taped mock interviews with feedback and job-search field trips to local strip malls), which replaced the initial monetary incentives. The employment specialist needed to work at a very

basic level with many of the participants, since they had never held a job and had limited educational attainment. Strengths-based tools such as the IPS vocational assessment and career mapping (see Shaheen & Rio, 2006) were instrumental in helping participants begin to identify and market their employment interests, skills and experiences. The employment specialist also found creative ways to stay in contact with a highly transient population, including using cell phones, emails, social media and regular visits to the youths' job sites (if approved by the youth). Drawing from the experiences of this pilot, when working with LGBTQ2S youth experiencing homelessness, it is key that employment staff utilize strengths-based vocational assessment tools that identify the transferable skills (e.g., street survival skills) of this population that could be beneficial in competitive employment settings. By using the youths' strengths versus deficits or problem behaviours as the departure point of the relationship, the employment staff and youth were able to develop a strong foundation based on the youths' work-related skills, preferences and goals.

Similarly, in our pilot study, the IPS employment specialist recognized the negative impact of workplace discrimination, harassment and violence on LGBTQ2S youths' ability to both obtain and maintain competitive employment. Accordingly, the employment specialist identified and trained allied employers in workplace rights and protections for the LGBTQ2S community (e.g., workplace non-discrimination policies and diversity training). Developing relationships with LGBTQ2S-allied employers in the community also enabled IPS staff to build a job bank of open positions in LGBTQ2S-affirming establishments to match with IPS participants' preferences. It is crucial that employment programs that serve LGBTQ2S youth experiencing homelessness adopt a community-development approach in which employment staff work in the community as well as in the agencies. When in the community, employment specialists' main tasks should include developing relationships with allied employers, educating employers about the strengths and challenges of working with LGBTQ2S homeless young people, dispelling societal myths and stereotypes of LGBTQ2S youth experiencing homelessness, and preventing instances of discrimination, harassment and violence in the workplace through diversity training for employers and employees.

Finally, one of our study aims was to explore how the existing IPS components apply to LGBTQ2S youth experiencing homelessness and diagnosed mental illness, and which components require adaptation for this population (e.g., pursuing education and/or technical training prior to working). Findings from this study suggest that IPS principles can be extended to integrate both supported employment and supported education in

one treatment program. In our pilot study, several participants pursued technical training offered through local community colleges (pharmacy technician certificate), Job Corps (culinary arts certificate), and Goodwill Industries International (forklift training program certificate) prior to securing competitive employment. When working with LGBTQ2S youth experiencing homelessness, who often have limited educational and employment experience due to school and workplace discrimination and harassment, employment staff should simultaneously explore the youths' educational and employment goals. Integrating supported education and supported employment into one treatment program enables LGBTQ2S youth experiencing homelessness to identify and work toward accomplishing their educational and employment goals in their preferred order. Academic degrees, certificates and technical training can greatly enhance the youths' competitiveness in gaining and maintaining employment. At the same time, working in competitive positions allows LGBTQ2S youth experiencing homelessness to both explore career interests that can be furthered by additional education and finance their additional education with earned income. By combining supported education and employment programs, agencies serving LGBTQ2S youth experiencing homelessness are better facilitating the youths' economic self-sufficiency, independent living and transition to adulthood.

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